

Realising the Demographic Dividend: Policies to Achieve Inclusive Growth in India

This book elaborates on policies to achieve inclusive growth in India. It deals with various development issues like the failure to increase employment despite unprecedented industrial and services growth; failure to generate enough skilled manpower to meet the requirements of fast growing sectors; and failure to ensure human capabilities so that the poor can participate in the benefits of economic growth.

The book's theoretical framework is based on the capability approach discussed in the first chapter. The rest is empirical, and is focused on specific problems with specific policy implications. Human capital levels of the youthful workforce in India remain worrying and the largely informal workforce is not covered by social insurance. In addition, universal elementary education, despite the Right to Education Act 2009, is yet to be achieved in the country. Health outcomes over the years have improved only slowly. Sanitation still remains a very serious problem for a major part of the country. The author discusses these issues in individual chapters. Specific policy implications are also provided, beyond what is currently being practised. Finally the book deals with the governance issues that need to be addressed if growth has to be inclusive.

Santosh Mehrotra is Professor of Economics at the Centre for Informal Sector and Labour Studies, Jawaharlal Nehru University. He was earlier Director General, National Institute for Labour Economics Research, the only research institute of the Planning Commission of India. Mehrotra also headed the Rural Development Division and then the Development Policy Division of the Commission. He was the team leader of the India Human Development Report 2011 and was the chief economist of the Human Development Report, New York. Professor Mehrotra's research has been translated into French, Spanish, Russian, Chinese and Portuguese.

“This is a topic of fundamental importance to the future development path of India. The script is exceptionally clearly structured and sharply written. . . .the level of analysis in this volume is far above other analyses of this complex topic. This book is likely to be widely referred to and become a standard reference for debates about India’s labour market and employment policies, and their relationship to growth and social justice in India.”

— **Peter Nolan**, *Director of Development Economics, University of Cambridge*

“This excellent book combines analytical sharpness and policy sensitivity to tackle the central issue of how to make best use of the demographic dividend for inclusive development. It will be of interest to analysts and policy makers alike.”

— **Ravi Kanbur**, *T.H. Lee Professor of World Affairs, International Professor of Applied Economics and Management, Cornell University*

“This book combines a comprehensive factual background on each welfare dimension that he addresses with crisp histories of the various programmes that were initiated in each area. Diagnosis flows naturally from these two elements and translates effectively into practical policy recommendations. This book will become a standard reference for anyone wanting to understand why things are the way they are in India’s welfare state and what must be done about it.”

— **Subir Gokarn**, *ex-Deputy Governor, Reserve Bank of India and Director, Brookings Institute India*

“It is a highly topical subject: why did India fail to translate its fast growth into welfare for the poor? This is a thoroughly professional piece of work by a through and through professional. The book is basically empirical, although it has a theoretical foundation in the work of Amartya Sen and Martha Nussbaum.”

— **Ajit Singh**, *Professor Emeritus in Economics, University of Cambridge*

“Santosh Mehrotra has been on the inside, and this adds value to his project, apart from giving him access to materials. To be fair, he is not presenting as a spokesperson for the Planning Commission, the Government, and least of all for the freakish outlier interpretations of the Indian neo-liberal economic regime.”

— **Ashwani Saith**, *Professor Emeritus, Institute of Social Studies, The Hague*

“It is a hard hitting empirical book testing and largely validating the theoretical underpinnings of the importance of the so called ‘softer’ aspects of development practice and policy. The demographic dividend, skilling policies, gender, children are all put together. While people like me saw the Indian advantage over countries like the US, China and Japan, Mehrotra also correctly spells out the challenges of the dividend.”

— **Yoginder K. Alagh**, *Former Vice Chancellor, Jawaharlal Nehru University*

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Santosh Mehrotra



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Preface



This book has grown out of many years of learning while I was with the Planning Commission of India, first heading two divisions (Rural Development and then Development Policy) and then as the head of the only research institute of the Commission (2006–14). In the early 1990s, I had joined the United Nations system, after having left an academic position in JNU, New Delhi. In the UN role I had had the opportunity of advising governments from across the developing world, but had never actually worked for the government. The opportunity of joining the government came at a time when India's GDP was growing at an unprecedentedly high rate. It was an extremely exciting time to be in government, as I was quite often at the cutting edge of policy design and policy advice. India has remained, along with many other major Asian economies, a country that has prepared five year plans almost continuously since Independence. Both China and India are currently into their 12th Five Year Plan. I had the good fortune of contributing to the process of preparation of the 11th as well as 12th Five Year Plans, apart from working with central line ministries as well as state governments. It was a profoundly important learning experience, and many of the lessons from that wide and rich experience are reflected in the chapters of this book.

India is at an extremely critical juncture in its development – the demographic dividend – a period when the share of the working age population in the total population rises, which is known to have many benefits flow to its people provided government policies are such as to exploit this once in a life time opportunity in a nation's history. Before the dividend begins the nation is burdened with a high dependency ratio, with a large and growing share of the population below the working age of 15. Once the dividend period has passed, the share of the elderly population rises who are no more working, and hence have to be provided for (in terms of pensions and health benefits). The dividend, lying in between these two periods, is characterised by a low dependency ratio and a high share of the working age population.

India's demographic dividend began in the early 1980s and is expected to come to an end towards the latter part of the 2030s. In other words, India is just beyond the midpoint of its dividend, and this once in a life time opportunity for our nation is unlikely to last beyond another quarter of a century from now. The question is whether our policymakers recognise the limited time available for exploiting the advantages of the demographic

dividend. Visionary policies and speedy decision making to increase and sustain GDP, reduce poverty and enhance the human capabilities of our citizens cannot wait – every year lost will never return in the life of a child or youth, and in 25 years India will be an aging society. The West European and Japanese populations are already aging, and their total populations have in fact been declining. China is at the end of its demographic dividend, and although its GDP has grown at a rate for three decades unprecedented in human history and has succeeded in reducing the numbers of the poor at the same time, their leaders are already complaining that ‘Europe became rich before they became old, we have become old without having become rich’. India, and its leaders, could face the same challenge in a quarter century but today, they need to guard against missing the current opportunities, so that a quarter century from now our children and their leaders do not have to repeat the Chinese concern at the end of their demographic dividend.

This book is organised as follows. In chapter 1 the theoretical framework is laid out which holds the rest of the book together. The remaining 15 chapters of the book are to be found under four broad headings: Growth, Employment and Inclusion (Part 1), Human Capital Formation (Part 2), Building a System of Social Protection (Part 3) and Governance (Part 4).

The subject discussed in each chapter is a critical priority if the objective of India’s policymakers – inclusive growth – is to be achieved. Thus, the concern behind chapter 2 (Sustaining Economic Growth) is that after achieving a growth rate of 8.4 per cent per annum over 2003–04 to 2011–12 GDP growth declined in the following two years (2012–13 and 2013–14). Even though India is yet far from the risk of hitting the point of the middle-income trap, as it still has more than abundant supplies of labour, yet we note that this kind of volatility in growth is reminiscent of the middle income Latin American experience and is contrary to the experience of China or the miracle economies of East Asia. This raises the concern that, if this volatility in growth continues, there is the risk that India may even have difficulty in graduating from low-middle-income status to upper-middle-income status, while the demographic dividend begins to peter out. This chapter makes the case for action needed to preclude this eventuality. If growth is to be sustained, then agricultural output must grow much faster (discussed in chapter 3) than even the 3.2 per cent per annum experienced over 2007–12; over 2012–14 agriculture has grown under 2 per cent per annum. Such a low agricultural growth rate was not typical of the East Asian economies and is not even typical in several Indian states (for example, Gujarat and Andhra Pradesh). Chapter 3, therefore, presents the policies needed in order to raise the growth rate of agriculture, a pre-requisite for overall inclusive growth.

Also inclusive growth will only be achieved if the employment-elasticity of output rises. Chapter 4 presents several employment related paradoxes of India’s rapid economic growth in the last decade. The first is that output has grown and poverty fallen, but the slow rate of poverty decline remains a major concern. The second is that output growth has

sustained but manufacturing/services employment has been volatile. The third paradox is that despite growth in per capita income, women's labour force participation rate, already amongst the lowest in the world, has continued to decline. The chapter elaborates policies needed to address these employment-related concerns.

The historical evidence of the now industrialised countries is that with rising per capita income the size of the state and the share of public expenditure in GDP rises almost monotonically. India too has experienced rapid growth over the two decades since the economic reforms began (compared to the preceding four decades), but the tax GDP ratio has remained stagnant. Chapter 5 (Public Finance: Increasing Fiscal Capacity) devotes attention to the ways in which the fiscal capacity of the state can be raised, so that infrastructure investment can be sustained as well as public investment in health, education, skill development and social protection. Expenditure reforms required to improve the effectiveness of spending are discussed in several later chapters.

The last two chapters in Part 1, chapter 6 (Skill Development: Finding New Financing Mechanisms to Take Vocational Education and Training to Scale) and chapter 7 (A Common Platform for Skill Development: Implementing the National Skills Qualification Framework), both address a concern that has become particularly important in the last seven or eight years, when the growth rate increased. These chapters spell out how an eco-system can be created to expand the provision and improve the quality of vocational education and training in the country. In particular, it makes the case for a grand bargain between the public and private sectors to create a national training fund to finance skill development on a vast scale, and also presents the case for why a common platform for skill development is needed, in the form of a national skills qualification framework (which the author had a key role in formulating), to ensure coherence among the skill development providers in India.

Part 2 (Human Capital Formation) turns its attention to one of the most serious weaknesses of the Indian economy: the state of human capital. Chapter 8 (Addressing Capability Deprivation of Women for Inclusive Growth) suggests that India suffers from one of the worst gender discrimination in the world, and argues that sustaining a rapid growth rate is itself dependent upon ensuring much better status for girls and women as part of an inclusive growth strategy, than is currently realised by policymakers. It spells out the dimensions where sustained action is needed.

Chapter 9 (From the Right to Education to the Right to Learning) goes on to examine the school system five years after the implementation of the Right to Education Act. The challenges, despite the significant increase in enrollment at every level, remain monumental. The policies to address the huge challenges have to be not only visionary, but based on research evidence, rather than the 'gut feeling' of senior bureaucrats or merely political directives. The research evidence collected here suggests a number of policy priorities differ from those currently in the focus of government policy.

Chapter 10 (Food Security, Nutrition and Health: Policy Dilemmas and Interlinked Challenges) addresses the complex and inter-related problems underlying the worst malnutrition rates in the world. It first discusses the complex challenges around implementation of the Food Security Act and key reforms needed in it; examines whether the 40 year old Integrated Child Development Scheme can address malnutrition in its current form; and then proposes key reforms to ensure early childhood development and to the public health system. Malnutrition remains an intractable problem requiring multi-sectoral action. However, the chapter makes the case that there is little or no prospect for multi-sectoral action being realised within the foreseeable future, given fundamental problems with the incentive structure our bureaucrats face for such cooperative action. It, therefore, argues for specific requirements within each of several programmes, if the world's worst malnutrition rates are to improve more rapidly than has happened since 2005.

One of the greatest failures of policy/programming and a shame for India is that more than two-third of its rural population defaecates in the open – a phenomenon found nowhere else in the world. India accounts for only 16 per cent of the global population, but 60 per cent of the world's population that defaecates in the open lives in India. Chapter 11 (Redesigning Sanitation Programmes to Make India Free from Open Defaecation) makes the case for a radical re-design of the government programmes, away from merely building toilets (that remains a focus even mid-2014 onwards). The new government's programme design is not much different from that before 2014, when between 2001 and 2011, the share of rural households that has a toilet increased only 10 percentage points to 32 per cent, and often even those are not used. At this rate, there is a risk that Indians will still be defaecating in the open 70 years from now.

Part 3 (Building a System of Social Protection) makes the case for a comprehensive social assistance and social insurance programme, which must cover in the first phase the households below the poverty line. Chapter 12 (Minimising Leakages in Welfare Programmes: How to Identify the Poor Correctly?) addresses an issue that has proved a challenge in many developing countries: how to identify the poor as opposed to 'estimating' them? It draws upon the author's experiences in government to present a design for the census that has recently been implemented in the country. It is hoped that the identification of the poor will not remain such a contentious issue in the future, as it has been for the last two and a half decades.

India is an outlier among emerging market economies in having 93 per cent of its workforce in informal employment, almost none of whom have any social insurance. Chapter 13 (Needed a Social Insurance System for Unorganised Workers below the Poverty Line) presents the outline of a social insurance system consisting of old age pension, death and disability insurance and maternity benefits for those below the poverty line, and goes on to cost it. The cost of covering the entire BPL population within such a social insurance mechanism works out to no more than 0.38 per cent of GDP (but it

cautions that it must not be introduced hurriedly, without careful planning and piloting, unlike the efforts initiated since mid-2014). Chapter 14 (Introducing Cash Transfers: A Proposal for a Minimum Income Guarantee and Some CCTs) goes on to argue that India is again a complete outlier among middle-income countries in having very little cash assistance provided to workers. This is particularly surprising given that one in ten of the Indian workforce is without any social insurance, and has informal employment. The chapter details the case for a minimum income guarantee for BPL and some CCTs.

The last two chapters examine two complex, even ticklish, problems of governance. The first is that, despite being a federal, democratic country India remains one of the most fiscally centralised governance systems in the world. Chapter 15 (Two Pre-requisites for Optimum Governance: Deep Fiscal Decentralisation and the Bureaucracy's Ability to Learn) makes the case for deep democratic decentralisation, contrasting India with China in this regard which is much more fiscally decentralised. It also argues that the Indian bureaucracy is in urgent need for radical reform to become a 'learning administrative service'. Without this institutional change it may be difficult for the state to respond with agility. Also domain knowledge in the senior bureaucracy is needed to respond to the needs of a rapidly diversifying economy. The Indian bureaucracy has to learn to become a learning civil service, and incentive systems must be put in place if civil servants are to cease being generalists. Finally, Chapter 16 (Addressing Left-wing Extremism: Encourage Peace to Secure Development – or the Way Round?) addresses the developmental challenges facing almost one-sixth of the country's districts that are infested by left-wing extremists. We argue that without addressing the developmental challenges of these districts the security-centric approach of the Indian state so far is unlikely to ensure peace with social justice. The area of influence of left-wing extremists may only continue to grow, as it has for the last quarter century.

The book, despite covering a broad canvas, does not attempt to be exhaustive; it does not cover some very important dimensions that are also critical to ensuring inclusiveness in growth. For example, the rapid enhancement of access to electricity to hundreds of millions who still live in darkness as night falls, or climate change and its growing impact on small farmers who have no capacity to cope with it or financial inclusion in a country where nearly half the population does not have a bank account. These issues are not discussed at length, but brought up briefly where they fit in well in the theme in focus in a particular chapter.



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Part 1

Growth, Employment and Inclusion

Capability-centred Approach to Inclusive Growth

Theoretical Framework and Empirical Reality¹

A basic premise of the capability approach is that focusing development analysis and policy mainly on increasing income and material wealth is misguided. Although almost every person would want to enjoy a higher income, one's state of well-being is determined also by policies that expand one's capabilities, which in turn affect one's income and functioning. There is an interactive relationship (synergy) between income growth and the expansion of capabilities. Our model of synergy leads to a set of recommendations which explicitly integrate economic and social policies, and which are associated in the economics literature with different heterodox approaches (Post-Keynesian, Evolutionary, Structuralism and Transformational Growth).²

Mainstream economics is insufficient as a heuristic device to allow us to understand the main intricacies and complexities concerning the outcomes of development strategy. Mainstream economics, with its theoretical foundations in utilitarianism (see Sen, 1985; Nussbaum, 2001) and its limited success so far in unbundling the family or examining and interrogating intra-household allocation of resources, has been the basis for both macro-economic and social policies. Moreover, mainstream economics has been at the core of much of public policies since the 1980s, with extremely mixed results, as the experience of Latin American and Sub-Saharan developing economies demonstrates. Most

1 This chapter's theoretical framework is essentially based upon the theoretical framework (which in turn is based on the work of Amartya Sen) developed for the author's earlier book, *Eliminating Human Poverty: Macro-economic and Social Policies for Equitable Growth* ([2007] 2008) with the Argentinian American economist Enrique Delamonica. The empirical analysis of India is drawn partly upon the chapter on poverty reduction in the 11th Plan (the work for which the author led in the Planning Commission, as head of the Rural Development Division in the Commission), and partly upon the India Human Development Report, 2011 that the author led (IAMR, 2011).

2 See Taylor (1983); Nelson and Winter (1983); Nell (1992).

Asian economies performed very differently over this same period, as they adopted policies not consistent with mainstream economics, or prescriptions emanating from their adherents (Rodrik, 2002). Therefore, there is a need for an alternative framework for development, one founded on human development and the capability approach.

The work of Amartya Sen, Martha Nussbaum and others on human capability (Sen, [1985] 1995; Nussbaum, 2001) resulted in the gradual emergence of a human development paradigm – partly manifested in the Human Development Reports. In fact, ‘human development’ became an overly popular term after 1990 – popular even with the international financial institutions, which reorganised departments and then named some of them Human Development networks. However, the consensus within which the term ‘human development’ was used remained founded in neo-classical economics, and the macro-economic policies that emerged remained bound within it.³

An alternative framework for policies is necessary, as the theoretical basis of the consensus (i.e., neo-classical economics) was weak (Sen, 1982; Amsden, 1989; Nell, 1998), and as the philosophical foundation of the theory on which it is based was even weaker (see Sen, 1985). The rest of this chapter is devoted to spelling out that alternative framework. In terms of this alternative theoretical framework, it also examines the dimensions on which India’s development strategy has been failing on the count of inclusiveness.⁴

In this alternative framework, we posit that two kinds of synergies exist. One exists between interventions in health, nutrition, family planning, water and sanitation, and basic education. The other is between interventions that are the basis of income growth, the reduction of income-poverty, and improved health and educational status. The first synergy is actually a sub-set of the second. With these two synergies as foundations, we propose an alternative approach to integrate economic and social policies. As a theoretical construct, the notion of dual synergies is a conceptual framework for understanding a given situation in

3 Such policies became known as the Washington Consensus (Williamson, 1990). The post-Washington Consensus that emerged in the wake of Stiglitz’s critique of IMF–World Bank policies is, we believe, only a partial alternative framework for development policy. For a discussion, see Standing (2001), Fine et al., (2001) and Mehrotra and Delamonica (2007) for a critique of the post-Washington Consensus.

4 For a recognition of this failing, see Ahluwalia (2011) and the Approach Paper to the 12th Plan (www.planningcommission.nic.in).

terms of human development outcomes (as we shall see below for India);⁵ it is, at the same time, a framework for drawing policy implications.⁶

In any economic analysis, it is important to distinguish the means from the ends. We suggest that the state has a critical role to play in ensuring all three desirable *ends* or outcomes for its citizens: economic growth, income-poverty reduction, and improved health and education outcomes. The *means* for achieving these ends – the policies – have not been discussed in this chapter for reasons of space, but the rest of the book is very much devoted to this very subject in the context of India.

Section 1.1 spells out the conceptual framework. Its two sub-sections develop each of the two synergies mentioned above. Section 1.2 deals with the failures of government policy in the case of India, which contributed to the dual synergies not being realised. Section 1.3 then spells out the theoretical contribution of this dual synergy framework.

1.1 The Conceptual Framework of Dual Synergies in the Development Process

The mainstream view of development posits that if economic growth is maximised, poverty will be reduced and increases in welfare will ensue (in a more or less automatic fashion). Thus, much policymaking globally (including in India) occurs under a leader/follower hierarchy model, where macro-economic policy is determined first, while social policy is derivative and left to address the social consequences (Atkinson, 1999). This separation of the ‘economic’ from the ‘social’ discourse is inherent to even the post-Washington consensus, and certainly to the neo-classical theory which underpinned its predecessor.

In this section, we sketch a different theoretical perspective while we take an explicitly normative stance.⁷ The capabilities approach has placed human

5 For instance, see Taylor et al. (1997) and Mehrotra and Delamonica (2007) for applications of the framework to developing countries in general.

6 Women’s well-being and their agency is one of the cornerstones of our alternative framework and hence of policy. They are central to both synergies that constitute this alternative theoretical framework. However, we do not develop this aspect very explicitly here, although we will do so in Chapter 8. In addition, see Mehrotra (2013) in Comim and Nussbaum (2013).

7 See Myrdal (1959) and Sen (1988), *inter alia*, for the case that economics cannot be value-free.

beings and their well-being at the centre of its concerns – not only their well-being, but their freedom to choose a life one has reason to value. Thus, Sen has argued that for many evaluative purposes, the appropriate ‘space’ is not that of utilities (as claimed by welfare economists,⁸) but that of substantive freedoms and capabilities.

At the theoretical level, there have been many other critiques of the simplistic neo-classical view of human behaviour. At the normative level, it has resulted in over-reliance on the principle of Pareto optimality, which severely hinders any redistributive attempt. Sen, in various writings (for example, Sen, 1985), has shown some of the contradictions of this approach. For instance, a rich person may obtain very little utility from having several houses and many cars, while a poor person (without either) may be content with a small hut and a bicycle, leading to the conclusion that redistribution from the former to the latter would increase aggregate utility. The attempt to solve these paradoxes by stressing that fairness should be analysed at the level of commodities, however, also leads to some dead ends.⁹ Actually, people need different goods and services, and more or less of them, for example, if they are sick or they live in different climates. Thus, Sen argues for a ‘middle space’ between commodities and utilities, which he calls ‘capabilities’.

As income or commodities are not enough for human satisfaction (an increase in capabilities), different lenses are needed to understand the interaction of economic and social objectives. Consequently, a different strategy from the one consciously or unconsciously followed by most developing countries is needed.¹⁰ The starting point is the well-known synergy, or feedback loop, among social interventions in basic healthcare, reproductive healthcare, education, nutrition

8 As Nussbaum (2001, 122) says: ‘We have to grapple with the sad fact that contemporary economics has not yet put itself onto the map of conceptually respectable theories of human action.’

9 For elaborations and criticisms of this view, see Sen (1985), and the sources cited therein. Taylor (1983) and Uvin (2002) also present interesting criticisms and limitations of Sen’s approach.

10 We say ‘most’ and not ‘all’ developing countries because some – the positive deviants – of them (those called ‘high-achievers’) have succeeded in developing education and health standards comparable to those of industrialised countries, despite having a fraction (sometimes just a tenth) of their level of income (Mehrotra and Jolly, 1997). Needless to say, they implemented policies and strategies without reference to the synergies we described ex-post, and they represent an interesting case of what Lindblom (1959) calls ‘muddle-through’.

and water and sanitation. This synergy (which we call synergy 1) takes place at a micro-economic level – at the level of an individual.¹¹

1.1.1 The synergy among social services

Interventions in health, nutrition, water and sanitation, fertility control, education and income complement each other and positively affect the life of an individual. This increases the impact of any one from investments in any other (see Figure 1.1).

Figure 1.1: The first synergy between social service inputs and outputs

Social services inputs/ processes	Human development outcomes/outputs				
	Knowledge	Family size	Health status	Nutritional status	Healthy living conditions
Education	↙	↙	↙	↙	↙
Family planning	↙				
Health	↙	↙		↙	↙
Nutrition	↙	↙	↙		
Water and sanitation					

Figure 1.1 represents this notion of synergy (although only of synergy 1). Along the horizontal rows, the various social services are represented as inputs or interventions – education, family planning, health, nutrition, and water and sanitation. The vertical columns represent the human development outcomes or outputs – knowledge, family size, health status, nutrition status, and healthy living conditions. The dark-shaded cells show the direct and obvious relationship between inputs and outputs. The light-shaded cells are the ones where there is a relationship – but an indirect one – between a certain intervention and an outcome; for example, the use of contraception (i.e., family planning), by helping the spacing of birth of children, indirectly benefits the health status of both the mother and the child.

¹¹ See Mehrotra and Delamonica (2007) for details on this synergy and earlier precedents in the literature.

The arrows represent feedback effects from human development outcomes to the inputs/processes. For example, the improved health status of a child improves her ability to learn, just as improved nutritional status does. Similarly, a reduced family size improves the chances of a poor family being able to afford education for all the children rather than merely the boy(s) in the family, and so on.

Since the connections presented here are central to our arguments about synergies, a more in-depth review of these connections is needed. First of all, it has to be recognised that all of these relationships are based on evidence discovered several years ago. However, probably in part due to over-specialisation within the disciplines represented on the matrix, they are all too often presented separately. By integrating them, it becomes clear that their separate effects, the ones often reported, are only partial. In fact, the impact of any one form of investment is increased in the presence of the others, proving the advantages of integrated approaches.

Notice that *educational inputs* have an impact on all types of human development outcomes. The positive effects of education are intuitive and well known. First, parents, especially mothers, make better use of information and reproductive healthcare facilities if they are more educated. Thus, more widespread education is associated with lower fertility. Better nutritional and healthcare is provided by educated parents for themselves and their children. Various routes ensure this result. The general knowledge acquired at school increases the understanding of modern health practices and scientific beliefs, which make mothers (and fathers) more open to using healthcare centres. Households with educated mothers spend a higher proportion of their income on food and health services.

In addition, the capacity to acquire new knowledge and change behaviour accordingly is higher among those who attended school, as evidenced by the differential diffusion of HIV/AIDS among educated and uneducated women (Vandemoortele and Delamonica, 2000). As a result, health investments are more efficient in the presence of a more literate population (Caldwell, 1986). In countries where parents have been exposed during their school years to nutrition information, they combine different foods to obtain better nutritional outcomes. Also, such mothers take better care of their nutritional needs during pregnancy, avoiding low birth weight (ACC/SCN, 2000). Basic education also facilitates the rapid adoption of improved hygienic behaviour. This not only improves health outcomes, but also enhances the impact of investments in water and sanitation systems.

In summary, education and in particular girls' education, contributes to enhance the impact of other sectoral interventions. All of these, in turn, result in good nutrition and health, increasing the likelihood that children will attend school and become better students. For instance, with lower fertility, parents can devote more attention to their children's studies and afford more food and school supplies, which improve learning. In addition, access to clean water and safe sanitation (that is, healthy living conditions) helps girls – when girls need less time for household chores like fetching water, they have more opportunities to attend school. Also, they have more time and energy to study and do well in school, avoiding repetition or dropping out.

Family planning, by providing easy access to contraceptive means, enables the mother to space births, thus lowering the health risk to herself and the child, reducing infant and maternal mortality and improving the healthy development of the child. Thus, lower fertility has a positive implication for improving health and increasing life expectancy. Another important complementary outcome of intervention in health, education, water/sanitation and family planning is the rapid demographic transition. As children survive, families voluntarily curtail the number of children. This is not the place to enter the debate on the relative impact of supply of contraceptives versus desired family size in family planning (Bongaarts, 1994; Pritchett, 1994; Cassen, 1994). However, it is clear that lower infant and child mortality plays a major role in reducing fertility rates (Caldwell, 1986), as does education, the availability of information on reproductive healthcare and its accessibility (Cochrane, 1979).

As population growth slows down, school systems find it easier to absorb all children. Teacher-pupil ratios can be reduced (see the evidence in Chapter 9) without unduly burdening budgets, and construction costs can also be reduced, releasing resources for other measures to enhance school quality.

As in the case of the health and nutrition sectors, the availability of information on and access to family planning services will not, on their own, reduce fertility as much as it might be needed or desired. They are more effective when couples are more educated and child survival rates are higher.

It is also very well established that lack of good *nutrition* critically interacts with *health*. For instance, control of diarrhoea and measles is very important not only for health outcomes, but also in reducing malnutrition (by improving the capacity to absorb and retain caloric intake; see the analysis in Chapter 10). By the same token, an insufficient intake of total calories, vitamins and proteins weakens

children's immune systems. This would make them vastly more vulnerable to the onset and consequences of infectious disease. Interventions in health promote good nutrition, and interventions in nutrition promote good health.

Moreover, micronutrient deficiencies and illness can have devastating consequences for the cognitive development of a child. For instance, iron deficiency anaemia reduces cognitive functions, iodine deficiency causes irreversible mental retardation and vitamin A deficiency is the primary cause of blindness among children. Girls are unfairly disadvantaged in many of these cases. They are more likely to suffer from iodine or iron deficiency.

While it is clear that good health and nutrition have benefits that reinforce each other, the above examples also show that they impact positively on fertility control and education. But it is also clear that good health, protection against disease, and proper nourishment cannot be produced by health services or food alone.

Safe water and adequate sanitation also play a fundamental role in determining health conditions. Access to safe water and sanitation dramatically reduces the incidence of diarrhoea and many other diseases that kill millions of children and adults each year. Another effect of better access to water takes place through the reduced effort in carrying water, which is usually unduly borne by women and girls. Given the traditional roles they play in most societies, when women and girls have more time, they can apply it to better infant and childcare. This leads to positive health results. Finally, especially for women, more time is available for pecuniary productive activities. This direct impact of water and sanitation improvements on income-poverty reduction is less well publicised than the effect of higher levels of education and better health on productivity.

The presence of toilets, safe water and hygienic conditions at school can reduce some constraints on sending children, especially girls, to school. Separate toilets for girls are known to be a consideration for parents (Mehrotra et al., 2005). Backed by proper hygienic behaviour, such as hand washing and the use of soap, access to safe water and adequate sanitation reduces morbidity from infectious diseases and increases the nutritional status of children, which furthers their learning abilities.

In summary, each intervention has ramifications which lie outside its 'sector' and add up to a virtuous circle of social and economic development. This is different from the existence of an externality, although they are of course present. Unlike the traditional treatment of externalities, which are usually exceptions, these interactions are pervasive.

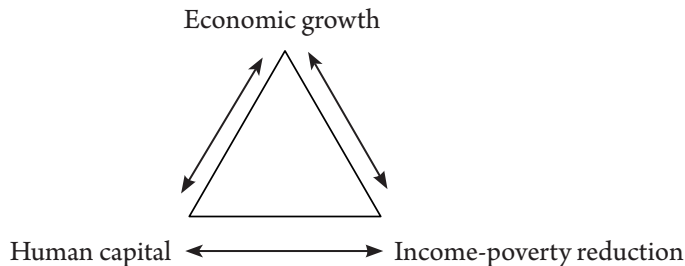
It is a multi-dimensional synergetic system. No wonder it results in a complex system, at which most developing countries have not yet succeeded. From an instrumental point of view, the benefits do not automatically accrue to all and markets alone would not ensure universal access – hence the need for the public sector to step in and finance these services.

The discussion so far has focused on the individual or micro-economic level; the rest of this section proceeds at a macro-economic level, rather than at the level of the individual. It is important that this be clear from the beginning, because at the level of the individual, economic growth (defined as increases in per capita income) is a means to an end: human capability. In our model, human capability of the individual is the ultimate end, but in terms of the dynamic of the model, the processes that lead to enhanced human capabilities are the result of larger macro-economic processes, over which the state and its agents have dominant control.

1.1.2. The second synergy: Economic growth – human capital formation – income-poverty reduction

In the process of development, there is a second synergy. It takes place at the macro-economic level among income-poverty reduction, enhancement of functionings at the aggregate level (that result in human capital formation), and economic growth. Figure 1.2 presents this second synergy.

Figure 1.2: The relationship between economic growth, human capital formation and income-poverty reduction



We are, obviously, borrowing the expression ‘functionings’ from Sen. However, in this context we are interpreting it in a narrower sense than he does. Instead of all the important activities that people may value, we stress those functionings which result from the provision of basic social services, i.e., healthy, literate lives.

For synergies to be realised at this macro-economic level, actions on several fronts are needed (for example, progressive fiscal policies, which are consistent with monetary policy, distributive policies to reduce poverty, and so on; see the chapters in Part 1). This supports the need to integrate social policies with macro-economic ones.

In the positive experience of recently industrialised countries or of high-achieving developing countries (for an analysis of how inclusive growth was achieved in some developing countries, see Mehrotra and Jolly, 1997), we are struck by the difficulty of establishing causality relationships. For example, despite widespread literacy within a population, many countries have not achieved rapid growth, although education is a major determinant of such economic growth.¹² There are also examples of countries with relatively rapid economic growth, but persistent income-poverty. Indeed, the relationship between economic growth, income-poverty, and enhancement of functionings is a complex one. A framework to describe these linkages is presented below.¹³

The lingering question remains: If there are no sufficient or necessary conditions linking these elements, are they unrelated? The answer is yes, they are related, but in a complex way. Although no particular element is necessary or sufficient for the advancement of the other, they help each other. Thus, for instance, the effectiveness of industrial policy in inducing economy-wide productivity growth or non-agricultural employment in rural areas will be enhanced by the widespread presence and high average quality of functionings in a healthy/educated population, in turn resulting in higher rates of income growth.¹⁴ That is why, in Figure 1.2, there are arrows running in *both directions* between Economic growth – Human capital formation – Income-poverty reduction. We first present the theoretical framework and then some empirical evidence in this sub-section.

12 The reason is obvious because other growth-oriented policies (technological change to induce productivity increase macro-economic stability, etc.) are not present.

13 Our framework could be considered a 'magnifying lens' view of the transformational growth matrices developed in Nell (1992), whereby we introduce less elements (for example, we do not include youth socialisation), but attempt to provide more detail to the interactions we do explore.

14 Thus, no single element can be specified as the main cause (or 'development magic bullet') for success in all areas. Pritchett (2003), Easterly (1999), and Levine and Radelet (1992) discuss the various shortcomings of econometric estimates that attempt (and fail) to establish these relationships.

1.1.2.1 Theoretical framework

A synergy or feedback loop can be succinctly expressed as the enhanced impact a change in an independent variable has on the growth rate of a dependent variable, given the presence of a third variable (Haken, 1980). This leads to several important, and often overlooked, interrelated effects in terms of policy. The impact of a policy measure (for example, redistribution to directly reduce poverty) on another variable (say economic growth) crucially depends on the level and rate of change of a third variable (for example, health and educational status). In other words, economic growth will be faster and more sustainable if (income) poverty is reduced simultaneously through direct policies, and if the health and educational status of the population is higher and increasing.¹⁵ What we have in mind can be expressed algebraically:

$$\text{GNP per capita growth} = f_1 (\text{macro-economic policies, technical/structural change, expansion of functionings, income-poverty reduction}) \quad (\text{Equation 1.1})$$

GNP per capita growth is not chosen by governments, but is the result of public policies and private decisions. GNP per capita growth is influenced by the expansion of functionings, the pace of poverty reduction, macro-economic policies, and, in the medium to long term, technological change (i.e., the introduction of value-adding activities and productivity increases through technical/structural change).

Job creation and rising wages reduce poverty, leading to higher levels of consumption (as we demonstrate for India in Chapter 4; [see also Mehrotra et al., 2014](#)), internal demand and economic growth.¹⁶ Stable prices and low interest rates also contribute to a favourable context in which firms would want to work and invest. However, this does not mean that macro-economic stability per se results in economic growth, as evidenced by the standard error of the regressions that try, but fail, to establish this point. Nor does this imply that a privately-led boom will not result in imbalances. Here we want to stress that innovations are

15 A widely recognised simple example, and one often mentioned even within the literature emanating from the international financial institutions, is that economic growth will be more successful in reducing income-poverty, i.e., the elasticity of poverty reduction will be higher when human capital is more equitably distributed. We do not deny this. We only stress that this is only one of the many interactions among various interventions.

16 As noted by Adam Smith (1776): 'The liberal reward of labour, therefore, as it is the necessary effect, so it is the natural symptom of increasing national wealth. The scanty maintenance of the labouring poor, on the other hand, is the natural symptom that things are at a stand' (Book I, Ch. 8).

introduced through investment which is financed by profits or borrowings, or by sustainable inflows from abroad. The latter may be more volatile than the former and both are influenced by macro-economic policy.¹⁷

In order to understand the engine of growth, i.e., technological change (Abramovitz, 1989; Chakravarty, 1982; Schumpeter, 1934; Solow, 1997), a model such as the evolutionary one, rather than one involving firms with absolute knowledge concerning static production functions, is needed. Such a model would stress that both inventing and adapting new technologies is a process of discovery characterised by uncertainty, rather than by probabilistic risk (Nelson and Winter, 1982). In this case, markets are not efficient and have no tendency to reach equilibrium, as they tend to change (Anderson et al., 1988; Lesourne and Orléan, 1998; Pack 1992; Nell [1992] 1998). This different theoretical perspective leads to alternative policy recommendations.¹⁸

With Lin (2012), a neo-structural economist, we argue in Chapter 2 thus: that an economy's growth is endogenous to its factor endowment structure, and sustained economic growth results from changes in factor endowments and continuous technological innovation. If a country wishes to upgrade its industrial structure (as India), it will need to upgrade its factor endowment structure, which can be changed over time.

$$\text{Income-poverty incidence reduction} = f_2 (\text{GNP per capita growth, expansion of functionings, asset redistribution policies}) \quad (\text{Equation 1.2})$$

As with economic growth, the primary income distribution lies not in the hands of the government, but emerges from market results and the relative bargaining power of the owners of the factors of production. The distribution of income, in turn, affects the incidence of income-poverty. Nevertheless, the government, both through regulation and the overall management of macro-economic conditions (captured in the GNP per capita growth variable), can affect income distribution.¹⁹ Most importantly, it can affect income distribution through a growth strategy that is labour-intensive (as we discuss in Chapter 3).

17 However, the focus on freeing up financial markets in overly market-friendly policies (for example, in the run-up to the Asian financial crisis of 1997, or the global economic crisis of 2008) may have had the adverse effect of contributing to macro-economic instability by weakening the financial sector (UNCTAD, 1999; Grabel, 2003; Raghuram Rajan, 2009).

18 Similarly, we suggest that the traditional 'human capital' concept is too limited to capture the expansion of capabilities, and that many other factors are needed to launch economies into sustainable growth paths.

19 See Nell (1992) on relative bargaining and full employment.

In fact, the employment link back to the other variables appears to be missing in our system of equations – but this is only an apparent gap. An employment-intensive growth strategy can be defined as one that generates productive jobs faster than the growth of the labour force. For instance, a problem with a Foreign Direct Investment (FDI) intensive growth strategy (for example, typical of Latin America over several decades) is its capital-intensity, leaving unemployment at high levels. While the Indian industrial strategy has not been particularly dependent upon FDI, the labour-intensity of growth has been low (as we discuss in Chapters 2 and 4). The government can also use fiscal policy to affect the after-tax income streams (the secondary income distribution), correcting the excesses of the market and reducing income-poverty (as we discuss in Chapter 5 on tax issues in India).

Moreover, the distribution of assets can be altered (for example, land reform, titling), which in turn will affect the primary income distribution (as we discuss in Chapters 3 and 16). It has been argued that the single most important economic factor affecting women is the gender gap in command over property. In rural South Asia, the most significant form of property is arable land, which is a critical determinant of economic well-being, social status and empowerment. However, few women own land and fewer control it (Agarwal, 1994). Research on Sub-Saharan Africa has also argued that one of the factors constraining growth and poverty reduction is the gender inequality regarding access to and control of a diverse range of assets (World Bank, 1999).

Also, distribution is affected by taxes. If markets are in constant flux as firms try to alter constraints through innovation, then the very notion that taxes or import restrictions introduce distortions lacks foundation. Taxes do, however, play **another** important role that is usually unnoticed. Taxes affect the distribution of income, which impacts on income-poverty, as we see in the next equation.²⁰

Finally, a fundamental way in which the government can also influence distribution is public expenditure on the provision of basic services (discussed in Part 2 of this book) and transfers (the tertiary income distribution), through social assistance and social insurance (a subject to which Part 3 of the book is devoted). This in turn builds and enhances functionings.

$$\text{Functionings expansion} = f_3 (\text{GNP per capita growth, income-poverty reduction, social policy}) \quad (1.3)$$

20 For more on macro-economic policy and human development, see Nayyar (2012), Mehrotra and Delamonica (2007) and Singh (2012).

Education, health and sanitation, the elements that enable people to enjoy the functionings which make life worth living, have myriad interaction effects among them (as noted above). Obviously, additional resources (at the household level and nationally) through poverty reduction and economic growth helps. However, as many country experiences show, 'unaided opulence' is not sufficient. Public action in terms of social policy is fundamental in enhancing functionings.

A fundamental point about the notion of synergy between the three types of interventions is that in strategies where one is absent, the effect of interventions in the other two spheres is less than what it would otherwise be. Policies which focus largely on *economic growth* without much regard for income-poverty reduction, or enhancement of functionings, are doomed to unequal income distribution (and thus higher income-poverty) and lower levels of functionings (than is otherwise possible). Such a policy of 'unaided opulence', as Sen (1989) calls this strategy, represents a failure to convert the benefits of output growth into an enhancement of functionings or poverty reduction.

Policies that focus only on *enhancement of functionings*, but ignore economic growth or income-poverty reduction, will lead to outcomes that are not sustainable. On the other hand a 'growth-mediated' security strategy, following Sen's terminology, could be translated into enhancement of functionings through supportive social policy (transfers), which eventually could lead to poverty reduction.²¹ A growth-mediated strategy may also help people expand their functionings, as higher income may enable private command over goods and health/education services and make use of their enhanced capabilities if growth increases jobs. However, a growth-mediated strategy should not result in an unconscionable delay for those at the bottom of the social pyramid.

In our model, the synergy between income-poverty reduction, enhancement of functionings and economic growth does not put the growth rate on a pedestal

21 Dreze and Sen (1989) identified two alternative approaches to improved human well-being, after examining developing countries over 1960 to 1985: one approach (followed by South Korea, Hong Kong, Singapore and oil-rich Kuwait and UAE) is to promote economic growth and use the resources to expand private incomes but also public support – the 'growth-mediated' strategy. The second approach is to focus directly on wide-ranging public support for job creation, health care, education, and social assistance 'to remove destitution without waiting for... general affluence' (p. 183). The second approach was adopted by China, Cuba, Costa Rica, Chile and Jamaica over 1960-85. In fact, they argue that China's growth followed rather than preceded the wide-ranging measures of public support, which they regard as the main source of China's success at poverty-reduction. Dreze and Sen (1989) call this a 'support led security' approach.

higher than the other two objectives. Instead, it calls for the integration of social and economic policy.

1.1.2.2. Empirical evidence on synergies between economic growth and human development

Based on cross-country regressions for 1960–92, using a sample consisting of 35 to 76 developing countries, Ranis, Stewart and Ramirez (2000) estimate the connections between economic growth (EG) and human development (HD). They show a significant relationship in both directions, which give rise to virtuous or vicious cycles, with good or bad performance on HD and EG reinforcing each other. They also find that evidence over time has important sequencing implications: countries that initially favoured EG lapsed into a vicious cycle, while those with good HD and poor EG sometimes move into the virtuous category.²²

More recently, Suri et al. (2011), using panel data (over (1960–2001) from 79 developing countries with populations in excess of 1 million, come to the following conclusions on the relationship between EG and HD. They find that HD plays an essential role in determining growth trajectories (their measure of sustained growth). Improving HD (a measure of human well-being), they find, must precede or accompany rising EG for a country to reach sustained EG. Their results imply that successful policy requires an early focus on HD, not only because of its direct impact on well-being but also because of its feedback effect sustaining EG. In fact, they find that without improvements in HD, policy that attempts to enhance EG is highly unlikely to lead to sustained growth. Increases in a country's EG appear to be sustained only if HD levels were upgraded earlier or at least at the same time. Their preliminary cross-sectional correlations suggest this conclusion strongly. We don't consider this finding surprising since this is exactly what we had argued earlier (Mehrotra and Jolly, 1997). The actual experience of India has borne this finding out in the most recent period (as we will argue later in this chapter and book). This finding is important as it contradicts the neoclassical view that different inputs in the process are substitutable (thus, e.g., investment in physical capital can be substituted by investment in human capital).

When Suri et al. (2011) examine **this** sequencing hypothesis more precisely in regression analysis they find clear evidence of a strong positive relationship between early HD levels and countries' growth trajectories, with achievement of high HD levels early contributing to accelerating growth.

22 Ranis et al. (2000) in fact concluded that where choice is necessary HD should be given sequencing priority.

When they measure the strength of the linkage from EG to HD, they of course find that improved growth does lead to improved HD, but strong long-run growth without accompanying strong HD improvements does not yield sustained EG. There is a very important lesson here for Indian policymakers intent upon reviving growth currently (2015), even if it means squeezing social expenditures (to contain the fiscal deficit). Suri et al. (2011) contradict the oft-held view in India that investments in HD may be postponed until economic resources make them affordable or at least confine them to ones that maximise vote banks.

We present empirical analysis by incorporating all three variables from our synergies model (EG, HD and Income-poverty reduction). An empirical exercise can help to underscore these interactions (Mehrotra and Delamonica, 2007). There are serious restrictions on the availability of data on changes in income-poverty. Nevertheless, there are close to 50 countries for which data are available on the incidence of income-poverty (based on national poverty lines) at the beginning of the 1990s. For these countries, the *under-five mortality rate* (USMR) in 1990 was used as a proxy for the level of human capital (for reasons, see Sen, 1995). Also, the *average annual growth rate* for the period 1990 and 2000 is available. The countries were classified according to their *initial incidence of income poverty* as: high (a head count ratio of over 50 per cent of the population), medium (between 50 and 30 per cent), and low (less than 30 per cent). Also, they were grouped in terms of their levels of USMR: high (over 170 per 1,000 live births), medium (between 170 and 70), and low (less than 70).

With these classifications, nine groups of countries can be formed (Table 1.1). The findings tend to confirm our earlier theoretical framework of dual synergies. Few countries combined low USMR and high income-poverty or high USMR and low income-poverty. An interesting pattern emerges when the growth rates of per capita income are compared among the remaining seven groups. Countries with high initial USMR experienced negative growth in per capita income. Even countries with medium levels of initial USMR but with high income-poverty experienced negative economic growth (the top-left three cells in Table 1.1), suggesting that poverty and low levels of human capital are actually inimical to economic growth. Countries falling in the other combinations (medium or low levels of initial USMR and income-poverty) experienced positive economic growth. Moreover, the rates of economic growth were highest when the initial level of income-poverty and USMR was lowest (the bottom-right cell).

Table 1.1: Economic growth by level of income-poverty and enhancement of functionings
(Average annual growth rate of per capita income, 1990–2000)

Income-poverty	USMR		
	High	Medium	Low
High	-1.6	-0.5	0.5
Medium	-2.6	0.9	1.9
Low		0.6	2.7

Source: Estimated from data in Tabatabai (1996); State of the World's Children (UNICEF) and World Development Report (World Bank), various issues.

In fact, countries with high levels of human capital and low income-poverty experienced faster growth than countries with high levels of human capital and medium levels of income-poverty.

Although these figures show only correlation and are not necessarily indicative of conclusive results, they strongly suggest that basic social services are of fundamental importance in triggering the virtuous circle between economic growth, income-poverty reduction and enhancement of functionings.

Hence, we undertook a similar exercise for Indian states (Mehrotra, Parida and Kalaiarasan, forthcoming). We tested for the relationships from EG to income-poverty reduction (and vice versa), and from EG to human capital improvement (health and education outcomes) – and vice versa. We undertook a Granger causality test, using data over 2000 to 2012 (National Sample Surveys) for the 20 major states of India (after conducting the stationarity test in which all the relevant variables are found as stationary). Our core empirical findings, using 21 cross sections for the bivariate case, assume one period lag models. The empirical results suggest the synergy depicted in the theoretical part of this chapter.

The Poverty-Growth two-way relationship: The empirical result suggests a bi-directional causality between economic growth and poverty reduction. The decline in absolute number of poor in the period of high growth explains that high growth in India caused a reduction in poverty. In the period of high growth both because rural and urban real wages increased (the reasons for which are discussed in chapters 2–4). The rise in real wage caused an improvement in the standard of living and reduction in poverty in India.

The casual connection from poverty reduction to growth could be explained by the increasing domestic demand for goods and services. Since a large number of people have come out of poverty, with the emergence of new non-poor and middle class, domestic demand for a number of consumer goods has grown sharply after 2004–05 that is reflected by a shift in consumption pattern (see Mehrotra et al., 2014). This leads to an increase in employment demand in labour intensive manufacturing sectors that has partly enhanced the economic growth.

The two-way relationship of Human Capital and Poverty: We have also found a bi-directional causality from poverty reduction to health (improvement in IMR as a proxy). The improved consumption pattern due to the reduction in poverty has greater impact on health status of the family members. As illness can limit productivity and reduce earning ability that perpetuates poverty (WHO,²³ 1999 and 2002); while an improvement in the health status causes a reduction in household poverty. The causality between health and educational outcome is well recognised in the literature. Grossman (1972)²⁴ and Michael (1973)²⁵ found that there is a potential causal link between education and health that can be established through higher productivity.

This argument can be seen as an analogy to the well-known relationship between education and wages. The increasing mean years of schooling might have caused the increase in private sector wages along. With increasing level of income, apart from raising public health spending with rising real wages the out of pocket healthcare expenditure (about 15 per cent in India) of households also increased that is reflected in a reduction in IMR.

The two-relationship between Economic Growth and Human Capital: The causality from growth and education suggests that due to higher economic growth government of India was able to spend more on education (see chapter 9 on Right to Education); as a result mean years of schooling increased. The increasing level of education has a positive impact on productivity that in turn raised economic growth.

23 World Health Organization (1999), *Poverty and Health* (Report by the Director-General), Geneva, World Health Organization Executive Board Session. World Health Organization (2002), *Dying for change*, Geneva.

24 Grossman, Michael (1972), 'On the concept of health capital and the demand for health', *Journal of Political Economy* 70(2): 223–55.

25 Michael, Robert T. (1973), 'Education in nonmarket production', *Journal of Political Economy* 81(2): 306–27.

The one-directional causality between health and growth on the other hand suggests that better health conditions increased productivity and hence growth; however economic growth in India did not cause an improvement in health conditions. This is not surprising as the health expenditure in India and in most of the states does not grow significantly during this high growth period. According to Choudhury and Nath (2012) public spending on health in India was about 1.1 per cent of GDP in 2010–11. Including water supply and sanitation, their estimate was around 1.5 per cent of GDP. Further, with nutrition, the estimate was about 1.7 per cent of GDP. This expenditure increased by about 0.2 per cent of GDP between 2004–05 and 2010–11.

1.2. Dual Synergies in India?

Inclusive growth can only occur if, with rapid economic growth, both income poverty falls commensurately and significant improvements occur at the aggregate level in human functionings.²⁶ In fact, we would suggest that rapid economic growth will only be sustained over the long term if it is inclusive in nature.

1.2.1 What contributed to the dual synergies not being realised in India?

India became independent in 1947, South Korea in 1945 and China's communist revolution occurred in 1949. They all started out at roughly the same level of per capita income. However, both South Korea (a high-income country) and China (an upper-middle-income country) have much higher levels of per capita income today, as well as a much lower incidence of income-poverty and much higher levels of human development. One could argue that the dual synergies have worked in South Korea and China, while they have been much weaker in India.²⁷ India became a low-middle income country only in 2007, after being on the low-income category (according to the World Bank classification) for 60 years.

26 This is a notion of inclusion which is similar, but not the same as that discussed in Chapter 1 of the 12th Five-Year Plan (Planning Commission, 2013). The 12th Plan states that inclusiveness can be interpreted to mean the following: inclusiveness in poverty reduction, inclusiveness as reduction in group inequality, inclusiveness as regional inter-state balance, inclusiveness as reduction in income inequality and inclusiveness as empowerment.

27 For a discussion on Korea's economic growth and human development, see Singh (1995), Chang (2003), Amsden (1989), Mehrotra, Park and Back (1997), Nolan (1990). On China, see China Human Development Reports of 2005, 2002, 1999 and 1997; Dreze and Sen (1989); also Nolan and Sender (1992).

In order to answer why dual synergies have been much weaker in India, we break up the period since planned growth began post-independence into two periods: 1950–80 and 1981–2011. The first period was characterised by the Hindu rate of economic growth of 3.5 per cent pa, while in the latter period the growth rate increased significantly.²⁸ The second distinction between the two periods is that the start of the demographic dividend can be traced to around 1980.

A review of the first three decades of planned development in independent India suggests that on all three counts (economic growth, human capital development and income-poverty), major strategic policy errors were made, despite remarkable progress on many counts compared to the colonial period (Bhagwati and Chakravarty, 1969). Policies led to economic growth being slower than the country's potential; investments in basic social services (as opposed to higher-level services) was neglected; and the directly-targeted poverty reduction programmes were not only few but were also poorly conceived, designed and implemented. We will discuss each of these failures, which prevented the dual synergies from being realised, in turn. In other words, the failures were quite comprehensive in the first period, despite the fact that the country acquired a heavy industry base (consistent with the objective of the Second Five-Year Plan and in consonance with the Mahalanobis model).

Table 1.2: Gross domestic product (GDP) growth rate, 1951–55 to 2011–12 (by Plan period)

	Growth rate per annum		Growth rate per annum
I Plan (1951–55)	3.5	VI Plan (1980–84)	5.5
II Plan (1956–60)	4.2	VII Plan (1985–89)	5.6
III Plan (1960–65)	2.8	Annual Plan (1990–91)	3.4
Annual Plans (1966–68)	3.9	VIII Plan (1992–96)	6.5
IV Plan (1969–73)	3.2	IX Plan (1997–2001)	5.5
V Plan (1974–78)	4.7	X Plan (2002–06)	7.7
Annual Plan (1979–80)	-5.2	XI Plan (2007–12)	7.9

Source: Planning Commission, Five-Year Plans, various years

28 This periodisation (of pre-1980 and post-1980) of growth has been fairly well-established in the literature for many years. See Rodrik and Subramaniam (2004) and Balakrishnan (2010).

India's economy grew at barely 3.5 per cent pa for nearly three decades (1950–80) (see Table 1.2). Given that the population was also growing at 2.2 per cent pa on an average over this period, the only redeeming feature was that per capita income grew faster than before 1947. The heavy industry-based import-substituting industrialisation led to a relative neglect of agriculture, at least until the mid-1960s, accompanied by a food crisis and distress imports of large amounts of grain (under Public Law 480 from the US) (Chakravarty, 2002). M. S. Swaminathan, the doyen among agricultural scientists in India and the force behind India's green revolution of the 1970s, called it a 'ship-to-mouth existence' for India. However, it was followed by a green revolution by the early 1970s, which enabled India to at least become food self-sufficient (Rao, 1975).

Nevertheless, the neglect of agriculture led to a growth rate of agriculture (1950–80) that was far below that achieved by the East Asian economies over the same period (Saith, 1996) with significant human consequences. Given that nearly 70 per cent of the population was dependent on agriculture in the early 1970s, this situation kept the mass of the rural population mired in poverty. In 1973–74, there were 322 million poor people in the country,²⁹ at a time when India's total population was about 600 million with a 55 per cent head count ratio of poverty in that year (see Table 1.3). The sustained slow growth over the first three decades after independence seriously undermined the other two objectives – human functionings expansion and income-poverty reduction.

1.2.1.1 The neglect of basic social services

Human capabilities were not helped by the neglect of basic social services (BSS), especially of elementary education (Classes 1–8). By the census of 1981, India's population of illiterates was larger than its total population had been at independence – about 300 million. In fact, after the First Five-Year Plan's focus on elementary education, the strategic focus shifted from elementary education to higher education (Tilak, 1991). This shift in emphasis was necessitated by the growth strategy adopted

29 This estimate is based on the Lakdawala method. It uses a uniform recall period in the survey of consumption expenditure on both durable and non-durable consumer goods. All estimates of poverty after 2004–05 are based on the mixed recall period, where the reference period for the household answering questions about consumption expenditure (which is the basis for estimating whether a household's monthly consumption expenditure is below the poverty line or not) is 365 days for five infrequently purchased items (clothing, footwear, education, medical expenses, durable goods), while for all other items including food items, the reference period is 30 days. The uniform recall period, by contrast, uses the same 30-day recall period for both durables and non-durables.

(which was, within an appropriate import-substituting industrialisation, focused on heavy industry first, modelled on the Soviet strategy [Bhagwati and Chakravarty, 1969]). The latter required a large and growing number of people with high levels of engineering and scientific skills (Mehrotra, 1990).

Not surprisingly, for a full four decades of planned educational development in 1957–90 (i.e., over the first eight Five-Year Plans, except the very first one), higher and technical education absorbed a good 25–30 per cent of the total government education expenditure of state and central governments taken together (Tilak, 1991). In fact, never in the history of independent India has primary education (Classes 1–5) ever accounted for more than 35 per cent of total government education expenditure, which is way below that in most high-achieving developing countries (Mehrotra and Jolly, 1997; Mehrotra, 2005). Clearly, children were not a priority in educational policymaking till four decades after independence (see Chapters 9 and 10 for further discussion).

That the capital investment in higher education should have been made is not being questioned here. What is more questionable is two aspects of this public expenditure: the absence of a long-term strategy to meet recurrent costs in publicly funded higher education, and the public-private mix in higher education. First, almost all of higher education was publicly provided and it was almost free of charge, despite the fact that those who were being subsidised could afford to pay, and thus meet a significant part of the recurrent costs met by the state in higher education (Mehrotra, 2005).

Second, there was hardly any private provision of higher education in India. Both these features of the education strategy are exactly the opposite of the strategy followed in South Korea at the same stage of development (see Mehrotra et al., 1997 for a further discussion). In India central government allocations for elementary education increased in relative terms only after 1990, by which time serious damage to elementary education had already been done. In other words, one of the foundational elements of the first synergy (between basic social services) could not be realised since even primary enrolment was not universal until 2007 – quite the contrary to what was achieved in countries such as South Korea, China and Malaysia early in their development process.

Another relatively neglected aspect of basic social services (BSS) was basic and preventive healthcare. While a three-tier infrastructure of public healthcare was created, it remained under-funded and understaffed. With state governments in the driving seat, accounting for over 80 per cent of total public expenditure for

health, the central government kept a low profile on the subject. Life expectancy was barely 52 years by the census of 1991.

The dual synergy model is useful as an analytical and diagnostic device to compare the experience of countries with regard to poverty reduction. The reason why China, for instance, managed to reduce income-poverty very rapidly after 1980 (when its economic reforms began), in contrast to India, even though both experienced rapid economic growth, is three-fold. First, unlike India, China had managed to universalise primary schooling by the end of the 1970s, when its economic reforms and its period of rapid economic growth began. Literacy was 67 (79 per cent male, 54.4 per cent female) per cent in China in 1981–82 (for 15+ year olds), while in India it was 43.6 per cent (for 7+ year olds, which is normally higher than for 15+). The gap had widened between the two countries by 1991, with China having reached 78 per cent, and India still at 52.2 per cent literacy (Dreze and Loh, 1995). In other words, India reached a literacy rate of 65 per cent only in 2001, which is lower than a rate China had achieved 20 years earlier, when it began its economic reforms. Naturally, the Chinese workforce was much better prepared to take advantage of the economic growth when it started after 1979.

Moreover, age-specific literacy rates highlighted another important dimension of the Chinese headstart. Nearly 40 per cent of Indian children could not actually read and write in the early 1990s, while the corresponding figure for China was only 5 per cent (Dreze and Loh, 1995). Unfortunately, the state of learning achievement of India's children (see Chapter 9) has hardly improved in the 2000s (Banerji and Duflo, 2011; ASER, 2014).

Meanwhile, as in education, so in health China made amazing progress in the first three decades after the revolution in 1949. Between 1950 and 1990, life expectancy almost doubled, rising from 35 to 68 years; the latter is higher than India's 2011 life expectancy. There was a similarly dramatic fall in infant mortality, declining from 200 to 34 per 1,000 live births, which is again lower than India's infant mortality rate (IMR) in 2012 (42). A big difference between the way the public health systems were organised in the two countries was that China trained, for the rural village or urban street health clinic, thousands of 'barefoot doctors', who were selected by county health authorities to receive three to four months of initial training as well as additional annual training to upgrade their skills (Hsiao, 1995). There was no one in the Indian system who was comparable. The vacuum was filled by local quacks who survive – rather,

dominate – in the rural (Rohde and Viswanathan, 1995) and even the urban slums to this day.

The contrast in outcomes is evident. By the beginning of the 1980s, China was undergoing an epidemiological transition, with the prevalence of infectious diseases radically decreasing, and infectious diseases such as polio nearly eradicated. In India, the last case of polio was found in 2011. Second, healthcare is not the only factor that influences health outcomes (as we have argued throughout this chapter). Between 1950 and 1980, nutrition, hygiene and education and living standards greatly improved in China, which positively impacted health (Hsiao, 1995).

The Chinese strategy was to focus on preventive and promotive health, especially in the rural areas. The Indian health system neglected the rural areas and preventive healthcare with catastrophic consequences, and allowed investments to grow in curative care, and the public health system simply could not cope with the resulting disease burden. The pressures on the government health system of curative care led to most healthcare being provided by private providers (Rohde and Viswanathan, 1995).

As a result, out-of-pocket expenditure accounts for 80 per cent of the total health expenditure in the country.

Moreover, key nutritional interventions (see the discussion in Chapters 8 and 10) as well as sanitation interventions (see Chapter 11) were lacking. The main nutritional intervention, the Integrated Child Development Scheme (ICDS), although in existence since 1975, remained very low in coverage (barely a quarter of the country's children were covered till 2006), and has a poor design (and is hence ineffective; see Chapter 10). In fact, 54 per cent of all of India's children under five were underweight in 1992–93, according to the National Family Health Survey. By contrast, the rate in China was 19 per cent in the same year (National Nutrition Survey, 1992). The prevalence of stunting was 33 per cent in China in 1990; by contrast, in India it was 52 per cent in 1992–93.

An underlying cause of the health and nutrition outcome indicators was also the state of sanitation (see Chapter 11 for a detailed discussion). The nutritional and health implications of poor sanitation are well known, but clearly there was no recognition of these synergies in the way policies were formulated. The contrast is between 69 per cent rural households not having toilets in India according to Census 2011, compared to 4 per cent of all households in China (Registrar General of India, 2011).

Overall, one can firmly state that requirements to trigger the first synergy – between key basic services like preventive health, adequate nutrition, basic education, water and sanitation – were nearly ignored by policymakers during the first decades of planned development. The low human capital stock is a direct outcome of this neglect.

The most damaging consequence of the lack of investment in basic healthcare (that is, public health, preventive and basic curative care), school education, nutrition, and safe drinking water and sanitation in the first three decades after 1950 was that India's demographic transition to lower birth rates/death rates was much slower than it might have been. India's population grew from 350 million in 1947 to 700 million by 1981. China's population grew much more slowly from a much higher base (541.7 million in 1949) to 989 in 1981, on account of investments in basic health, school education and family planning.

Not surprisingly, India's population growth rate now (2010–11) is still 1.4 per cent pa (a rate that China achieved in the early 1980s), while that of China is 0.4 per cent. As a result, India's population will exceed that of China by 2025, and will reach 1.6 billion people by 2050, before stabilising, and then falling. Had social investments in India been on the same scale as in China between 1950 and 1980, India's population would have grown slower, and given that India's population base was much lower than that of China at the end of the 1940s, it could have stabilised earlier and hence at a lower level than China. If infant mortality is low, parents expect their children to survive childhood, and would not over-compensate by having more children than they themselves desire. This mind-set change would have lowered fertility faster. This contrast between China and India shows beyond any shadow of doubt the catastrophic consequences of the neglect of BSS for India.

The high population growth rate and the poor health, nutrition and education levels were reflected in high levels of income-poverty in a context in which GDP growth averaged only 3.5 per cent per annum over 1950–80 (see Table 1.3).

Table 1.3: Number and percentage of persons below poverty line in India (1973/4–2004/5)

Years	Rural		Urban		Combined	
		%		%		%
1973/4	261.2	56.4	60.0	49.0	321.3	54.9
1983/4	251.9	45.6	70.9	40.8	322.8	44.5
1993/4	244.0	37.3	76.3	32.4	320.3	36.0
2004/5	220.9	28.3	80.7	25.7	301.7	27.5

Source: Various National Sample Survey (NSS) Rounds (27th, 38th, 50th, and 61st)

Note: These estimates are based on a consistent method (the Lakdawala Committee), using a uniform recall period (see fn. 24), which was used until 2004–05. That method was replaced by the Tendulkar method in 2009.

1.2.1.2 Money-metric measures of poverty

The absolute number of poor: We have comparable numbers for the total number of poor based on a consistent poverty line and the same methodology from 1973 to 2005, i.e., over three decades.³⁰ Over time, while the headcount ratio of the poor fell (see Table 1.3), the number of poor barely changed over, remaining constant over two decades: 321.3 million in 1973, 322.9 million in 1983, and 320.3 million in 1993–94 and barely falling to 302 million ten years later (Table 1.3). At this rate, it would take 150 years to eliminate poverty in India. Over these two decades, India's total population increased by 54 per cent, from 548 million in 1971 to 846 million in 1991; and some could claim that it is a major achievement that the number of poor did not increase, and only remained constant. Since 1980, China has achieved, by contrast, an average economic growth rate of 10 per cent pa, and lifted 400–500 million people out of poverty (Huang, 2011).

In some states of India, the absolute numbers of the poor in the population actually increased over the three decades (1973–2005). In fact, the *geographical concentration of poverty in the country increased over the 10-year period from 1993–94 to 2004–05*. The four northern states (Madhya Pradesh, Uttar Pradesh, Bihar and Maharastra) used to account for 49 per cent of the country's total poor in 1993–94; in 2004–05, they (including Chhattisgarh and Jharkhand, which were

³⁰ The big change that occurred in India after 2005 in the method for estimating the poor was that the superior method of using a 'mixed recall period' for consumer durables (365 days) and for non-durables (30 days recall) was adopted, and the uniform recall period used till the mid-2000s was abandoned.

carved out of Madhya Pradesh and Bihar, respectively, in 2000) accounted for 58 per cent of India's total poor.

Most of the consumption poor (70 per cent) were of course in rural areas in 2005. Among the social groups, Scheduled Castes (SC), Scheduled Tribes (ST) and backward castes accounted for 81 per cent of the rural poor in 2004–05, double their share in the rural population (Working Group on Poverty, Planning Commission, 2006).³¹ The SCs/STs are concentrated in the same four states mentioned above.

The headcount ratio of poverty: India successfully reduced the share of the poor in the population by 27.3 percentage points, from 54.8 per cent in 1973 to 27.5 per cent in 2005 (Table 1.3). However, nearly 60 years after independence, over a quarter of India's population still remained poor. To make matters worse, there was growing consensus that the poverty line (₹ 356 monthly per capita consumption expenditure for rural areas and ₹ 458 for urban areas in 2004–05) in India was much too low.

When the poverty line was raised by the Planning Commission in 2011, both the incidence of poverty and the absolute number of the poor increased,³² the effects of which are visible in Figure 1.3. While the earlier poverty line was at a level below the erstwhile \$1.08 per day per capita poverty line (used in setting the MDG goal of poverty reduction) estimated by the World Bank, the current Indian poverty line is higher than the \$1.25 per day per capita now adopted as the international poverty line.³³ However, what is clear from Figure 1.3 is that the rapid economic growth in the 2000s meant that not only did the incidence of poverty fall, but the total number of poor also fell significantly.

31 In 2004–05, while the headcount ratio of the poor in the total rural population was 28 per cent, among the SCs it was 36.8 per cent. In urban areas, the headcount ratio overall was 25.6 per cent, but among SCs it was even higher than in rural areas, at nearly 40 per cent. In terms of both income-poverty and other indicators of human development (such as education and health), the STs are at the bottom. The increasing concentration of tribals among those who suffer from multiple deprivations is a matter of deep concern, since it has led to the rise of a Maoist insurgency in most of the same four states where poverty and the SCs/STs are concentrated (an issue we address in Chapter 16). Without addressing these concerns, it is impossible to achieve inclusive growth.

32 The expert group, chaired by Professor Suresh Tendulkar (Delhi School of Economics), raised the poverty line in 2011.

33 Besides, after the acceptance of the Tendulkar Committee Report, the Planning Commission has been using the mixed recall period for making monthly per capita consumption expenditure (see fn. 25 on the subject).

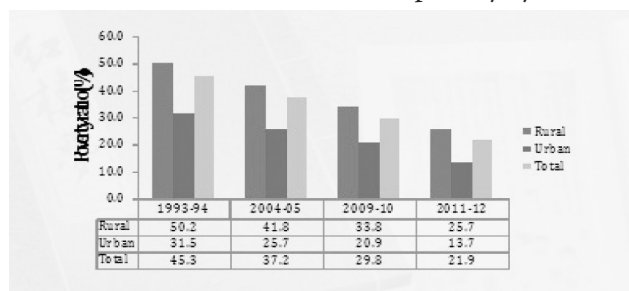
In fact, the decline in absolute number of poor of 138 million between 2004–05 and 2011–12 was unprecedented in India's post-independence history. If the global MDG goal of poverty reduction is achieved, it will be primarily on account of the remarkable reduction in absolute terms of the poor in China and India (Ravallion, 2013).

The decline in poverty (absolute numbers and incidence) is a consequence showing the macro-synergy at work.

1.2.2 Evidence on the synergy post-1980s

We have taken 1980s as a break point in the post-independence economic history of India for two reasons. The first is that the demographic dividend (i.e., a rise in the share of working age to non-working age population) begins around 1980. The second reason is that the GDP growth rate picked up markedly in the 1980s, compared to the Hindu rate of growth (3.5 per cent per annum) between 1950 and 1980.

Figure 1.3: Consistent decline in incidence of poverty by Tendulkar method



Source: India Human Development Report, 2011 update (IAMR, 2014)

India's population growth in the twentieth century was fairly in line with the classical theory of demographic transition (although the right health and education policies could have hastened the transition). The colonial period of 1901–21 could be called a period of stagnant population, with the average annual exponential growth rate being 0.56 per cent (1901–11) and 0.03 per cent (1911–21). The three decades just before independence were a period of low steady growth, with the growth rate slowly rising: 1.04 per cent pa over 1921–31, 1.33 per cent pa over 1931–41, to 1.25 per cent pa over 1941–51. As curative healthcare services improved over the first three decades after independence, a period of rapid population growth then set in: 1.96 per cent pa over 1951–61, 2.2 per cent pa over 1961–71, and 2.2 per cent pa over 1971–81.

Then starts the phase of slowing growth: 2.14 per cent pa over 1981–91, 1.93 per cent pa over 1991–2001, and finally 1.6 per cent pa over 2001–11. The declining growth rate after 1981 shows clear signs of the demographic dividend. In fact, only four states had reached the replacement fertility rate of 2.1 by 2001; by 2009, as many as nine major states had achieved replacement-level fertility rates (as we show in the India Human Development Report, 2011). The child population (0–6 year old) did not grow at all during 2001–11. The slowing population growth enabled a faster growth in per capita income.

Although the growth rate of the population slowed after 1981, the bulge has continued to increase the size of the working-age population, relative to the dependent non-working age population – this is the demographic dividend that comes but once in the lifetime of any nation.

It can be seen as a dividend in the following ways. First, it provides the nation the freedom to invest resources in physical capital, job training and technological progress, as opposed to dependent children (as detailed in most Part 1 chapters). The second result is the rise in the labour force as the children reach working age. The third is the expected rise in women's workforce that follows a fall in fertility, which normally is accompanied by a rise in GDP (an issue we return to in Chapter 4).

A fourth result is that it has the potential of raising the savings rate in the economy. The demographic dividend leads to an increasing proportion of the population joining the labour force (assuming that they do get jobs, as the workforce normally tracks the labour force numbers), earning an income, and assuming the marginal propensity to consume is less than one, saving part of their income.³⁴ This phenomenon in India has shown itself in a rise in the savings to GDP ratio from 23 per cent in 2003–04 to 38 per cent of GDP in 2007–08. There was a corresponding rise in the investment ratio over the same period, from 24 per cent to 39 per cent of GDP (as discussed in Chapter 2). This high savings and investment rate was the main force behind the rapid economic growth, averaging 8.4 per cent per annum between 2003–04 and 2011–12.

China reached the end of its demographic dividend by 2015. By contrast, India is only just beyond its mid-point. India's demographic dividend began in the early 1980s, and is expected to continue till the end of the 2030s. There is another

34 A related fifth benefit of the dividend is that there could be a greater incentive to save with greater longevity, as the latter should lead to longer periods of retirement (Bloom, 2011).

quarter of a century to realise the benefits of this demographic dividend, and if we do not ensure an employment-intensive growth (along with social inclusion) of this highly stratified society, this opportunity available for the next quarter century will never return. It is because policymakers in China and other East Asian economies took cognisance at an early stage of their demographic dividend of this historical conjuncture that they managed to ensure rapid economic growth, with fast poverty reduction.

There is evidence to suggest that the Indian economy has benefited from this dividend. Not only did the GDP growth rate improve by 2 percentage points in the 1980s, it picked up even further in the 1990s. A slowing population growth enabled per capita income (PCI) to rise at a faster rate. The turn of the millennium saw India's growth rate reach an even higher level than that achieved in the 1990s. In both the 10th and the 11th Five-Year Plan periods (2002–12), it averaged almost 8 per cent per annum. In other words, the post-1980s period can be characterised in terms of our second synergy as one of unprecedented success in terms of output growth.

There was another respect in which the post-1980s period saw significant improvement – school education. As the growth rate picked up, it generated revenues which were invested in new programmes, especially focused on elementary education.³⁵ These enabled near universal net enrolment to be achieved, at least for primary education (Class 1 to 5), by 2007.

Health-sector investments, however, did not increase significantly either during the 1980s or 1990s. The consequence was that even in 2014, health expenditure to GDP ratio in India (central and state combined) was still just 1.2 per cent, not much higher than a decade earlier. Life expectancy according to Census 2001 was still only 62 years, and IMR was 68 (2000). The relative neglect of the health sector, which had continued for the last several decades, showed in a limited improvement in the Human Development Index (HDI) between 1990 (0.381) and 2000 (0.472) of only 24 per cent (Planning Commission, 2002). That situation has shown signs of change in the 2000s, with the start of the National Rural Health Mission in 2005. Nevertheless, even the Human Development Report, 2011 (IAMR, 2011) comes to the conclusion that in 2000–08, the health

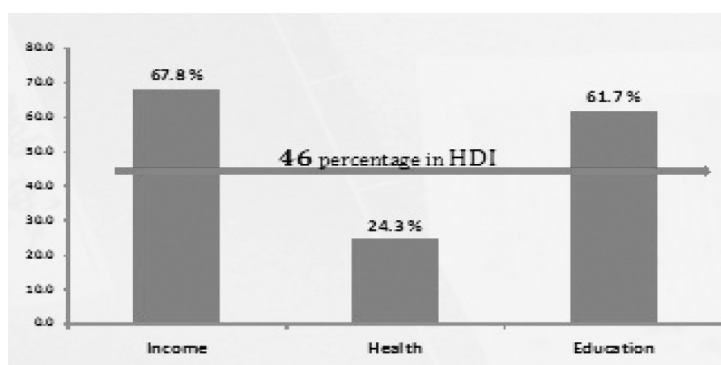
35 The District Primary Education Programme (DPEP) began in the early 1990s followed by a successor programme of the central government, Sarva Shiksha Abhiyan (or campaign to universalise elementary education).

index (one of the three components of HDI) improved only by 13 per cent, compared to the HDI's increase of 21 per cent over the same period.³⁶

However, there was a noticeable consequence of the significant increase in the growth rate of GDP in the 2000s. Thus, two major developments – the significant increases in investment in education over the 1990s and the 2000s, and the growth in income – became reflected in a significant increase in the HDI between 2000 and 2008, of 21 per cent within eight years and 46 per cent between 2000 and 2012 (see Figure 1.4).

One important dimension of the improvements in the national GDP and national education outcome index was that the GDP growth rate in the relatively poorer states improved significantly. These two facts together contributed to a narrowing of the gap in HDI across states between 2000 and 2012. Thus, inter-state disparity in HDI fell in the 2000s (see Figure 1.5). This was consistent with the fact that the ratio of the average growth rates of states with the lowest per capita income (PCI), as against those of the five highest PCI states, increased from 57 per cent over 1992–97 (8th Plan) to 94 per cent over the period 2007–12 (11th Plan) (Planning Commission, 2013).

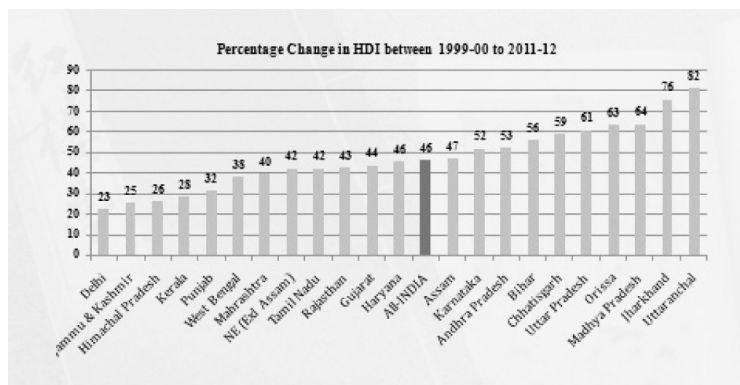
Figure 1.4: HDI change, 2000 to 2012 – income and education indices improved faster than health



Note: Income index based on consumption; but consumption on average is lower than income. Increase in HDI is over 30 per cent when income index is computed from per capita Net Domestic Product.

Source: India Human Development Report, 2011, Update (IAMR, 2014).

36 The author of this book was the team leader for the India Human Development Report, 2011 (IAMR, 2011).

Figure 1.5: HDI change, 2000 to 2012 – inter-state disparity falling

Source: India Human Development Report, 2011, update (IAMR 2014).

Another concomitant of the narrowing gap in HDI across states, and the fall in inter-state HDI disparity, was a decline in group inequalities in social indicators. The states with the lowest levels of PCI (Bihar, Chhattisgarh, Madhya Pradesh, Orissa, Jharkhand and Uttar Pradesh) were also the states which had a high concentration of the country's entire population of SCs and STs. Thus, one could argue that rapid economic growth had been accompanied by greater social inclusion to some extent (as we had argued in the India Human Development Report; IAMR, 2011).

The India Human Development Report 2011 showed that for the majority of human development indicators, the gap between SCs, STs, OBCs and Muslims on the one hand, and the national average, on the other, were narrowing, which can be regarded as a move towards social inclusion over the 2000s (see Table 1.4).

Moreover, for most human development input and output indicators, Muslims have better indicators than SCs and STs, and their improvements have led to a narrowing of the gap with the national average. Importantly, we demonstrate in India Human Development Report 2011 (IHDR, 2011) that a convergence is occurring in the human development outcome indicators of Muslims and the country as a whole – quite in contrast with what was suggested by the influential Sachar Committee (2006) on Muslims (see Table 1.5). The decline in poverty has been faster across all social groups than the national average.

Table 1.4: Human development indicators for marginalised social groups:
Gap narrowing with national average

Indicators	Convergence	Divergence
Per capita consumption expenditure	SCs	STs, Muslims
Unemployment rate	SCs, Muslims	STs
Child labour rate	SCs, STs, Muslims	
Female malnutrition (Body Mass Index <18.5)		SCs, STs, OBCs, Muslims
IMR	SCs, STs, OBCs, Muslims	
Under five mortality rate	SCs, STs, Muslims	
Total fertility rate	SCs, Muslims	OBCs
Child immunisation	STs, Muslims	SCs
Toilet facility	OBCs	SCs, STs
Literacy	SCs, STs, Muslims	
Electricity for domestic use	SCs, STs, OBCs	

Source: India Human Development Report, 2011

Note: SCs = Scheduled Castes; STs = Scheduled Tribes; OBCs = Other Backward Classes/Castes; IMR = Infant mortality rate

Table 1.5: Comparing two studies on Muslims: Sachar Committee Report and India Human Development Report, 2011

Sachar Committee on Muslims	IHDR 2011 on Muslims
Published in 2006 , uses data points till 2004–05	Published in 2011 , uses data points till 2011
IMR, USMR both decreasing: Divergence between national and Muslim ageage (1992–93 – 1998–99)	IMR, USMR decreasing; Convergence between national and Muslim ageage (1998–98 – 2005–06)
Muslim Underweight children <i>worse</i> than national average (1998–99)	Muslim Underweight children <i>better</i> than national average (2005–06)
Muslim fertility rate higher than national average by 0.7 in 1992–93. The difference increased to 1 in 1998–99.	Muslim fertility on average higher than national average by 0.4 in 2005–06 and converging
Muslim Literacy rates in rural (6% points) and urban areas (10% points) below the national average in 2001	Muslim literacy rate converges with national average in 2007–08, i.e., gap narrow: rural (3.5% points) and urban (8.5% points)
1. Gaps narrowing b/w Muslim and national average i.e., improving conditions of Muslims. 2. Muslims are consistently better than SCs & STs for all HD indicators 3. Muslims absolute level still lower compared to national average (except IMR, USMR)	

Source: Sachar Committee Report, 2006; Institute of Applied Manpower Research, 2011.

There is an important point to be noted about these two trends we identified in IHDR, 2011 – the trend towards the narrowing of the gap between human development indicators of the marginalised vis-à-vis the rest of the population, and the growing convergence in the HDI across states, with inter-state disparity in HDI falling. The fall in inter-state disparity in HDI is in fact partly the result of the following salient demographic phenomenon: a very high proportion of these marginalised groups like – SCs, STs and Muslims – happen to be concentrated in the very states that are relatively poorer in income terms, and have historically had poorer Human Development outcome indicators.

1.2.3 Human capabilities and income poverty: Challenges to realising the macro-level synergies

In the 2000s, clearly economic growth has been accompanied by social inclusion. Moreover, after 2004–05, the absolute numbers of the poor fell dramatically (by the Tendulkar and the global poverty line) by nearly 140 million – an achievement of staggering China-like proportions. Despite these significant improvements, the policy challenges that remain are daunting, as we will now discuss. The rest of this book is founded upon the institutionalist political economy approach that argues that the most important explanation for the differences in income across countries is the difference in their economic and social policies and their institutions (Olson, 2002).³⁷ It is not just that mistakes in policy were committed in the first three decades after independence. Making the task even more daunting is the fact that India's institutions (judiciary, civil service, federal-state-local government relations) are not changing/reforming. Yet time is running out, as the demographic dividend will be with us only till about 2040 or less, i.e., for just a bit over two decades more. The problems with social policy and the anti-poverty programmes have to be addressed within the next five years at most, if the full benefits of the demographic dividend are to be reaped over the following two decades. Despite some synergies having been triggered post-1990, most are still not being realised, and without them, inclusive growth is not possible.

A growing domestic market requires, first, rapid growth in agriculture and a fall in the relative price of food (discussed in Chapter 3). Second, it requires non-

³⁷ While Olson (2002) sets out a purely institutional approach to economic/social development, Chang (2003a, 2003b) and Harris-White (2003) take a more political economy approach, founded upon an understanding of institutions.

agricultural employment growth. While an increase in the share of the secondary and tertiary sectors in output has been noticeable, a shift in the structure of employment, though occurring, is not fast enough to realise the demographic dividend (see chapter 2 and 4).

Third, inclusive growth is not possible without radical change in the structure of public finance. Public expenditure on human capital formation and social security cannot increase without increasing tax/non-tax revenue to GDP (Chapter 5) since the current structure of public expenditure has remained locked into a pattern of inefficiently designed, untargeted subsidies (see chapter 3, 10 and 14).

Fourth, many serious problems remain with respect to the third pillar of the macro synergy: human capital formation (Part 2 of the book). Cognitive skills remain poor on account of continuing problems in schooling (Chapter 9). If foundational skills in 6–14 year old school children do not improve rapidly, their ability to acquire non-cognitive skills (i.e., soft skills like team work, communication, or transferable skills like computer literacy) then their ability to acquire vocational or technical skills is compromised. Only 2 per cent of the workforce have formally acquired vocational skills. Another 8 per cent have skills acquired informally on-the-job (see chapters 6 and 7 for further discussion).

The urgency for triggering the synergies between social investment (synergy 1) is greatest in the northern and eastern states of India. However, the health and nutrition status (Chapter 10) directly impact learning outcomes (Chapter 9), and are indirectly impacted by the state of environmental sanitation (Chapter 11). Without massive new financial investment and design changes in programmes, examined in all three chapters, the desired outcomes will not be realised.

Inclusive growth is also not possible without anti-poverty social protection programmes significantly expanding their coverage (Part 3). In fact, social insurance (Chapter 13) is nearly absent in the policy arsenal of the state, despite the fact that 93 per cent of all workers only have informal employment (if all agricultural workers are included). Moreover, India is unique among emerging market economies and middle-income countries in having hardly any basic income or cash transfer programmes (Chapter 14), another lacuna in the policy arsenal to achieve inclusive growth.

Finally, triggering both the synergies – but especially among the social policy inputs – requires a serious overhaul of governance (Part 4). We set out a model of deep democratic decentralisation that has been demonstrated to work (Chapter 15), and also make a strong case for fiscal decentralisation, on

theoretical and empirical grounds. The empirical evidence is the success of another major emerging market economy (China), as well as the industrialised countries (Chapter 4).

The most excluded in Indian society are the tribal populations of eastern and central India, so much so that there has been a resurgence of extremist (a euphemism for Maoist Naxalite) violence in 90 of India's 641 districts (Chapter 16); this is by far the most serious failure of governance in India's history. Inclusive growth in these regions is not possible without ensuring social justice for the tribal; nor can the minerals in these regions ever be mined without such social justice.

1.3. Concluding Remarks

This book is more than an empirical critique of India's development with specific policy implications. It presents the case for a different theoretical vision built by linking in a novel way different strands of literature which usually do not overlap, such as: the capabilities approach (which is different from the human capital perspective, while incorporating it), the neo-structuralist ideas on open economy macro-economics, evolutionary and complex systems thinking on economic growth, post-Keynesian views on fiscal policies, and institutional models on participation and incentive structures.

These theoretical ideas can be contrasted with those that usually underpin traditional policy advice: abstract separation of economics from its institutional foundations in politics and society; super-rational individuals who maximise their own (and only their own) utility over an infinite time span; money-metric and profit measures as the main indicators of efficiency, or well-being.

As a theoretical construct, the notion of the dual synergies needs to be distinguished from some antecedents along similar lines in the development economics literature. First, the synergy notion has to be distinguished from the concept of linear stages of development, characteristic of the writings of Rostow ([1959] 1960). Instead, development proceeds along a non-linear path, where different interventions and outcomes are enmeshed in virtuous or vicious cycles (Taylor et al., 1997).³⁸

38 It should also be distinguished from Kuznets' notion of linear stages of development, i.e., that the relationship between income inequality and per capita income may be described by a curve (an inverted U), with an upward phase in which income inequality increases with increases in per capita income, and a downward phase in which income inequality declines with increases in per capita income. Rather, the notion of the second synergy is

Second, following the classical development theorists who recognised that long-term economic growth is a highly non-linear process, our dual synergy model is similar to the Rosenstein-Rodan (1943) idea that posited the need for a government-financed series of interdependent investments, to take advantage of external economies and economies of scale and propel developing countries from a low-level equilibrium trap, with limited growth of per capita income, to a high-level equilibrium path, characterised by self-sustaining growth. In the view of the classical development economists, endorsed here, development could not be induced by a minimalist state.³⁹

Third, our theoretical construct also draws strongly upon the literature of the last two decades, which emphasises the positive externalities in interventions in health, education and family planning. Our main criticism of the notion of externalities is that it does not capture fully the feedback effects from human development outcomes back to social service inputs, and the virtuous cycle from inputs to outcomes in an upward (or downward) spiral. Finally, our dual synergy construct is grounded in the capability approach, especially its emphasis on women's agency, – particularly in the version now associated with the work of Amartya Sen and Martha Nussbaum. With Sen and Nussbaum, we strongly believe that women's agency is critical to triggering the first set of synergies.⁴⁰

One policy implication of the dual synergy theoretical framework is that if economic growth remains, as it has in the past (and not just among Indian policymakers), as the dominant objective with macro-economic policy determined first, while 'social policy' is residual or is expected to address the social

built upon more recent theoretical and empirical literature, which has demonstrated the benefits for growth of low levels of income inequality (Birdsall and Londono, 1997) and poverty (Ravallion, 2012).

39 However, we should also note the difference between Rosenstein-Rodan and us. Most classical development economists argued that, in the absence of private entrepreneurship, governments would have to continue to perform the entrepreneurial job while at the same time fostering the development of a cadre of private entrepreneurs able to take over (Adelman, 2000). That entrepreneurial role of the state in productive activities or the service sectors in areas that are not natural monopolies must be quite restricted, in our view. There has been much evidence of government failure in most low and middle-income countries over the past half-century in such activities to leave much ground for optimism. On the other hand, for successful models of industrial policy, for example, in East Asia, see Wade (1990) and Amsden (1989).

40 For an analysis of why women's capability-enhancement is a necessary condition for triggering the second synergy as well, see Mehrotra (2013). See also the brief introduction to the argument in Chapter 8.

consequences of economic policy, this synergy will not be realised. This is one of the major respects in which our argument differs from one based on orthodox economics – which has remained bound up within a utilitarian approach, with command over commodities as the basis of human satisfaction. Our dissatisfaction with a utilitarian approach is a major reason why we espouse the capabilities approach, since within the latter the distinction between the ‘economic’ and the ‘social’ discourse disappears. The capabilities of humans have intrinsic value; they also have instrumental value in enabling social and economic change (Sen, 2000). The dual synergy theoretical framework is an attempt to use the capability approach to provide a conceptual basis for development policy, in other words, operationalise the capability approach.

This is not the only way our theoretical framework differs from the approach of mainstream thinking in development. A second respect in which it differs is the degree to which it places emphasis on gender equality, as the cornerstone of development strategy and policy, and as a guide for evaluating ‘good’ government. Women’s capabilities and their agency are not merely additional variables to take into account in our alternative framework; they are among the most critical variables. This is because, unlike in a comparable historical period in the now industrialised countries, contemporary developing countries will be unable to structurally transform their economies and society without much greater gender equality. Hastening the demographic transition and reducing the fertility rate is the flip side of increasing per capita income; and greater gender equality is an instrument of reduced fertility.⁴¹

A third respect in which it differs is that it is not merely an aid to policymaking. In other words, it is not just a framework for a development strategy, but also a diagnostic framework for analysis, to understand the economic and social circumstances of different countries (or states of India). It is a conceptual tool-kit for explaining failure in human development outcomes, and also for explaining success. We attempted to understand the positive experiences of the now industrialised countries or that of the high-achieving among the high developing countries within this dual-synergy framework (Mehrotra and Delamonica, 2007); we now do the same in this book on India.

It is as a diagnostic framework that we have used this theoretical framework in this chapter. We have argued that India’s development strategy until 1980 failed on all three counts: low economic growth contributed to the high incidence of

41 See Mehrotra, for an elaboration of this argument.

poverty, which probably grew between 1950 and 1974. Over half of the nation's population was poor in 1973–74, even though India's poverty line itself was a destitution line. Even thereafter, a very slow reduction in poverty took place, so that population growth resulted in the absolute number of the poor remaining constant over a 30-year period.

However, there was an even larger failure – which shows India's policy failures in even starker light – the failure to realise what we called in this chapter the first synergy. The result is that in terms of the status of the health, educational and nutritional level of the population, India inherited a huge backlog, and by comparison with China, India was at least two decades behind. Thus, when the economic reforms began in 1991 and the economic growth rate increased, the majority of the population (not just the poor) was, in terms of human capital, in a disadvantageous (relative to the Chinese population) position to take advantage of the opportunities created by rapid growth.⁴²

In other words, unless there is a change in the growth strategy and its employment elasticity, as well as significant new investments in interventions that promote the first synergy that will lead to a quantum jump in the human capital of the bottom deciles of the population, there is a risk that India will miss the demographic dividend. The majority of East Asian countries rode the wave of their demographic dividend, and achieved (more or less) inclusive growth. The Latin American countries, on the other hand, missed out on taking advantage of their demographic dividend when it came. The question that faces policymakers in Indian states and central government is whether they will take all the visionary actions necessary to ride the wave of the demographic dividend or not.

42 The fact is that there are many economists who think there is a linear relationship between economic growth and human capital formation (Deiningner and Squire, 1996; Bruno, Ravallion Squire, 1996; Aiyar, 2013). Aiyar (2013) thus argues: '[Amartya] Sen loves to emphasise that for any given GDP growth, better social investment will improve outcomes. Why not equally emphasise that for any given level of social investment, faster growth will also improve outcomes and reduce death?' Aiyar (2009) has calculated elasticities, i.e. the rate at which infant mortality, literacy and poverty had changed with economic growth in India. Using these elasticities, he calculated what social outcomes might have been if the economic reform process in India and faster growth had begun in 1971 (rather than in 1991, when it did). Calling his results startling, he finds that 'with faster growth, infant mortality would have fallen much faster (between 1971 and 2008, 14.5 million infants would have been saved from death), literacy of 100 per cent would have been achieved by 2007 and an additional 109 million people would be below the poverty line'. Aiyar clearly misses the complexity of the relationships that underlie these processes, which reinforces our notion of the synergies.

Like Bhagwati and Panagariya (2014), we believe there is ground for optimism. India's growth rate may well exceed that of China starting in 2016, as the Chinese economy slowed, China reached the end of its demographic dividend by 2015, while India still has a quarter of a century remaining before it becomes an aging society. Poverty fell rapidly post-2004–05 in India, and as we argue in the next few chapters, India is past its Lewis-ian turning point. We have noted above that with rapid economic growth there has been commendable social inclusion with poverty reduction at least as fast as in China (Bhalla, 2013).⁴³ Non-agricultural jobs are growing at least as fast as the labour force is growing. The remaining challenges are many, but as we discuss in the remaining chapters, the policies to achieve inclusive growth are within our grasp.

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43 For a contrary view, see Patnaik (2013)

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Sustaining Economic Growth

2.1 Introduction

India's GDP growth has been on a rising trend since the early 1980s, after it broke away from the Hindu growth rate of 3.5 per cent per annum experienced between 1950 and 1980. In 2007, India graduated from being a low-income to a low-middle income country (according to the World Bank classification). In fact, India's recent GDP growth (see Table 2.1) has resulted in a dramatic decline in the absolute numbers of the poor, from 406 million in 2004–05 to 268 million in 2011–12 (as discussed in Chapter 1). However, in 2012–13 (the first year of the 12th Plan), the GDP growth rate fell to 5.5 per cent per annum, and further to 5 per cent in 2013–14.¹ In fact, it resulted in the Planning Commission lowering its target for the 12th Plan period (2012–17), from 8.2 per cent per annum to 6.5 per cent per annum.²

Since inclusion itself is dependent upon sustained GDP growth over the long term, this chapter focuses on the prospects for sustaining growth over the medium term. As argued in chapter 1 there is a mutually reinforcing relationship between reduction of poverty, enhancement of human capabilities and sustained economic growth. The historical evidence from East Asia is that Japan, South Korea and Taiwan sustained rapid economic growth over at least a 15–20 year period, enabling them to move into the high-income category. China's poverty reduction has been very successful, precisely because, unlike any other country in the world, it has sustained GDP growth in excess of 7 per cent annually over 30 years between the early 1960s and the early 1990s (Lin, 2012).³ Of the countries that were independent and had middle-

1 Table 2.1 reports GDP data at factor cost. However, in 2015 the Central Statistical Organization began reporting data at market prices, which is the international norm. In addition, the CSO improved its coverage of manufacturing data.

2 The Planning Commission's successor organisation, the NITI (meaning 'policy') Aayog (Commission) is unlikely to raise this target.

3 Since 1998, China has averaged 10 per cent per annum until 2010, never dipping below

income status in 1960, almost three-fourths *remained* middle-income or had regressed to low-income by 2009 (Lin, 2012).⁴ The World Bank estimates that only 13 out of 101 middle-income countries in 1960 had become high-income economies in 2008. Given the recent decline in GDP growth rates in India, the legitimate question is: Is India going to avoid the middle-income trap, unlike most Latin American economies, which have been stuck in that trap for at least a quarter century?⁵

Table 2.1: Growth performance in the Five-Year Plans
(percentage per annum)

Sl. No.	Plan period	Average GDP growth
1	First Plan (1951–55)	3.5
2	Second Plan (195–60)	4.2
3	Third Plan (1960–65)	2.8
4	Annual Plan (1966–68)	3.9
5	Fourth Plan (1969–73)	3.2
6	Fifth Plan (1974–78)	4.7
7	Annual Plan (1979–80)	-5.2
8	Sixth Plan (1980–84)	5.5
9	Seventh Plan (1985–89)	5.6
10	Annual Plan (1990–91)	3.4
11	Eighth Plan (1992–96)	6.5
12	Ninth Plan (1997–2001)	5.5
13	Tenth Plan (2002–06)	7.7
14	Eleventh Plan (2007–12)	8.0
15	Twelfth Plan (2012–17)	8.0

Source: Planning Commission, Five Year Plans, various issues.

8 per cent despite a global economic crisis.

- 4 Lin (2012) also notes that the ones that graduated to high-income status are countries in Western Europe, Japan, Republic of Korea, Taiwan and two island economies in Latin America (Barbados and Trinidad and Tobago).
- 5 Between 1960 and 2009, only about one-third of low-income countries reached at least middle-income status – India is one of them.

At the moment, this question may be premature. Given that India became a low-middle income country only in 2007, its short to medium-term objective must be to grow into upper-middle income status; high-income status is at least a quarter century away in the best case scenario (ADB, 2009). Moreover, growth slowdowns at the middle-income level tend to happen at the upper-middle income level, when the pool of transferable unskilled labour runs out, so that productivity growth due to shifting additional workers to industry from agriculture and from technology catch-up declines.

The first stage of growth from low to middle-income, and even to upper-middle income status, is driven by a reserve army of surplus labour and high rates of investment. But maintaining growth towards the high-income level will require raising total factor productivity, which in turn requires abundant human capital and managerial/technological resources – challenges that India is already facing. India, like other middle-income countries, is also being squeezed between industries dominated by the low-wage poor country competitors and industries dominated by rich countries seeing fast technological shifts.

This chapter is organised as follows. Section 2.1 examines the steps required to sustain growth in a developing country in a new structural economics framework. Within this theoretical framework, the chapter discusses for India the various determinants of growth: savings (section 2.2); investment (section 2.3); macro-economic management (section 2.4); the broad policies related to industry and service sectors to sustain growth (section 2.5); and finally, the institutional changes needed to underpin growth (section 2.6). However, *we should emphasise that this chapter and the next two should be read together, since they spell out a strategy for sustained GDP growth that can be inclusive.*

Within a broad theoretical framework of new structural economics, the chapter argues that to achieve sustained growth, a developing economy should focus on industries according to its comparative advantage, itself determined by the country's endowment structure, and draw upon the potential advantages of backwardness in upgrading its industry. Following Lin (2012), we argue, based on new structural economics, for India's policymakers to adopt a growth identification and facilitation framework, that recognises the country's comparative advantage, which is intrinsically dynamic, and changes over the growth process as an economy's structure moves up the value-added ladder.

Equally importantly, the chapter argues, like Romer (1992), that sustained growth through structural transformation and the diffusion of ideas and

accumulation of knowledge will only happen as the country finds better forms of government interventions. Research findings suggest that to sustain growth requires government interventions that have better economic effects and pose fewer political and institutional risks than hitherto, a fact that Indian political and administrative policymakers should ponder over.

Countries remain stuck at the middle-income level on account of institutions and policies that lead to volatility in growth (rather than sustained high growth). This volatility in Latin American economies contributed to their remaining at middle-income status; India is running that same risk of volatility in growth, and it is same risk that India needs to avoid.

2.2 Growth and 'New' Structural Economics

In the first phase of the evolution of development economics (which began after World War II), many economists emphasised the importance of structural change, and argued that structural differences between developed and developing economies were the result of market failures. They suggested government interventions to promote structural change through import substitution should give emphasis to modern industries, and in India, focus upon heavy industries. They used Keynesianism as the intellectual foundation for their emphasis. India's Second Five-Year Plan, borrowing from what was then believed to be the success story of Soviet economic development, adopted a strategy that not only focused on import-substituting industrialisation, especially investment in the production of capital goods, but also protective measures like quantitative restrictions on imports and exchange controls to manage the balance of payment.

This was a strategy not very different from that adopted in most of Latin America around the same time, and later also in Africa. However, the results were not promising. Over the entire period of the first five Plans, the GDP growth rate average was 3.5 per cent per annum (1950–80). This outcome was not very different from any Latin American and African country (with some exceptions—for example, for Brazil, 1974–82; see Robinson, 1982). The gap in per capita income between India (and other developing countries) and the industrialised countries increased.

Starting in 1980, there was a new wave of literature that focused on government failures (as opposed to market failures). Rational expectations theory became the dominant theoretical framework for development. It attempted to counter

the structuralists' theoretical foundation for the state's role in fiscal, monetary and trade policy for economic growth. Led by the IMF and the World Bank, it adopted a different approach to economic development. Although the language used was 'structural adjustment', the macro-economic stabilisation and structural 'adjustment' policies that emerged – which Williamson (1989) termed the 'Washington Consensus' – was far from structural. This thinking emphasised getting the prices right, strengthening the institutions necessary for markets to function well (property rights, good governance, business environment), and building human capital. The positive outcome of these policies for growth was again limited, as in the case of the first wave of development economics theory. In fact, there emerged a literature, in response, which argued that those countries in the second half of the twentieth century that did not adopt the dominant development thinking of either the first or the second wave of development economics theory were the ones that were most successful in ensuring both growth and human capital development (Rodrik, [2002] 2004; Hausmann, Rodrik and Velasco, 2005; Lin, 2009).

This new structural economics (NSE) postulates that if a country wishes to upgrade its industrial structure, it will need to upgrade its factor endowment structure. A low-income country is relatively well-endowed with labour and natural resources, and changing the endowment structure requires movements towards relative abundance in capital, introduction of new technologies, and accompanying improvements in infrastructure to facilitate growth. As Lin (2012) notes:

[T]he new structural economics argues, that the best way to upgrade a country's endowment structure is to develop its industries in any specific time according to comparative advantage determined by the given endowment structure at that given time. The economy will be the most competitive, the economic surplus will be the largest and the capital accumulation and the upgrading endowment structure will be the fastest possible (5–6).

At the same time, upgrading the industrial structure requires improvements in infrastructure, which in turn requires coordination and compensation for externalities generated by private enterprises when they invest in such infrastructure. Economic growth will be slow if the government fails to facilitate structural change through coordination. We will use this theoretical framework to assess the failure in India's growth strategy.

A successful industrial policy should identify sectors in which a country has latent comparative advantage. The comparative advantages are, by definition, dynamic and change during the growth process, as the economy moves up the value-added ladder. Lin (2012) suggests that there are six steps in this process:

- The first step is identifying tradable goods and services that were growing rapidly for about 20 years in high-growth countries that have a similar endowment structure, but have a per capita income level which is about double that of a given country. A country that has grown fast for 20 years may have begun to lose its comparative advantage in certain goods and services. This opens up space for new countries with lower wages to enter and to compete in the same industries, as in the 'the flying geese' model. For India, following China would be appropriate, since China is moving up the value-added ladder, and will vacate millions of jobs in more labour-intensive manufacturing sectors.
- Among the identified industries, the government may give priority to those that a few domestic private enterprises have already entered. The government could then identify the factors preventing these firms from upgrading the quality of their products, or limiting other firms from entering. The government should then implement policies to remove those binding constraints.
- Some identified industries may be totally new to national firms. The government should encourage specific measures so that high-income country firms invest in these industries. For this purpose, high-income country firms will be incentivised to take advantage of lower labour costs. The government will need to also facilitate the entry of private domestic firms into such industries.
- Developing country governments should also support successful innovations by domestic enterprises, so that those can be scaled up.
- A poor business environment and inadequate infrastructure is normal to developing countries. Most countries will be unable to make improvements for the whole economy on account of budget capacity limitations. Hence, the government should focus on improving infrastructure and the business environment in an industry park or an export processing zone. Such industrial clusters should be facilitated by improving the specific requirements of the targeted industry. India has a cluster development programme for micro, small and medium enterprises, but it is not very successful. It has also encouraged Special Export Promotion Zones (SEZs) with limited success, at least in comparison with China.

- The government should provide limited incentives (tax holidays or preferential access to credit and foreign exchange) to domestic firms or foreign investors that invest in the list of industries identified in step 1. However, the firms in targeted industries must be able to survive in a competitive market. Care should be taken that incentives not be in the form of monopoly rent, high tariffs, or merely using the land made available for industrial use for alternative commercial/residential real estate development. For example, in India the last has happened in the case of SEZs, while the first two were normal for 30 years, all the way till the 1980s.

Following classical economists, this approach conceptualises a country's endowments as including land (or natural resources), labour and capital (physical and human). It also adds infrastructure as a component in a country's endowments. Infrastructure is both hard (highways, ports, airports, telecommunication systems, electricity grids, public utilities) and soft infrastructure (institutions including bureaucracy, regulations, social capital, and value systems). Both impact the individual firms' transaction cost and the marginal rate of return on investment.

When firms in a developing country move up the industrial ladder in the process of economic development, they also increase their scale of production; this is because of the indivisibility of capital equipment. Unfortunately, there are too many constraints in India upon firms growing and increasing their scale of production (see the discussion on the 'missing middle' in Indian industry in Chapter 4, and Mehrotra et al. 2014). Their firms become bigger, need a bigger market, and thus they require more power, finance, and other soft infrastructure. If infrastructure is not improved simultaneously, the process of upgrading industries faces the problem of x-inefficiency (Leibenstein, 1957).

One of the main differences of this NSE with the old structural economics (for example, Prebisch, 1950; Rostow, 1960; Gerschenkron, 1962; Furtado, 1964) is that under the latter's influence, many former socialist and developing countries failed to achieve dynamic growth. This was because they attempted to defy the comparative advantage determined by their endowment structures while focusing on capital-intensive heavy industries, even though capital was scarce in their countries. As a result, most developing countries – including India – had to offer protection to many non-viable firms.

In line with the new structural economics, the Growth Commission (2008) identified some distinctive characteristics of 13 high-growth economies that grew

at over 7 per cent per annum for periods of more than 25 years since 1945.⁶ It points to five items of resemblance among these very successful countries:

- high saving and investment rates;
- macro-economic stability;
- openness to the global economy;
- reliance upon market forces in the reallocation of capital and labour from sector to sector; and
- a stable investment environment that requires effective, pragmatic and activist governments.

The Growth Commission also points out a series of ‘bad ideas’ that policymakers must avoid in their efforts to achieve growth: (a) subsidising energy; (b) reducing infrastructure investments to cut fiscal deficit; (c) giving open-ended protection to domestic firms; (d) imposing price controls to reduce inflation; (e) measuring educational progress through infrastructure; or (f) permitting the exchange rate to appreciate excessively. As we will discuss, Indian policymakers have practised a, b, c, d, and e at different points in time, and many of them are still in currency (especially a, b, d, and e).

2.3. Raising the Savings Rate

Consistent with the Harrod-Domar model and in consonance with the Growth Commission’s finding, in this and the next sections we focus on India’s savings and investment rates. As Table 2.2 shows, gross domestic savings as a share of GDP has grown by three times between 1950–51 and 2011–12. In the four decades to 1990–91, it had grown to 22.9 per cent of the GDP. The pace had begun to pick up after 1980–81, but had reached only 23.8 per cent of GDP by 2000–01. Since then, until the year of the global crises (2007–08), it rose remarkably to 37 per cent. It has since fallen to around 30 per cent of GDP, as the economy slowed down. This is an underlying determinant of the falling investment and hence the growth rate, both of which obtained over 2012–14. What must happen for the savings rate to go back up again?

6 The 13 countries examined were: Botswana, Brazil, China, Hongkong (China), Indonesia, Japan, Korea, Malaysia, Malta, Oman, Singapore, Taiwan (China), and Thailand.

Table 2.2: Gross domestic savings and gross domestic capital formation
(as per cent of GDP at current market prices)

Year	Gross domestic saving				Gross fixed capital formation		
	Household sector	Private corporate sector	Public sector	Total (2+3+4)	Public sector	Private sector	Total (6+7)
1	2	3	4	5	6	7	8
1950–51	6.5	0.9	2.1	9.5	2.5	6.8	9.3
1960–61	6.8	1.6	3.2	11.6	6.8	6	12.8
1970–71	9.5	1.4	3.4	14.3	5.8	7.9	13.6
1980–81	12.1	1.6	4.1	17.8	9.1	8.8	17.9
1990–91	18.5	2.6	1.8	22.9	10.2	13.6	23.8
2000–01	21.4	3.7	-1.3	23.8	6.7	16.1	22.8
2001–02	23.2	3.3	-1.6	24.9	6.8	18.3	25.1
2002–03	22.3	3.9	-0.3	25.9	6.6	17.1	23.8
2003–04	23.2	4.6	1.3	29	6.7	17.9	24.6
2004–05	23.6	6.6	2.3	32.4	6.9	21.8	28.7
2005–06	23.5	7.5	2.4	33.4	7.3	23	30.3
2006–07	23.2	7.9	3.6	34.6	7.9	23.4	31.3
2007–08	22.4	9.4	5	36.8	8	24.9	32.9
2008–09	23.6	7.4	1	32	8.5	23.8	32.3
2009–10	25.2	8.4	0.2	33.7	8.4	23.3	31.7
2010–11	23.5	7.9	2.6	34	7.8	24	31.7
2011–12	22.8	7.2	1.3	30.8	7.4	23.2	30.6
2012–13	21.9	7.1	1.2	30.1			31.4
2013–14	18.2	10.9	1.7	30.6			29.7

Source: Ministry of Finance, *Economic Survey*, various years.

Note: Figure for 2013–14 are not strictly comparable with earlier data as a new series (base 2011–12) started from 2012–13

To answer that question, it is useful to examine India's domestic savings by its components: households, corporate, and government savings. This approach enables us to trace the changing composition of Indian savings, and assess the scope for a future rise. The household sector's savings rate tripled in 50 years,

between 1950–51 to 2000–01, from 6.5 per cent of GDP to 21.4 per cent. However, since then it has risen only very slowly, and in 2011–12 it stood at 22.3 per cent. A consumption boom has been driven by the growing size and incomes of the middle class, which has contained the household savings rate to GDP ratio. The sharp rise in the total savings rate over the past decade is accounted for mainly by the corporate and the public sectors. Thus, corporate savings rose from 3.7 per cent of GDP in 2000–01 to a peak of 9.4 per cent in 2007–08, before falling to 7.2 per cent in 2011–12. The improvement in the public sector's savings rate is also notable: it went from being negative in 2000–01 to positive 5 per cent of GDP by 2007–08, before plummeting again.

How important the savings rate can be for the growth rate of the economy can be demonstrated by the fact that in China, the savings to GDP ratio was 36.4 per cent in 1992 and remained stable until 2000, when it was still only 37.3 per cent of GDP. In other words, throughout the 1990s it was already at a level that the Indian economy achieved at its peak in 2007–08. Since 2000, the Chinese savings rate shot up to 53 per cent of GDP by 2008. Comparing China's national savings by its components with that for India, it is noticeable that as a percentage of GDP, households' savings in China are actually comparable or slightly lower than in India over the 2000s, and through the 1990s they were comparable to that of India.

The biggest difference between Indian and Chinese savings rates is accounted for by corporate and government savings performance. In particular, between 1990–2008 the lowest rate in China of corporate savings as a per cent of GDP (11.7 per cent in 1992) was still higher than the highest achieved by the Indian corporate sector (9.4 per cent of GDP in 2007–08). Between 2000–08, the corporate savings to GDP in China rose to a range of 16.5–23.5 per cent of GDP. However, even government savings behaviour in China outperforms that of the Indian government: government savings in China between 1992–2008 were in a range of 2.5–11 per cent of GDP. By contrast, the best performance ever achieved by the Indian public sector was a savings rate of 5 per cent of GDP in 2007–08, and in normal years it was well below that (see Table 2.2).

What is notable is that the overall savings rate, which had increased sharply in India from 2002–03 until 2007–08 (to 37 per cent of GDP), went down to 31 per cent in 2011–12. The corresponding fall in the investment rate is what underlies the decline in the GDP growth rate (in 2012–13 and 2013–14).

Savings, especially household savings, and interest rates are connected. The inflation rate (discussed in section 2.4), which had been in the 5–6 per cent pa range till the global crisis, rose to 9–10 per cent pa over the period since then. As

a result, the real interest rates became negative for households who contribute the largest share of bank deposits. The result is that households began deploying a larger proportion of their savings into gold and other real assets (for example, real estate), rather than bank deposits. In fact, gold imports (India is the second largest importer of gold in the world, after China, mainly as biscuits or jewellery) surged as a result, worsening the current account deficit. One should note that financial savings were rising in the five years to 2007–08, when the inflation rates prevailing were 5–6 per cent pa. However, household physical savings went up from 2007–08 (11 per cent of GDP) to 15 per cent in 2012–13 when the inflation rate increased. Without sustained control over inflation, household savings rates may not bounce back up if real interest rates remains negative.

The poor treatment of households occurred also due to financial savings being captured by banks who put them into low-yield government bonds (for example, one-fifth of bank deposits are compelled to be put into government bonds, which reduces the deposit interest rate for households). Shah (2015) rightly suggests that the Ministry of Finance needs a public debt management office for its investment banking, which should make it possible to scale down forced investment in government bonds by banks, insurance companies, pension funds, and thus reduce the fear of households about returns. But equally, financial savings need an alternative to bank deposits, since banks are only able to give short-dated loan. On the other hand, pension funds (for example, EPFO, NPS), insurance companies, and mutual funds will invest household savings in long-term debt/equity. This requires a bond market.

Corporate savings, along with government savings, had been a driving force behind rising savings to GDP ratio until 2007–08. To the extent that rising input costs cannot be passed on to consumers, corporate savings have been affected by falling profits, as not all increases of input costs get passed. Rising interest rates (a monetary policy response by the RBI to control inflation) for corporates also affected input costs. However, corporates also turned to cheaper non-bank sources of debt financing, instead of borrowing from banks. Under the circumstances, cutting interest rates would weaken the transmission mechanism of monetary policy. Thus, cutting the inflation rate and sustaining low rates becomes an over-riding goal if the corporate savings rate is to be restored, and if private investment is to rise.

Government savings fell post the 2007–08 crisis for two reasons: one, the fiscal stimulus as a counter-cyclical measure to prevent the Indian economy from going into a tail-spin was too large, raising the fiscal deficit from 2.5 to 6 per cent

of GDP in one year; two, the quality of government expenditure in the stimulus was questionable (with government consumption expenditure rising from 11.9 to 14.1 per cent of GDP, and government investment falling as a share of GDP from 2.4 per cent in 2007–08 to 1.8 per cent over the next two years). Fiscal consolidation thereafter did enable capital outlays to rise, with infrastructure-related investment increasing. However, a tenet of new structural economics would be that in a recession, infrastructure investment should increase as a counter-cyclical measure, especially since the first-year as well as long-run multipliers of government investment are greater than unity. Thus, sustained GDP growth requires fiscal consolidation, especially in respect to government consumption.⁷

One structural means of raising the household financial savings rate would be to ensure banking services to the entire Indian population, i.e., financial inclusion. If 55 per cent of the rural population and 45 per cent of the urban population do not have a bank account, and if they have financial savings (as a section of at least the non-poor must), where will they put those savings? Given that the headcount ratio of poverty was 22 per cent in 2011–12, it will be surprising if those above the poverty line have no financial savings. This suggests that non-bank financial institutions are garnering these savings.⁸

Of India's 628,000 villages, only 268,000 have access to formal financial services. Fortunately, the Unique Identification (UID) project has already covered nearly 900 (by 2015) million Indians and expects to complete the task of issuing a unique identity card/number (like the Social Security number in the US) to the rest of the country by 2016. By linking UID numbers to Know Your Customer norms, the RBI has already paved the way for universalising bank accounts, thus removing one of the most important barriers to financial access (RBI, 2014).

2.4 Increasing the Investment Rate

Sustaining the investment rates achieved in the six years preceding the global crisis of 2008 will be critical to sustaining the GDP growth rate. Table 2.2 shows

7 This is recurrent expenditure, termed 'revenue expenditure' in Indian fiscal terminology.

8 Thus, 'chit funds' have long captured these savings of the non-poor/lower-middle class in rural areas. The Sahara Chit Fund, well-established for decades in UP, and the Saradha Fund in West Bengal would be examples. Both these funds are under investigation by the government for alleged wrongdoing. Often, such funds have misused the savings of the poor, causing great distress to the savers.

the performance in respect to the gross fixed capital formation **of GDP** since 1950–51. Indian GDP per capita had stagnated over the half-century to 1950 under the British Raj. For a low-income country that was growing at 3.5 per cent per annum on average between 1950–80, the total investment to GDP ratio only doubled from 9.3 per cent of GDP in 1950–51 to 18 per cent in 1980–81. After that, it grew to 24 per cent in the last year before the economic reforms began in 1990–91. Like the savings rate was roughly constant between 1990–91 and 2000–01, so was the investment to GDP ratio over the first decade after India's economic reforms began. Thus, the investment to GDP in 1990–91 was 23.8 per cent, and by 2000–01, was only 22.8 per cent of GDP. Since then there has been a significant breakthrough in the investment rate (gross fixed capital formation) till 2007–08, when it peaked at almost 33 per cent of GDP, having fallen after that to 30.6 per cent of the GDP⁹ (see Table 2.2). Hence, India will need to return to the investment rate prevailing in the six years preceding the global crisis.

We will examine what needs to be done if both the public and the private investment rates are to revive. Government investment can be revived if the level and share of discretionary expenditure (i.e., non-interest and non-salary) were rising. However, post-2007–08, the fiscal stimulus was so large (consisting of a rise in recurrent spending and indirect tax cuts) that the RBI had to resort to monetary policy tightening (to contain inflationary pressures, which had already grown on account of the international oil price rise), by raising interest rates from 2010 on.

Rising interest rates for the corporate sector has had a dampening effect on private investment. In fact, an increase of 100 basis points (bps) in the real interest rate leads to a reduction of 13–20 bps in GDP growth with a lag of two quarters, and the long-run impact is 33–47 bps (Kapur and Mohan, 2013). Of course, in a Keynesian framework, interest rates alone cannot explain the investment rate; 'animal spirits' or the confidence capitalists have in the growth of demand, itself affected by the economic/policy environment, will influence the decision whether or not to invest. Otherwise, capital may be invested abroad (as has been happening increasingly in India).

Similarly, Bhalla (2010) presents the results of regressions of (lagged) real interest rate on the investment rate and GDP growth. He estimates regressions for several time periods: 1950–2007, 1980–2007 and 1993–2007. He finds that the rate of growth of investment declines by 2–3 percentage points for each percentage

9 The productive investment fell from 38 to 30 per cent between 2007–08 and 2011–12. By the new series (base 2011–12), it fell from 33.6 in 2011–12 to 28.6 per cent in 2014–15.

rise in real interest rate. For GDP, each one point rise in the real interest rate leads to a fall in the GDP growth of 0.3 to 0.6 – not dissimilar to the long-run impact reported above (Kapur and Mohan, 2013). In other words, containing the inflation rate and the interest rate remains a policy priority of utmost importance for both the Ministry of Finance and the Reserve Bank of India.

Second, there is no question that the state has internalised an important element of new structural economics: that economists cannot continue to think of land (or natural resources), labour and capital (physical and human) as the only factor endowments, as these are exogenously given. Hence, there is a need to add infrastructure as a dimension in an economy's endowments. Hard infrastructure saw a significant increase in investment during the 11th Five-Year Plan (2007–12): worth \$475 billion, taking infrastructure investment up from some 4 per cent of GDP to over 7 per cent between the beginning and the end of the 11th Plan.

Despite a slow start, it is still expected that during the 12th Plan (2012–17), the infrastructure investment may well be \$700 billion, or rising to 9 per cent of GDP. This requires that project approvals do not become a victim of inter-ministerial conflict, ignoring the dictum about infrastructure as a factor of production within the central government itself. Even more importantly, state government approvals of infrastructure projects must not be held up, as it happened repeatedly between 2012 and 2014. Ensuring approvals is part of the state's coordination function.

Third (as we will discuss in the next section), capital expenditure by the government itself was compressed (even while recurrent expenditure increased as part of the fiscal stimulus). Clearly, the government must apply one of the principles of new structuralist economics – that infrastructure investment must rise as a counter-cyclical measure when the economy suffers an exogenous shock.

Since private investment gets crowded in by public investment, project delays have a cascading effect on overall investment, since it affects private investment.

Fourth, India is in urgent need of increasing foreign direct investment into India. The absolute level of FDI (see Figure 2.1) grew sharply since 2005–06, especially up to 2008–09, even though it fell thereafter. As a proportion of GDP, its peak of 3 per cent of GDP in 2008–09 has not been reached again, and is well below that into China. About half of China's exports are made by foreign firms (*The Economist*, 2014).¹⁰ But no foreign firm wants to use India as a manufacturing base, on account of India being 134 in the ranking on the World Bank's Ease of

10 Li and Fung, the world's biggest sourcer of clothes for Western retailers, says activity is shifting to Bangladesh, South-east Asia and America, as Chinese labour costs rise.

Doing Business Index. India could rely on indigenous manufacturers instead, but they are sub-scale. If India wishes to expand the domestic production of defence equipment, allowing FDI up to 49 per cent in defence manufacturing could change the dynamics of the sector (Mehrotra, 2015). Moreover, there are many sectors requiring dual approval, not just by the Foreign Investment Promotion Board, but by the regular sector line ministry as well. There is a need for a single regulator constituted under an Act of Parliament (on the same lines as the Securities Exchange Board of India, the Insurance Regulatory and Development Authority, and the Telecom Regulatory Authority of India; see Singh, 2014). FDI cannot increase unless India's rank in the Ease of Doing Business League table of the World Bank (134 out of 187 countries) does not improve rapidly.¹¹

Fifth, India had an archaic Land Acquisition Act of 1896 which, despite modification over the years, was out of tune with the requirements of a modern economy. To make matters worse, there was no national law until 2013 to address the rehabilitation of those displaced when land acquisition occurred. A new law, combining land acquisition and rehabilitation/resettlement, was passed in late 2013. It had many progressive features, but went too far in favour of the sellers of land (normally farmers). Industry has claimed that ever since the Act commenced, no fresh land acquisition has taken place (Kanoria, 2014). Unless there is a comprehensive review of the Act and rules framed to adjust its provisions, balance cannot be struck between the interests of industry and farmers.

Finally, generating greater output from a given level of investment depends on the marginal efficiency of investment. Table 2.3 shows the incremental capital to output ratio. In India, this has been below 4 from the mid-1990s to 2007–08, in most years. However, in recent years it has risen. The reasons for this rise needs to be investigated, and the rise in ICOR contained.¹² If project approvals take longer, an important reason again is Ease of Doing Business; capital investment can take years before it results in actual output, raising the ICOR.

11 Krishna (2013) gives but one example of the travails of foreign investors: 'Every foreign national, including CEOs [of companies] are expected to report periodically to the Foreign Regional Registration Office... Most CEOs use "facilitation agents" who include the bribe as part of their own fees... Large companies have copies of entire files pertaining to their cases and they often 'guide' the lower levels while putting up a file for a decision. This is true outsourcing of government decision-making.'

12 One reason could well be that investments made in projects, both industrial/mining and infrastructure projects, have remained stuck (without coming on stream) on account of approval delays.

Table 2.3: India: Incremental capital-output ratio

Year	ICOR	Year	ICOR
1995–96	3.3	2005–06	3.2
1996–97	2.9	2006–07	3.3
1997–98	5.5	2007–08	3.5
1998–99	3.5	2008–09	4.8
1999–00	3.2	2009–10	3.7
2000–01	5.3	2010–11	3.4
2001–02	4.6	2011–12	5.0
2002–03	6.0	2012–13	6.8
2003–04	3.1	2013–14	5.9
2004–05	4.1		

Source: Estimated from Ministry of Finance, *Economic Survey*.

2.5 The Pitfalls of Weak Macroeconomic Management

We have already noted that one reason for Latin American economies remaining in the middle-income trap is the volatility in their GDP growth rate.

After growing at an unprecedented rate of 7.7 per cent per annum between 2002–03 to 2006–07 (10th Five-Year Plan), and then at 7.7 per cent per annum between 2007–08 and 2011–12 (11th Plan; see Table 2.1), the growth rate fell in 2012–13 to 5.5 per cent and in 2013–14 to just under 5 per cent (all at factor cost). The result has been that for the 12th Plan, while the Planning Commission had projected a 9 per cent p.a. growth over 2012–17 on an optimistic scenario, it had to reduce the planned growth to 6–6.5 per cent, given the economy's performance in the first two years of the Plan. This section addresses the question: Could macro-economic management of the Indian economy have been better in order to prevent a sharp decline in the growth rate? What needs to be avoided to preclude such declines again?

Aggregate demand has two components: domestic (which we discuss in the next two chapters) and external. One reason for the slowdown in India's GDP growth is the global economic crisis beginning in 2008, from which recovery has been slow. There had been rapid export growth since the early 1990s, with a rise in merchandise exports as a proportion of GDP for India until 2007–08 to 16 per cent. When you add service-sector exports, the exports to GDP ratio rises in 2007–08 to 26 per cent. However, this growth in India's export to GDP ratio took place at a time when the international economy was growing relatively rapidly, a process which stalled after the global crisis. It is unlikely that the international

economy, especially the Eurozone countries, will recover for some years to come. However, the opportunity for sustaining growth by exploiting the international market comes from the following phenomenon: China, the manufacturing hub of the world, is moving up the value chain because its wage rates are rising. This will lead to China vacating nearly 100 million jobs in manufacturing, which can be taken advantage of by Asian competitors like Philippines, Vietnam, Cambodia, Bangladesh, and potentially India. The question is whether India will succeed in moving in aggressively. This will require the management of the export policy and exchange rate policy in the short term. We will return to this issue later. First, we discuss monetary and then the fiscal policy.

2.5.1 Monetary policy

Monetary policy remains an area of concern, if the growth rate is to be sustained in the medium term. Thanks to the Fiscal Responsibility and Budget Management Act, 2004, there had been significant fiscal consolidation till 2007–08, with revenue to GDP rising and the fiscal deficit being contained (centre and state combined) to 6 per cent of GDP. Due to this fiscal consolidation and far-sighted macro-economic management, there was fiscal space available with the central government when the global economic crisis broke. The central government used the fiscal space to pump-prime the economy with four fiscal packages between 2008 and late 2008–09. The end result was that after dipping for a few quarters, GDP growth picked up again. The overall growth rate between 2003–04 and 2011–12 still managed to average 8.4 per cent per annum, thanks to the multiple fiscal stimuli (Mehrotra, 2010).

How important monetary policy management can be was sharply brought out in the period since 2007–08. Rising consumer demand (on account of a number of factors discussed in Chapters 3 and 4) had led to inflationary pressures building up in the Indian economy (see Table 2.4). As a result, over 2010–14 the new ‘normal’ inflation rate became nearly 10 per cent per annum, while until the global economic crisis, the normal inflation rate used to be in the range of 5–6 per cent per annum.

Table 2.4: Key macro-economic indicators, 2003–13
(per cent)

Year	Real GDP growth (market prices)	GFD/ GDP	CAB/ GDP	WPI inflation	CPI inflation
2003–04	7.9	4.3	2.3	5.5	3.9
2004–05	7.8	3.9	-0.3	6.5	3.8
2005–06	9.3	4.0	-1.2	4.4	4.4
2006–07	9.3	3.3	-1.0	6.6	6.7
2007–08	9.8	2.5	-1.3	4.7	6.2
2008–09	3.9	6.0	-2.3	8.1	9.1
2009–10	8.5	6.5	-2.8	3.8	12.4
2010–11	10.5	4.8	-2.7	9.6	10.4
2011–12	6.3	5.7	-4.2	8.9	8.4
2012–13	3.3	5.2	-4.8	7.4	10.4

Notes: GFD = Gross fiscal deficit; CAB = Current account balance; WPI = Wholesale price index; CPI = Consumer price index

The inflation rate created the classic dilemma between growth and inflation for macro-economic policy managers, a dilemma that has failed to be resolved over the last five years. In the expansionary phase of the Indian economy until 2007–08, the effective monetary policy rate was cut sharply from 9 per cent in September 2009 to 3.25 per cent in April 2010. Similarly, the cash reserve ratio to be maintained by commercial banks fell from 9 to 5 per cent over the same period. However, as a result of the fiscal stimuli, the fiscal deficit increased from 2.5 per cent of GDP in 2007–08 to 6 per cent in 2008–09. Monetary policy had to ease accordingly.

The size and pace of the monetary stimulus in the immediate aftermath of the global crisis was higher than in most emerging markets (Kapur and Mohan, 2013). Monetary easing continued till early 2010. Real GDP growth in 2009–10 and 2010–11, however, turned out to be much stronger than expected, which was reflected in higher inflation.¹³ The inflationary situation was exacerbated by relatively high international commodity prices and the domestic imbalance in the availability of some domestic food items (pulses/lentils and other protein items).

13 Patnaik (2014) argues forcefully that business cycle volatility can be reduced through counter-cyclical monetary policy: interest rates go up in good times, and in bad times interest rates go down. Together they achieve low and stable inflation (which was achieved from 1999 to 2006). Low policy rates continuing till 2010 led to inflation rising more than necessitated by structural real side factors.

As inflationary pressures (especially for food) mounted, the nominal policy rate was increased slowly from 2010–11, but the real policy rate was still negative. From a negative rate during 2010 and 2011, the policy rate became positive in 2012 in real terms (if the core inflation indicator is used, referring to non-food manufacturing products).¹⁴ Interest rates remaining positive in real terms over the medium term is not conducive to increased investment; the growth rate fell.

Sensible macro-economic management also means sound sequencing between fiscal and monetary measures. This was critical to a rise in the investment rate and the resumption of the growth rate achieved during the 10th and 11th Five-Year Plan periods (2002–12). However, there has been cause for concern in this regard. First, since the rise of the fiscal deficit to GDP from 2008 onwards (four fiscal stimuli incorporating both expenditure and tax measures; see Table 2.4), the gross fiscal deficit rose to 9.3 per cent of GDP in 2009–10 (centre and state combined). Since then, fiscal consolidation measures were put in place, as a result of which the combined fiscal deficit came down to 6.9 per cent in 2013–14 (4.8 per cent of GDP for the central government's deficit and 4.1 per cent in 2014–15). At the same time, given the reduction in the fiscal deficit, one would have expected RBI to reduce policy interest rates, but that was not forthcoming. The response could have been the easing of interest rates during the second half of 2011–12 and 2012–13, when core inflation came down significantly.

On account of the tight monetary policy, interest cost as a per cent of sales increased by three times, from 1.2 per cent in the first half of 2008–09 to 3.7 per cent in the first half of 2012–13 and probably rising further since then. Moreover, the smaller companies have the highest interest cost; their cost doubled from 4.3 to 9.2 per cent of sales (Shetty, 2013). Large companies saw their interest cost rise from 1 per cent of sales in the first half of 2008–09 to 3 per cent in the first half of 2012–13; medium companies saw their interest cost as a per cent of sales go up from just under 3 per cent to nearly 6 per cent for the same period. While for the large and medium companies the net profit margins have fallen, for small companies the net profit margin became negative from 2010 onwards. Not surprisingly, manufacturing output was hit as interest costs rose, profit margins fell, and the high cost of borrowing led to bank funds becoming scarce. Investments began freezing.

14 The eight core industries are: coal, crude oil, natural gas, refinery products, fertiliser, steel, cement, and electricity.

The continuing tight monetary policy in the context of declining growth quarter-by-quarter is oblivious to the following fact: the transmission mechanism from interest rates to CPI inflation in a developing economy are nowhere as strong as in developed economies. If core inflation (implying manufactured products minus food products) has as much weight as 55 per cent in WPI and 47.4 per cent in CPI (industrial workers), and core inflation rate declined, then the policy rate **had** had its impact where it could. On the other hand, the transmission mechanism from interest policy to food inflation and energy inflation (fuel and power + crude petroleum) is much weaker (mainly because the demand for food items is relatively inelastic, and the source of such inflation lies in structural problems, while crude is mostly imported).¹⁵ (These issues are discussed in the next two chapters.) Unless structural problems and supply bottlenecks are addressed, there is little prospect of containing inflation in the critical areas of food and energy, which impact both the consumption of the poor and the costs of industry.

In other words, an ideological orientation towards monetarism can harm economic growth at a time when India can ill-afford to lose the growth momentum. Investment revival requires monetary policy support in an environment in which fiscal policy has already compressed demand for too long (Kohli, 2014).¹⁶ Observers note that the emphasis on money supply growth, both as a tool and as an indicator of monetary tightening, has fallen in most of the world. However, in India, money supply (or non-food credit) growth is still very high on central bankers' agenda; this was true in the 1990s and the 2000s, and unfortunately still remains true. In fact, Bhalla (2010), who has studied the non-effects of money supply on growth and inflation, concludes after examining different time periods between 1950 and 2007 that regressions covering the periods 1950–72 and 1980–2007 show no effect. However, if we add the seven years of data from 1973 to 1979, the regressions for the whole 57-year period (1950–2007) suddenly show a relationship that is statistically significant. In fact, Bhalla (2010) claims that it is this regression that makes Indian central bankers so fixated on money supply/

15 In WPI, food has a weight of 23.3 per cent and energy of 53.8 per cent; in CPI for industrial workers the weight of food group is 46.2 per cent and of fuel and light is 6.4 per cent.

16 On the question whether high fiscal deficits have been the cause of high real interest rates, Bhalla (2009) believes that it is not so: it is high interest rates resulting from mistaken monetary policy that have caused the high fiscal deficits of the late 1990s and the early part of the 2000s. He argues that the position of Indian policymakers on fiscal deficits is mistaken, and that had a low interest rate policy been followed, fiscal deficits would have been lower, and hence not mattered. Mohan (2010) and Acharya and Mohan (2010) do not agree.

interest rates as a determinant of inflation (and growth). That seven-year period (1973–79) was very unusual in that in 1973, world oil prices quadrupled and in 1979 doubled again, leading to stagflation in the international economy, which affected Indian inflation (and growth).¹⁷

2.5.2 Fiscal policy

If the management of monetary policy has been an area of concern in the 1990s as well as in the late 2000s, fiscal policy management has been an equally big problem. The RBI's freedom to keep interest rates in check is contingent upon fiscal deficits remaining under control. India entered the 1990s with a backlog of high deficit from the 1980s.¹⁸ These deficits formed part of the backdrop of the economic reforms that began in 1991. Unfortunately, at the turn of the millennium, fiscal deficits rose again, triggering the introduction of the Fiscal Responsibility and Budget Management Act (FRBM) in 2003. This was followed by 20 major states of India (except West Bengal) also enacting fiscal responsibility legislation. The central government's fiscal deficit to GDP ratio declined from 4.5 in 2003–04 to 2.5 per cent in 2007–08.

However, the global economic crisis erupted in late 2008, pushing the fiscal deficit of the central government to 6 per cent of GDP in 2008–09, and 6.5 per cent of GDP in 2009–10. This was clearly a very sharp increase to 1990s levels. Efforts inevitably began to cut the deficit, and some success has been achieved, with the deficit down to 4.8 per cent in 2013–14 and 4.1 per cent in 2014–15. However, with the international economy going into double-dip recession, the growth rate of India's GDP has been affected. Between 2010 and 2015 there existed no fiscal space to stimulate the economy.

The fiscal stimulus was needed after 2008, but it was much too large.¹⁹ Fiscal

17 The absence of any relationship prior to 1973 and after 1979 suggests strongly that the relationship between money supply/interest rate and inflation (and growth) indicates that it should not be used as a predominant tool.

18 Between 1980–81 and 1983–84, the gross fiscal deficit of the central government was in the range of 5.1 per cent of GDP. From 1984–85 to 1990–91, it had risen to a range of 7 to 8.4 per cent of GDP, just before the economic reforms in 1991. Thereafter it was contained within a range of 4.8 and 5.8 between 1991–92 and 2000–01. But it rose again to 6 per cent of GDP from 2001–02 to 2002–03, resulting in the FRBM enactment (Patra et al., 2013).

19 The Prime Minister's Economic Advisory Council (PMEAC) observed: 'In retrospect we could have tightened monetary conditions much earlier, and rolled back the tax incentives at least one full year earlier' (PMEAC, 2013, 3).

space in the medium run will only come with additional revenue mobilisation. However, until then fiscal consolidation needs to be pursued vigorously, for at least three reasons: (a) there is a lot of slack in current expenditures that must be corrected for medium-term fiscal health to be restored;²⁰ (b) inflation cannot be brought under control without demonstrably greater fiscal prudence, so that the RBI continues to reduce interest rates (beyond its 15 January, 2015 cut in repo rate to 7.75 per cent); and (c) the fiscal deficit is a draft upon private savings and squeezes liquidity from the banking sector, thus indirectly adversely affecting private investment.

Fiscal prudence will require reducing the burden of untargeted subsidies. Total subsidies, as a per cent of GDP, rose from a three-year moving average of 1.5 over 2003–04 to 2005–06, to 2.4 per cent over 2010–11 to 2012–13 (see Chapter 14, Table 14.1). These explicit subsidies as a share of GDP were rising since 2007–08 due to the rise in commodity prices, especially those of food, fuel and fertiliser. Food subsidies amount to 0.8 per cent of GDP. Petroleum (kerosene, diesel, liquid petroleum gas for cooking/light) subsidies were 1 per cent in 2012–13, and fertilisers subsidies were 0.6 per cent of GDP (how to reduce both is discussed further in Chapter 14). Of these, the fertiliser one is the least well-targeted.

The inefficiency and corruption in the food public distribution system (or PDS, run by state governments), is discussed in Chapters 10 and 14, where alternatives are discussed. Food subsidies as a proportion of GDP are expected to rise further from 2014–15, as the National Food Security Act, 2013, comes fully into effect.

The fertiliser subsidy is intended to provide fertilisers to farmers at a fixed maximum retail price that is administratively set. The subsidy rose sharply because the subsidised price, set in 2001, was not revised for over 10 years, while the prices of inputs into fertiliser production (and imports) rose significantly. This arrangement has discouraged new investment in the indigenous production of fertilisers, and the cost-plus formula of pricing carries little incentive for improved production efficiency (and raises the subsidy burden). Stagnant production has led to increasing import dependence over time. Meanwhile, India has been at the mercy of an international fertiliser oligopoly, since it is a major importer committed to providing subsidised fertiliser at a fixed price (13th Finance Commission, 2010).

20 Accordingly, the new central government constituted (in July 2014) an Expenditure Management Commission to chalk out the path for restoring to health public expenditure in the medium term.

Moreover, a study by the National Institute of Public Finance and Policy shows the regressive nature of all major explicit subsidies on food, fertiliser and petroleum products. Per capita subsidies received in the poorer states of Bihar, Jharkhand, Madhya Pradesh, Odisha, and Uttar Pradesh are found to be much lower as compared to the average for all states. The bottom line is that unless subsidies are reduced and better targeted, public investment in infrastructure will suffer.

The interest burden of the government is a second reason for the sustained high fiscal deficit. The share of interest payments of the Government of India had risen from 2 per cent of GDP in 1980 to about 4.7 per cent in 1990, and to nearly 5 per cent by 1995. It continued rising to 6.3 per cent in 2003–04, when the Fiscal Responsibility and Budget Management Act (FRBM) was legislated by the national Parliament. Since then, the share of interest payments in GDP has fallen consistently, down to 3.1 per cent in recent years (notwithstanding the rise in fiscal deficit to GDP, which was now being driven up by subsidies) (Ministry of Finance, 2013). The share of interest payments in the consolidated fiscal deficit of India has been higher than 60 per cent in every year since the mid-1990s, although it had been between 30 and 60 per cent from 1980 to 1995.

Post 1991 economic reforms, Bhalla (2010) notes that the government set high interest rates on savings for depositors in ‘small savings’ funds in the 1990s. This was despite the falling inflation (which was consistent with the RBI view that monetary policy should be tight, given that GDP growth was 7 per cent, perceived as overheating of the economy). In fact, it was done to contain future inflation. Thus, Bhalla (2010) has argued that high interest rates have possibly given rise to high deficits.

To compound the fact that the central government's subsidies and interest payments have driven the fiscal deficit, the centre has faced a constraint on its ability to undertake public investment. Since Indian states have, for over a decade, been in reasonable fiscal health, they have led the public investment effort of government – not the centre. As the states enjoy a revenue surplus, their fiscal deficit gets used for public investment. Since 2007–08 the centre invested between 1 and 1.5 per cent of GDP (including on defence).²¹ On the other hand, the states invested 2.5 per cent of their state GDP. Clearly, with the 14th Finance Commission, whose recommendations will apply over 2015–20, raising the share of devolved taxes to states (as a share of total collected by the central government

21 This result is contrary to the point made by Bhattacharya et al. (2008), that exchange rate appreciation is needed to lower inflation.

from the 32 per cent prevailing over the preceding quinquennium) to 42 percent, the scope for states to increase public investment should increase.

The growth implications of such public capital investments have been shown by Bose and Bhanumurthy (2013). For example, they show that while the cumulative multipliers of capital expenditure (over a seven-year period) is 4.8, while that for transfer payments (for example, subsidies, pensions and other retirement benefits) is only 0.95.

Turning finally to the current account balance it had remained in a healthy state for well over a decade (see Table 2.4) but began to spin out of control as global oil prices rose in the late 2000s. In addition, since India is one of the largest consumers and importers of gold, rising inflation had resulted in a growing demand for gold as a store of value to offset inflation; this too contributed to the rise in imports and a worsening of the current account deficit. To make matters worse, despite India being one of the largest producers of coal, a combination of policy paralysis and the inability of the public sector-owned Coal India Limited to increase production led to increasing imports of coal. The combined effect of oil (India imports 80 per cent of its consumption), gold and coal import was that the current account deficit to GDP ratio rose from barely 0.3 per cent in 2003–04 to 4.8 per cent in 2012–13.

In a word, macro-economic management on the fiscal, monetary and external fronts has left much to be desired, and the end result of this combined failure has been the GDP growth rate (at factor cost) falling well below potential to 5.5 per cent in 2012–13, 5 per cent in 2013–14, and a little higher in 2014–15.

2.6 Sustaining Non-agriculture Output Growth

For India to sustain GDP growth over the next decade, the total factor productivity must increase. For this to happen, two conditions have to be fulfilled, which are consistent with upgrading the endowment structure of the economy (as discussed in section 2.1). First, the share of output accounted for by the secondary and tertiary sectors (see Table 2.5) must increase at a much faster pace than hitherto, and in particular, the share of manufacturing in GDP will need to rise from the current level of 15 per cent (at factor cost, though 17 per cent at market prices) to 25 per cent by 2022. Simultaneously, workers must move out from agriculture into more productive activities like industry and modern services (see Table 2.6).

The second requirement is that technological change within manufacturing,

non-manufacturing and the service sectors has to hasten, thus enhancing their productivity. These conditions should be fulfilled on the supply side.

On the demand side, an increasing trend of consumption demand can come from two potential sources: rising domestic demand from the new non-poor (given that the number of the poor has fallen by 138 million between 2004–05 and 2011–12) as well as the rising middle-class population; and external demand emanating from India's trade partners. We will discuss each in turn.

2.6.1 Agriculture

The contribution of agriculture to output had declined from 59 per cent in 1951 to 34 per cent in 1991, when economic reforms began. That share declined relatively slowly thereafter over 1991–2001, but since then has fallen dramatically to 14 per cent to GDP in 2013–14 (Table 2.5). Agricultural output growth has been low (see Table 2.7). Moreover, agricultural productivity has not risen fast enough for the real price of food to have fallen (Balakrishnan, 2010). If nearly half of household expenditure is on food, the fact that the real price of food between 1993–2009 did not fall relative to all other commodities has a dampening effect on the demand for mass consumption goods. In fact, Balakrishnan (2010) rightly suggests that structural change in the Indian economy, with the share of industry in total output rising faster, will be predicated upon a decline in the real price of food.

It is distressing that food inflation since 2009 has been in the range of 15–20 per cent per annum, further constraining the widening of the domestic market for industrial goods of mass consumption. Suffice here to emphasise that richer countries spend a smaller proportion of their household budget on food (for example, Thailand: 26.7 per cent, Korea: 15.4 per cent, and the United States: 7 per cent), and thus their households have a high proportion of disposable income left over to spend on industrial goods and services. Indian policymakers who want to see a structural transformation of output in favour of industry/services cannot be complacent about agricultural growth below 4 per cent pa. Gujarat and Andhra Pradesh achieved much faster agriculture growth, and their successful policies can be replicated by others.

Table 2.5: India: Structure of GDP, 1950–2011 (per cent)

Year	Share in GDP at factor cost		Services
	Agriculture	Industry	
1950–51	54	14	30
1960–61	50	18	30
1970–71	44	21	33
1980–81	38	23	38
1990–91	33	24	43
2000–01	25	24	50
2010–11	17	26	57
2013–14	13.9	26.1	59.9

Source: Economic Survey 2012–13.

Note: India started reporting GDP at market prices (in early 2015), which is the international norm. The share of services in GDP at market prices fell to 52 per cent of the share of industry. This was partly due to better coverage of manufacturing data from companies.'

Table 2.6: India: Structure of employment, 1972–2010 (per cent)

	Share in employment		Services
	Agriculture	Industry	
1972–73	74	11	15
1977–78	72	12	15
1983	68	14	18
1987–88	66	16	18
1993–94	60	16	24
1999–2000	60	16	24
2004–05	57	19	25
2009–10	53	22	25
2011–12	49	24	27

Source: NSS, various rounds.

2.6.2 Manufacturing

The structural transformation in the Indian economy (in terms of sectoral contribution to output) has been slow: the share of industry in GDP has risen from 13.5 per cent in 1951 to 24.6 per cent in 2001, and remained at 25 per cent in 2011. The growth of industry has rarely exceeded the overall growth rate of the economy, and thus the share of manufacturing GDP has remained stable around 15 per cent for a fairly long period of time. We examine external demand as a source of growth for India's manufacturing first, before turning to domestic demand. In absolute terms India is one of the top 10 manufacturing countries of the world (although its share in the total manufacturing value added (MVA) in the world is only about 1.8 per cent). The real price of manufactures (TV, cars, refrigerators) has fallen over the 2000s, even as the real price of food has not. E-commerce has grown rapidly as mobile growth has democratised the internet. The effect of the global crisis on industrial growth has been relatively mild on developing countries, including India, but the downward trend in MVA has been large.

What does India's endowment structure suggest for the nature of products that the country should focus on exporting? The production of machinery and equipment (a key capital goods sector) has been growing faster in the US and China, but India has seen a deceleration. The reason is India's competitive disadvantage resulting from low-level technology, rising input costs and poor quality infrastructure. India fell behind in increasing its share in MVA or sophisticated products from 1995 to 2009 (Ministry of Finance, 2013). It performed better in medium-low technology products in labour-intensive sectors like textiles, wearing apparels and leather products. But even in these three sectors, India's share is low in comparison to China, which dominates all three sectors.²²

Capturing international markets in these labour-intensive products is possible for India, because wage costs in China have been rising fast, and these product areas will slowly be vacated by China. Competing smaller economies in Southeast Asia (like the Philippines, Vietnam, Cambodia, and increasingly Bangladesh) have already been taking advantage of the product lines being vacated by China. The fact that the rupee has depreciated since 2013 in line with the inflation rate does give India a new-found edge in international markets, which India's exporters must capitalise on.

22 China's exports of garments (over Jan–Oct 2014) were \$ 145 billion, while India's were \$14 billion.

Table 2.7: Sectoral growth in recent plans
(per cent per annum)

Five-Year Plans	Sector			
	Agriculture	Industry	Services	Total
8th Plan				
(1992–96)	4.72	7.29	7.28	6.54
9th Plan				
(1997–2001)	2.44	4.29	7.87	5.52
10th Plan				
(2002–06)	2.30	9.17	9.30	7.74
11th Plan				
2007–08	5.8	9.7	10.3	9.3
2008–09	0.1	4.4	10.0	6.7
2009–10	0.8	9.2	10.5	8.6
2010–11	7.9	9.2	9.8	9.3
2011–12	3.6	3.5	8.2	6.2
Average	3.7	7.2	9.7	8.0
12th Plan				
2012–13	2.0	4.0	7.6	5.8
2013–14	4.5	6.6	8.3	7.3
2014–15	4.5	8.4	9.4	8.5
2015–16	4.5	9.4	9.7	9.0
2016–17	4.5	9.8	9.9	9.2
Average	4.0	7.6	9.0	8.0

Source: Planning Commission (2013)

Note: Data for 2013–14 onwards is 'planned'. Until 2012–13 the figures are actual.

In more technology-intensive manufacturing sectors, India still faces a problem. In recent years, the five fastest-growing sectors in world markets were: office accounting and computing; radio, TV and communication equipment; electrical machinery and apparatus; other transport; and basic metals (Ministry of Finance, 2013). In these medium and high-technology product groups, India's performance has been poor. Even here, China accounted for more than 50 per cent of the total MVA of developing countries in 15 out of the 22 industrial sectors, while India's share was significant in only a few of these sectors.²³

Rising real wages and skill shortages are hurting India's competitiveness. If India is to raise manufacturing value added, it must contain the rise in real wages to the level of productivity increases, which implies the need for policy to focus on containing inflation rates (which can dampen wage increases), while enabling productivity, and thus international competitiveness, to rise. Although the lead time for upgrading skills is long, there is an urgent need for policy in India to focus on short courses for medium and higher skills, to fill the skills gap with a view to raising productivity.

In China, there has been a move to relocate factories to less developed inland provinces, where wages are lower. At the same time, China has an infrastructure and skilled worker advantage, which is what accounts for the higher productivity level of Chinese workers. Nevertheless, as the emphasis of Chinese companies turns towards targeting the domestic rather than overseas markets, the rising value of the renminbi may further accelerate the trend by making exports less attractive. There is time for India to both improve infrastructure and equip its workers with greater skills. Thus, India may well have the opportunity to occupy the product spaces vacated by Chinese companies, provided policymakers manage to fill the currently prevailing infrastructure and skill gaps. However, on the World Bank's Ease of Doing Business Survey, India ranks 134 out of 187 countries of the world; without procedures and the bureaucracy changing, manufacturing cannot take advantage of this opportunity rapidly.

The international market is not the only area wherein potential lies for the growth of Indian manufacturing companies. There are three major product areas

23 The top seven goods exported in 2012–13 accounted for over 50 per cent of India's total exports. These were all relatively capital-intensive goods: petroleum products, transport equipment, nuclear and mechanical machinery, electrical machinery, organic chemicals, pharmaceutical product and gems and jewellery. However, labour-intensive exports like ready-made garments saw its share in total Indian export fall from 12.6 to 6 per cent between 2000 and 2013 (Dougherty et al., 2013).

for the domestic market in which manufacturing value added can be increased: defence-related products, electronic hardware, and capital goods, generally. In addition, there is a need for policy to focus on intermediate goods like energy (coal, oil, gas). The 12th Plan has suggested a number of sectors worthy of policy focus.

Currently, India is the world's largest importer of military hardware for its army, navy and air force. At the same time, its domestic manufacturing capacity in defence-related products is limited to (a) small arms; (b) a limited range of tanks; and (c) the newly-developed light combat aircraft (Tejas). By inviting much greater foreign investment in the manufacture of military equipment and increasing the cap on foreign ownership from 26 to 49 per cent (done in mid-2014) in defence manufacturing, and also encouraging large Indian corporate manufacturing houses to undertake investment in defence production, a major boost can be given to the manufacturing sector. If India can have an indigenously developed space industry (including rocketry and satellite manufacture), there is no reason why it should not be able to use its domestic technological prowess to increase military production at home. At the current stage of development, but for the specific technology, the endowment structure (in terms of skilled personnel and large, well-diversified corporate groups) does exist.²⁴

The second product group crying out for much greater manufacturing capacity development is electronics hardware. India is well-renowned globally as a computer software producing giant and the IT industry is the source of very significant foreign exchange earnings; the software industry has a global footprint. However, the domestic manufacturing of computer hardware remains limited. In fact, as internet access grows with the growth of the telecommunications industry and mobile telephony, the demand for computer hardware will continue to grow. There is no reason why imports should continue to supply Indian computer hardware needs. It is feared that the value of imports of computer hardware and mobile phones will rise to an astronomical figure of US\$ 400 billion by 2020, exceeding in value the total oil import bill of the country. With this objective in view, the Government of India had adopted an electronics manufacturing policy.

A third product group is the production of capital and intermediate goods that are urgently required to increase the production of energy from renewable and non-

24 That the Research and Development capacity exists in India is demonstrated by a number of facts. India is already producing and launching satellites for other countries. Moreover, many large multinational corporations have located their global research and development (R&D) operations in India, in the software and pharmaceutical sectors.

renewable sources. India is chronically short of electric power, and the unreliability of electric power for the needs of manufacturing industry (as reflected in demand exceeding supply, and the uncertainty of voltage) leaves enormous scope for enhancing the production domestically of inputs to enable India to generate much more energy than now. For example, India has an unlimited supply of energy from the sun for most of the year in the entire country (except for a few months during the monsoon period). However, despite this abundance of solar energy, India remains a large importer of solar panels and silicon wafers from China.

Although India's import substituting industrialisation strategy had succeeded in building a capital goods and engineering industry, by the 1990s these industries had ceased to be internationally competitive. Most were in the public sector, and had emerged within a heavily protected environment that prevailed until the early 1980s. With the reduction of tariffs after the 1991 economic reforms, the capital goods industry faced severe competition from Chinese companies. Several factors were responsible for the higher Chinese competitiveness: artificially depreciated Chinese currency; tax advantages and subsidies given by their government; much lower interest rates; simpler labour laws; and better infrastructure, resulting in lower costs of power, transportation and cluster development, which helped in the specialisation of labour and engineering skills (Planning Commission, 2013). Where possible, these challenges will have to be met.²⁵

The relatively slowly growing share of industry in GDP in India is partly a failure of policy. Although post-1991, the economic reforms were mainly focused on industry, their main thrust was on dismantling the license raj: deregulation and liberalisation of imports. However, although the growth rate of industrial output did increase after the economic reforms, the growth rate was rarely greater than that of the GDP overall, while it has to be much greater to be a lead sector. Clearly, development of manufacturing requires much more by way of industrial policy than merely dismantling the licence-quota raj.

25 There is significant potential for mining exploration and investment. There are only three companies in oil exploration/production: one in the public sector (ONGC) and two in private sector (Reliance and Cairn); there should be many more since India imports 80 per cent of its consumption. India may have the best quality iron ore, but there are caps on mining iron for private players, though not for the public sector (NMDC). India imports \$76–80 billion worth of gold, but the country needs to re-auction gold mines and allow local players to enter, as there is potential for gold mining. Some states are especially rich in natural resources: 'Rajasthan can take care of entire mineral needs of India: petroleum, zinc, silver, rock phosphate, potash' (Vedanta Resources chairman A. Agarwal in *Economic Times*, 2014).

Even until the 11th Five-Year Plan there was no recognition of the need for an industrial policy; the 11th Plan makes no mention in its industry chapter of such a policy.

However, consistent with a modern, robust version of industrial policy, the 12th Plan makes sector-wise recommendations for 17 industry sectors on which the government should focus over the next ten years (though it is unclear this focus will survive with the dismantling of Planning Commission). First, there are the sectors of strategic importance: defence equipment, aero-space, ship building, capital goods and engineering (machine tools, power plant equipment, earth-moving and mining equipment), electronics systems manufacturing, steel, mineral development, fertiliser, and cement. Another category consists of depth and value addition industries: automotive, drugs, chemicals, petrochemicals, and paper. The final set of sectors will generate employment in manufacturing: textiles, food processing, leather goods, gems and jewellery, and village industries (Planning Commission, 2013).

The domestic market is growing, obviously on account of two sets of forces. First, the size of the middle class is growing (Lahiri, 2013; Bhalla, 2007; ADB, 2009; and Hasan, 2013). Second, there has been a significant increase in the consumption expenditure of the new non-poor, given that 138 million citizens have emerged out of poverty between 2004–05 and 2011–12. This new consuming class, as well as industry, have an expectation that infrastructure requirements will also be met. For infrastructure investment to be inclusive, it will need to focus on ensuring minimum electricity for lighting needs; clean cooking fuel for all; acceptable housing in rural and urban areas; adequate piped water; sanitary latrines for rural households and underground sewerage with waste-water treatment for urban households.

A small-and-medium enterprise (SME) led growth strategy focused on meeting this growing demand for manufactured goods and services can achieve GDP growth rates of close to 7 per cent (Sen, 2014). We show in chapter 4 that SMEs, especially in the unorganised sector, have clearly responded to, and benefitted from, this growing domestic demand. The major constraint that the SME sector faces is finance. While banks and insurance companies prefer to lend to larger enterprises, informal sources of credit play a very important role for agriculture, trade, transport, real estate – all of which are dominated by SMEs. It is likely that official statistics do not adequately capture all these financial

transactions.²⁶ Public sector banks may need to go beyond 'priority sector' lending (which includes SMEs) to provide finance to SMEs.²⁷

2.6.3 Services

The services sector was the fastest growing in India's economy under the British Raj during the first half of the twentieth century, although per capita income growth overall was almost stagnant. The contribution of agriculture to GDP fell by 16 percentage points between 1951 and 1981 (Table 2.5). Correspondingly, the share of industry and of services rose over the same period, roughly proportionately by 9 percentage points for industry (14 to 23 per cent of GDP), and for services by 8 percentage points (from 30 to 38 per cent). However, it is from 1981 onwards that the share of services in total GDP increased very rapidly, to 50 per cent in 2001 and then to 57 per cent in 2011. By contrast, the share of industry hardly rose at all, from 23 per cent in 1981 to 26 per cent in 2011.

Balakrishnan (2010) suggests three factors that might explain the faster services growth after 1981. The first is a rise in income inequality. The gainers from the growth process after 1981 demand a wider range of services. He points to rising corporate profits in the economic regime of restrictive trade and industrial policies. Another source of rising inequality was the introduction of a procurement price for cereals for the public distribution system, in a context of faster agricultural growth resulting from the spread of the green revolution that benefitted the better-off farmers. Second, services growth could have also resulted from the faster growth of employment in government. Third, since the tight regulatory environment mainly affected manufacturing rather than services, there was an incentive to enter trade. Rising income of traders contributed to demand for services.

Modern services were the fastest to grow after the economic reforms of 1991. There is some truth in the proposition that India's growth model runs on services. It is often argued that India missed an important step in structural transformation, where we shifted from an agrarian to a service-driven economy without really experiencing an industrial revolution. The main modern services are transport (air, road, railways, and shipping), trade (wholesale and retail),

26 Sen (2014) suggests that these could be larger than 40 per cent of formal financial intermediation services.

27 The new MUDRA Bank (2015) will refinance all micro-finance institutions which lend to small businesses, but not suffice for SMEs.

tourism and restaurants. Except for tourism, education and health services, all the modern services – transport and trade, as well as banking, insurance and finance – are heavily dependent upon industry (both manufacturing and non-manufacturing). In other words, growth in these sectors cannot be sustained without high growth in industry, in particular manufacturing, but also mining and power generation.

However, GDP growth in manufacturing has been cyclical across the time periods since the early 1990s: growth in manufacturing was 8.8 per cent per annum over 1994–98; 5 per cent per annum between 1999–2003; 9.7 per cent over 2004–08; and 5.8 per cent over 2009–13. This alternate high and low growth rates over the past two decades is similar to trends prevailing in the overall GDP growth. But the intensity of decline or increase in manufacturing growth has been higher in both directions (Sabnavis, 2013). Thus, higher manufacturing growth does give a fillip to GDP growth, but a slowdown does not bring down GDP growth to the same degree, as other sectors provide a cushion. In any case, what this pattern establishes is that if India wants to enhance its GDP growth rate, the service sectors, particularly *modern services*, can provide a buffer against the decline, but cannot, on their own, be the engine of GDP growth on a medium to long-term basis.

Without more rapid growth in manufacturing, raising the GDP growth rate will be difficult. Inter-linkages between industry and the services sector have strengthened over the years. Input-output data indicate that producing one unit of industrial output required 0.44 units of services in 2007–08, compared with 0.36 units in 1998–99. Linkages with the manufacturing output required 0.34 units of services in 2007–08, as against 0.25 units in 1998–99 (Sabnavis, 2013).

Most services output, especially in hotels/restaurants, transport, community, social and personal services, and education and health services, are for the most part non-tradeable. However, air transport, banking, insurance, communication, and business services are amenable to trade across borders. India's exports of services have risen impressively. While goods exports account for 16 per cent of GDP, the share of service exports is an additional 8–9 per cent of GDP. Within such modern services, business services, which have a share of 8 per cent in services GDP, is most exposed to external demand. In India's case, IT/IT-enabled services (ITES, which have a 72 per cent share in business services) have been the cutting edge of service-sector exports. In any case, with such rising inter-linkages between modern services and manufacturing, the revival of the services sector,

which accounts for 57 per cent of GDP, is dependent upon policy interventions to boost manufacturing. Therefore, government initiatives to boost manufacturing are of the essence.

The Government of India has indeed taken a number of key initiatives. A National Manufacturing Policy was approved in late 2011. The policy provides for the promotion of cluster development and aggregation, especially by creating National Manufacturing Investment Zones. Second, industrial development initiatives are underway as part of a Delhi–Mumbai industrial corridor, which proposes the development of eight industrial cities along the railway corridor. The process of obtaining land for these new cities along the corridor has been initiated. Third, the FDI policy was liberalised, and simplified and consolidated into a single document. Finally, the government announced the creation of a joint venture company between the Department of Industrial Policy and Promotion and the Federation of Indian Chambers of Commerce and Industry (FICCI), as a not-for-profit, single-window facilitator for prospective overseas investors.

2.7 Institutional Modernisation and Governance for Industrial Policy

Soft infrastructure (for example, institutions) are as important as hard infrastructure for sustained growth, as we noted in section 2.1. The East Asian ‘miracle economies’ demonstrate that an industrialising country needs an agile and professional bureaucracy, with an ability to listen and respond.

2.7.1 The professionalisation and accountability of civil servants

The defining characteristic of the high-performing economies of East Asia and Southeast Asia was the professionalisation of its bureaucracy. A foreign service that is more attuned to capturing export markets for India and locating investors (especially non-resident Indians) would be a good start. Even more pertinent is the need for professional expertise in the senior national civil services. In a rapidly growing and diversifying emerging market economy like India, there is a need for much greater levels of professional expertise of a sectoral nature in India’s national civil services. Thus, it is no longer acceptable for generalists to be in charge of either economic services or social services. For example, mining is a specialised field, as is power generation, and it is not possible in the twenty-first

century for a non-engineer to be in the position of the senior-most civil servant in the relevant line ministry if that person was handling health a few days earlier in the government.

Such professionalisation requires two types of change. First, senior (including senior-most) positions in a department should be filled by means of a comprehensive application-based process, even from within the civil services. This is precisely the nature of the appointment process in international organisations (for example, the multilateral development banks, the IMF and the United Nations system). In other words, officers must compete on the basis of their expertise from within the service for a specialised position. Second, minimum years of professional expertise and qualifications should be a desideratum for most levels of the hierarchy within any specialist departments.

A concrete reform would be that a 35-year career in the national civil service could be broken up into three stages. First, a nearly 15-year initial period, when the civil servant should remain a generalist and acquire a range of experiences in different capacities in various districts of a state, as well as the state capital. This should be followed by a five-year period in which the civil servant must be required to choose a specialisation, partly through further study and partly through practical experience in a middle management role. Finally, the last 15-year period of the civil servant's career must be confined to the area of specialisation acquired during the preceding five years. Without such specialisation, amateurism in decision-making and programme design will continue to prevail, to the great detriment of the well-being of citizens in respect to social and economic service delivery. Amateurism, or lack of professional knowledge with regard to economic services, risks great damage to the economic interests of citizens, as well as to the future growth of the economy.

Finally, the bureaucracy should have incentives for good performance and penalty for consistently poor performance, including a simplified process of termination, subject of course to due process of law.²⁸ Professionalisation of the civil services will have to be combined with a greater degree of monitoring of performance, and most importantly, in case of proven corruption, harsh penalty through an institutionalised system of ombudsmen. The latter requires legislative action to create the Lokpal at the national level and the Lokayukt at the state level, in the entire country. Yet, these institutions will require them to be independent from the political executive in a way that current institutions

28 The Administrative Reform Commission Report (2009) makes a similar recommendation.

(for example, the Central Bureau of Investigation and Central Vigilance Commission) are not. It is due to the inability of such institutions to ensure accountability that the Comptroller and Auditor General (CAG) and the Supreme Court of India have had to become more active in recent years – but only on an ex post basis, when the horse has already bolted from the stable.

Permanent jobs with no fear of termination characterises the government system. Bureaucrats can be evaluated for possible termination only at age 50 or 55, ensuring that if a person is employed at 25, and stops performing, the process of termination is so cumbersome that no superior would waste his time initiating proceedings (performance is discussed again in chapter 15). Therefore, whether it is the lower or higher bureaucracy, no government should have a contractual length greater than 10 years at a time.²⁹

2.7.2 The political executive and constraints on cronyism

With rapid economic growth, the political executive (and the bureaucratic executive, to a somewhat less extent) has 'benefited' enormously from sweetheart deals with big business, especially when it has related to the government's ability to distribute national assets like spectrum, natural resources, or land.³⁰ When the political executive had used its powers to benefit this or that industrial family, (two-third of large companies are family-owned), the consequence has been private gain at public cost. In an economy which went from a GDP of US\$ 300 billion two decades ago to nearly \$2 trillion in 2013, this has resulted in an explosion of wealth at the top end of the income distribution. India has no inheritance taxes, practically. In 2000, there were no Indian billionaires among the world's top 100 billionaires. Now there are seven, more than in all but three countries: United States, Russia and Germany.

An equally important point is that the total net worth of India's billionaires is 17.2 per cent of GDP, much higher than in Mexico (12.5 per cent) and

29 Krishna (2013), himself an IAS officer, notes: '[The lower bureaucracy]... given their long tenures in one department have the ability to conjure up precedents or rules and make them disappear freely. Further, since they are highly unionised, try taking them on and you will find files disappearing or 'lost', or false cases lodged against complainants against corruption, not to mention unions going on 'strike' against tough officers.'

30 Even RBI Governor Rajan has noted: 'One of the greatest dangers to the growth of developing countries is the middle-income trap, where crony capitalism creates obligarchies that slow down growth. If the debate during the (2014) elections is any pointer, this is a very real concern of the public in India today' (*The Times of India*, 12 August 2014).

Brazil (6.5 per cent) (Sharma, 2012). Even more worrying is the fact that the average net worth of the top 10 billionaires in India is US\$ 14.8 billion, only exceeded by emerging market economies like Russia (\$16.8 billion), but more importantly, nearly 2½ times the average net worth of the top 10 billionaires in China (\$6 billion). In fact, Sharma (2012) notes that changes in the list of top 10 billionaires in India and China reveal how differently each economy is evolving. China's top-10 list shows a lot of changes in names. Also, no billionaire ever breaks through the ceiling of about \$ 10 billion in net worth.³¹ However, in India nine of the top 10 Indian billionaires on the Forbes list 2010 were also there in 2006.

This explosion of net worth at the top may breed pride among some middle-class Indians on the one side, but it also breeds massive resentment against a bureaucratic-political-business nexus that distorts policy and undermines competition. It also breeds neglect of the constitutional rights of those displaced by sweetheart deals around mining, or infrastructure, or industrial projects. An inordinate rise in wealth and an accompanying rise in inequality pose multiple risks for an inclusive growth process. It undermines competition, which can raise prices in a situation already characterised by a narrow market.³² Also, the wealthy, through their connections, can illegitimately influence the taxes they may be required to pay. Further, they can compromise the ability of regulators to act against their interest, thus undermining the regulatory authority of the state.³³

31 Sharma (2012) also notes that the man who was the richest in China in 2007 was a few years later in jail on corruption charges, as was another billionaire who received a life sentence for fraud charges.

32 One of the nation's most respected bankers, Deepak Parekh (2013) wrote recently: 'India must have an Act similar to the UK Bribery Act 2010 wherein it is a criminal offence for both, the giver and taker of a bribe and it is also a corporate offence if a business is found to have failed to prevent bribery. Such an act is increasingly important to have, especially since the manner in which bribes are being given and taken in India has changed dramatically. Today, a number of bribes are being channelled through sophisticated corporate deals, which prima facie look like normal investments but are in companies backed by those in power. These funds are actually pay-offs in return for various favours. Such transactions are difficult to detect, but what is worrisome is that the amounts involved are stupendous.'

33 There is evidence (brought to light by the Comptroller and Auditor General of India) that all these fears about the insidious power of the wealthy became a reality in the last 10 years (Rai, 2014). A growing number of scams led finally to a widespread groundswell of movements against corruption in high places, and eventually the electoral rout of the United Progressive Alliance first in several state elections in late 2013 and then in the Parliamentary elections of 2014.

In contrast, the East Asian growth was inclusive partly because with growth came re-distribution, and inequalities did not grow obscenely. Besides, the state, while acting in the business interest, would also discipline them in a variety of ways (Amsden, 1989; Chang, 2003a, 2003b; Rodrik, 2002; World Bank, 1993; Amsden, 1989; Birdsall and Londono, 1997).

2.8 Concluding Remarks

Analysis in this chapter has shown that the central government will need to follow a number of principles of macro-economic policy management and industrial policy, in addition to reforming institutions, to sustain rapid GDP growth.

- a. The Growth Commission (2008) found that countries that sustained high growth rates over a period of time also managed to maintain high savings and investment rates. Household savings behaviour does respond to real interest rates in India. This is especially the case of Indian household's preference for investment in physical assets (gold or real estate), in a situation when real interest rates become negative. Hence, Indian policymakers must keep the real interest rate positive for depositors. However, rising interest rates also affect input costs, profitability, and hence investment by the private sector, and so a careful balance needs to be maintained between incentives for savers and the investors in the real economy.
- b. A structural means of raising a household's savings would be to ensure that all citizens have a bank or a post-office account. This form of financial inclusion will also capture a household's savings in a way that has never been possible so far, thus hopefully raising the household savings rate, which has stagnated for a decade.³⁴
- c. For India to sustain the high investment rates achieved until 2007–08, it will be necessary to contain real interest rates for borrowers. An increase of 100 bps in real interest rates leads to a long-run impact of 33–47 bps in GDP growth.
- d. Interest rates alone will not sustain investment rates. In a Keynesian framework, the confidence that corporates have in the prospective growth of demand ('animal spirits') is affected by the economic policy environment. It is critical

34 Opening new accounts (as is happening with post-2014 Jan Dhan Yojana), may run several risks: households with existing bank accounts may open an account for another family member, leaving unbanked families still outside the bank net; accounts opened may remain dormant (an issue addressed in chapter 14); and so on.

that policymakers do nothing to vitiate that environment. Otherwise capital will flow abroad, as has happened in recent years, rather than be invested at home.

- e. India is in urgent need of enhancing the inflow of FDI. India cannot afford the luxury of having Indian business houses undertake more investment abroad than they are investing in India.
- f. Maintaining a stable macro-economic environment is important for sustaining both savings and investment rates. Recent inflation has been driven by food prices, not due to excessive aggregate demand. The central bank must recognise that the transmission mechanism from interest rates to CPI inflation in a developing economy is not as strong as in developed economies. The transmission mechanism from interest rate policy to food and energy inflation is weak, although interest rates do impact manufactured product prices. Inflation-targeting by the central bank for long periods of time is not consistent with sustained GDP growth.
- g. India's Fiscal Responsibility and Budget Management Act (FRBMA) expired in 2008. If the centre and states can only contain excessive fiscal deficits through legal means, then the institutions of the FRBM Act at the national and state levels need to be revived. An Expenditure Management Commission created by the new government in 2014 alone may not suffice.
- h. Fiscal prudence will require reducing the burden of untargeted subsidies on fertiliser, kerosene, diesel, and liquid petroleum gas. Unless the public distribution system (PDS) is reformed, food subsidies may also run out of control. There may soon be no alternative to moving to cash transfers, as opposed to product-based subsidies (see Chapter 14). Fiscal prudence also means mobilising additional tax and non-tax revenues. A stagnation of the tax-to-GDP ratio cannot continue, despite robust economic growth (see Chapter 5).
- i. Managing the current account balance as well as the domestic inflation rate is critical to maintaining a competitive exchange rate for the Indian rupee. The current account balance spun out of control partly for unavoidable (oil prices rising post-2008) and partly for avoidable (inordinate gold and coal imports) reasons. The slow responses of the Ministry of Finance to rising gold imports (in response to the high inflation) and the growing import of coal (in a country that is one of the world's largest producers of coal) is a policy failure of monumental proportions.

- j. Sustaining GDP growth must be built upon a dynamic agriculture, such that the real price of food, which has remained stable for two decades, comes down consistently (chapter 3). That will allow the demand for manufactured goods and services to rise, thus giving a fillip to growth.
- k. After two decades of economic reforms, the Indian government has finally adopted a coherent industrial policy, which is an implicit recognition that mere deregulation and liberalisation has led to manufacturing growth being no greater than the overall GDP growth since the economic reforms began. Industrial policy needs to focus much more on technology-intensive manufacturing sectors like defence equipment, capital goods and electronics hardware equipment, as well as aero-space equipment, imports of which are also guzzling scarce foreign exchange.
- l. At the same time, to meet the rising rural consumption as well as the demand for manufactured goods emanating from the new non-poor, government policy must support labour-intensive manufacturing in food processing, textiles, garments, leather goods, and furniture, as well as the domestic manufacture of mobile telephones, to a much greater extent than hitherto.
- m. The share of manufacturing in GDP has remained stagnant for two decades. Underpinning a thrust on manufacturing with the objective of raising the stagnant manufacturing-to-GDP ratio from 15 per cent to 25 per cent by 2025 requires much greater investment in the production of both electricity and electricity-generating equipment, and a sustained increase in investments in infrastructure, both rural and urban. This requires building efficient and equitable models of private-public partnership to achieve the 12th Plan goal of ensuring that the private share of infrastructure investment rises from 38 per cent during the 11th Plan to 50 per cent in the 12th Plan period.
- o. Inter-linkages between industry and the service sector have strengthened in recent years. While manufacturing growth will drive the growth of demand for services, encouraging FDI in insurance and finance will deepen the financial sector, and could encourage the growth of finance for infrastructure, which is currently overly dependent upon bank finance. New mechanisms to finance infrastructure (from domestic pension and insurance funds) must emerge so that public sector banks have more elbow room to lend to manufacturers.
- p. India must take advantage of external markets in labour-intensive manufactures – a weakness so far – so that international markets for low-technology products being vacated by China can be rapidly captured by the Indian exporters. The share of labour-intensive manufactured exports has not grown.

- q. Without a professional bureaucracy and senior cadre in the civil service characterised by specialist sectoral knowledge, a government cannot respond to the needs of industry in a rapidly diversifying and fast growing economy. Moreover, growth will come with redistribution only if inordinate wealth is not accumulated on the basis of cosy deals between some corporate houses and the government, especially with regard to scarce natural resources (like minerals, land, spectrum air waves). India already has far too many billionaires for its level of per capita income, and the growing inequality of wealth has the potential to slow down growth. It will only undermine the credibility of the wealth creators, as well as damage the inclusiveness of growth. It may contribute to realising the fears of all middle-income countries – of remaining stuck in the middle-income trap.

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Ensuring Higher Agricultural Growth and the Revival of Rural India¹

Two path-breaking developments – both positive – occurred in the Indian economy starting in the mid-2000s, which had never occurred in the economic history of independent India. The first was that beginning in 2004–05 (NSS 60th Round), the absolute number of workers in agriculture began to fall. A defining characteristic of economic transformation is not only a rise in per capita GDP, but a change in the structure of (a) output, and (b) employment of the economy. In India, the failure of post-1991 economic reforms has meant that while the share of services in output has grown, their share in employment has not grown significantly (see Table 2.5 and 2.6). Accordingly, labour has not been moving out of agriculture at a rate fast enough to bring the absolute number of workers in agriculture down, which is a defining characteristic of structural transformation. It was only since 2004–05 that for the first time in India's post-independence economic history, 37 million workers left agriculture in the seven years to 2011–12 (by usual status of activity).² While the share of the workforce engaged in agriculture had been declining (see Table 2.4) consistently, the fact that construction (both rural and urban) investment was growing rapidly between 2004–2005 and 2011–12 led to landless agricultural labour leaving agriculture to become construction workers. A Lewisian structural shift had begun (Lewis, 1954).

The second path-breaking development in the Indian economy that began at the same time was that after 2004–05 for the first an absolute decline in the numbers of the poor was witnessed. The most important consequence of the numbers leaving agriculture as well as the introduction of the Mahatma Gandhi

1 The original version of this chapter was delivered as the Smarajit Ray Memorial Lecture in August 2012, in Hyderabad and draws upon the author's experiences as the head of the Rural Development Division of the Planning Commission, Government of India over 2006 to 2009.

2 See chapter 4, and Chand and Srivastava (2014) on this subject.

National Rural Employment Guarantee Act (MGNREGA) – a nation-wide rural public employment programme since early 2006 which offered much higher than open market wages in rural areas – was that all wages in rural areas rose rapidly. The rise in wages caused consumption expenditure to also increase in real terms, resulting in a faster than hitherto decline in poverty. While income poverty incidence declined by 0.7 percentage points per annum between 1993–94 and 2004–05, between 2004–05 and 2011–12 it tended to decline at over double that rate (a 2 percentage point fall per annum).³ However, further hastening the rate of poverty reduction will be crucially dependent upon the fortunes of agriculture (both crop and non-crop), since half of the country's workforce is still dependent upon agriculture.

In the next chapter, it is reasoned that this reduction in poverty has fuelled new consumption by the new non-poor, which is driving non-agricultural employment. John Maynard Keynes (1936, chapter 24) had predicted in discussing the causes of unemployment, that it was lack of consumption that prevented full employment, and so higher share of national income in the command of poor people would promote growth, until full employment was reached. Our argument is consistent with that of Keynes.

At the end of the eighteenth century the industrial revolution was just beginning in Britain. Real wages started to rise a little later, early in the nineteenth century in the UK. The lag in the real wage rate response to the industrial revolution in the UK is indicative of a Lewis model phenomenon (1954) and a similar process seems to operate post-2005 in India. In the model a surplus of labour in the rural economy keeps wages at a low level until that surplus is absorbed by the economy's modern (urban) sector, as this expands due to technical progress. There is plenty of surplus labour still in India's agriculture, as is evident from the fact that half of the total workforce is producing 15 per cent of GDP which suggests agricultural productivity is not rising fast enough to keep pace with rising real wages. This is an issue to which we will return later in the chapter, because the Indian rural economy is suffering from several sources of stress.

3 Globally, a more poverty reducing process of economic growth emerged since 2000. This was helped by Chinese growth and its impact on poverty, but even for developing countries other than China, the trend rate of poverty decline rose from 0.4 per cent per annum over 1980–2000 to 1 per cent per annum after that, based on the \$1.25 a day per person poverty line (Ravallion, 2013).

Census 2011 states that 68 per cent of the country's 1.2 billion population is still rural.⁴ First, in the entire post-independence history of India the growth rate of agriculture has rarely and then too barely exceeded 3 per cent per annum. With this growth rate one cannot claim that there has been an agricultural revolution in India, despite a green revolution in the 1970s and 1980s (Table 3.1). The historical evidence of the now industrialised countries is that an agricultural revolution preceded the industrial revolution. The same evidence is also found in the miracle economies of East Asia, which experienced agricultural growth rates twice those found in India between 1950 and 1980, before and simultaneous with their industrial transformation (Saith, 1995). The policy failures that have resulted in slow agricultural growth in India are discussed in section 1.

The second source of rural India's distress derives from the partial failure of government's poverty alleviation programmes. From chapter 1 the reader will recall that poverty reduction results from a combination of three forces or sets of interventions: economic growth, human capital development and finally direct social protective action. The government has put in place direct interventions to alleviate rural poverty – among them programmes to encourage wage employment and self-employment – but historically many of them very poorly designed, resulting in large-scale leakage of funds.

The third source of the crisis in rural India derives from the fact that non-farm employment in rural areas is not growing rapidly enough, in complete contrast to China (which will be discussed later on in the chapter). Similarly, there has been in

4 A clarification in regard to this ratio is in order here. Countries have different ways of defining what is 'urban' and cross-country comparisons of 'urban' share of a country's population are fraught with problems. India has a statutory definition of 'urban', which is: (a) all statutory places with a municipality, corporation, cantonment board or notified town area committee; or (b) a place satisfying all the following three criteria: (i) a minimum population of 5,000; (ii) at least 75 per cent of male working population in non-agricultural pursuits; and (iii) a density of population of at least 400 per sq. km. However, in Angola, Argentina and Cuba all localities with 2000 inhabitants or more are considered urban. Most of India's rural population resides in villages that contain between 500 and 5000 inhabitants. If India were to adopt a different definition of what constitutes 'urban' it could suddenly transform itself from a mainly rural to a largely urban population (Hardoyet et al., 2001). Similarly, it is difficult to identify the size of a city's population as that is a function of how and where city administrative boundaries are drawn in different countries. For instance, China significantly lowered the criteria for qualifying localities as urban in the early 1980s. Hence Chinese statistics showed a massive increase in the size of the total urban population in the mid-80s, even though a large part of this 'urban' population was engaged in agriculture (Cohen, 2004).

India slow movement of labour out of agriculture into urban industry and services, and the structural transformation in terms of both output and employment has been slow (Binswanger, 2013).

Table 3.1: Average GDP growth rates – overall and in agriculture
(per cent per year at 1999–2000 price)

Period	Total economy	Agriculture and allied sectors
1951–52 to 1967–68 (Pre-green revolution)	3.69	2.54
1968–69 to 1980–81 (Green revolution period)	3.52	2.44
1981–82 to 1990–91 (wider technology dissemination period)	5.40	3.52
1991–92 to 1996–97 (Early reforms period)	5.69	3.66
1997–98 to 2001–02 (9th Plan)	5.52	2.50
2002–03 to 2006–07 (10th Plan period)	7.77	2.47
2007–8 to 2011–12 (11th Plan period)	7.9	3.2

Source: National Accounts Statistics 2008 (New Series), Central Statistical Organization, Ministry of Statistics and Programme Implementation, New Delhi.

Table 3.2: Unemployment and wages, 1993–94 to 2009–10

Unemployment rate (%) (CDS)		Salaries and wages	
		Regular workers	Casual workers
		(₹ per day, for male rural workers)	
1993–94	6.06	58.48	23.18
1999–2000	7.31	127.32	45.48
2004–05	8.2	144.93	55.03
2009–10	6.6	249.15	101.53

Source: Author's estimates from National Sample Survey's various rounds.

Notes: Current daily status (CDS) is one of the three measures of employment (see chapter 4).

In short, the argument this chapter is making is the following. Real wages have been rising since 2004–05 (Table 3.2), poverty has declined sharply,

mechanisation is occurring apace in agriculture, rural consumption is rising, and workers are leaving agriculture. However, farm yields are growing too slowly and the structure of employment in the economy is still changing slowly. The most important outcome of these latter processes is that the real price of food is not declining over time, as Balakrishnan (2010) and Planning Commission (2013, Vol. II, chapter 12 on Agriculture) demonstrate.⁵ The real price of food can only decline with rising yields and productivity, especially in a situation in which input prices (particularly wage rates) are rising. If the real price of food does not fall, the demand for non-food commodities (i.e., manufactured foods) and services will remain constrained. In 2011–12, nearly half of the monthly per capita consumption expenditure (NSSO 68th Round) is still on food items (55 per cent in rural, 43 per cent in urban in 2004–05). This share has not changed significantly since 2004–05.

There is an inverse correlation between the share of food in total consumption and the level of per capita income, across countries. Thus, the share of food is less than 14 per cent in the US, Japan, UK and France and 27 per cent in Thailand. Hence, this chapter is mainly focused on how the real price of food can be reduced rapidly, which is quite the opposite of the phenomenon India has experienced.

3.1 The Crisis of Growth in Agriculture

Table 3.1 shows that historically agriculture in India has performed poorly. In the pre-green revolution period (1951/52–1967/68) when the economy was growing at 3.7 per cent per annum, agriculture grew by 2.5 per cent per annum over the first three Five Year Plans. Agricultural growth remained at 2.44 per cent pa during the so-called green revolution (GR) period (1968/69–1980/81, i.e., the 4th and 5th Plans), primarily because the GR was confined to a small part of India (i.e., Punjab, Haryana, and Western UP). It was only 30 years after planned development began that, during the 6th and 7th Five Year Plans, agricultural growth exceeded 3 per cent pa (3.5 p.) over the 1980/81–1990/91 period, as the GR spread to other parts of the country in the 1980s. That growth rate was sustained as GR technology was disseminated further during the 8th Plan period

5 Thus Balakrishnan (2010) shows that relative to other commodities the price of food has remained stable (1993–94 = 100, 2000–01 = 109, and 2008–09 = 103). In fact, Planning Commission (2013) shows that with 2004–05 = 100, all agricultural produce price index (i.e., food grains, pulses, fruits and vegetables, milk, eggs/fish/meat, oilseeds, sugarcane, fibres) rose sharply after 2008–09 to 122.

(1991/92–1996/97). However, the below 3 per cent pa agricultural growth returned for the following decade, with yields stabilising. Agricultural output growth returned to 2.5 per cent pa over the 9th Plan (1997/98–2001/02), and remained the same over the 10th Plan (2002/03–2006/07).

It is only in the most recently completed 11th Plan period (2007/08–2011/12) that agricultural growth revived to 3.4 per cent pa, thanks partly to new public investments. However, incomes grew much faster after 2001 in the economy. The gap between output growth in agriculture and income growth in the economy as a whole had never exceeded 3 percentage points up until 1980/81. That gap was 2 percentage points during the 1980s and ranged between 2.5–3 percentage points in the 1990s. However, in the 2000s when the GDP growth rate rose sharply the gap between the agricultural growth rate and overall GDP growth jumped to between 4.5–5 percentage points. Naturally, food inflation set in, and since 2008 food inflation has been over 10 per cent pa. Given the very significant weight of food⁶ in the consumer price index (42 per cent) basket of commodities, overall inflation has remained well above what was perceived as normal for the Indian economy hitherto (i.e., 5 to 6 per cent pa).

This is especially distressing in a country where in 2011–12 some 49 per cent of the workforce was still engaged in agriculture. Moreover, as much as 84 per cent of farmers are small and marginal (SMFs), tilling less than 2 hectares of land, and most are net purchasers of food in the market, especially non-cereals. While the GR did increase yields, there have been offsetting forces at play. The average farm size has been shrinking over time on account of the average annual population growth rate being 2.1 per cent pa over 1951–81, and even though it declined to 1.4 per cent pa in 2010, the fragmentation of farms continues. The inverse relationship between farm size and labour productivity (Bhardwaj, 1962) – which was standard, traditionally accepted wisdom, no longer holds as farm sizes have shrunk way below viable levels.⁷ Under these structurally difficult conditions

6 Not only is food inflation an enemy of inclusiveness in the growth process, it is notable that the major source of protein for the Indian poor – lentils – saw a decline in area planted as did an important source of fat, vegetable oil, since oilseed production on average declined over four decades, causing imports and rising oil prices.

7 Land reform can mitigate the rural poverty. Singh and Mehrotra (2014) discuss several reforms in the context of Uttar Pradesh, the most populous and agriculture-dependent state of India. The reforms are: legalise tenancy (UP is a handful of states where tenancy is illegal) to enable use of fallow land and counter farm-size shrinkage; intensify land consolidation to also counter adverse effects of farm size shrinkage; implement land ceiling to ensure homestead rights to homeless; encourage group farming to enable small/marginal farmers

policy failures and their effects are exacerbated. In fact, rural poverty is impossible to mitigate unless policy failures are corrected. The National Commission on Farmers (2006), chaired by professor M. S. Swaminathan, the doyen among scientists who led the GR, exhorted every state government to launch a 'yield gap' movement to take advantage of the vast untapped yield reservoir existing in most farming systems even with the technologies currently on the shelf. So what is holding back farmers from realising this yield gap? The problem lies with the failures of both central and state government policies in eight areas.

3.1.1 Fertiliser subsidies⁸ reducing soil fertility

On account of the fertiliser subsidy, which continues to rise, the first problem is the adverse impact on soil health due to imbalanced use of chemical fertiliser, leading to a decline in output response to fertiliser in the fertile irrigated regions. To quote the 11th Five Year Plan

The present system of fertiliser subsidy is irrational and has become counter-productive. Fertiliser is sold at almost the same controlled price throughout the country. However, because nitrogenous fertilisers are subsidised more than potassic and phosphoric fertilisers, the subsidies tend to benefit more the crops and region which require higher use of nitrogenous fertilisers. Balanced use of fertiliser can be achieved either by distributing the present amount of fertiliser subsidy over nitrogen, phosphorous and potassium

to access inputs and enter the contract farming market; develop a land use policy to restrict inefficient conversion of agricultural land to non-agricultural use that has grown sharply in the past decade; implement the new land acquisition act, and especially the rehabilitation and resettlement measures for old and future displaced persons; implement the central government's land records modernisation programme; and ensure women's rights in land through legal changes.

- 8 With the intent of maintaining equitable distribution of fertilisers and availability at fair rates, the Government of India prescribes maximum prices at which fertilisers may be sold. Fertiliser subsidies have underpinned the GR and ensured food security at the national level. India has hence had a much higher level of fertiliser consumption per unit of land than prevails in sub-Saharan Africa. The quantum of subsidy that manufacturers receive is the difference between their normative cost of production and the subsidised maximum retail prices that fertilisers are sold at. Basking in the glow of the subsidy regime, manufacturers have allowed production to remain stagnant over 2005–12, although demand has grown at 5 per cent per annum. As a result, India's dependence on fertiliser imports has grown. 90 per cent of phosphatic and potassic fertilisers are imported and 20 per cent of urea is too (Nilekani Committee Report, 2011).

(NPK) in a manner which is nutrient neutral or by increasing subsidy on P and K in such a way that farmers are encouraged to use NPK in the right proportion⁹ (Planning Commission, 2008).

However, over the 11th Plan the cost of the fertiliser subsidy to the central government increased from 3.6 per cent of agriculture GDP in 2006 to 5 per cent in 2010–11. By contrast, public gross capital formation in agriculture in 2010–11 was 2.7 per cent of GDP. The central government introduced a new scheme in the 11th Plan to promote soil testing and issue of soil health cards to farmers (learning from Gujarat) to spread awareness of micro-nutrient deficiencies caused by excessive and unbalanced fertiliser use. Also, to rationalise fertiliser subsidies, a nutrient-based subsidy system was adopted to subsidise fertiliser products based on nutrient content, rather than set product-wise subsidies (Planning Commission, 2013).

The tragedy is that this change in policy shows little result in terms of higher additional output per additional use of input, as admitted by the 12th Plan. A further tragedy is that the prime GR areas (including Punjab, Haryana and West UP) use 90 per cent of all fertilisers, while fertilisers use in east, central and northeast India remains very low. Fertiliser subsidy also disincentivises the use of organic manure; the annual unused manure potential from crop residue, animal dung and rural compost is 9.1 million tonnes (MGI, 2014). However, political compulsions hold back fertiliser subsidy reform. Thus, the continuing fertiliser subsidy (and also water and electricity subsidies that are discussed later) are at the expense of other agricultural investments, including expansion of agricultural extension services. It is important to get the sequence of reform right. First, food inflation must be contained (which requires structural reforms discussed below), after which the fuel and fertiliser subsidy can be aggressively reduced.

3.1.2 The demise of extension services

Filling the yield gap will require a substitute to the failed extension system in the country, which had played an important role in the spread of the first GR. The challenge before state governments is how to deliver knowledge to all farmers, especially the resource poor farmers (with holding size below one hectare) to reduce their innovation adoption period. The 11th Plan made the case to route

9 NPK should be used in the ratio of 4:2:1, but urea (i.e., N) subsidy has encouraged its use. This is also perverse since urea is imported by India, and world urea prices have risen because of India's larger imports.

all the state and central government extension funds through agencies like Agricultural Technology Management Agency (ATMA), for effective utilisation of crucial resources. During the 11th Plan period 604 ATMAs were established (one in each district of India) and 21,000 posts of extension officers were sanctioned. The ATMA and Krishi Vikas Kendra (Agricultural Development Centres) at sub-district level are to work together. It remains to be seen how they will work, given the small number relative to need.

Public efforts in extension have trailed behind private groups. The State Departments of Agriculture (751 extension workers per million farmers), the Directorates of Extension (16) and Krishi Vikas Kendra (19) have far fewer extension personnel than the private sector. Thus, the Private Farmer Association (926 extension workers per million farmers) and Producer Cooperatives (1078) have far more (Planning Commission, 2013). Perhaps the private sector (including private companies offering fee-based services) will cater to the middle and large farmers. The public sector can focus on the small and marginal farmers.

However, the question remains, will the public sector extension workers suffice, given that 84 per cent of farmers are small and marginal? The National Rural Livelihood Mission (NRLM),¹⁰ which is now attempting to replicate the very successful models of self-help movement of women in Andhra Pradesh (Vellugu) and in Kerala (Kudumbshree), can be a way forward. Women members can be trained as extension workers, although there is no evidence that there was a feminisation of agriculture (women's share in total agricultural labour force was 35.5 per cent in 2011–12 and 42 per cent in 2004–05). A new mission on extension and technology management in the 12th Plan is supposed to provide a new thrust on extension, seeds and farm mechanisation.

The country may also learn from the Gujarat initiatives. The agricultural research and extension system had deteriorated in Gujarat, as in the rest of India. Many initiatives were taken by the Gujarat Government after 2000 (Shah et al., 2009). It unbundled the massive Gujarat Agricultural University into four independent universities with a large increase in resources and autonomy. Its

10 This is a Government of India (GoI) programme of the Ministry of Rural Development to succeed the Sampoorna Grameen Swarozgar Yojana (SGSY), from 2011 onwards. The successful design of programmes in Andhra Pradesh and Kerala is now being replicated throughout the country. This will not only bring about financial inclusion as women members of self-help groups (SHGs) acquire bank account and a credit history, but it can be an instrument for improving agricultural productivity, since women can be trained as extension workers as has been happening in Andhra Pradesh and Kerala.

scientists then were mobilised to rejuvenate the moribund 'training and visit' extension model. The state also developed its annual month-long 'Agriculture Mega-Festival' campaign as a unique extension model that brought together agri-scientists, extension staff, agro-industries, cooperatives and banks to exchange information on technologies and market opportunities. Shah et al. (2009) argue that partly due to extension work, Gujarat farmers have shifted en masse from a 13:7.5:1 NPK composition in fertiliser use, which was harmful to crops/soil, to a 6.5:3.5:1 composition, thus reducing cost, increasing production and improving net income.

3.1.3 Agriculture credit

Since 84 per cent of all cultivators are small and marginal farmers (SMFs) cultivating less than one hectare of land, credit is an essential requirement facilitating their purchase of modern inputs. However, the outreach of the formal institutional credit structure is very limited. NSS 59th Round (2003) revealed that only 27 per cent of all cultivator households received credit from formal sources while 22 per cent received credit from informal sources. The remaining households, consisting mostly of small and marginal farmers, had no credit.¹¹ Small and marginal farmers can only borrow small amounts or less than ₹ 25,000 in order to remain within their repayment capacity. For such farmers the alternative sources of finance are expensive loans from moneylenders. Direct finance to agriculture under priority sector lending includes credit for the purchase of trucks, jeeps, and other transport equipment – which small farmers cannot afford, and for which alternate sources of funding are available. Credit to small/marginal farmers can only increase if the share of direct accounts with a credit limit of ₹ 25,000 is sharply increased.

Agricultural credit grew sharply since 2005. However, the share of credit to SMFs dropped dramatically across India from 23 per cent in 2005 to 4.3 per cent in 2013. Meanwhile, loans of ₹ 10 million and above are driving the growth in agricultural credit; the share of such loans rose from 7.5 per cent to 10 per cent over the same period. The definition of agricultural credit was revised to include agri-businesses and corporates, as well as storage equipment in cities and loans for commercial/export oriented agriculture (Ramakumar and Chavan, 2014).

11 Another skewness in the distribution of credit arises because the north and south of India receive a disproportionate share (two-thirds) even though they have only 39 per cent of gross cropped area (MGI, 2014).

Second, the 12th Plan (Planning Commission, 2013) admits that credit, even by the Cooperative Credit Structure, to small farmers has remained low, even though credit to agriculture increased sharply during the 11th Plan. Besides, since three-fourths of all agricultural loans are given by commercial banks, there is a need for increasing the capacity of smaller cooperative banks to lend, that in turn requires their re-capitalisation (MGI, 2014).

Third, farm loans constitute 11 per cent of the total gross non-performing assets (NPAs) of state-run banks (and state-run banks NPAs have grown since 2008 after the global crisis resulted in lowered demand and profits). Three actions are necessary to remedy this situation. Firstly, banks must stop the practice of ever-greening of farm loans (i.e., the practice of banks giving new loans to a borrower to help him meet interest payments on an existing loan). Secondly, the practice of governments to grant a wholesale farm loan waiver (as by UPA I in 2008 amounting to ₹ 60,000 crores, or \$1.5 billion at the 2008 exchange rate) must stop, as it distorts the credit culture in rural areas, as even good borrowers have hesitated to re-pay banks. Fourth, bank could impose a cess on all borrowings above say ₹ 5 million so that a fund is created automatically, which can be used to make provisions for write-offs for NPAs. Bigger borrowers may pay higher costs but they would subsidise the poorer borrowers.

Finally, the Mor Committee (2014) recommendations on incentivising state-run banks to lend to agriculture should be implemented. Currently banks are required to provide 40 per cent of their total lending to priority sectors (agriculture 18 per cent, small and medium enterprises the remainder). This should increase to 50 per cent, but this target should be implemented by banks by assigning weights to sub-sectors and districts based on the difficulty of lending.

3.1.4 Water: Revival of rain fed agriculture through watershed management and management of freshwater

Only 40 per cent of all cultivated land in India is under irrigation, meaning that the remaining 60 per cent is dependent upon the rains. Rain fed agriculture has, to quote the 11th Plan, 'suffered neglected in the past in not having received differentiated technological, institutional, infrastructural, and investment support'. After a high growth in rain fed agriculture during 1985–96, the slowdown in its growth since 1996 was greater than that of the irrigated sector, partly due to liberal trade policies in vegetable oils grown mainly in rain fed areas, on the one hand, and ineffective domestic support prices of rain fed crops (including lentils/

pulses), on the other. Minimum support prices exist for many crops, but they are effective only in regard to rice and wheat, because the farmers of Punjab and Haryana, providing most of the supplies procured by Food Corporation of India, are the most politically vocal. The result of these policies has meant the stagnation of total production of pulses until very recently, giving rise to sharp increases in the prices of various lentils/pulses, as incomes rose (pulses have a positive income elasticity of demand). Lentils are the main source of protein in the diet of vegetarian Indians and their rising prices have constrained consumption. Given that at least one-third of adult Indians suffered from protein-energy malnutrition (2005/6), raising lentil production and containing a rise in lentil prices should be a key policy objective. Pulse crops need to be promoted by providing improved seeds, availability of specific nutrients of sulphur and phosphorous and better market linkages.¹²

Watershed management in the 60 per cent of cultivated land that is rain fed remains a neglected area of policy. The integration of the erstwhile programmes (Desert Development Plan, Drought-prone Areas Programme and Watershed Development Project) into the Integrated Watershed Management Programme (IWMP) during the 11th Five Year Plan was a considerable advance, as was the establishment of a National Rain-fed Areas Authority for the first time in the history of India. Another major development in the improvement of water conservation was the start of Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) in early 2006, the focus of which has so far has been very much upon water conservation and land development. However, one cannot seriously expect major improvements in rain fed agriculture productivity unless MGNREGA and IWMP converge very effectively. There were problems enough with the lack of funds available for the large scale watershed management programmes for watershed of 500 ha and larger.¹³

The management of water resources in rain-fed areas alone has not been a

12 The National Food Security Mission is supposed to do that and has seen a success in that the output for pulses increased during the 11th Plan, but without sustained effort to increase productivity/output, the output increase may not sustain..

13 The investment requirement for treatment of 36.6 million hectares of watersheds in the 11th Plan was estimated at ₹ 36,600 crores. The 11th Plan had noted that only about ₹ 23,000 crores was likely to be available from the concerned central ministries (Ministry of Rural Development and Ministry of Agriculture). It was then hoped in the Plan document itself that substantial additional resources can become available through convergence with National Rural Employment Guarantee Act (NREGA) and the Backward Regions Grant Fund programmes. However, that convergence was hardly achieved.

problem; even surface and ground water in irrigated areas faces serious regulatory challenges. Some 80 per cent of freshwater in India is used by agriculture, but in most states it is provided free for irrigation, leading to its overuse. Use of sprinklers or of drip irrigation is limited in India. Ground water extraction is not metered in anyway, so that rich farmers bore deeper and deeper tube-wells, and not only oversupply their own fields, but sell the water for irrigation to poorer neighbouring farmers who can't afford to dig bore-wells themselves. This groundwater is a public good, which has been privately captured by the bigger farmers. Thus, while the ground water table declines due to their excess use of water, the poorer farmers suffer a double whammy. Drip irrigation is very limited in India.¹⁴ This irrational, inefficient and inequitable use of water is encouraged by the subsidisation of diesel (used to drive the pump-sets) and the often free provision of electricity (which in any case is in short-supply) by many state governments.

Both in the management of water resources and the pricing of electricity for farms Gujarat has shown the way – which partly explains why Gujarat has experienced a growth rate in agriculture that is at least twice (about 6.7 per annum) the national average, despite being semi-arid. Canal-irrigated south and central Gujarat should have led Gujarat's agricultural growth. Instead it has been dry Saurashtra and Kachch, and north Gujarat that have led it. It is mass-based water harvesting and farm power reforms that have rejuvenated Gujarat's agriculture. While excessive groundwater use in the grain belt of Punjab and Haryana has caused a serious fall in the groundwater table there and elsewhere in India, Gujarat Government has, by contrast, supported farmers to undertake decentralised rainwater harvesting and groundwater recharge work. This started as a mass movement. The programme worked best in Saurashtra and Kachch regions in conserving rainwater and recharging aquifers for the state as a whole. By December 2008, nearly half a million structures were created (check dams large and small, farm ponds, 'boribandhs') under the oversight of the Water Resource Department of the Government but in a participatory campaign mode. Secondly, as Shah et al. (2009) note, the government popularised micro-irrigation (i.e., the use of sprinklers, drip irrigation) to prevent inefficient use of water

14 Krishna (2013) gives one reason – corruption – for the absence of drip-irrigation: '... the drip-irrigation company, Driptech, offers an excellent innovative, affordable solution to Indian farmers at a fraction of the cost of higher-end solutions. Deployment of the latter gets huge subsidies from the government, which dealers in partnership with babus [bureaucrats] cream off in part, making farmers wait for months before giving them the rest. No wonder mass adoption of drip irrigation remains a distant dream.'

during irrigation, which is common all over India. While the central government underfunds the subsidy to encourage sprinklers/sprayers/drip irrigation, which requires a capital investment by farmers, the Gujarat Government developed a subsidy-loan programme, which is by far the best offered by states to adopters of micro-irrigation. As a result, the spread of micro-irrigation is more rapid in Gujarat than other states.

Gujarat's approach to power supply for agriculture also offers lessons for other states. All over the country, electricity is in short supply, including for agriculture. Despite demand for power in general exceeding supply, most Indian states charge a subsidised flat tariff for farm power supply. Some (like Punjab, Tamil Nadu and Andhra Pradesh) even provide free power to earn electoral votes of farmers. However, power comes with frequent interruptions and very low voltage (which encouraged diesel-powered pump-sets). But poor quality power supply is a dampener for agriculture growth.

Instead of 24×7 power supply (which remains a distant dream), the International Water Management Institute has been suggesting, according to Shah et al., (2009), a second-best solution: (a) ration power supply to fit irrigation demand schedule; (b) provide power ration against a fixed, pre-announced schedule; and (c) provide uninterrupted supply of full voltage, preferably at night when urban/industry power demand is low. Gujarat follows all three principles, while Punjab and Andhra Pradesh follow only one.

Unless such water resource management practices are adopted rapidly, farmers will find it even more difficult than at present to cope with the effect of climate change on farms/output.

3.1.5 The failure to modernise agricultural marketing and storage

When the respective State Agriculture Produce Marketing Regulation Acts (APMC) were first introduced in the first few decades after independence in 1947 they resulted in what has been described as 'significant gain in marketing infrastructure development' (11th Plan, page 22). They were the states' effort to provide infrastructure by the government where farmers would bring their produce for sale; the produce would be purchased by wholesale middlemen/traders who would take it to the consumer market in towns and cities. Over time the traders have come to completely control these markets ('*mandis*') and developed a vested interest in preventing private competing market infrastructure

from emerging. In many states reforms to APMC Acts have been done (including 12 of the 21 major states and 3 north-eastern ones); there are some states where no APMC Act exists and hence do not require reforms (Kerala, Bihar and some Union Territories). However, that still leaves plenty of states where APMC Acts must be done away with or reformed. There is urgent need for new markets to be established by private entities or cooperatives – which involves freedom from control on sales/purchase of produce, its movement, storage and processing. Currently, there is no unified national market because there are barriers on inter-state movement on produce. The 12th Plan (Planning Commission, 2013) still bemoans the fact that APMC Acts are not been reformed – five years later.

Gujarat was among the early states to amend the APMC Act to enable farmers to directly sell their produce to wholesalers, exporters, industries and large trading companies without having to operate through '*arhatiyas*' or commission agents. The amendment also enabled conditions that encouraged the spread of contract farming. The government also encouraged large corporates to establish retail chains and source their produce directly from farmers.

Storage for produce is another problem. The most outrageous example of poor planning leading to inadequate storage infrastructure is demonstrated by the fact that in 2012, 80 million tonnes of food grain was procured by the Food Corporation of India (FCI), and nearly a third of it was lying in the open because storage facilities are not available. In such a situation one can only wonder why the repeated argument made from the Planning Commission was not being heard that the untargted fertiliser subsidies absorbing scarce tax revenues should not only be scaled down, but the same money could be much better utilised in a variety of other public investments in agriculture, including in storage facilities.

Swaminathan (2014) has promoted a national storage policy for some time, with three components. First, there is need for promoting use of small storage bins at the farm level (for example, like the bin developed by government-funded researchers at Pusa). Second, a rural warehouse scheme should be replicated (originally developed in 1979) to prevent losses at the village/block level. Third, there is need for a national grid of ultra-modern food-grain silos in at least 50 locations in India, each capable of storing about a million tones.¹⁵

15 The National Food Security Act, 2013 requires that 65 million tonnes of food grain are available to supply through the Public Distribution System (see chapter 10). The adoption of Swaminathan's proposal would decentralise storage across the country.

3.1.6 Diversification: Fruits, vegetables and flowers

India is the second largest producer of fruits and vegetables in the world, but 10 to 25 per cent of it is wasted because of the absence of the post-harvest technologies. Safe storage, marketing and value addition to primary products has to happen at the village level. Less than 40 per cent of farm produce is presently consumed in urban areas hence local storage is necessary.¹⁶

In particular, perishables like vegetables and fruits must be removed from the ambit of the APMC Act. This will reduce the layers of middlemen and rent-seeking players (Gulati, 2013). In addition, small and marginal farmers should be organised into farmer producer organisations, and further linked to food processors and organised retailers. The latter will need to be incentivised, so that they invest in the back end, to ensure an effective farm-to-fork chain.

India is also the second largest producer of flowers after China but three-fourth of the area under floricultural crops is concentrated in only seven states: Andhra Pradesh, Tamil Nadu, Karnataka in the south, West Bengal in the east, Maharashtra in the west, and Haryana and Uttar Pradesh in the north. With appropriate state policies state governments can ensure an increase in the production of flowers and the enhancement of farmers' income.

3.1.7 Role of animal husbandry, dairy farming and fishery

In India there was an absolute decline in employment in these allied activities of agriculture of 14 million during the second half of the noughties (i.e., 2005–10) (Mehrotra et al., 2013). One would have expected that at least in the allied activities in agriculture – horticulture, animal husbandry, forestry and fisheries – there would be an increase in employment. However, it is intriguing that employment in these activities too declined in absolute terms from 50.8 million in 2004–05 to 34.6 million in 2009–10. Since income has been growing rapidly, and the income elasticity of demand for eggs, milk, fish, fruits and vegetables is high, the consumption of these products is increasing. However, employment in these 'allied agricultural' activities has declined (by the usual principal and subsidiary status of employment).

There may be several reasons for this apparently contradictory phenomenon,

¹⁶ The National Farmers Commission had recommended that home science colleges can be enabled to set up Training Food Parks for building the capacity of SHGs of women in food processing.

with reasons varying by sub-sector of non-crop agriculture. For instance, Jha (2006) points out that allied activity in agriculture saw decline in employment (though an increase in value added) even in the 1990s. A decline in employment in forestry could be on account of a decrease in forest area in the country. Another reason may have to do with the increasing pressure on women's time. Male migration out of rural areas has continued unabated, **increasing the feminisation of crop agriculture**, leaving women with less time to rear poultry or livestock. Clearly, these allied activities have to be promoted, if they are to absorb more labour and increase rural incomes.

About 14.5 million people are employed in fishing, of which 75 per cent are in inland fishing and the remaining in marine fishing. Marine fisheries experienced a transformation, losing its dominance to culture fisheries; the latter is less labour-intensive compared to marine fisheries. Productivity of freshwater inland fishery is well below potential, and quality fish seed is the input needed for increasing productivity. Hence, there is need for brood stocks or banks in each state.

Livestock gives self-employment to some 21 million, and since most of those engaged in livestock rearing are small holders and the landless, dairying is a particularly inclusiveness-promoting economic activity. However, as the 12th Plan rightly notes, richer farmers have access to ground water irrigation, and can grow fodder. But poorer farmers, especially in rain fed areas (where 75 per cent of cattle are located) need access to common pastures that are shrinking. If the state wishes to encourage dairy farming, the right of the poor to common pastures will have to be protected. In addition, success of dairy farming will depend on the density and quality of rural roads.

Gujarat has been a leader in milk production in the country since 1970¹⁷ and for rest of India there are lessons to be learned from this success. Gujarat has always been ahead among states in investing in rural roads since the 1960s. One reason why rural roads in Gujarat are good is the rise of dairy cooperatives, which sent trucks to collect milk from the villages twice daily. In almost all states, rural roads have been built from central funds, the Prime Minister's Rural Roads Programme,

17 Gujarat is where India's (milk) 'white revolution' began in the early 1970s. Operation Flood, a project of the Gujarat-based National Dairy Development Board, was the world's largest dairy development programme, which made India, a milk-deficient nation in 1970 (India was receiving skimmed milk powder donated by the European Economic Community), the largest milk producer in the world, surpassing the USA in 1998. With about 17 per cent of global output in 2010–11, India doubled the milk available per person between 1970 and 2000. The Gujarat-based company, Amul, has become a household name today.

which has underpinned the success of the country-wide rural network building programme, as well as the rise in construction work and real wages all over rural India. Since the rural roads are now in place, and continue to receive priority in central government funding, there is need to extend extension services beyond crops to livestock (but also fisheries).

3.1.8 Better land record management can contribute to rural revival

Small and marginal farmers have limited access to agricultural credit, as argued above. Often complicating their ability to access institutional credit is the poor state of land records in almost all the states, except a few (such as Karnataka, Goa). Again, the 11th Plan made a major advance in this regard by reforming and revamping the earlier land record computerisation programme and converting it to a programme for the modernisation of the system to manage land records and titles. Of the two most important contributions of this new revised programme, the first was that the process of registration of land transaction and mutation should be integrated into one function of registration of deeds. Before registering the deed the officer should check the legality of the transaction. Computerisation should also be done of land records of the previous 50 years, so that the title being registered is uncontested. The second reform envisaged was that the computerisation should be of spatial records, and all the cadastral maps should be digitised. Such a system in all states would provide citizens a record of rights with maps to scale. The thinking was that these two reforms would open up the possibility of shifting to the 'Torrens' system,¹⁸ which is a title-based rather than the present deed-based system (Singh, 2013). Unfortunately, however, progress in this regard has been slow.

Without these eight major reforms, coupled with the public and private investments mentioned earlier, the production base of agriculture cannot revive. And without improving the production base, and hence the agricultural growth rate, the revival of rural India is impossible in the foreseeable future. Agriculture still accounts for nearly half of rural incomes and a growing market for industrial products will emerge with sustained growth in agricultural incomes.

Thanks to NREGA we have seen not only wages rising in public works but also open market rural wages have risen dramatically (Table 3.2). Rising wages have indeed led to a decline in poverty (as seen in Figure 1.2). However, this wage rise

18 The system followed in Australia, named after the lands administrator who was behind Australia's pioneering work in this field.

alone cannot be seen as a sign of rural revival, in the absence of the agricultural growth rate having barely changed over the last 60 years.

3.2 Can Wage and Self-employment Programmes Be a Source of Rural Revival?

The previous section examined the instruments for increasing the agricultural growth rate, as a means of reducing rural poverty. In modern times, direct interventions have also been used in India for rural revival. Let me discuss government programmes directed at rural areas in two parts: (a) those which aim to generative productive wage employment; and (b) those aimed at generating self-employment.

3.2.1 Government's programmes to improve forest rights and land rights

There are two articles in the Constitution that are critical to ensuring greater equity in rural India: the 5th Schedule and the 9th Schedule. The 5th Schedule states that scheduled areas of the country (inhabited mostly by the tribal population), which are forests are to be administered by the Governors of states, by appointing tribal advisory councils from among the tribals of a particular forest reserve or scheduled area. Unfortunately, however, no Governor of any state in India has ever constituted an advisory council of tribals. In this consciously created vacuum, the chief ministers of states have mostly administered their reserved forest by leasing forests for mining to private companies, evicting the tribals living in these forests. Given the fact that the tribal populations constitutes 8 per cent of India's total, or 90 million people, overlooking the constitutional rights of tribals has led to much injustice in the past, with tribals getting displaced but not being rehabilitated or resettled by the state (see Chapter 16 for more on the subject).

The 9th Schedule of the Constitution dealt with the fact that land, which over thousands of years had come under the ownership of upper castes, should be acquired by the government and redistributed among India's landless peasantry. Since land revenue was a state subject the states were directed to legislate land ceiling laws and redistribute acquired land held by landlords over and above the ceiling, to landless farmers. Notably only three states implemented the land ceiling laws legislated by states by 1955: Jammu and Kashmir, West Bengal and Kerala (the latter two of course when communist party governments were in

power). In West Bengal, the *jotedars* (landlords) manipulated the land records and deceived the landless farmers and the government. This resulted in an uprising in Naxalbari led by Communist Party of India – Marxist Leninist (CPI-ML).¹⁹ In Kerala though, the land ceiling was successfully implemented in the plains, which prevented Maoists from starting an uprising there.

We can well ask the following questions: The 5th and 9th Schedule of the Constitution have not been implemented, but then under what laws have the state governments leased forest land to mining companies when it is the tribal advisory council which is responsible to decide how to utilise their forest lands? There may be a simple solution to the problem of the forests. They could be divided into sections of ten villages. The whole area then be cordoned off by the para-military security force and tribal advisory council constituted in each section. The paramilitary forces should be barred from entering this area and also see that the tribal advisory councils are appointed. The councils should then decide how to organise collection of forest produce or lease with mining companies. Such actions can make the paramilitary forces the friends of rural citizens and not the arm of a government sometimes seen by tribals as corrupt and unjust. Such enlightened implementation of the 5th and 9th Schedules could have equity-enhancing effects as well as enable the mining companies to function in the mutual interest of the nation and the tribals themselves.

3.2.2 Improving the effectiveness of wage employment and self-employment generation programmes

India has had a long history of public employment programmes in rural areas, which first started half a century ago. In 2006, such rural work became an entitlement when 100 days of work was guaranteed to any rural household written the year by an act of parliament (MNREGA).

MNREGA had two objectives: one, to provide a safety net to landless and small and marginal farmers in lean seasons of work; and two, raising agricultural productivity, by investing in rural roads, tanks, wells, and *bundhs*. While it has served the first objective very well it remains entirely unclear whether the second objective is being met. If the second objective is not being met then the scope of

19 This is the subject of chapter 16 in this book. However, it is also true that the Government of West Bengal that came to power in 1977 carried out land reforms, especially tenancy reforms that quelled the Maoist movement temporarily. However, the movement has risen again, phoenix-like within the last two decades, the reasons for which are explored in chapter 16.

MNREGA could be sharply reduced to the labour surplus districts of the country, which is where it was focused in the first two years since its inception (when it covered 330 of India's 641 districts). There were many who argued even then there was no need for MNREGA in the remaining 300 districts of the country, most of which are relatively labour scarce. If it is not raising output and productivity even in the labour surplus districts, then the objective of providing a social safety net can be much more effectively and easily served by simply providing conditional or unconditional cash transfers (on which subject, see chapter 14).

Alternatively, it is possible that as non-agricultural demand for labour, both in rural and urban areas increases, especially for construction work (as we discuss later in this chapter as well as in chapter 4), as it has over the entire 2000s, demand for work in publicly provided wage work is declining with number of person days of work generated per year falling since 2010. Hence, financial allocations to MNREGA have fallen.²⁰

More important than wage employment is the need for encouraging self-employment, including in rural areas. Just as adult women have historically combined working on the family farm with household chores, they can diversify their income sources by engaging in self-employment in non-agricultural work based out of the home along with other women, in self-help groups. Women in India already have a very low labour force participation rate, as in much of South Asia (except Bhutan and Nepal). As men migrate out of rural areas, women would need to engage in more non-agricultural sources of livelihood in order to raise family incomes, given that shrinking family farm size over time with the growing population has led to rural distress. Between 2004–05 and 2009–10, there was a withdrawal of rural females from the labour force on a very large-scale (over 20 million reduction in labour force participation of rural women), continuing to 2011–12, the reasons for which are discussed in chapter 4. Hence, increasing their engagement in rural non-farm activities is very important.

Rural revival is critically dependent upon improving the productivity of women workers, who will continue to live in rural areas for the foreseeable future,

20 Bhalla (2013) claims that NREGA accounts for only 0.7 of rural employment (and hence explains just 8 per cent of the fall in poverty between 2009–10 and 2011–12). Unfortunately, Bhalla's estimate is incorrect, since his estimate for casual work as a per cent of total rural employment is wrong (at 1.6 and 2.1 per cent in the two years). The actual correct estimate for casual work is that it is 38 and 36 per cent for rural males, and 40 and 36 per cent for rural women in the two years. Hence, NREGA's contribution to rural income, and hence rural poverty reduction, is much greater than 8 per cent.

more so than men, as 35 per cent of workers in agriculture are women. A rural self-employment programme for women based on the creation of self-help groups (SHGs) of women (SGSY) was replaced by a new one in 2010. It was founded upon the same principle that the famous Grameen Bank of Bangladesh was built, i.e., the principle that groups of poor women are excellent borrowers since their repayment rate for money lent to them by banks is very high. It is a particularly important instrument for engaging women in economic activity jointly, in a region where the labour force participation of women is very low even by the standards of developing countries.

A new programme of the central government, the National Rural Livelihood Mission (NRLM), improved upon the earlier programme. The new programme's design is superior to the traditional micro-finance institutions (MFIs) that are found in many developing countries including India. MFIs and Grameen Bank (Bangladesh) charge rates of interest from these poor households at over 20 per cent per annum. These rates are well above the inflation rate prevailing in the economy, and high real rates of interest put an inordinate burden of repayment on poor households. The only reason poor women (and households) borrow at such high interest rates is because borrowing from local moneylenders is even more expensive. However, borrowing from banks at rates well above the inflation rate puts such SHGs into a continuous cycle of debt – they borrow to continue repaying. However, that also means that such women (and households) can rarely move above the poverty-line, since their economic activities are small-scale, low productivity operations, with low rates of return.

Hence, we drew upon the evidence of success in relieving poverty through SHG-based loans to women in Andhra Pradesh and Kerala, to design a programme to replicate the success in these two states to the whole of India.²¹ We provided for a back-ended interest rate state subsidy for SHGs in the design of NRLM.²² The normal rate of interest that banks charge to women SHGs is between 10–12 per cent per annum. However, the effective rate of interest in the new programme is much lower, since at the time of the last installment of repayment (i.e., amortisation of the loan), the public sector banks give them a near-waiver for that installment.

21 This design has been brilliantly successful in the Vellugu programme (now renamed the Indira Kranthi Patham) in Andhra Pradesh and Kudumbshree in Kerala.

22 I was a member of Expert Group chaired by Professor Radhakrishnan, in 2008, which recommended a complete redesign of the SGSY, a Ministry of Rural Development Programme, to help create self help groups of women in rural areas. The redesigned programme was introduced as the National Rural Livelihood Mission or NRLM.

This ensures not only a high repayment rate is maintained but the women get rewarded for being excellent borrowers. And if the same quality of facilitation and hand-holding is provided to SHGs and their federations, under the nationwide NRLM programme, as has been done successfully in Andhra Pradesh, then women's self-employment will serve to enhance livelihoods in rural India.

Finally, employment prospects in rural non-farm (RNF) activities cannot improve without electricity in rural areas. However, at least a quarter of the nation's households, mainly in rural areas, still lack even access to electricity. No one could sincerely claim that 75 per cent of the country's rural households that do have access to electricity actually received electrical power in their home, given that even most urban areas lack 24/7 continuous power supply.²³ The experience of China must be kept in mind if India wants all rural homes to be lit up with electricity during the 12th Five Year Plan period, i.e., by 2017. Nearly all (94 per cent) rural households in China had access to electricity by 1991. This was achieved not only by means of rapid expansion of grid-based installed power capacity, but rather more by off-grid distributed generation on a small and micro-scale, using the following three means of renewable energy generation: pico- and micro-hydel power, solar power, and biomass gasification.²⁴

However, off-grid generation can only supply household needs. As suggested in chapter 2, grid-based generation must also expand, as without adequate and continuous power of a certain voltage, non-farm economic activities cannot expand faster.

3.3 Rural Non-farm Economic Activity: A Means of Rural Revival?

In India rural non-farm economic activity (or RNFE) has grown in absolute terms, and it does contribute nearly half to total rural household incomes, though RNFE employs only a third or less of the rural work force (Raman, 2012). The fact that despite employing only over a third of rural workers it contributes half of rural

23 Even in the national capital, in the poshest parts of south Delhi homes keep power back-up, either in the form of diesel powered generators or battery powered inverters, in case of a sudden brown-out, which is reasonably common at the peak of summer months, when power demand rises sharply.

24 A central government flagship programme, Rajiv Gandhi Grameen Vidyutakaran Yojana, or rural electrification programme (RGGVY), has provided electricity lines to BPL households in rural India, but very little electricity flows through those lines.

incomes suggests that RNFE activities are more productive than agricultural ones. Therefore, policies and public investments have to be put in place to encourage RNFE activities. Himanshu et al. (2013) agree that while there has been an increased casualisation of non-farm employment, rural poverty has been falling, due to improved access of the historically disadvantaged segments of rural society (i.e., SCs, STs) to RNFE.

Rural distress can be relieved partly by much greater processing of food in rural areas. FAO (2007) and World Bank (2008) have noted that Indian agriculture is particularly striking – in contrast to other emerging market economies – in post-harvest aspects: the low level of supermarket penetration and organisation of the supply chain from farm to retail outlet. Alagh (2014) rightly reasons that for Producers' Association to bargain for farmers' rights with corporate supermarket chains, tenancy records have to be improved so that tenants who farm around two-fifths of land can leverage their assets in bargains with corporates.

We estimate, on the basis of NSS data, 37 million people left agriculture to join non-agricultural activities between 2004–05 and 2011–12.²⁵ This absolute decline in numbers employed in agriculture happened for the first time in India's history after 2004–05. Until 2005 not only had numbers working in agriculture increased but this meant that agricultural wages had remained flat until 2005. However, the introduction of the MNREGA 2006, which offered public employment as a right, raised along with higher minimum support prices (MSP) offered by government for procured cereals rural open market wages as well. At the same time booming investment in infrastructure (\$475 billion during the 11th Plan period 2007–12) raised demand for unskilled labour in construction activities in both rural and urban areas. However, until this process of an absolute decline in the agricultural workforce began around 2006, the flat rural wages and slow growth in agricultural output/incomes had caused rural distress. The recent rise in rural wages, and shift of labour out of agriculture has been accompanied by greater mechanisation of agriculture. Thus a major shift of labour into non-agricultural employment began in 2004–05, as Lewis (1954) had predicted.

The growth of rural non-farm employment (RNFE) was an extremely important source of poverty reduction in China after the economic reforms

25 There was an increase in usual status employment in agriculture from 1987–88 until 1994, and although thereafter there was a slowdown in employment growth in agriculture, the absolute numbers continued to increase till 2004–05.

began in 1979. Note that the economic reform process in China began with the transformation of agrarian relations. By converting collective farms into the household lease and responsibility system, the government gave the farmers tilling rights to the land over 30 year leases over their plots. This individual incentive resulted in a dramatic increase in agricultural output. Industrial reforms and the emergence of rural township and village enterprises began later. The industrial revolution in China in the past two decades was built upon the foundations of this prior agricultural revolution. India needs to ensure a similar shift in economic activities and employment pattern in rural areas.

As Table 3.3 shows, the share of employment in agriculture and allied activities is much higher in rural areas (63.5 per cent in 2011–12) than in the economy as a whole (49 per cent). However, the more important point is that non-agricultural employment share has risen from 22 per cent in 1993–94 to 36 per cent (2012) of total rural employment. It rose quickly from 28 per cent in 2004–05 to 36 per cent in seven years. The increase in per capita expenditure in rural markets surpassed urban markets over 2009–10 to 2011–12.

The reality, however, as our analysis of rural non-farm activities in the 2000s shows, is only partially reassuring. If the numbers employed in agriculture have declined it is mainly because the major growth area for employment in non-agriculture has been construction in all states without exception, and to some extent in services. In about half the states wholesale and retail trade, repairing of motor vehicles, tractors, motor cycles and personal household goods has seen some small increase in employment, as has transport, storage and communication (witness the mobile telephony revolution even in rural areas).

In the majority of states employment in agriculture has declined, and these ‘unskilled’ workers have shifted mainly to construction, which requires unskilled workers in larger numbers as *pucca* housing and infrastructure investment in rural India grows in scale. So growth of construction-related employment and livelihoods appears as the one silver lining in the rural scene in all states, as most homes today in rural areas even in the states with the lowest per capita income (for example, Bihar and Uttar Pradesh) are *pucca* (i.e., brick walls and roof), unlike just a decade ago.

Table 3.3: Sector-wise distribution of rural workers by their industry of employment in India, 1993–2012 (millions)

Industry of employment	1993–94	1999–2000	2004–05	2009–10	2011–12
	Rural areas				
Agriculture, including livestock	227.3	230.6	248.3	226.7	213.6
Forestry and logging	0.9	0.9	1.3	0.5	0.6
Fishing	1.3	0.9	1.2	1.2	1.1
Mining and quarrying	1.8	1.4	1.8	2.2	1.6
Manufacturing	20.5	22.6	27.9	24.1	29.0
Electricity, gas and water supply	0.6	0.5	0.5	0.5	0.8
Construction	6.7	10.0	16.8	31.6	37.1
Trade, hotels and restaurants	12.5	15.5	21.3	21.7	21.8
Transport, storage and communication	4.2	6.3	8.5	9.8	10.0
Financing, insurance, real estate business	0.9	1.0	1.7	2.0	1.9
Community, social and personal services	16.0	14.9	16.0	15.9	18.4
Total	292.5	304.7	345.1	336.3	335.9

Source: Author's estimates based on National Sample Surveys, various rounds

So what are the concomitants or correlates of dynamism in rural non-farm employment? In primary surveys in 2012 in four states²⁶ (Gujarat, Tamil Nadu, Punjab, Uttar Pradesh) it was found that the more urbanised states have more diversified RNF activities, while in UP (a much less urbanised state, 22 per cent,

²⁶ The primary surveys were conducted on behalf of the Institute of Applied Manpower Research in 2012. See, Shah and Patnaik, 2012; Jeyaranjan, 2012; Singh, 2012; and CRRID, 2012. These studies are being published in a book (Mehrotra et al., forthcoming).

as opposed to 42 per cent in Gujarat and 48 per cent in Tamil Nadu) the RNFE is in more traditional activities. This suggests that dynamism in urban non-agricultural sectors have a 'pulling-up' effect on rural non-farm activities. Hence, the focus in urban development policy needs to be on smaller towns (tiers 2 and 3). Second, higher levels of education and the opportunity for acquiring vocational/technical education were found to be related to diversification of occupations. Third, the younger population is attracted to RNFE. Fourth, it was found in all states the landless labourers are the ones who drift towards wage employment in construction, both rural and urban. Policymakers will need to keep these facts in mind for RNF activities to attract more and more people. A focus on skilling rural youth is particularly important (see Chapters 6 and 7 for more on this subject).

A rural revival can only happen if labour moves out of agriculture into non-agricultural activities. This is dependent upon the availability of off-grid power, since the supply-demand gap in grid power grows more severe as rural incomes rise and feed demand. With the state unable to provide electricity, social entrepreneurs are promoting rural off-grid power. Some 250 companies have come up with mini-power stations using micro-hydropower or burn rice husk or methane from cow-dung. Most are generating solar power based on cheap equipment made in China. Solar panels installed on top of house roofs are powering phone towers and selling electricity to houses – thus raising productivity of service activities and incomes. Such power is little help to industry, but is transforming lives in rural India.

3.4 Concluding Remarks

We close by summarising then what are the pre-conditions for rural revival in India. First, a quantum leap in the growth rate of agriculture, which as indicated earlier, is itself predicated upon eight major reforms in the areas of fertiliser subsidy, extension, agricultural credit, marketing, allied activities of agriculture, rain fed crop agriculture and land record management. The real price of food must fall if the demand for non-food items – supplied by manufacturing and services – is to rise. The government must contain MSP increases for rice/wheat (and encourage the production of other crops/coarse grains). Higher MSP drives cereal inflation, which feeds into MSP calculations for the following year, and this cycle must be moderated, otherwise food inflation will be a continuous spiral.

Second, government programmes like MGNREGA have to be re-thought in labour scarce districts of India (and conditional and unconditional cash transfers CCTs begin to be piloted in lieu – see chapter 14 on the subject). Similarly, self-employment programmes like NRLM must strongly adhere to the well-demonstrated model, which lowers the effective interest rate for borrowers while facilitating their economic activity in terms of marketing of products.

The revival of rural India would be impossible without concentrating attention on, and policy support for, rural non-farm economic activities. Forty-nine per cent of the country's workforce cannot continue to produce only 15 per cent of the nation's GDP that comes from agriculture. Labour must move out of agriculture, as it has begun to do since 2004–05. But without changing the strategy for manufacturing and services, the employment-intensity of output growth in manufacturing and services may not improve – a subject to which we turn in the next chapter.

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Addressing the Employment-related Paradoxes of Economic Growth¹

A credible strategy for achieving inclusive growth in India requires an understanding of the limitations of India's unprecedented high economic growth experienced within the last decade (averaging 8.4 per cent per annum at factor cost over 2003–04 and 2011–12). One limitation of the growth process was discussed in the previous chapter – the relative stagnation of agriculture and the rural distress. This chapter points to several major paradoxes in this economic growth story – especially related to non-agricultural employment – which are a barrier to ensuring inclusiveness in growth.

However, we must begin by noting an important dimension of emerging inclusiveness for which evidence is available. Rapid economic growth within the last decade has been accompanied by a greater degree of social inclusion of the most marginalised communities of India's highly socially stratified society – SC, ST and Muslims; as has been noted in chapter 1. One significant finding of the *India Human Development Report 2011*² was that most of the social indicators – health, education, employment, access to electricity, water and sanitation – of SCs, STs and Muslims have been improving faster during the decade of the 2000s than the rate at which the same indicators have improved for the nation's population as a whole. We take this faster improvement to be an indicator of convergence in outcomes of human well-being between the marginalised and the rest of the population. However, the paradox is that while indicators of human well-being are improving faster, thus leading to social inclusion of the

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- 1 This chapter draws upon a body of research (led by the author) at the only research institute of the Planning Commission, which the author headed. The author owes a debt of gratitude to his co-author's in the faculty, who are cited in the papers included in the bibliography.
 - 2 The *India HDR 2011* (OUP, 2011) was written by a core team (led by the author of this book) in the Institute of Applied Manpower Research (of the Planning Commission). It is only the second national human development report (HDR) ever, and the first one in 10 years. The report is downloadable from IAMR's website: iamrindia.gov.in.

marginalised, the evidence for labour-intensive growth while clearly present is weaker. (We define inclusive growth as being one where output growth is accompanied by employment growth, especially in non-agricultural occupations, at least as large as the number of new entrants in the labour force, even though employment growth may be proportionally lower than output growth in a given period.) Besides most non-agricultural employment growth is taking place in informal jobs in unregistered enterprises. This is the first paradox discussed in this chapter (section 4.1).

There is a second paradox. Mainstream economic theory assumes that a rise in the rate of output growth will be accompanied by a rise in employment growth, unless accompanied by a still greater rise in rate of growth of labour productivity (the Kaldor-Verdoorn law).³ Besides, a prediction of mainstream trade theory (of the neo-classical type) is that as a labour-abundant economy opens up to international trade (as India did post-1991 economic reforms), it will export labour-intensive commodities, and thus display a shift in the output composition that is more labour-intensive. Accordingly, rapid economic growth, would be accompanied by growth in non-agricultural employment, especially in manufacturing and in services. The period 2004/05–2009/10, however, which is an unprecedented period in terms of GDP growth in the history of post-independent India, was accompanied by an absolute decline in employment in manufacturing of 6 per cent, and a mere 7 per cent increase of employment in services. So clearly the prediction of mainstream economic theory is not being realised. This paradox, which the second section of this chapter (section 4.2) will address, is worrying because under 25 year olds constitute half of India's population, and two-thirds of Indians are under 35 – most of whom will expect to find jobs in non-agricultural sectors. However, we will show that non-agricultural employment growth picked up rapidly between 2009–10 and 2011–12 (the reasons for which will be discussed) which offers some hope.

A third paradox addressed here (section 4.3) is that, unlike other emerging market economies, India has seen a decline in labour force participation rates

3 The Verdoorn law states that there is a close positive relationship between the long-run rate of growth of manufacturing productivity and the long-run rate of growth of manufacturing output. Kaldor studied the Verdoorn relation using cross-country data at the sectoral level for 12 advanced countries from the mid-1950s to mid-1960s. He estimated the Verdoorn coefficient at the aggregate economy level of one half, i.e., a 1 per cent increase in output requires a 0.5 per cent increase in labour and is associated with a 0.5 per cent increase in growth of productivity.

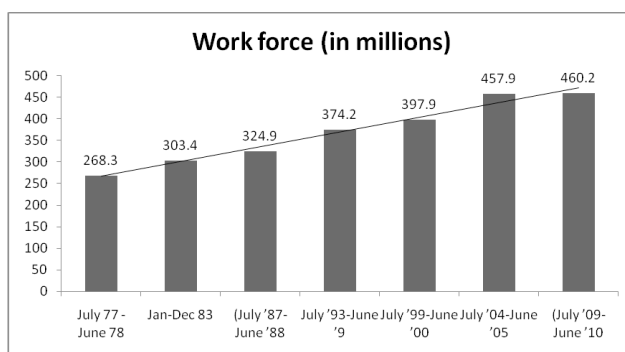
(LFPR) of women, despite growing per capita incomes. In fact, like its South Asian neighbours, India has one of the lowest female LFPR in absolute terms (less than half for China), which instead of increasing has been falling.

Let us reiterate an urgent challenge India's policymakers face. India is at a critical mid-point of its demographic dividend. Demographic dividend is defined as a rising share of the working age population in the total population, with a corresponding falling share of non-working, dependent population which is either below 15 or over 60 years of age. These youth must get jobs in the non-agricultural sector for the demographic dividend to be realised. In other words, the paradoxes of India's recent phase of economic growth must disappear with time, not intensify. The final section discusses the policies needed to address these paradoxes.

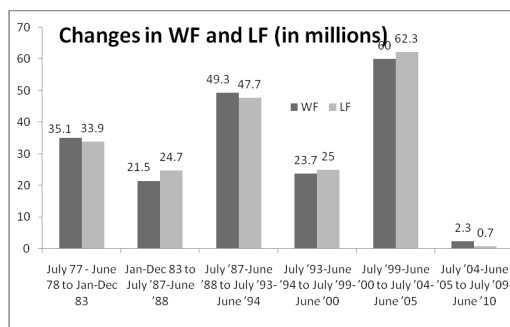
4.1 The First Paradox: Why Output Growth Has Reduced Poverty – But Slowly

With output growth outside of agriculture there should be employment growth as well – or at least that is the presumption of mainstream economic theory. However, it was found that during the first half of the 2000s (i.e., 2000–05) the work force increased by around 60 million over this five year period, but in the latter half of the decade (i.e., 2005–10) the increase in the number of jobs was merely one to two million in the country as a whole (see Figures 4.1 and 4.2). Such volatility has implications for the elasticity of poverty reduction to output growth. In other words, it impacts the inclusiveness of economic growth.

Figure 4.1: Size of India's workforce (WF), 1977–2010



Source: National Sample Surveys, various rounds.

Figure 4.2: Absolute changes in WF and labour force (LF), 1977–2010

Source: Estimated from National Sample Surveys, various rounds.

It has been noted in chapter 1 that economic growth since the early 1980s has been correlated with a decline in the head count ratio of poverty. However, it is equally noticeable that the elasticity of poverty reduction to GDP growth is much lower in India than, say China: -0.8 in China for the period 1981–2005 versus -0.3 for India over 1993–2005 (Ravallion and Dutt, 2009). However, what is notable is that the poverty-growth elasticity changed after 2005.

Our theoretical framework of synergies in chapter 1 would suggest that there were several reasons for the lower elasticity of poverty reduction before 2005. First, the initial conditions in terms of human functionings – health, nutrition and education – were much worse in India than in China. A second reason was that GDP growth was lower in states where a large proportion of India's poor reside. Finally, and most importantly for our analysis in this chapter, the sectoral composition of India's growth (biased towards traditional services) has resulted in fewer productive jobs for the poor (Hasan, 2013).

Most employment growth has been in unorganised enterprises/informal jobs. India is an outlier among middle income countries in having 93 per cent of its total workforce in informal jobs, and 78 per cent of the workforce in enterprises that are defined as unorganised. Table 4.1 presents the data for 2004–05 and 2011–12.⁴

There is another paradox of Indian firms. Most output in industry and services is produced by organised enterprises, but most employment in the secondary and tertiary sectors is in unorganised enterprises. Not surprising, therefore, that the

4 Informal employment is normally contractual (as opposed to permanent), and does not come with social security. Organised segment enterprises usually employ less than 10 workers (if employing electricity, and >20 if without electricity), and most such enterprises are unregistered with the government.

contribution to output of the tiny unorganised segment enterprises (whether in services or manufacturing) has been low.

Consistent with the above, the unregistered manufacturing sector employs about four-fifths of the workers in manufacturing. These unregistered enterprises are small, and are usually very labour-intensive, producing low quality goods using traditional technologies, and are characterised by low productivity. By contrast, registered manufacturing tends to be skill- and capital-intensive. For the manufacturing sector in 2005, 99 per cent of establishments are in the unorganised segment. By contrast only 51 per cent of US establishments have <10 employees (Ghani et al., 2013).⁵ Of course there are some variations by state and by industry/sector across India. The share of unorganised sector in total employment in the states is higher than 85 per cent (across six NSS surveys) in less developed states (Bihar, Orissa and West Bengal), but lower than 70 per cent in more developed states like Gujarat, Haryana, Maharashtra and Punjab.

Within manufacturing, the share of the unorganised segment is >95 per cent in wood products and furniture, with industries in tobacco, textiles, and food products somewhat lower. At the other end of the spectrum, computers, communications, motor vehicles and base metals have an unorganised segment share of <20 per cent. In the services sector, the following have an unorganised segment share >90 per cent: sanitation, personal services, communications, transportation, but railways, education and computers have lower rates. In other words, the more capital intensive and internationally-traded goods and services have lower unorganised segment shares (Ibid, 2013).

The paradox we are emphasising here is that even with rapid GDP growth this segmentation in the labour market and product market, and the duality in respect of enterprise size/productivity, is not showing much signs of change. Using NSS data, the unorganised segment's share of non-agricultural employment was 88 per cent in 1999–2000, and has been falling only gradually to 78 per cent to 2011–12.

5 Service sector enterprises are not required to register and hence are all officially unorganised. However, we still use the cut-off of 10 employees for the organised/unorganised distinction. If one uses a cut-off of 5 employees, 76 per cent of services jobs in 2001 were unorganised (compared to 9 per cent for the US). If a cut-off of >20 workers is used, the unorganised segment has 90 per cent of services employment in 2006 (Ghani et al., 2013).

Table 4.1: Sector-wise distribution of workers by organised-unorganised enterprises and formal-informal employment, 2004–12
(millions with per cent figures in parentheses)

Sectors	Organised		Unorganised		Total	
	Formal	Informal	Formal	Informal	Formal	Informal
2004–05						
Agriculture	0.2 (5.3)	4.1 (94.7)	0.1 (0.03)	264.2 (99.9)	0.3 (0.12)	268.2 (99.9)
Manufacturing	5.0 (32.9)	10.3 (67.09)	0.6 (1.43)	38.0 (98.6)	5.6 (10.4)	48.3 (89.6)
Non-manufacturing	2.0 (21.4)	7.2 (78.56)	0.1 (0.72)	20.1 (99.28)	2.1 (7.19)	27.3 (92.8)
Services	19.5 (66.2)	10.0 (33.79)	1.1 (1.37)	76.8 (98.63)	20.6 (19.2)	86.7 (80.8)
Total	26.7 (45.9)	31.5 (54.1)	1.9 (0.5)	399.0 (99.5)	28.6 (6.2)	430.5 (93.8)
2011–12						
Agriculture	0.5 (3.0)	17.7 (97.0)	0.1 (0.03)	213.6 (99.97)	0.6 (0.03)	231.3 (99.97)
Manufacturing	6.1 (29.7)	14.6 (70.3)	0.4 (0.9)	38.7 (99.1)	6.5 (10.9)	53.3 (89.1)
Non-manufacturing	2.7 (11.9)	19.7 (88.1)	0.3 (0.8)	32.7 (99.2)	2.9 (5.3)	52.3 (94.7)
Services	24.2 (60.0)	16.1 (40.0)	1.2 (1.4)	85.8 (98.6)	25.4 (19.9)	101.9 (80.1)
Total	33.5 (33.0)	68.1 (67.0)	1.9 (0.5)	370.8 (99.5)	35.4 (7.5)	438.9 (92.5)

Source: Author's estimates based on NSS various Rounds.

4.2 The Second Paradox: Output Growth Sustains, but Manufacturing/Services Employment Does Not

With rapid economic growth usually occurs an increase in productivity. There are normally two sources of such productivity increase. One derives from the shift of labour from low-productivity agriculture to relatively higher productivity economic activities in manufacturing and services. A second source of productivity

increase is derived from ‘total factor productivity’ (TFP), which refers to improvements in output for reasons other than increases in inputs of capital or labour. In other words, it refers to the techniques by which labour and capital combine and usually it is estimated as a residual of increase in output that cannot be explained by increases in physical quantities of labour and capital. It is known that TFP has been increasing over the last decade (Kumar and Subramanian, 2011). In the first half of the decade of 2000s, employment in manufacturing increased by 25 per cent (from 42 to 54 million), and in services from 90 to 107 million over 2000 to 2005. This was also a period of rapid non-agricultural output growth. However, remarkably employment in manufacturing fell in absolute terms by 7 per cent (from 54 million in 2005 to 51 million in 2010). It also increased by a slow 9 per cent for the same period in services (from 107 million to 116 million). In other words, growth in gross value added of manufacturing and services was accompanied by slow growth in employment (Mehrotra et al., 2012a; 2012b).

Table 4.2: Size of labour force and workforce (by sector), unemployed, and employment elasticity of output **in India**, 1994–2012

WF, LF and unemployed		Absolute volume (in millions)					Employment elasticity of output			
		1993–94	1999–2000	2004–05	2009–10	2011–12	1999–2000	2004–05	2009–10	2011–12
Total employment by sectors	Agriculture	241.5	246.6	268.6	244.9	231.9	0.12	1.09	-0.67	-0.53
	Manufacturing	38.9	42.8	53.9	50.7	59.8	0.27	0.81	-0.17	1.35
	Non-manufacturing	15.8	20.4	29.4	48.3	55.3	0.74	1.03	1.26	1.07
	Services	77.7	89.8	107.3	116.3	127.3	0.35	0.55	0.20	0.55
	Total WF	374.0	399.5	459.1	460.2	474.2	0.20	0.53	0.01	0.21
Total LF		381.2	408.5	469.9	469.9	484.8				
Unemployed (open)		7.2	9.0	10.8	9.6	10.6				
LFPR female (age 15 to 59)		45.2	41.7	45.4	34.5	33.1				
LFPR male (age 15 to 59)		88.0	86.6	87.1	83.7	82.7				

Source: Author's estimates based on NSS unit level data.

Note: Numbers in the table are based on the principal + subsidiary status of employment.

There are several reasons for this slower growth in employment in the second half of the decade, compared to the first half. One set of reasons derives from the substitution of capital for labour, wherever possible, in both manufacturing and services. The first change at the end of 2005 was the introduction of the rural public employment programme (MNREGA), which spread within two years to the entire country. It raised not only wages on public works, but offered a serious alternative to landless labourers to working on the landlord's farm for the first time in India's rural history. The higher wages offered on public works (whose numbers increased very sharply compared to earlier public works programmes) had a knock-on effect on open market wages in rural areas (see chapter 3). That in turn had a ratchet effect on wage rates in urban areas.

It is not just that wages rose at the lower end of the wage and skill distribution of the population. Rapid growth in manufacturing and services output raised demand for skilled persons as well, faster than productivity rose. These had a combined effect on input costs, with employers beginning to substitute capital for labour (Mehrotra et al., 2014). Policymakers will need to respond quickly by widening and deepening the skill development and vocational education/training programmes so that shortage of skilled persons does not raise wages faster than productivity, and capital does not substitute labour merely because skilled workers are not available (Mehrotra et al., 2014b).

The substitution of capital for labour happened for another very important reason. Globally, technical change in manufacturing has been labour-saving. Historically, the employment generated in manufacturing has been lower in late industrialisers than in early industrialisers. Over the 2000s as the import-intensity of manufacturing has been going up, with it capital-intensity of manufacturing output too has increased (Mohanty, 2013). Policy will need to respond to this rising import-intensity of manufacturing output.

Underlying rising capital-intensity, Sen and Das (2014) report, is a fall in the rental price of capital. They rightly explain the latter by pointing to the liberalisation of the trade regime with respect to capital and intermediate goods since 1991. Import licencing was abolished for most such goods, and the peak tariff rates fell from 300 to 150 per cent and peak duty on capital fell to 80 per cent. Hence the price of capital fell relative to the price of labour, and firms increased substitution of labour with capital in organised manufacturing.

Apart from the rising capital-intensity of output, there has been a demographic factor at play. The age-cohort turning 15 (the working age, hence 14+ are counted

in the labour force) in 2004–05 was smaller than in 1999–2000, so the numbers entering the labour force was much smaller in 2005 (see Mehrotra et al., 2014a for details). And since the workforce normally tracks the labour force there were less jobs ‘generated’. In fact, since the population growth rate slowed to 1.4 per cent per annum (2011), and between Census 2001 and 2011 the 0–6 year child population remained stable (a 0.4 per cent increase), the age-cohort entering working age in 5 to 10 years will be slowing further (Mehrotra et al., 2013). In other words, the working age population will continue to grow, but at a slowing pace.

Finally, as we discuss in the next section a large number of women withdrew from the labour force, even though they entered the post-15 age group. However, the LF participation should rise in a few years, and there is no ground for policy complacency, merely because the age-cohort entering working age is falling and will continue to fall. The female LFPR will rise especially provided government policies actively promote women’s entry into the non-agricultural workforce (see Saha et al., 2014 and Mehrotra and Sinha, forthcoming for details).

4.2.1 Why ~~has~~ non-agricultural employment ~~risen~~ rapidly between 2009–10 and 2011–12?

While non-agricultural employment increased slowly over 2004–05 to 2009–10, it rose very rapidly after that. After 2004–05 the domestic demand for a number of consumer goods grew sharply. This is reflected in the rise in consumption expenditure in 2009–10 compared to 2004–05, which further rose in the two years to 2011–12. This rise of consumption expenditure has resulted in a decline in the numbers of the poor from 407 million (Tendulkar line) in 2004–05 to 356 million in 2009–10, and further to 269 million (2011–12). The decline in poverty and rise in consumption was an outcome of the rise in real wages. This rise in real wages caused a behavioural change in the households’ consumption expenditure following Engel’s law. As a result the demand for non-food consumer goods increased during 2010–12.

This rise in consumption expenditure is reflected in rising output and employment in the following manufacturing sectors: food processing (for example biscuits, milk); leather goods (for example shoes and sandals); furniture (for example plastic chairs/tables, simple wooden furniture); textiles as well as garments and apparel. The newly non-poor are also likely to buy mobile telephones, and as a result telecom services have seen a rise in value added. All these product areas and services saw a dramatic increase in employment in the

two years since 2009–10. It has already been noted in the previous section that it was micro-enterprises that are driving the job creation. In other words, it is the very workers who are getting jobs who are providing the new demand for the products of these tiny enterprises, as well as as the new non-poor (the 138 million who emerged out of poverty between 2004–05 and 2011–12). However, the increase in employment particularly in these unorganised sectors, especially in tiny enterprises, means output generation is occurring in low labour productivity in these sectors. This needs further policy attention if employment in these sectors is to be sustained.

There is an inverse relationship between employment generation and gross value added. The unorganised manufacturing sector absorbs a whopping 65 per cent of employment, whereas the unregistered manufacturing (almost equivalent to the unorganised one) generates only 33 per cent of total output of the manufacturing sector in 2011–12. Naturally the labour productivity in unorganised manufacturing sector is very low.

A question that assumes importance is the following: There was a welcome decline in absolute numbers of those working in agriculture between 2005–10 by 23 million workers (from 268.6 to 245 million), and again to 232 million by 2011–12 – a total fall of 36.7 million – but where did they go to work? The decline in share of agricultural workforce in total employment from 57 per cent in 2004–05 to 49 per cent in 2011–12, combined with the absolute decline in agriculture, is exactly the trend one would expect in a rapidly growing economy. It is a particularly welcome trend coming after a period between 2000 and 2005, which had seen an absolute increase in the numbers engaged in agriculture of about 22 million. Those who moved out of agriculture in the latter half of the decade were quickly absorbed by growing employment in construction activity in both rural and urban India. Construction employment grew from 17 million in 2000 (by 9 million) to 25.6 million in 2005, and remarkably increased by an additional 25 million to 50.3 million by 2011–12.

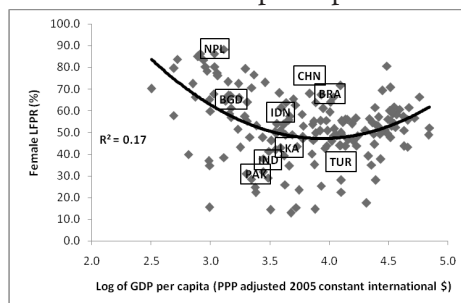
This sharp increase in construction employment in the second half of the decade was triggered by a very significant growth in hard infrastructure investment during the 11th Plan in which US \$500 billion worth of new investment was planned and \$475 billion materialised (38 per cent of it private and the remaining public). Hard infrastructure here is defined as roads, airports, ports, residences, metros, commercial buildings and so on. Investment in infrastructure increased from 4 per cent of GDP at the beginning of the 11th Plan in 2007 to 7.5 per

cent of GDP in 2012. In fact it is highly likely that construction employment will continue to increase over the next five years during the 12th Five Year Plan (2012 to 2017) since infrastructure investment is planned to increase during the 12th Five Year Plan from US \$ 500 billion to \$700 billion, with its share rising to 9.2 per cent of GDP, and the share of private investment in total infrastructure investment growing from the planned 30 per cent in the 11th to 50 per cent in the 12th Plan (Planning Commission, 2013). The only problem is that at least half of this increase in employment in construction is in the unorganised segment, and hence cannot be called decent work. However, it is heartening that there has been a sharp increase in organised employment within construction as well (from 6.4 million in 2005 to 13 million in 2010), and not just in unorganised employment in construction (Mehrotra et al., 2012).

4.3 The Third Paradox: Despite Income Growth, Women's Labour Force Participation Declines

With rise in per capita income, which has been unprecedented in the last decade of Indian history, one would expect the LFPR of women would rise. The paradox is, however, that women's LFPR has been declining. South Asia is unusual among developing regions of the world, as it has one of the lowest LFPRs for women. Since the 1980s there is a near consistent decline in work participation rates for women in India (Mazumdar and Neetha, 2011; Rangarajan et al., 2011). As per capita incomes rise the experience in most other developing regions is that the LFPR of women increases. For example, China and Brazil, two other BRIC economies, have an LFPR for women of 68 per cent and 59 per cent respectively for the age group 15+, while for India it is only 29 per cent, and falling (see Table 4.3).

Figure 4.3: U-shaped hypothesis: Relationship of per capita income and female labour force participation



Source: Verick, 2013

One should note the U-shape of the relationship between per capita income and female LFPR (see Figure 4.1), based on a cross-section of countries. India is at the bottom of the U-shape of the curve. So it is not entirely surprising that the female LFPR in India has been declining.

Table 4.3: Labour force participation of women – India versus emerging market economies and OECD countries (per cent)

Countries	LFPR 15+ (Female workers 15 + divided by total female 15+) (year 2010)	Total female workers divided by total workers
India	29	25
China	68	45
Brazil	59	44
Latin America and Caribbean (developing only)	53	41
Middle income	49	38
United States	58	58
OECD members	51	43

Source: World Bank, Work Development Indicators

There are several reasons for the falling LFPR of women in India. First, more girls are in school. In the age group of 5–14 years, 89.3 per cent of children were in school in 2009–10, up from 82.4 per cent in 2004–05. Further this increase was higher for girls, rising from 79.6 per cent in 2004–05 to 87.7 per cent in 2009–10. At the same time, in the working age group of 15–19 years, 59.5 per cent of young people were in the educational system in 2009–10 as compared to 46.2 per cent in 2004–05. Once again, the increase was more for girls, from 40.3 to 54.6 per cent. In the next higher age group of 20–24 years, 22.5 per cent of boys and 12.8 per cent of girls were still in the educational system in 2009–10 against only 14.9 and 7.6 per cent respectively in 2004–05 (Planning Commission, 2011). These are children and youth who could have ended up in the labour force, but did not.

Second, child labour has declined. If children under 6, between 6 and 14, and

children over 14 are not in the workforce, it is because they are increasingly in school. There is a greater decline in the child labour rate of girls, with the child labour incidence falling from 3.7 in 2004–05 to 2.2 in 2007–08 in rural India and from 1.9 to 1.2 per cent in urban India, and that has fallen further by 2010.

Third, a further reason for the recent fall in female LFPR is the increase in household incomes that have occurred due to rise in real wage rates of both men and women, in both rural and urban areas (see chapter 3). The decline in LFPR of women has been greater in rural areas, compared to urban areas since the introduction of the rural employment guarantee of 100 days (MNREGA) in early 2006 has raised open market rural wage rates for both men and women, which has raised household incomes, enabling women to withdraw themselves from economic activity, at least as measured by principal and subsidiary status. In other words, it can be hypothesised that there is an income effect of rising rural wages after MNREGA, which enabled female withdrawal from the labour force. However, this income effect could not be large at the lower end of the income distribution (i.e., among those who seek MNREGA employment).⁶

Fourth, with older girls going to school (who were earlier responsible within the family for younger siblings' care) and increasing male out-migration from rural areas, adult women face a serious time constraint. This time constraint of adult women has shown itself particularly between 2005 and 2010 in the NSS data on rural female economic activity, both of which show a decline of female work force of 5 million in each of principal status and subsidiary status.

A fifth reason is the growing mechanisation of agriculture, including even in the poorer states of India. Punjab and Haryana have experienced mechanisation for decades since the green revolution days. But in recent years even in Bihar and UP, tilling of the land prior to sowing is not by the traditional method of the wooden hoe pulled by the buffalo/bull, but rather by tractors, which even small farmers will hire from a bigger farmer for a few days when needed. Similarly, at harvest time threshing of the crop (for example wheat) and the chopping/shredding of the stock leftover is increasingly done by a mechanised unit pulled

6 Rangarajan et al. (2014) suggest that NSSO may have missed a part of employment in rural areas on account of response errors when new questions were introduced related to MNREGA in the 2009–10 and 2011–12 (66th and 68th) round surveys. In these rounds, there is a wide difference of around 18 million and 20 million, respectively, in the estimated figures of rural female workforce as compared to Census 2011. They suggest that the respondent may have hidden his/her actual working status because of the fear that he/she may not get MNREGA work in the future, and hence they reported 'not working'.

into the fields by a tractor.⁷ The demand for women's labour has fallen even more, since the threshing function was performed earlier by hand.

A final reason for a continuation in the fall of female LFPR is a decline in household level dairying. Fewer households with small marginal farms have grazing land, and women who earlier undertook dairying are unable to do so (which affects subsidiary status employment). Common property resources also fell reducing pasture land and as most of the small household level dairying was carried out by women, it has systematically declined and thus led to a fall in such subsidiary status work by women.⁸

So to summarise, the third and final paradox of the Indian economic growth story is that while the per capita income has been rising in both rural and urban areas, women were withdrawing from the labour force. This is consistent with the overall South Asian experience, but very different from major emerging market economies like Indonesia and Brazil. In the latter, there is a positive co-relation between LFPR of women 15+ and the gross national income per capita. However, as a cross section analysis of the female LFPR with the log of GDP per capita shows (see Figure 4.4) the LFPR in India for women may well rise shortly, given their rising participation in schooling.

4.4 Policy Implications

In the end, we summarise the three paradoxes of India's economic growth. First, there has been social inclusion, but very little inclusive growth in the sense that GDP has grown but employment growth outside of agriculture – which should happen with rapid increase in per capita income – has been disappointing, to say the least. Even more worrying is the fact that despite GDP growth, most of the increase in employment is still taking place in unregistered enterprises, in the form of informal employment. In fact, the share of informal employment in organised segment enterprises has been rising throughout since 2000. Second, it is particularly notable that in a period of sustained fast economic growth from 2005–10, manufacturing employment declined in absolute terms and services employment barely grew at all. Employment increase has been concentrated in construction, which has tended

7 So the Indian countryside now has a new, additional source of air pollution, since at harvest time the air is full of dust from the shredding of stock after the machine has pulled the grain from the chaff.

8 The total number of dairy cattle was rising in India, but fewer small/marginal farmers could keep cattle (except for home consumption of dairy products).

to absorb unskilled workers leaving agriculture due to slow agricultural growth and chronic rural distress driven by shrinking farm size, even though there has been a rise in rural wage rates. However, manufacturing employment in small-scale unorganised enterprises did jump up after 2009–10, and is likely to have been sustained on account of new demand from the new non-poor. The third and final paradox is the low and still falling labour force participation rates of women, despite rising per capita income. This is particularly inconsistent with the experience of most other developing regions, where there is a positive correlation between rising per capita income and female labour force participation rates after a certain level of income has been achieved. Now urgent policy action will be necessary to ensure that the upward movement along the U-curve starts as early as possible.

4.4.1 The missing middle: minimising the disincentives for growth of firms

In the previous section the missing middle in India was identified as a problem.⁹ This has also been corroborated by the Economic Survey 2013 (Ministry of Finance, 2013), which states that in India too many small firms continue to stay small and unproductive and are not allowed to die gracefully. Smaller enterprises prefer to remain under the regulator's and taxman's radar, lack competitiveness, suffer from low productivity and are unable to generate productive employment. Meanwhile the large profit-making firms choose to hire temporary contract labour and employ machines rather than train workers for longer-term jobs in order to avoid rigidity on account of labour regulations. This is reflected in rising informalisation in organised sector employment. Both these characteristics of firms have implications for employment generation.

The dominance of micro-enterprises, both in the registered as well as unregistered segments, seems to be voluntary because that way they can avoid regulations (labour, pollution control) and taxes. Firms employing contract or

9 NSS data on non-agricultural workers shows that as many as 64 per cent non-agricultural workers (in 2011–12) are employed in enterprises hiring less than 6 workers. Invariably most of these enterprises are either micro or small enterprises. The data from the Fourth All India Census of Micro, Small and Medium Enterprises (2006–07) shows that of the 1.6 million registered and 19.9 million unregistered enterprises, micro-enterprises accounted for 95 per cent and 99 per cent of enterprises respectively. This census uses the size of capital investment as the basis for cut-offs: capital investment of < ₹ 2.5 million is a micro enterprise; ₹ 2.5 – 50 million is small; medium is between ₹ 50 and 100 million; and > ₹ 100 million capital investment makes the firm large. There are only 7500 companies with a paid-up capital of over ₹ 100 million.

temporary workers have little incentive to invest in training and skill upgradation of their employees and improving productivity.

The problem of the missing middle is essentially policy-induced and began in the 1950s with a process of reserving a host of products for small scale industries. It began soon after Industry Policy Resolution of 1956 (128 items were exclusively reserved), which was reinforced by Industry Policy Resolution 1977 (reserving an additional 504 items for small scale industries or SSIs). The process of reservation of products that could only be produced by SSIs continued until the early 1990s, such that as many as 836 products were reserved for SSIs. Thus, on the one hand, support was given to the SSIs and, on the other, large scale public enterprises in the capital goods sector were promoted. Thus began the policy-induced dynamic that resulted in the missing middle.

However, it took nearly two decades for the process of de-reservation to be completed so that by 2012 only 14 products are reserved for small units. Nevertheless, the reservation list elimination has been replaced by an equally counter-intuitive policy, which actually disincentivises firms from growing.

There is an in-built disincentive system facing the micro and small enterprises to invest in capital and expand. As noted in footnote 9, the criterion of investment in plant and machinery is used to determine whether a firm belongs to the category of micro, small or medium enterprise (MSME). There are both financial and non-financial incentives and benefits from various government schemes for the first two categories: micro and small enterprises (MSEs).¹⁰

These financial and non-financial incentives for MSEs are such that if a firm decides to grow by investing in plant and machinery so that its total investment rises above ₹ 50 million (i.e., it becomes a medium enterprise), it risks falling off a cliff; it loses almost all these benefits if it makes that 'mistake'. Similarly, service

10 The non-financial incentives consist of assistance aimed at processes, design and technology. In addition, the government needs to procure 20 per cent of annual value of goods and services from MSEs and 358 items are reserved for exclusive procurement by the government from MSEs. MSEs are entitled to these benefits which they have to forego if they graduate to medium enterprises, a disincentive structure, which has been built into policy to promote and protect small scale enterprises.

Also, there are financial incentives for MSEs: a credit guarantee for collateral free loan for loans up to ₹ 1 crore; training and technology grant of 75 per cent of projects cost; tangible assets and infrastructure grant of 80 per cent of project cost; reimbursement of 75 per cent for ISO certification expenses up to maximum of ₹ 75,000; and the Small Industries Development Bank of India (SIDBI) support for NGOs; and micro-finance institutions to provide loans to MSEs.

sector firms are also disincentivised from growing. Service tax exemptions for firms with less than ₹ 1 million revenue, and exemption from central excise duty for firms with an annual turnover of less than ₹ 15 million, are examples of some of these schemes, which act as a disincentive for service sector firms to grow (Economic Survey, 2012–13). In response to this criticism, in 2013 the MSME Ministry (that provides these incentives) decided that the incentives offered to micro/small enterprises will continue for three years if their investment increases beyond ₹ 50 crore which would make them 'medium' in size.

Ghani et al., (2013) examined econometrically the forces that reduce the unorganised sector share across three time periods (1989–94, 1994–2000, and 2000–05) for manufacturing (with industries and states as the units of analysis). They find that the most consistent force for reducing the unorganised sector is growth in employment in large establishments (i.e., >100 employees) in the organised sector. Other than establishing that government should create conditions for the growth of establishments in the > 100 employee segment, it is not clear what the policy implication might be. For the services sector, by contrast, Ghani et al. (2013) find that the development (and employment growth) of small establishments is the most important factor for reducing the share of employment in the unorganised segment.

4.4.2 Labour regulations: Addressing labour laws as a constraint on firm growth

Quite apart from the government's own financial and non-financial incentives to small firms to remain small, there are other constraints on employment growth, with respect to larger organised sector enterprises. Labour laws and other regulations have often hindered expansion of employment in organised manufacturing. There are 45 different national and state-level labour laws in India (Panagariya, 2008). Labour laws apply in practice mainly to the organised sector.

The Industrial Disputes Act 1976 stipulates that firms with 300 workers must take the permission of the state government before it can fire workers. We tried to establish whether the presence of this legislation for four decades (the threshold limit of such firms was 300 workers in 1976, which became 100 workers in 1982) has affected industrial structure in the sense that the size class of enterprise is skewed towards those with fewer than 100 workers. We find (Table 4.12) that the fact of the missing middle can also be established using ASI data which shows a distinct discontinuity, at the

cut-off of firms employing 100 and above workers. Table 4.14 shows that factories employing less than 100 workers are about 84 of all factories surveyed under ASI, of which almost 36 per cent of all factories employ less than 14 workers. The cliff at 100+ workers is visible with a fall in the percentage of factories with over 100 workers. Concerted efforts are needed to support transition of smaller enterprises to medium ones with government support or tax incentives.

Table 4.4: Percentage distribution of factories by size of employment
(all sectors)

Employment range	Factories in operation (per cent)
0–14	36.71
15–19	10.64
20–29	12.04
30–49	12.54
50–99	12.08
100–199	7.56
200–499	4.97
500–999	1.84
1000–1999	0.94
2000–4999	0.49
5000 and Above	0.20
Total	100.00

Source: Estimated from Annual Survey of Industries, 2010–11.

The government can also promote a move towards formalisation of workers if it gives employers the option to comply either under the Central Factories Act or the state-wise Shops and Establishments Act. To the employees the government should give three choices on how they receive their salary. First choice is whether to pay employee provident fund or not; in the case the provident fund equivalent will be given to the worker as salary. A second choice should be whether to pay employer provident fund to the Employee Provident Fund Organisation (poorly run) or to the National Pension Scheme. A third choice employees should be given is whether to pay their health insurance premium to the Employees State Insurance Corporation (which has been ineffectively run) or to buy Insurance

Regulatory Development Authority regulated health insurance (Sabharwal, 2015). Such competition is necessary to ensure public sector insurers tone up their management and governance to be attractive to workers.

4.4.3 Improving employability: Skills and the link to raising women's LF participation in industry and services

The continuing low and declining labour force participation of women, completely contrary to the experience of other emerging market economies, is a challenge to policymakers. In time, probably within the next five years, the LFPR of women will increase, primarily because increasingly better educated girls join the labour force to enter industry or modern services, unlike their mothers who worked in home-based enterprises or on own account (Mehrotra and Biggeri, 2007), as they will want to join formal/informal employment in nearby towns. The challenge for both public and the private sector is to skill them (see chapters 6 and 7), to enable them to become employable in industry and services, since unlike their parents they would want to leave rural areas behind – a phenomenon that has characterised most middle-income countries in both Latin America as well as Southeast Asia (World Bank, 2012). When the labour force participation rates of women start to increase instead of falling could well be a turning point in the economic and social history of India, given the historical and systematic gender discrimination that has prevailed in India (see chapter 8). Women's participation in non-agricultural occupations has historically been associated with economic growth as well as high social achievement (Mehrotra, 1997; Sen, 2000).

4.4.4 Improving the employment-intensity and competitiveness of manufacturing

Not only must manufacturing gross value added increase rapidly from its current share of 15 per cent of GDP to 25 per cent by 2022 but employment in manufacturing should also grow significantly, possibly by an additional 100 million by 2025 (Planning Commission, 2013). Given the fact that manufacturing employment grew by only 21 million workers between 1993–94 and 2011–12 (or 19 years), the challenge of increasing employment in manufacturing by even 50 million (within 10 years) is monumental. This is particularly the case since technical change globally is labour-saving. The slowing of the employment elasticity of output in non-agriculture will be a difficult challenge. However, one

should focus on the positive dimensions first. First, there has been an increase since 2005 of the terms of trade of agriculture (which had been flat between 1990–91 and 2004–05) (Balakrishnan, 2010). The ratio of price of food to non-food articles between December 2006 and September 2011 was 1.14 (Moorthy and Manur, 2013). We had already seen in the earlier chapters that real rural wages had risen rapidly since 2005 (a trend initiated by rising minimum support prices for grain and MNREGA), as had consumption expenditure. While earlier there used to be a wide gap between the rate of growth of agricultural and non-agricultural income, that gap narrowed significantly as the terms of trade of agriculture improved (even though the growth rate in output of agriculture and non-agriculture widened after 2005, as noted in the previous chapter). The result has been a unique new development in Indian economic history, in that the predominant source of consumption demand shifted from urban to rural areas. This shift has several consequences, which have implications for government policy. First, this shift in consumption pattern and growth in rural demand (after 2006 rural non-farm income went up from its 50 per cent share in total rural income to over 60 per cent) can be sustained provided that investment in rural infrastructure is sustained. The Pradhan Mantri Gram Sadak Yojana (PMGSY) or PM's Rural Roads Programme has seen sustained investment (even though public investment overall stalled in the last few years). Rural roads will continue to generate rural incomes, and along with *pucca* housing construction, will generate jobs in rural areas outside of agriculture. Secondly, since it is the small-scale and micro-enterprises that supply manufactured goods for rural citizens, their access to credit will need to be increased significantly.

The hope of the new National Manufacturing Policy (NMP) is that not only will manufacturing become an engine of growth during the 12th Plan, but it will also provide at least 100 million additional decent jobs. Without these jobs 'it will be difficult for Indian growth to be inclusive' (Planning Commission, 2011). There are a number of issues that are of concern in the NMP as articulated in the Approach Paper to the 12th Five Year Plan. First, despite the rather mixed experience with identifying growth sectors in the 11th Plan document for both industry and services, the 12th Plan still goes ahead to identify so-called 'priority sectors' (textile and garments, leather and footwear, gems and jewellery, food processing industries, handlooms and handicraft). Apart from stating the self-evident that these sectors are labour intensive, there has been no analysis to suggest why these sectors will be able to generate any more employment than

they are currently doing. In order to make projections for the future about the employment generating capacity of any sector, a detailed sectoral analysis of the supply side constraints within each sector and the factors determining demand would have to be undertaken for such an identification of 'priority sectors' to be meaningful.

One issue in regard to the NMP is that it does not deal directly with one of the major threats to Indian manufacturing at home and abroad, i.e., Chinese manufacturing exports. The National Security Agency of the central government had recently identified the threat posed by Chinese exports for Indian manufacturing. A serious response to the threat of Chinese manufacturing can only be formulated by detailed analysis of where the problem lies, both in terms of government policy as well as the private sector's ability to meet the Chinese challenge.

Secondly, a critical component of the strategy for achieving the ambitious goals of the NMP is the National Investment and Manufacturing Zones (NIMZ), which will be green field townships that will develop to ensure agglomeration economies, superior infrastructure, no-compliance burden, flexible labour market conditions and skilled labour. These conditions do not appear to be very different from the Special Economic Zones (SEZ) which were earlier supposed to meet all the requirements for developing world class manufacturing activity in India. It is not entirely clear why the NIMZ phenomenon, when implemented, will be able to solve all the problems besetting Indian manufacturing, and also result in a massive increase in employment, when the SEZ phenomenon failed to do so. In that sense, the plan for creating NMIZs could well remain another fond hope.

Finally, a serious policy for development of modern industry clusters has to be put in place, which requires a focus on brown field (not just green field) sites. This task is facilitated by the fact clusters constitute a geographically concentrated set of activities. There are 1,100 modern industry clusters in India spread throughout the country. In addition, there are nearly 5,000 traditional activity clusters producing artisanal products (handloom, handicraft, and other traditional single-product group clusters) using old technologies, characterised by low productivity and low earnings, with a large number of self-employed persons or own-account workers. There are at least four sets of actions required for the modern clusters by the central government, though these actions will also help the traditional product-related clusters.

First, the 1,100 modern clusters are in urban locations mostly,¹¹ and as unorganised segment enterprises. They are mostly in very small towns (<0.5 million population) or in small (0.5–1 million) and medium cities (1–4 million). But these urban locations have poor infrastructure. Given the fact that 99 per cent of unregistered and 95 per cent of registered enterprises are micro-enterprises, they are likely to be concentrated in the very small towns (<0.5 million) and nearby villages.¹² Indian manufacturing has been becoming urban slowly, but could become more urban. For that to happen, India's urban infrastructure must improve. But the real question is: in which class of cities must it improve? The McKinsey Global Institute (2014) points out that only 27 per cent of India's urban population lives in middle-tier cities (those with a population between 0.5 and 4 million). By contrast, nearly half of urban residents in China live in similar middle-tier cities, and only a quarter in very small towns. But of India's urban population, half live in towns of <0.5 million. It is the brownfield sites of modern clusters that must grow for manufacturing output/employment to expand in India and this requires public investment in infrastructure – both physical and social – that must focus on the middle-tier cities. Instead of its mega (>10 million population) and large cities (4–10 million population) – which have a comparable quarter of India's urban population as in China – it is the middle-tier of cities that must now receive the greater investment in hard infrastructure. So far India's Jawaharlal Nehru Urban Renewal Mission (JNNURM) benefited mainly the large and mega cities – in the 12th Plan that focus has to shift to middle-tier cities. That can make modern manufacturing more productive. The new government's 'Make in India' campaign can only succeed if special incentives are offered to state governments to give real powers to mayors of cities and urban local bodies (see Chapter 15).

11 These clusters are in the following industries, in descending order of the number of clusters in the country: rice mills (91), textiles (88), food processing (76), engineering equipment (54), garments (48), footwear (47), agricultural implements (39), plastic products (39), bricks (37), foundry (36), stone (36), mustard oil (28), jewellery (27), leather (27), paper products (27), furniture (24), auto components (22), pharmaceuticals (21), utensils (21), and others (372) (Foundation for MSME Clusters).

12 Over the period 1989–2005, the share of Indian manufacturing employment that is urban grew from 33 to 41 per cent. Chatterjee et al., (2013) find that the urban employment share for the *unorganised sector* rose from 25 to 37 per cent over 1989–2005. As the unorganised sector has a share of about 80 per cent in employment in India's manufacturing sector, their urbanisation level rose from 25 to 37 per cent. Given the weight of the unorganised segment in employment, Indian manufacturing employment became more urban, even though not significantly so.

Second, India's Cluster Development programme, that took off only in 2005, will need much more than the ₹ 3000 crores per annum allocated by the central government (or \$500 million at 2014 exchange rates) for the 6,000 clusters in India. This small amount works out to barely ₹ 5 million or so per cluster. More public investment will be required for three types of services – technology upgradation, market information facilitation, and design improvement. The MSME and other central government sectoral ministries (textiles, food processing, etc.) do provide some services, but on nowhere near the scale required. The biased nature of the MSME Ministry's incentives has already been noted earlier in this section – which favours micro and small capital investment enterprises to the detriment of their growth into medium-sized enterprises.

Third, Indian Railways already has a 43,000 km optical fibre network across the country and growing every year. This can be used for business process outsourcing in small towns and as part of the Cluster Development programme to leverage digital connectivity and digital literacy to encourage employment and foster entrepreneurship.

Finally, the modern industry clusters will need much greater access to institutional sources of credit. The SIDBI's limited resources cannot suffice. Given the public sector banks' diffidence in lending to micro and small establishments (on account of several reasons such as lack of trust, low capacity of firms to prepare bankable projects and the high transaction costs of dealing with a large number of small borrowers), there may be a case for a joint funding approach, similar to the one used by them to lend to women's self-help groups (which have very high repayment rates and considerable evidence of success).¹³

Together these three sets of policy measures can be effective in transforming the smaller end of manufacturing enterprises, especially in improving their productivity, enhancing employment and enabling them to grow in size to fill the missing middle of both manufacturing establishments as well as of the cities of India.

13 See chapter 3 for a discussion of such successes in the state of Andhra Pradesh and Kerala, which have been replicated in the National Rural Livelihood Mission for the whole country, by the Ministry of Rural Development of the central government.

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Public Finance

Increasing Fiscal Capacity

In 2009, an Asian Development Bank report (ADB, 2009) suggested that given a few prerequisites, India could achieve high income status (at 2007 prices) within the next 30 years. It is now known that from 2003–04 to 2011–12 India's GDP grew at an unprecedented 8.4 per cent per annum despite the fact that the global economy went into severe recession starting 2008.¹ India also achieved 'low-middle income' status in the World Bank lexicon (after remaining a 'low-income' country for 60 years) in 2007. It has been argued in earlier chapters (especially chapter 1, 3 and 4) that sustained GDP growth is likely only if it is inclusive growth, with a growing domestic market (possible only with falling income poverty) and improving human capital.

In this chapter we present the argument that public finance reform is a critical dimension of the governance reform that will underpin the Indian economy's ability to achieve inclusive growth. This argument is based on a historical basis, drawn from international experience, presented in section 5.1. We also compare trends for India with other countries in respect to tax to GDP ratio and show why and how tax-to-GDP rose in the now industrialised countries over 1880–1980, as income grows. Section 5.2 examines tax reforms since 1991, the year broad economic reforms began in India, which shows that tax-to-GDP ratio barely rose over the quarter century since economic reforms began, despite rising per capita incomes. Section 5.3 then turns to the main focus of this chapter, mobilising additional resources through taxes. Section 5.4 examines the potential for additional revenues that could be generated from non-tax sources.

1 See Mehrotra (2010) on the reasons why the Indian economy managed to ride the global storm well.

5.1 Generating Revenues to Enable Pro-poor Expenditures

5.1.1 Historical evidence on tax and expenditure share in GDP and trends in India

Chapter 1 shows that the role of the state in human capital formation and improving human well-being is critical. The ability of the state to spend on enhancing human functionings (by investing in education and health) and direct measures to reduce income-poverty (for example, by expanding coverage of the population with oldage pension or death/disability insurance) is directly dependent on its tax to GDP ratio.

Wagner's Law² states that as per capita income rises so must the level of public spending as a share of the country's GDP. Around 1870, most of today's industrialised countries had levels of taxation and spending of around 11 per cent of GDP (Tanzi, 2005). Table 5.1 shows that the share did not grow by much until 1913. However, after that it grew to nearly 20 per cent of GDP by 1920. In 1926, J. M. Keynes called for the 'end of laissez-faire' (the book had the same title) and argued for widening the role of the state. Public spending began to grow after 1920, but only grew slowly until 1960. The largest increase took place between 1960 and 1980, by which time welfare states had come into existence.

The more interesting question is – what was causing this great increase in tax-based public spending? Lindert (2004) has shown that as of about 1780 very little taxes went into social spending in Western Europe or the USA. 'There was no mass public school system, no tax-based health insurance, and no unemployment compensation beyond seasonal poor relief' (Ibid, 21). Things remained that way for the next 100 years, except for the rise of public schooling and some poor relief.

However, from about 1880 social spending boomed, and that was what raised the public spending to GDP ratio.³ In other words, it was not the military or public enterprises that drove the rise in public expenditure, but social spending. This increase in public expenditure driven essentially by social spending (defined as

2 Adolph Wagner, a German economist, advanced this theory at the beginning of the twentieth century.

3 In the late nineteenth century the pioneers were the Scandinavian countries (Denmark and Norway in particular), and then Britain. Around 1900, Australia and New Zealand joined them. Before 1930, there was little social spending in North America, Japan and Continental Europe. Continental Europe saw a rise in progressive taxation and growing social programmes only after the Great Depression and World Wars. Japan and USA still did not witness a rise of tax and transfer policies, and still have one of the lowest transfer rates Organisation for Economic Co-operation and Development (OECD) (Lindert, 2004).

health, education and social transfers) has profound lessons for India and other emerging market economics.

Table 5.1: Industrialised countries: Growth of general government expenditure, 1870–2002 (per cent of GDP)

General government for all years	About 1870s	1913	1920	1937	1960	1980	1990	1996	2002
Australia	18.3	16.5	19.3	14.8	21.2	34.1	34.9	35.9	35.6
Austria	10.5	17.0	14.7	20.6	35.7	48.1	38.6	51.6	51.3
Canada	–	–	16.7	25.0	28.6	38.8	46.0	44.7	41.4
France	12.6	17.0	27.6	29.0	34.6	46.1	49.8	55.0	53.6
Germany	10.0	14.8	25.0	34.1	32.4	47.9	45.1	49.1	48.5
Italy	13.7	17.1	30.1	31.1	30.1	42.1	53.4	52.7	48.0
Ireland	–	–	18.8	25.5	28.0	48.9	41.2	42.1	33.5
Japan	8.8	8.3	14.8	25.4	17.5	32.0	31.3	35.9	39.8
New Zealand	–	–	24.6	25.3	26.9	38.1	41.3	34.7	41.6
Norway	5.9	9.3	16.0	11.8	29.9	43.8	54.9	49.2	47.5
Sweden	5.7	10.4	10.9	16.5	31.0	60.1	59.1	64.2	58.3
Switzerland	16.5	14.0	17.0	24.1	17.2	32.8	33.5	39.4	34.3
United Kingdom	9.4	12.7	26.2	30.0	32.2	43.0	39.9	43.0	41.1
United States	7.3	7.5	12.1	19.7	27.0	31.4	32.8	32.4	34.1
Belgium	–	13.8	22.1	21.8	30.3	57.8	54.3	52.9	50.5
Netherlands	9.1	9.0	13.5	19.0	33.7	55.8	54.1	49.3	47.5
Spain	–	11.0	8.3	13.2	18.8	32.2	42.0	43.7	39.9
Total Average	10.7	12.7	18.7	22.8	27.9	43.1	44.8	45.6	41.5

Source: Tanzi, 2005

Table 5.2: Revenues as a percentage of GDP in selected high and middle income countries (in descending order of total tax to GDP ratio)

	Social contri- butions	Grants	Other revenue	Total non-tax revenue	Total tax	Total revenue
	A	B	C	D = A+B+C	E	D + E
Denmark	1.8	0.0	6.0	8.0	48.0	56.0
Sweden	12.9	0.0	7.5	20.5	35.8	56.4
Norway	9.0	—	14.7	23.8	34.3	58.1
South Africa	0.6	0.0	6.4	7.1	30.3	37.4
Italy	13.3	0.31	3.0	16.7	29.9	46.6
Canada	5.2	—	6.6	11.8	29.5	41.4
Australia	—	—	6.4	6.5	29.4	35.9
United Kingdom	8.2	0.2	3.7	12.4	29.3	41.7
France	18.0	0.0	4.8	22.9	26.7	49.7
Hungary	13.6	0.8	4.5	19.0	25.8	44.9
Spain	13.0	0.5	2.4	16.0	25.0	41.0
Netherlands	14.3	0.0	6.4	20.8	24.8	45.6
Bolivia	1.8	2.6	7.8	12.3	24.5	36.8
Germany	16.5	0.1	3.3	20.0	23.9	43.9
Argentina	3.0	0.0	3.4	6.5	22.9	29.4
Chile	1.3	—	5.3	6.7	22.7	29.4
United States	6.9	—	5.8	12.8	21.5	34.4
Vietnam	—	0.4	2.8	3.4	20.7	24.1
Japan	10.9	—	6.1	16.9	18.2	35.1
Thailand	0.9	0.0	2.7	3.7	17.4	21.1
Peru	1.6	0.1	3.4	5.0	15.9	20.9

	Social contri- butions	Grants	Other revenue	Total non-tax revenue	Total tax	Total revenue
Egypt	—	0.5	11.9	12.5	15.6	28.1
Costa Rica	7.4	0.0	2.4	9.9	15.8	25.6
Singapore	—	—	7.2	7.2	14.4	21.6
Paraguay	3.4	0.4	6.1	9.9	12.3	22.1
Kuwait	—	—	47.4	47.4	0.9	48.3

Source: IMF, Government Finance Statistics, 2008.

Notes:

1. Social contributions include social security contributions and other social contributions.
2. Grants include grants from foreign governments, international organisations and from other general government units.
3. Total taxes include taxes on Individuals, Corporations and other enterprises, payroll and work-force, property, goods and services, international trade and transactions, other taxes.

India's GDP has risen (in \$ terms) from \$599.4 billion in 2004 to nearly two trillion dollars (\$1.85 trillion) in 2012. Per capita income rose over the same period from \$642 in 2004 to \$1488 in 2011 (all at market exchange rate). Naturally total tax revenues have risen, but the tax revenue to GDP ratio, which had peaked in 2007–08 (the year of the global financial crisis), fell since then (from 17.5 to 16.5 per cent). In other words, during the period of the fastest economic growth the Indian economy has experienced in its history there has been some decline in the tax to GDP ratio, the opposite of what one would expect should happen.

Moreover, a comparison of Table 5.2 (rest of the world) and 5.3 (India) shows that India continues, despite recent rapid growth, to have one of lowest tax to GDP ratios. Table 5.2 lists countries by descending order of tax revenues/GDP, but also shows that many countries have significant non-tax revenues. India by contrast, does not seem to possess significant sources of non-tax revenues. That should make Indian policymakers more conscientious about tax revenue generation.

A review of the tax to GDP ratio for India as a whole (central taxes + state taxes) does not tell a very encouraging story (see Table 5.3). In 1950–51, total tax revenue (all India) to GDP ratio was 6 per cent, which had risen to 7.5 per cent in 1960–61. It continued to rise to 10 per cent by 1965–66, but stagnated at or below that level until 1970–71. It rose gradually up to 13.3 per cent of GDP by 1980–81, and it further picked up to 15.5 per cent in 1990–91.

Table 5.3: India (centre+states): Tax and non-tax revenue to GDP, 1950–2013

(per cent)

Year	Tax to GDP	Non-tax to GDP ratio	Total revenue to GDP ratio
1950–51	6.0		
1960–61	7.5		
1970–71	10.0		
1980–81	13.3		
1990–91	15.0	2.1	16.9
2000–01	14.1	2.7	16.1
2001–02	13.4	2.8	16.6
2002–03	14.1	3.0	17.2
2003–04	14.6	2.7	17.5
2004–05	15.3	2.7	18.1
2005–06	15.9	2.7	18.9
2006–07	17.2	2.9	20.3
2007–08	17.5	2.8	20.2
2008–09	16.3	2.4	18.7
2009–10	15.5	2.5	18.2
2010–11	16.5	3.6	20.5
2011–12	16.0	3.1	19.3
2012–13	16.8	3.7	20.2

Source: Ministry of Finance, Government of India

Note:

1. The total of non tax and tax ratio may not add up to total revenue as total revenue includes revenue from tax, non tax, self-balancing items, transfer from funds, adjustment on account of difference in figures of centre and states transfers, other adjustments.
2. Ratios have been calculated using GDP (market price) at current prices.

5.1.2 Tax trends since India's economic reforms

What is remarkable is that after the economic reforms began in 1990–91 the tax to GDP ratio remained stable, or fluctuated between 13.7 per cent and 15.9 per cent between 1990 and 2004–05. The highest level ever it achieved is 17.5 per cent of GDP in 2007–08. Since then it has declined slightly to 16.8 per cent in 2012–13 (revised estimates). In other words, the growth of GDP has resulted in an increase of absolute revenues, but in the entire period of the economic reforms starting in 1990–91 the tax to GDP ratio has not shown any significant increase. In fact, in the three years preceding the beginning of the economic reforms (1987–88 to 1989–90) the tax to GDP ratio was 15.2 per cent on the average, and 20 years later it was barely 1 to 2 per cent of GDP higher in 2007–08 despite a very sharp increase in GDP. The fall is mainly explained by the fact that post global crisis there was a fiscal stimulus (including indirect tax reductions and also an increase in expenditures).⁴ However, the fact is that there has been precious little increase in the tax to GDP ratio over a 20-year period since the faster economic growth began with the economic reforms (post-1991). In other words, the fiscal capacity of the state to increase public expenditure on the social sectors has remained limited. This situation has to be contrasted with that found in the now industrialised countries.

Yet at the same time, as Figure 5.1 shows, the public expenditure to GDP ratio has gone on increasing, resulting in rising fiscal deficit, which has been a major source of inflation remaining well above normal as discussed in chapter 2. Untargeted subsidies have increased, which would contribute to worsening the income distribution.

This is deeply worrying for two reasons. First, without rising revenue to GDP public expenditure can only be raised by borrowing. The central and states borrowing requirements force upon governments cycles of expenditure compression, which is the opposite of what is needed to address the backlog on human capital formation urgently requiring increases in social expenditures. India's health expenditure by government remained barely at 1.3 per cent of GDP in 2011–12, in the terminal year of the 11th Five Year Plan. By comparison, there is no OECD country that spends less than 5 per cent of GDP on publicly

4 Parikh (2011) estimates the components of stimulus measures; the size of the indirect tax cut was 2.4 per cent of GDP; the MGNREGA safety net expenditure increase was 0.5 per cent of GDP; and the rest of the stimulus expenditure package was 1 per cent of GDP (thus a total of almost 4 per cent of GDP). In addition, the monetary stimulus was 1 per cent of GDP (in the form of ₹ 50,000 crore additional liquidity).

provided healthcare. India's public health expenditure was 0.9 per cent of GDP at the beginning of the 11th Plan and hardly improved to 1.3 per cent of GDP in its terminal year (2011–12). This is despite the fact that India experienced slow improvement in the MDGs related to health, and the country's nutritional and sanitation situation remains appalling even by the standards of sub-Saharan countries (see chapters 8 and 10 in part 2 of the book). Similarly, India's public expenditure on education, despite the massive increases during the 11th Five Year Plan, remained under 4 per cent of GDP. There is no OECD country in the world where public expenditure on education is less than 5 to 6 per cent of the GDP (See Mehrotra and Delamonica, 2007 for more on OECD countries). Moreover, rising borrowing even during good times reduces the fiscal space during bad times, as we saw between 2011 and 2014, when capital expenditure could not be raised by the public sector (see chapter 2). Clearly, India's policymakers have learnt rather little from the 100 year history of public finance and the growth of public spending of the now industrialised countries, which saw a systematic increase in social spending, just as per capita income was rising.

There is a second reason why the slow, in fact marginal growth, in the tax to GDP ratio in a period of fast GDP growth since the economic reforms began in 1990–91, is a matter of concern. There is only a quarter of century left for India's demographic dividend to end. As noted earlier in the book, India is past the mid-point of its demographic dividend (which began around 1980), which will now last only for another quarter of a century, and will be nearing its end by late 2030s. If in the last two decades, which have seen faster growth than any before the demographic dividend began the tax GDP ratio has not increased, what hope is there that the tax of GDP ratio will increase significantly between now and the end of the 2030s?

In other words, what we are suggesting is that with a demographic dividend ebbing away every year, the delay in mobilising resources (tax and non-tax) of each year is costing India, in terms of daily-adjusted life years (DALYs) lost of a rather unhealthy population, additional years that children/adults remain undernourished and school children who drop out or learn little in school. These lost years will not come back again.

For those who argue that there is a weak case for increasing tax revenues from those who are generating wealth (Das, 2012), the history of the OECD countries must be kept in mind.⁵ Lindert (2004, 21) demonstrates that during the period

5 Das (2012, 252), for instance, argues that he is a 'classical liberal, not a 'social liberal'. ... A social liberal is prone too easily to advocate state intervention in providing social and

of rising per capita GDP between 1880 and 1980 the net social costs of social transfers, and the taxes that finance them, are essentially zero. 'They do not bring down the GDP costs that much of Anglo-American literature has imagined', and adds that 'no Darwinian mechanism has punished the bigger spenders'.

It must be emphasised that there are Indian economists as well who believe that the size of the Indian state is too large. This is an impression created by (a) the growing absolute size of public expenditure, driven by rising revenues as the GDP and corporate profit have grown; and (b) the growing social spending on central government programmes.⁶ It is true that when social spending is expanded for populist reasons without regard to the ability of state functionaries to deliver services, or building in systems of accountability and probity, the state not only makes leakages possible, but leakage accompanied by impunity normal. This is the reason we make the case in chapter 15 for a model of deep democratic decentralisation that has been demonstrated to work in delivering services, ensuring social outcomes, and also enhancing accountability.

It is also true that when public spending as a share of GDP consistently and greatly exceeds total revenue, the resulting government borrowing (if it raises expenditure on consumption) in the absence of an adequate supply response begins to have inflationary impact – which hurt the poor most, and lead to tight monetary policies that adversely affect economic growth (as discussed in chapter 2). This is precisely what happened with a fiscal stimulus amounting to nearly 4 per cent of GDP since November 2008, after the global meltdown began. Hence,

economic services'. It is significant that the liberalism that he professes was, as he notes, 'born in an intellectual revolution in eighteenth-century Europe'. However, the state that emerged in its modern late nineteenth and twentieth century form, the form that still prevails today in Europe and all the now-industrialised countries, is a state that is proactive in providing social and economic services.

- 6 The United Progressive Alliance II (2004–09) and UPA II (2009–14) government initiated or expanded the following major welfare programmes: rural roads (Prime Minister's Grameen Sadak Yojana); rural public works (Mahatma Gandhi National Rural Employment Guarantee Act); rural housing (Indira Awas Yojana) for below poverty line (BPL) households; rural water supply (National Rural Drinking Water Programme); rural telephony; irrigation (Accelerated Programme for Development of rural irrigation); rural electrification (Rajiv Gandhi Grameen Vidyutikaran Yojana); rural sanitation (Total Sanitation Programme); universalising elementary education (Sarv Shiksha Abhiyan); school meals (Mid-Day Meal Scheme); health and nutrition of pre-school children (Integrated Child Development Scheme); rural health services (National Rural Health Mission); and urban re-development and infrastructure (J L Nehru Urban Renewal Mission).

there is no question that fiscal deficits need to be contained to within 6 per cent of GDP (centre and states combined); but after 2007–08 they climbed back to over 9 per cent of GDP in 2012–13 (though trending downward since). Rising total revenues to GDP between 2002–03 and 2007–08 in India, and prudent public spending under a Fiscal Responsibility and Budget Management Act (2003) in both the centre and 20 states had enabled fiscal consolidation and kept the inflation rate down to 5–6 per cent per annum. But the tax cuts amounting to 2.4 per cent of GDP in the post-crisis stimulus were roll backed very slowly.

The short point is that fiscal deficits must be controlled in good times so that counter-cyclical fiscal action can be taken in a downturn, if economic growth is to be sustained. But to control the fiscal deficit an excessive reliance on expenditure compression to the relative neglect of revenue generation is not only contrary to the objectives of inclusive growth in the short-run, but hurts the long-term prospects of public investment in agriculture, infrastructure, health, education and social insurance – all of which have been argued for strongly in the rest of the book.⁷

The historical experience of the now-industrialised countries offers two more lessons for emerging market economies like India, which suffer from major backlogs of human capability deprivation affecting at least 800 million of its 1.2 billion citizens. Lindert (2004) again shows that two general principles explain why the welfare state does no net damage to GDP per capita by its social spending. The first is that high spending democracies are more careful in choosing the design of taxes and transfers so that they avoid compromising growth. Unfortunately India has shown poor evidence of designing either taxes or transfers that are very efficient. The second principle is that broad universalism in taxes and entitlements promote growth more effectively than the low-spending countries' predilection for means testing. The lesson for India from these two principles of high budget OECD countries, and the history of the evolution of their public finance, is that a fast growing and emerging economy like India should also carefully choose and design its taxes and transfers (i.e. 'poverty-alleviation' programmes) so that growth is not compromised. Universal health services must be achieved (as the 'right to health' policy framework

7 Ortiz and Cummins (2013) find that post-crises of 2008–09 most of 181 countries of the world introduced fiscal stimulus programmes and increased public spending as the world was able to coordinate policies, followed by fiscal contraction from 2010 onwards. They find that fiscal contraction is most severe in developing countries. They say that 68 developing countries are projected to cut public spending by 3.7 per cent of GDP, on average in this phase of the crisis (2013–15) compared to 26 high income countries, which are expected to contract spending by 2.2 per cent on average.

of 2015 aims at), the right to education universalised, and social insurance must incrementally cover all those in the bottom three deciles of the income distribution first and gradually cover the entire population slowly (as argued in later chapters). A country with 269 million poor people in 2011–12 (see chapter 1) cannot expect to be called a civilised society if the severe capability deprivation of these poor is not drastically and rapidly reduced.

5.2 Tax Reforms since 1991⁸

Historically, India has been a fiscally centralised state (an issue that will be taken up at greater length in chapter 15). Table 5.4 clearly explains the nature of this centralisation. Thus, in 2010–11, the total tax-to-GDP ratio was 16.3 per cent, of which the centre collected 10.3 per cent (column A), the states only 6.2 per cent of GDP (column C). However, the centre is required, in accordance with the Indian Constitution, to transfer part of the collected taxes to states, based on the recommendations of the Finance Commission that is constituted every five years and recommends the sharing of taxes between centre and states.⁹ Of total expenditure of central and state governments, the latter account for less than 40 per cent, as Figure 5.1 shows (local governments account for less than 5 per cent of total expenditure, see Chapter 15).

8 The centre and state have separate tax jurisdictions. The central government levies the following taxes: (a) taxes on income (other than agricultural income); (b) customs and export duties; (c) excise duties on manufactured products and tobacco (except alcohol for human consumption); (d) corporation tax; (e) taxes on capital value of assets of individuals companies (excluding agricultural land); (f) estate duty on property (other than agricultural land); (g) service tax; (h) all residuary types of taxes not listed in any of the three lists. The subjects on which the states can levy a tax yield much smaller revenue: (a) land revenue; (b) taxes on agricultural income; (c) duties on succession to agricultural income; (d) estate duty on agricultural income; (e) taxes on land, buildings, mineral rights; (f) excise duties on alcohol for human consumption; (g) taxes on entry of goods into a local area for consumption; (h) taxes on consumption sale of electricity; (i) taxes on sale of goods or value-added tax; (j) taxes on road vehicles; (k) stamp duty; (l) taxes on luxuries including entertainment and gambling. Local taxes are discussed in chapter 15.

9 The 13th Finance Commission (to cover 2010–15) had recommended that the share of states in the gross tax receipts of the centre be raised from 30.5 to 32 per cent. States own taxes were only 6.2 per cent of GDP, but state's total tax revenue (including own taxes + share in central taxes, column D) go up to 9.1 per cent of GDP. The non-tax revenues of the centre are not subject to such revenue sharing arrangements. The 14th Finance Commission (2014) raised the states' share to 42 per cent, which will apply over 2015–20.

Figure 5.1: India – Government expenditure as a percentage of GDP

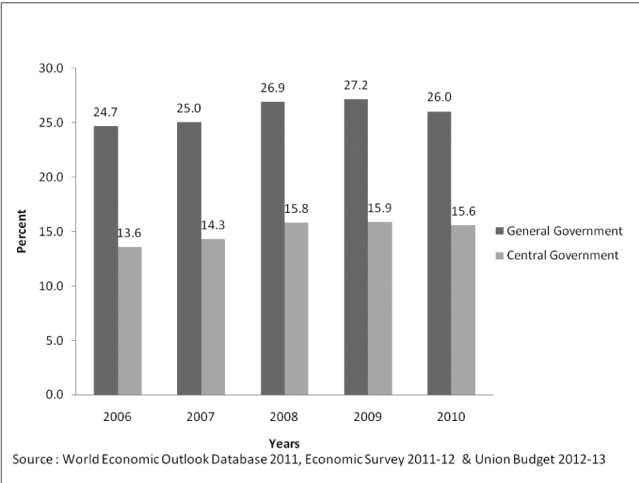


Table 5.4: India – Post-economic reform tax and non-tax revenue to GDP, centre and states, 1990–91 to 2010–11

GDP ratios											
Year	Tax					Non Tax			Total		
	Centre (gross)	Centre (net—excluding state's share)	State own taxes	State's total tax revenue (own taxes + share in central taxes)	Total	Centre	States	Total	Centre (net)	State's total tax revenue	Total
	A	B	C	D	A+C	E	F	E+F	B+E	D+F	B+E+D+F
1990–1	9.8	7.3	5.1	7.6	15.0	2.0	0.9	3.0	9.4	8.6	17.9
2000–1	8.7	6.3	5.4	7.8	14.1	2.6	0.9	3.5	8.9	8.7	17.6
2007–8	11.9	8.8	5.6	8.6	17.5	2.0	1.1	3.1	10.8	9.7	20.6
2010–11	10.3	7.3	6.2	9.1	16.5	2.8	0.9	3.7	10.1	10.0	20.2

Source: Ministry of Finance, Economic Survey, various issues

Before we turn to potential sources of tax revenue generation we briefly discuss the nature of tax policy since economic reforms began in 1991. This is necessary since tax revenue to GDP ratio has not shown much increase at all, despite much faster economic growth since the reforms. The basic approach to tax reforms in the early years after economic reforms began in 1991 was the following: reduced tax rates imposed on a wider base reinforced by efficient tax administration. Direct taxes rates were reduced for personal income tax and simplified in 1992–93 to result in three rates: 20 per cent, 30 per cent and 40 per cent. Five years later these rates were again revised downwards to 10 per cent, 20 per cent and 30 per cent as income slabs increased. The principle was that lowering the rate would improve voluntary tax compliance. An earmarked tax was imposed on income in the form of a 2 per cent cess towards primary education, which was imposed on all taxes from 2004–05 onwards. In addition, a 2 per cent cess for higher education was initiated in 2006–07. In addition, in order to enhance the coverage of personal income tax and widen tax base a new principle was introduced in 1997 that anyone who met two out of four criteria was liable to pay a base rate of personal income tax. The criteria were home ownership, visit to foreign country, ownership of a telephone and ownership of motor vehicle. Although this broadened the tax base, Chattopadhyay (2011) argues that some 50 per cent of tax payers still remain outside the tax net. This is because the vast majority of those who would get included do not even file an income tax return. Since there is no data-base inter-connection between the office to register say a motor vehicle and the income tax office, if an income tax return is not filed (and if the link does not exist through a tax personal account number), there is no follow-through by the income tax department.

The rate reduction principle was followed for *corporate tax* as well. For corporate income tax the base rate was reduced to 50 per cent, as it was for personal income tax. When personal income tax rates were reduced in 1997–98 corporate rate was also reduced to 30 per cent. Like for personal income tax, there was an attempt to counter tax avoidance by corporates by introducing a minimum alternate tax (MAT) in 1996–97 for companies that were not paying any taxes. The effort to widen the tax base has continued in 2012–13, with the provision regarding MAT being extended to all non-company assesseees, and it is provided that such assesseees shall be liable to pay MAT at the rate of 18.5 per cent.

In the area of direct taxes a few other innovations also took place. Thus a security transaction tax was introduced in 2004 and cash withdrawal tax at the rate of 0.1 per cent levied on all cash withdrawals exceeding ₹ 25,000. Also a new tax called fringe benefits tax was introduced, which was levied on employers paying benefits to employees. Further to increase coverage a tax deduction at source (TDS) was introduced.

The outcome of these reforms is partly reflected in Table 5.5, showing how shares of different types of taxes changed in India's total tax revenues over three decades. Between 1980–01 and 1990–01, the contribution of different types of taxes did not change much. However, after the economic reforms the structure changed significantly. As tariff rates fell, the share of customs duties in total government (central and state) revenues dropped sharply. At the same time, the share of direct taxes rose sharply. At the same time, the contribution of central excise duties and sales taxes – both indirect taxes – fell. However, this latter fall was offset by the fact that another indirect tax, i.e. service tax was introduced by the central government in 2004–05, hence the category 'others', which includes service tax, increased. Thus, the rise in the share of direct taxes in total tax revenues was a combined effect of a fall in international taxes and indirect tax shares since the economic reforms. Meanwhile, while the size of economy more than tripled (in \$ terms) after the economic reforms, the absolute size of tax revenues also grew from ₹ 87,723 cr. to 2,032, 489 cr.

However, the bottom line remains the following. Despite the innovations since economic reforms began in India, the tax-to-GDP ratio of 15.5 per cent is still far below the Brazil, Russia, India, China and South Africa (BRICS) average of 22 per cent. For those complaining that the higher income BRICS countries are expected to have a higher tax-GDP ratio should be reminded that the Indian tax-GDP ratio has not risen despite a greater than tripling of GDP since the economic reforms began.

Several innovations took place in the space of *indirect taxes* as well. After much debate at the national level in negotiations between centre and the states lasting many years, finally a value added tax (VAT) system was introduced in 2004. It is interesting that both China and India introduced a VAT some 14–15 years after economic reforms began. Thus, China introduced its VAT in 1994. The attempt was to convert specific excise duties into *ad valorem* rates, with a view to gradually introduce input tax credit to reduce the impact of cascading. Over time there has been a gradual effort to bring under the VAT net a majority of commodities to

make the input credit system comprehensive. Over time the introduction of the VAT had the effect of raising tax revenues. Second, one of the most important tax reforms in the indirect tax base was the reduction of custom duties, whereby the peak rate of 150 per cent was gradually reduced to 15 per cent in 2005–06 for non-agricultural goods. The number of duty rates, which was 22 in 1991, was reduced to four by a decade later.

Third, services had been outside the purview of indirect taxation, except for very few services (for example, entertainment and electricity). Since services were one of the biggest employers as well as fastest growing sector of the Indian economy during the 1990s, and remained so during 2000s, services were increasingly brought within the indirect tax net. The process of increasing the number of services to be included under service tax has gone on until 2012. Service tax has been a growing revenue source. Starting with 75 services being covered by service tax in 2004–05, the number had gone up to 119 by 2011. In 2012–13, a negative list was introduced, listing those services that are not taxed, while the rest are. Service tax revenues have shown a significant growth. In absolute nominal terms the revenues from service tax grew from ₹ 14,200 crores in 2004–05 to ₹ 97,579 crores in 2011–12, and the growth over previous year in per cent has remained in the range of 19 to 80 per cent over the same period.

Table 5.5: Share of direct and indirect taxes in total tax revenues of central and states (per cent)

	1980–81	1990–91	2013–14
Direct taxes	14.1	12.2	32.5
Customs	17.1	23.2	9.3
Indirect taxes	53.0	48.7	34.4
Others	15.7	15.5	23.8

Sources: Ministry of Finance (2015)

Notes:

1. Direct taxes include both personal income and corporate taxes.
2. Indirect taxes include union excise taxes and sales taxes.
3. Service tax is the most important among the 'others' category and accounted for 11 per cent of gross tax revenue of the central government.

It has already been noted that despite the innovations/reforms in relation to taxes, the tax to GDP ratio has not shown upward movement in the post-economic reform period. The Ministry of Finance's own examination of tax buoyancy in India came to a pessimistic conclusion. In the pre-reform period (1950–90), the

gross tax ratio is relatively elastic, with one per cent increase in income being accompanied by more than one per cent increase in gross tax revenue, all else being equal. In the post-reform period, gross tax is relatively inelastic, and is less than unity between 1991 and 2004–05. Only temporarily after 2004–5 until the global crisis, both direct and indirect taxes remained bouyant, but bouyancy fell below unity over 2008–09 to 2011–12 again (Ministry of Finance, 2013).

5.3 Mobilising Additional Revenues

This section discusses the potential for mobilising additional revenues from both tax and non-tax sources. It has been noted in Chapter 4 that in 2011–12 as much as 78 per cent of enterprises were in the unorganised sector in India (and a significant proportion of them are unregistered under any act of parliament), employing less than 10 workers. The employers/employees in such enterprises are often able to escape personal income tax, are not covered by corporate tax and are thus able to escape the tax net by and large.¹⁰ Thus, the small size of enterprises and the fact that tax administration has not improved its IT network to capture the myriad potential tax payers is reflected in the relatively low tax/GDP as well as continuing how tax buoyancy, although incomes per capita have grown significantly. We will come back to these issues in this section.

5.3.1 Mobilising additional personal income taxes

Although the workforce in 2011–12 was as large as 484 million persons, the foremost problem is that only about 22.4 million pay personal income taxes (Bhalla, 2013). Of those who are paying, compliance is only 33 per cent (2011–12).¹¹ In effect either two-thirds of the taxable population avoided payment taxes completely or paid two-thirds less taxes than they should have.¹²

10 Vaidyanathan (2014) notices the problem of under-coverage. Following is the number of income tax returns from service activities (1998) in India of non-company organisations: crockery and glassware 3158; furniture shops 5477; medical shops 45847. This is probably a fraction of the number of such organisations in one large city alone.

11 Using the taxpayers' distribution as reported in the Kelkar Committee Report on Direct Taxes (2012), Bhalla (2013) estimates the expected number of tax payers (as opposed to the actual tax payers) arrived from an income distribution that fits the tax payer distribution. Thus, he estimates that the total amount of personal income tax that could have been collected in 2011–12 was ₹ 5.17 trillion (or ₹ 517,000 crores). The total amount that was collected was ₹ 1.72 trillion, which indicates overall compliance rate was 33 per cent.

12 Bhalla (2013) also estimates that the flow of black money each year is indicated by the

There are three slabs or income brackets for personal income tax. Where the total income does not exceed ₹ 200,000 per annum (raised to ₹ 250,000 in Budget 2014–15), there is no tax. For incomes between ₹ 250,000 and ₹ 500,000, it is 10 per cent of the amount by which the total income exceeds ₹ 250,000. For incomes between ₹ 500,000 and ₹ 1,000,000, it is ₹ 30,000 + 20 per cent of the amount by which the total income exceeds ₹ 500,000. Where the total income exceeds ₹ 1,000,000, it is ₹ 1,30,000 + 30 per cent of the amount by which total income exceeds ₹ 1,000,000.

First, in regard to personal income taxes, one has the anomalous situation that 89 per cent of personal income tax payers are in the ₹ 0–5 lakh income slab (2011–12), but contribute only 10 per cent of the total tax collected. India must avoid raising the income-tax threshold, which has been raised five times in the last 10 years. China refrained from raising the tax thresholds over the period it grew fast, and enabled the tax base to grow as incomes grew.

The largest share of missing personal taxes is among those earning ₹ 500,000 to ₹ 1 million per year. Their income is in the top 7 per cent of the population, their number is about 25 million, and only about 10 per cent of such persons pay any tax (it appears since they do not file a income-tax return). Bhalla (2013) estimates that the missing taxes from this group amounts to the entire personal income tax collected in 2011–12 or ₹ 1.5 trillion (or ₹ 150,000 crores). If compliance in this group was brought only to the average level of the economy, i.e., 30 per cent, that itself would generate an extra ₹ 350 billion (or ₹ 35,000 crore). India has one of the lowest tax staff-to-population ratios and with limited autonomy, the tax authorities find it difficult to increase the tax-to-GDP ratio.

In the third category are those earning ₹ 1 million and ₹ 2 million (i.e., ₹ 10 and ₹ 20 lakhs) per year, who are in the top 2 per cent of the population. Only a third of such persons pay tax. About ₹ 1 trillion (or ₹ 108,000 crores) is lost in taxes from this group (as they presumably do not file an income-tax return).¹³

This is the group which benefits from such policy decisions as the prices of natural resources being settled behind closed doors in a non-transparent manner

gap in tax collected and tax due and for 2011–12, this gap, ₹ 3.45 trillion, is about 4 per cent of GDP.

13 Unlike the US, India does not have an independent Inland Revenue Service (IRS), but two separate boards under the Ministry of Finance (one for direct taxes and the other excise/customs) that do not coordinate among themselves and tax evasion is rampant as potential tax-payers simply do not file returns.

(as happened in the case of both 2G spectrum over 2008–11 as well as with coal allocations by the Ministry of Coal and the public sector monopoly, Coal India, over roughly the same period). This is where the super-wealthy, or the billionaires discussed in chapter 2, are created.

Another issue is that the tax rate in India is much lower (30 per cent) in the highest income bracket (>₹ 10 lakh or ₹1 million per annum) as compared to many middle-income countries and all OECD countries. Thus, no OECD country has a marginal tax rate in the highest income bracket that is lower than 33 per cent (with the Scandinavian countries being in the 48–56 per cent range, Norway being the only exception as it is oil-rich and has a 40 per cent rate). Even China (45 per cent) and South Africa (40 per cent) have higher marginal tax rate for the rich, with the rich in Brazil (27.5 per cent) and Russia (13 per cent) enjoying lower rates. It is only appropriate that the Direct Taxes Code (abandoned in the 2015 budget) proposes that for individuals/Hindu undivided families with income exceeding ₹ 100 million per year, an increased tax rate of 35 per cent will apply. We would suggest that rate for those with income exceeding ₹ 50 million. Rajaraman (2011) had argued, in fact, for 40 per cent tax rate on high net worth individuals.

The World Bank (2010) estimated shadow economies of 162 countries from 1999 to 2007. It reported that the average weighted size of the shadow economy (as a share of official GDP) of these 162 countries in 2007 was 31 per cent (and 34 per cent in 1999). For India, these numbers were 20.7 and 23.2 per cent respectively. For the purposes of the study the shadow economy was defined to include all market-based legal production of goods and services that are deliberately concealed from the government for any of the following reasons: (a) to avoid paying income, value added or other taxes; (b) to avoid payment of social security contributions; (c) to avoid having to meet certain legal labour market standards (for example, minimum wages, maximum working hours, and safety standards); and (d) to avoid complying with certain administrative procedures (for example, completing statistical questionnaires or other administrative forms).¹⁴ Assuming that just three categories are generating illegal (but taxable) incomes, and with 20.7 per cent of GDP in 2007 in the shadow economy, and on the assumption that these incomes are generating either personal incomes or corporate incomes that are taxable at 30 per cent rate, it is possible to suggest that 6–7 per cent of GDP would accrue to the treasury.

14 Note that the World Bank model does not capture major illegal outflows of earnings, such as through mispricing occurring through trade in services and intangibles, or trade mispricing that occurs within the same invoice through related /unrelated parties, or smuggling.

A recent estimate by the National Institute of Public Finance and Policy (NIPFP, 2014) of the size of the shadow economy came up with a much larger estimate for India. The NIPFP estimated in 2013 that the size of the parallel economy was 75 per cent of the official GDP (*The Hindu*, 2014). Applying the same principle that if this income were declared, and taxes are at a marginal rate of 30 per cent, the tax to GDP ratio would increase.

The NIPFP study has identified four major sources of black money. Of the three real estate transactions, the mining business and private education, the first two have been a traditional source of the shadow economy. Private university education is a recent addition, and here the black money is received as capitation fees in cash by college owners and circulated through the economy. The fourth source is diversion of money from government subsidy schemes, especially but not only the fertiliser, fuel and food subsidies (how to address the subsidy diversion is addressed in chapter 14). Generating revenue from real estate transactions is briefly discussed in the next section. The mining industry generates cash through under invoicing of sales, underreporting output, and inflating expenses. The malpractices in the mining sector are a failure of governance, and what is required is political will to address it. Herein lies the rub, because the political will needs to come from the political class, who are the masters of the beneficiaries of black money (which is needed to fight elections).

Recent evidence collected by the Association for Democratic Reforms (ADR) shows the following. A total of 4807 sitting Members of Parliament (MPs) and Members of Legislative Assemblies (MLAs) as on August 2013 were analysed, of whom 30 per cent had declared criminal cases against them (in affidavits signed and submitted to the Election Commission of India) and 14 per cent had serious criminal cases (Sastry, 2014). Of the 3,452 candidates who contested more than one election between 2004 and 2013, 2,967 showed an increase in wealth. The average declared wealth of such re-contesting candidates (in 2004) was ₹ 17.4 million, and ₹ 40.8 million in 2013, an increase of 134 per cent. For winners the average assets went up from ₹ 18 million to ₹ 58.1 million, an increase of 222 per cent. The winners are able to increase their wealth much faster than other candidates. Equally importantly candidates, both winners and winners facing criminal charges, all recorded growth in assets after 2009. And those winners with serious criminal charges show the highest growth in assets. Clearly if the political class is broadly complicit in the generation of the shadow

economy it is difficult to see how in the short run the four main sources of the shadow economy can be controlled.¹⁵

5.3.2 The issue of tax expenditure – divergence between statutory and effective rate of tax

Table 5.6: Revenue foregone as a percentage of revenue collected: Alternative estimates

	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13
Personal income tax	26.9	27.1	42.8	37.1	35.4	36.9	12.3	12.2	12.7
Corporate income tax	70.0	34.2	31.2	32.2	31.4	29.8	59.9	49.4	44.7
Excise duty (corrected)	10.2	32.2	30.5	31.6	32.5	19.0	22.4	15.7	21.9
Customs duty	99.2	138.5	100.8	93.5	181.6	234.4	127.2	158.6	154.1
Total	42.3	39.9	53.0	53.3	45.0	46.3	41.1	42.3	39.9

Source: Rao, 2013

As in many other economies, there is significant divergence between the statutory rate of tax and the actual or effective rate of tax, which is essentially a simple ratio of tax revenue collected to the tax base. This arises on account of the exemptions to the tax rate specified. For instance, exemptions in the case of corporate tax payers arise due to deductions on account of accelerated depreciation, deduction for export profits of export-oriented units located in Special Economic Zones and profits of businesses in the power and telecom sectors. However, at the same time, only a fraction of the actual amount can be actually referred to as revenue foregone – that part associated with India's economic activity, which received an incentive although being viable without the incentive (see estimates in Table 5.5). Rao (2013) estimates that as a share of total revenue, revenue foregone has fallen from over 50 per cent in 2006–07 to 40 per cent in 2012–13. What is noticeable from the table is that while for

¹⁵ Sastry (2014) writes that a senior leader of one political party once told him that 92 per cent of the applications for tickets as election candidates were from builders and real estate businessmen in one southern city. He also reports that the leader of the rival party agreed.

personal income tax the revenue foregone is falling, as it is for the major indirect tax (excise), for corporate income tax it is increasing, and for customs it has been well over 100 per cent. The statutory corporate tax rate in India of 32.5 per cent in India (i.e., 30+2.5 per cent for education surcharge) is among the lowest in the developed and emerging market world: the US (40), Japan (38), Argentina (35), Belgium (34) and Brazil (34), though the rate is lower in South-east Asia (which is the reason given by the new government for reducing the corporate tax rate to 25 per cent from 2016 onwards). But no Indian corporate pays tax even at the lower rate of 32.5 per cent. As the Ministry of Finance (2013) notes, the effective corporate tax in 2010–11 was 24.1 per cent. Hence, there is a strong case for reducing exemptions that bring down the effective rate to 24.1 per cent.

Clearly, as the Ministry of Finance (2013, 68) itself admits, ‘there is merit in limiting the exemptions or their grand fathering and a case-by-case basis so as to realise fuller tax potential through a wider tax base.’ However, the ministry has also announced that the corporate tax will itself be reduced over 2016 to 2019 from 30 to 25 per cent, while the exemptions are reduced over that same period.

Direct taxes are governed in India by the Income-Tax Act of 1961, which was intended (by the previous Central government until May, 2014) to be replaced by a new Direct Taxes Code Bill. The Direct Taxes Code (2010) Bill (DTC), which was meant to improve the direct tax system and widen the tax, in its current form, was severely criticised.¹⁶ However, it did have the merit of making it explicit and transparent which exemptions will be eliminated. With the DTC now being abandoned by the new government, it is unclear what the outcome would be.

5.3.3 Taxing the wealthy?

Taxes on wealth/property can take many forms, but the main forms in which they have existed in India are estate/inheritance taxes, wealth tax and gift tax.¹⁷

India has no inheritance taxes, but the wealth at the top of the income distribution is exploding. In 2000, there were no Indian billionaires among the

16 Kelkar Committee (2012) noted that it would cause tax losses ‘on a continuous basis.’ The Ministry of Finance estimated the losses of revenue to be ₹ 32,415 crores (or ₹ 3241.5 billion) for 2010–11. The Parliamentary Standing Committee on Finance, which examined the Direct Tax Code bill, noted that the Bill does not attempt to increase the number of assesseees, which is very low for a country of India’s size.

17 They include, other than these three, the following: municipal property tax, land revenue, property tax by rural local bodies and taxes on capital transactions (for example, stamp duty, registration fees, or securities transaction tax on financial transactions).

world's top 100 billionaires, but in 2011 there were seven, more than in all except three countries (the US, Russia and Germany). The total net worth of Indian billionaires (55 in 2011 but 68 in 2014) is \$ 246.5 billion, only exceeded by Russian billionaires (100) at \$ 431.8 billion; the total net worth of Indian billionaires is 17.2 per cent of GDP (2011), much higher than that of China's billionaires (4 per cent of GDP). Clearly, India is generating too many billionaires relative to the size of its economy (Sharma, 2012).

Inheritance tax is a levy paid by a person who inherits money or property, or a tax on the estate (total value of the money or property) of a person who has died. When a person dies, the government assesses the worth of the deceased's estate, which may include cash in the bank, investments and any other property or business owned by the deceased. If the value of the estate exceeds the inheritance threshold set by the government, the deceased (technically his estate) will pay a tax on it at the rate fixed by the government.

It is a fiscal measure that is used to counter increasing government debt in many developed countries such as the US, the UK and Germany, where inheritance taxes provide significant revenues. In the US (despite its large fiscal deficits), the Republicans would have preferred its abolition, but President Obama decided to retain it. According to one estimate, its repeal in the US in 2010 would have cost revenues of \$290 billion through 2015, and hence he maintained the inheritance tax. Similarly, Mario Monti, the technocrat Prime Minister, reintroduced higher inheritance tax rates in 2012 after his induction in crisis-ridden Italy.

An inheritance tax was in place in India between 1953¹⁸ and 1985. It was abolished in the first flush of economic reforms (soon after Indira Gandhi died and Rajiv Gandhi became Prime Minister). The abolition was explained by citing its inability to achieve its objectives of reducing unequal distribution of wealth. However, with the rising wealth of dollar millionaires and billionaires in India, and with their average net worth (\$14.6 billion) being over double that for Chinese billionaires, it is only appropriate that an inheritance tax or estate duty is considered seriously. Of course it would require a transparent set of rules and a realistic threshold limit for it not to be inefficient administratively.

18 It was the Cambridge economist Nicholas Kaldor, who chaired a committee that recommended four new taxes (Government of India, 1956): the wealth tax (introduced in 1957), the capital gains tax, the gift tax and expenditure tax, which widened the tax base in India (on a personal note, Nicholas Kaldor was a neighbour of the author when he had many discussions with him on this on Adams Road, Cambridge in the early 1980s when the author was writing his PhD thesis).

We have already discussed above the corporate taxes foregone on account of exemptions. But what is equally important is that 98 per cent of India's corporates are family-owned and controlled, i.e., individuals and families enjoy their incomes through the corporates they control. Hence, there has to be a relationship between India's corporate billionaires and their income, i.e., their taxable personal income. However, the Ministry of Finance's budget for 2013–14 states that there are only 42,800 persons who admitted to a taxable income exceeding ₹ 1 crore per year. The Budget levied an income surcharge on them for only 2013–14, to raise resources to cover the fiscal deficit. However, this number of persons is far less than the 125,000 High Net worth Indians (with investible financial wealth of \$1 million or ₹ 5.5 crore at the then prevailing exchange rate, plus house and durables). It is a bit unlikely that their income will be less than ₹ 1 crore per year. Moreover, with the luxury car market of 27,000 cars a year, the number of super-rich is likely to be much higher than 42,800. It is for the government to discover who they are, and tax their income as well as wealth.

In addition, in India there is currently no inheritance tax but there is a wealth tax in place (since the Wealth Tax Act, 1957). It is levied on the net wealth of an individual, a Hindu Undivided Family or a company that they possess on the valuation date. Until 2015 a wealth tax is levied at the rate of 1 per cent on net wealth exceeding ₹ 3 million (₹ 30 lakh)¹⁹ and covers assets such as residential or farm houses, urban land, jewelry/bullion, and so on. However, the collections from wealth tax have been meager (around ₹ 120 billion or ₹ 1200 crores).²⁰ Nevertheless, the really important point in an economy with 125,000 high net worth individuals in 2010 quite apart from its inordinately large number of billionaires (relative to the size of its per capita income) when it had none in 2000, is that wealth tax can generate far more revenue.²¹ In fact, the body created by the

19 The Direct Taxes Code bill proposes an exemption of tax on wealth up to ₹ 1 crore, a levy of 1 per cent above this ceiling and adding new types of assets to levy wealth tax.

20 The Tax Reforms Committee (Government of India, [1992] 1993), led by the doyen among public finance economists of India, Raja Chelliah, recommended the abolition of the wealth tax on the argument that the revenue collected is less compared to the cost of collection. As a result of the Committee's recommendation, the wealth tax rightly excluded productive assets like financial assets. However, revenues from wealth tax fell sharply, after the committee's recommendations were accepted. That resulted in the suggestion of the Task Force on Direct Taxes, chaired by Vijay Kelkar (Government of India, 2002) that wealth tax should be totally abolished.

21 Credit Suisse Wealth Report, 2012 states that India's 158,000 dollar millionaires have a wealth of US \$3.2 trillion. Prakash (2013) notes that other global wealth reports by

Indian Constitution makers to monitor the government's financial performance, the independent Comptroller and Auditor General (CAG) of India (which in 2011–13 exposed scams including the 2G spectrum allocation and the coal block allocations to private companies, with no experience in telecom or coal mining) noted that tax assessing officers have failed to link the records of income tax and wealth tax. Many assesses are either not filing returns of wealth or not disclosing taxable wealth, nor have efforts been made to identify new wealth tax assesses (Government of India, 2001). In any case, the new government in Budget 2015–16 abrogated the wealth tax, replacing it with a 2 per cent surcharge on those with incomes about ₹ 1 million per year which (the Ministry of Finance claims) may generate ₹ 9000 cr. (or approx \$1.5 billion at 2014 exchange rate) in income tax revenue.

5.3.4 Introducing a tax on agricultural incomes

While in chapter 2 we have argued that agricultural income growth has remained low, it is also known that income from non-crop farming and allied agricultural activities (livestock, poultry) by commercial participants has grown. Sengupta and Rao (2012) note that if agricultural incomes were treated on par with other incomes and income tax levied, revenue worth ₹ 50,000 crore (in 2007–08), i.e., 1.2 per cent of GDP could have been generated. Since agriculture is a state subject in the Indian Constitution, it would have added 19 per cent to the states' revenues. Moreover, the Kelkar Committee (Government of India, 2002) had noted over a decade ago that there is very large underreporting of incomes under exempt agricultural income (for example, by farmhouses, large companies and so on). There is no case for levying agricultural income tax on farmers who own less than 2 hectares of land (84 per cent of all cultivators). But the remaining 16 per cent may well amount to 4 million households. Given that a high proportion of State Assembly legislators are themselves from this category of rich farmers, the initiative may never come from within the state governments.

5.3.5 A goods and services tax (GST) to replace value-added tax (VAT)

VAT was introduced by all states individually by 2004 (a full 10 years after it was introduced in China). It is well known that one of the major sources of tax

Capgemini and the Royal Bank of Canada, Knight Frank realtors and Citibank report similar numbers. Similarly, the Swiss Bank Association had reported in 2010 that Indians were holding US\$1.465 trillion in Swiss bank accounts.

evasion is the phenomenon of out-of-book sales. These out-of-book sales are resorted to by tax payers to evade sales taxes, excise duty and income tax. With the introduction of VAT, the credit of the duty on the input can be claimed only if VAT has been paid thereon, which discourages out-of-book sales.²² However, rates vary between states, and there is need for integration so that decision-making around investment and production decisions across becomes seamless. Goods and Services tax (GST) across the country could change that, and it has been under discussion between the central government and the states for two years.

Besides, problems remain with the VAT, and perhaps 'the magnitude of evasion under VAT is much more than it was under sales tax' (Purohit, 2014). In 2010 the 13th Finance Commission had recommended that India replace the multiple state and central indirect taxes by a single uniform value-added tax on most goods and services – the GST. GST would be collected at the point of sale rather than production which will unify India into a single market. It is pointed out that when GST is introduced the total tax element would be transparent and will be shown in the invoice of the consumer.²³ This would discourage consumers to avoid asking for a invoice/receipt and incentivise the dealer to sell goods giving a receipt. Currently, the dealer does not issue a receipt inclusive of tax; hence the consumer is happy with an invoice on an ordinary piece of paper (without any registration number or name of the dealer on it). If this practice continues under GST, tax evasion would further increase, because of the increased amount of the tax element in GST. Purohit (2014) suggests, for these reasons, that tax laws should be amended to force dealers to quote a 'tax-inclusive -price'; then consumers will unhesitatingly ask for a receipt, thus helping the tax administration.²⁴ It should be easy to follow the system of tax-inclusive price under GST because the tax rates would be almost the same across states.

In respect of indirect taxes Kelkar et al. (2012) suggest that the Union Excise Duties and Service Tax must be reformed so that there may be smooth integration of these taxes into a new proposed GST. They propose that the standard rate of 12 per cent should be reduced over time to align with the GST rate of 8 per

22 In the earlier system, e-tax was required to be paid at the point of first sale in the state and thereafter the goods became tax paid. Thus, no sales tax was required to be paid on the resale of goods. Now each vendor has to pay taxes on the addition by him to the value of the goods.

23 Under the current VAT regime the invoice contains the tax element of state VAT only, since the amount of central VAT at the manufacturing level gets absorbed into the price of the commodity and hence is not transparent.

24 Presently, under the VAT regime this system is followed for medicines only.

cent suggested for the central GST, as this will increase output, exports and tax revenues. The central government must remain committed to introducing a constitutional amendment in Parliament relating to introduction of GST as soon as possible (and the new government has announced that GST will come into effect 1 April 2016). But as Shome (2013) noted if there is no improvement in inter-state trade and getting refunds from one state to the other, it would not be worthwhile to move from VAT to GST. GST does hold out hope. As he notes : ‘The whole point is that as you smoothen out distortions, the decision-making in the productive sector becomes better and, as a result our production increases, the GDP increases and our tax revenue increases’ (Shome, 2013).²⁵

5.3.6 Improve tax policy to encourage manufacturing

Indian tax policy requires the payments for supply of technology and services from abroad to Indian companies is taxed. Withholding tax on payments for such technology is 25 per cent on the gross amount, usually borne by the Indian company. This raises the cost of technology acquisition by over a third of the price. However, given the lower tariff on the finished product embodying that technology, the product can be imported for lower price, with adverse consequences for Indian manufacturing.²⁶ Clearly, what is required is to correct this distortion in tax policy to support manufacturing in India.

Similarly, SEZs in India were to provide improved infrastructure to encourage manufacturing, while in the country as a whole the state of infrastructure is seen as a constraint on manufacturing. However, one reason why SEZs in India have been less than successful is the duty structure on domestic sales (since the tax benefits are all granted to encourage exports from SEZs). If the duty on the domestic sale is not higher than on the lowest customs duty levied on import of such products, this would ensure that supply to the domestic market from the SEZ manufacturing enterprise is not at a disadvantage relative to import.

25 In early 2015 (as we go to press), almost all states want key sources of key indirect tax revenue (for example, petroleum, natural gas, electricity, alcohol) excluded from the GST base. Even food items, health services and education may get excluded. Under the circumstance, Panagariya (2014) suggests that the central government may consider a two-stage implementation process. First implement a full central GST with a wide base, and at a later second stage bring the states on board. This would allow the centre to build and test the GST infrastructure. Mukherjee and Rao (2014) suggest other alternative scenarios.

26 In Budget 2015–16 22 products facing such a inverted duty structure saw a change in rates to benefit domestic manufacturers.

5.4 Generating Non-tax Revenues and Using Other Instruments of Tax Revenue Mobilisation

As can be seen in Table 5.3, India's non tax receipts are in the range of 3 to 3.5 per cent of GDP. There was a spurt in 2010–11 on account of the higher-than-budget realisation from the proceeds of auction of telecom 3G/broadband wireless access spectrum. But its main components in normal years remain dividends and profits of public-sector enterprises, which could improve with better management of public enterprises. Higher non-tax revenues could also be generated if natural resources (for example, land, minerals), which are usually owned by the Indian state, could be auctioned to private companies interested in purchase. Open auctions are likely to fetch higher revenues for the state than the determination of these prices behind closed doors in a non-transparent manner (as happened in the case of both 2G spectrum over 2008–11 as well as with coal allocations by the Ministry of Coal and the public sector monopoly, Coal India, over roughly the same period). This is exactly what was been pointed by the Comptroller and Auditor General of India. Such non-transparent allocations have resulted in massive accretions to wealth and accumulation of black money within and outside India by wealthy Indians – at the expense of the treasury. Since these scams, coal and spectrum are all being sold in open auctions, fetching significant revenues for central and state governments.

5.4.1 Capital receipts (non-debt)²⁷

The final way in which the public expenditure for human capital formation and physical infrastructure can be financed is through capital receipts, mainly in the form of disinvestment in public sector enterprises. Recoveries of loans and disinvestment are the two key receipts of the non-debt capital variety. Most public enterprises are almost entirely owned by either the central or the state government. Even if 10 per cent of stock holdings of such enterprises were sold on the capital market significant resources can be generated. However, it is critical that such resources are not used to meet the current revenue gap or to cover the fiscal deficit, but specifically for meeting the expenditure requirements

27 We focus here on non-debt related capital receipts, because market loans (and external borrowing) taken by both the central and state government constitute most of capital receipts. Thus, while the total capital receipts (including debt) might be 8 per cent of GDP in 2010–11 (5.6 for the centre and 2.4 per cent for states), some 93 per cent of this total was accounted by borrowing.

of infrastructure, health and education – which remain under funded (as has been argued in in this volume).

5.4.2 Increasing tax revenues from the real estate sector

The real estate sector constitutes 11 per cent of GDP, and as one has seen in earlier chapters, employs 50 million persons (or just over 10 per cent of the workforce). Capital market has only recently acquired prominence as a destination of financial savings. A traditional form of investment for households has historically been real estate (or gold). In fact, real estate is a common means of parking unaccounted money and a large share of transactions in real estate are not reported or underreported.²⁸ An important reason is the high level of property transaction taxes, particularly in the form of stamp duty. With stamp duty of over 5 per cent on declared value of transactions – which is the tax rate after a decade of rate reductions – in a sector that involves other high transaction costs (for example, search, advertising, commissions, registration and contingent costs arising from poor titling records with governments) the real estate market remains one of the most inefficient asset markets in India.

Even after the resurrection of local bodies since 1992–93 (discussed in chapter 15), the state governments are the ones that still regulate and tax the real estate sector. Although the central government's role in the sector is advisory, the centre has used the flagship programme JNNURM (a centrally sponsored scheme in place since 2005–06) to restrict stamp duty to 5 per cent. Reducing rates further would actually reduce black money generation and encourage buyers-sellers to declare the full value of transactions, thus also increasing tax revenues – consistent with the Laffer curve phenomenon. The international evidence is in favour of rates that are lower than 5 per cent.

5.4.3 Increasing compliance among personal income tax payers

Mining data to increase compliance among personal income tax payers would also help. Since 2004 the Income Tax Department has been electronically obtaining a large volume of information through Tax Information Network (TIN) and Annual Information Returns (AIR). However, it appears the tax administration is not able to utilise this vast information because the staff does

²⁸ This underreporting is an important source of funding for political parties, especially at election time and in large or growing cities, feeds the underworld of criminal activity all of which vitiates the overall ecosystem for legal economic activity and investment.

not have data mining skills, which need to be developed. Secondly, while the Personal Account Number (PAN) is mandatory for undertaking some specific transactions, it is not a requirement for many other transactions. As a result, a large section of India's citizens are not captured within the tax net. This impacts the quality of information received and hence the effectiveness of TIN as a means of increasing tax revenues. Hence the law needs to be amended to provide quoting of PAN or the Universal Identity number (UID or Aadhar card) issued by the Unique Identification Authority of India in all economic transactions including bank accounts, fixed deposits with banks, all financial transactions, all salary payments and all immovable property transactions.

5.4.4 Reforming the tax administration

The yield from taxes is impacted by tax policy as well as by tax administration. As the Tax Administration Reforms Commission (Shome Commission, 2014) points out, tax policy reform in India gathered momentum after the economic liberalisation began post-1991. However, very little comprehensive reform in tax administration was undertaken. As a result, the tax administration has remained behind the curve. As noted earlier, although GDP growth accelerated, the tax-GDP ratio has stagnated. Nearly 400,000 tax cases are locked up in various courts, as the taxman has made demands that companies have disputed. Large tax revenues became uncollectable due to disputes emanating from tax demands that were of a protective nature, i.e., issued just to insure the tax officials against future liability.

Both private domestic as well as foreign direct investment dipped after 2010, as thousands of companies were suffering the consequences of high demand of transfer-pricing adjustment. The tax administration is caught up in litigation with companies in respect of direct and indirect taxes in Supreme Court, the High Courts and lower courts. But the taxman's success in winning a case is one-fifth or less in direct tax cases or close to a tenth for indirect cases. As a result tax arrears remain high, with more collectable taxes under dispute than not under dispute.

Under the circumstances, advance pricing arrangements (APAs) are emerging as a way out. As applications for APAs are increasing, the tax administration needs additional capacity for processing them. The Shome Commission (2014) rightly makes a strong case for training tax officers in specific fields. If tax administration

does not improve, it has major consequences for the economy. It has already had adverse ramifications for the investment climate as business decisions became increasingly difficult in an environment of growing tax uncertainty. As the Shome Commission (2014) noted, the year-to-year high nominal growth in tax collection over and above the inflation rate may have generated a sense of complacency regarding administrative performance on taxes.

5.5 Concluding Remarks

We have argued that there will need to be a consistent effort by the central and state government to ensure that tax revenues are rising faster than per capita income, and the tax base is increasing. The alternative to a consistent rise in tax revenue/GDP is that populism may override fiscal prudence. If the latter leads to public expenditure always racing ahead of revenues, the fiscal deficit will cause inflation, thus undermining any gains in nominal wages and salaries that take place. The well known inflation-growth trade-offs will then set in, which will undermine growth (as it already has over 2010–13) and thus the ability of policymakers to raise social expenditures, raising which is a dire necessity given the current level of human capability deprivation.

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Skill Development

Finding New Financing Mechanisms to Take Vocational Education and Training to Scale

India faces a major challenge in terms of skill development. The rapid growth of the economy, especially in industry and service sector, has created skill shortages. The skill gap might grow further as at least 5–7 million persons might join the labour force annually between 2012 and 2022,¹ while the current skill training capacity in the country is well below that number (5 million per annum) (Mehrotra et al., 2014). This gap can keep growing, since the number of persons already in the labour force that need training is very large. We estimate a total capacity requirement of 20 million per year, while the system's current capacity is only 5 million per year. Vocational education and training (VET) finance will have to increase correspondingly. General tax revenues and, to some extent, bank loans for technical education are available but will not suffice. The quantum leap in both the quantity and quality of skill training currently available can only happen if new sources of assured funds for VET can be found. The 'Make in India' slogan of the new government and the objective of 100 million new jobs in manufacturing by 2025 is doomed to failure if skilled workers are not available.

Hence this chapter makes the case for India initiating a national training or skill development fund, dedicated to meet the challenge. It is notable that in over 60 countries world wide, payroll levies have been implemented and are the main

1 There seems to be a common perception that 12 million people will join the labour force every year, based on the rate of increase that occurred between 1999–2000 and 2004–05 (the 55th and 61st Rounds of the NSS Employment-Unemployment Surveys). That rate of increase was not sustained between 2004–05 and 2009–10 (the 61st and 66th Rounds of NSS) nor till 2011–12. The rate of increase will slow over the coming decade, for the reason that the population growth has been slowing sharply from 1981 onwards, and at the same time the enrolment rate in education has been increasing. The total number of children between zero and six years of age was the same in Census years 2001 and 2011 (Registrar General of India, 2011) – a demonstration beyond a shadow of doubt that the labour force increase will slow over the second decade of the new century.

source of financing skills training in specialised training institutions. Such levies have encouraged enterprise training without totally relying on general tax revenues and India can learn from the experience of such countries.

The chapter is organised as follows. Section 6.1 discusses the nature of India's skill challenge empirically, but then spells out in theoretical terms why the challenge is difficult to meet without additional sources of financing. Section 6.2 introduces the various vocational training funds that exist globally. Section 6.3 discusses the experience with them in other countries and the types of funds that originate from these sources. Section 6.4 draws some preliminary lessons for India based on the preceding discussion.

6.1 The Problem: The Empirical and Theoretical Issues

The 11th Plan (Planning Commission, 2008) noted that only 2 per cent of its workforce of 470 million (2011–12) is vocationally trained in the formal technical and VET system, and barely another 8 per cent had acquired vocational training informally. This is the main reason why the number of those who need to receive the benefit of VET is in the hundreds of millions. While only 3 per cent of all school children that reach higher secondary education level in India (classes 11–12) are in the vocational stream, in China nearly half of all children who complete the compulsory nine years of education actually enter the vocational stream – an important reason, among others, for China being such a successful manufacturing nation.

India's problem is compounded by the fact that while primary education (classes 1–5) net enrolment rate had reached 95 per cent by the mid-2000s, the upper primary (classes 6–8) net enrolment was still only 62 per cent in 2009–10. This is the main reason for the fact that over half (55 per cent) of India's workforce in 2009–10 was either illiterate or had less than primary or only primary level of education (see Table 6.1). Although most of these low levels of schooling are concentrated in the agricultural workforce (which partly accounts for the relatively low productivity of Indian agriculture), the fact remains that even in the non-agricultural workforce, only 45 per cent had acquired at least secondary education (up to class 10) in the general academic stream (which until class 10 was the only available stream, as there was no vocational stream available until class 11 as of 2013).

Table 6.1: General education level of labour force (PS+SS)
in the age group 15–59

	Numbers (million)	Share in labour force in age group 15–59 (per cent)	Share in labour force (470 million) (per cent)
Not literate	125.65	29.14	26.73
Literate without formal schooling: EGS +TLS + Others	2.12	0.49	0.45
Below primary + Primary	102.38	23.74	21.78
Middle (grades 6–8)	76.08	17.64	16.18
Secondary (grades 9–10)	52.39	12.15	11.14
Higher secondary	29.19	6.77	6.21
Diploma/certificate course	6.02	1.40	1.28
Graduate	28.01	6.49	5.96
Graduate and above	9.40	2.18	2.00
Total	431.23	100.00	91.73

Source: Computed from NSS (66th Round), 2009–10.

Note 1: Estimated numbers of persons are adjusted to total census population. Ideally it should be adjusted by census population in the age group of 15–59. But due to data constraints it is not possible. However, the ratio of total NSS sample population to total Census population is similar to that ratio of NSS sample in the age group of 15–59 and projected census population in the same age group.

Note 2: PS and SS refer to Principal Status and Subsidiary Status respectively. The employment activity status on which the person spends more than 182 days during the reference year is considered the principal status of the person. If a person pursues some economic activity for less than 182 days but more than 30 days during the reference year then that activity is considered to be the subsidiary status. TLS refers to total literacy scheme.

Only 2 per cent of the workforce had acquired VET formally. India needs to skill at least 291 million persons between 2010 and 2022 (the end of the 13th Plan).² We define skilled persons as those: (a) who have at least a secondary education

2 C. K. Prahalad was responsible for an estimate that 500 mn additional people need to be skilled by 2022, unfortunately adopted as a government policy target. That is not a reasonable number for at least two reasons: (a) the entire workforce itself is not likely to exceed 550 mn in 2022; and (b) it assumes that the entire agriculture workforce must also be trained. See Mehrotra et al. (2013a) for this argument, and the full estimate, which is the first and only estimate so far based on NSS data.

certificate (i.e., class 10); (b) those without a secondary school certificate but having formal vocational training³ (VT); and (c) those with post-secondary level technical education – (TE); whether that fetches them a diploma, certificate or a degree. In 2009–10, the number of those who are in the workforce and have a secondary education is 50.79 million, those with formal VT is 7.9 million and those with TE is 10.51 million (Table 6.2). In the total workforce in 2009–10 of 42 million (age 15–59), as much as 70 per cent are either totally illiterate or with primary/less than primary education.

Table 6.2: Education and training level of workers, 2009–10

Workers with	Numbers (in millions)	Share in workforce in age group 15–59 (420.59 million) in per cent
General education below secondary	295.6	70.1
Secondary education	50.8	12.0
Formal vocational training	7.9	1.9
Technical education	10.5	2.4

Source: Mehrotra et al., 2013

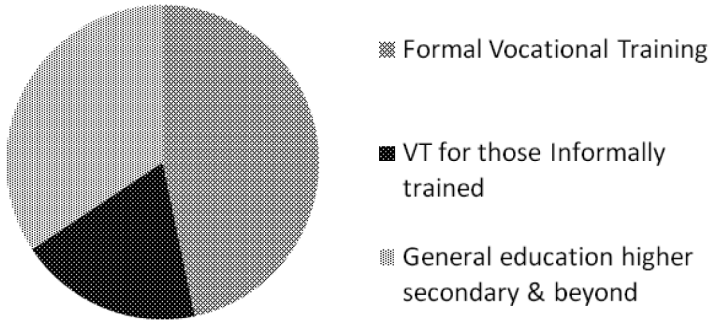
Note: This is an estimate of the education level of the workforce in the age group 15–59 years, based on their principal employment and subsidiary employment.

Our estimate (Mehrotra et al., 2013a) is that India will need an additional 291 million in the three categories, including for those 55 million in the workforce who are informally trained; 136 million new entrants to the labour force who need formal VT; and 100 million who need at least general secondary education.

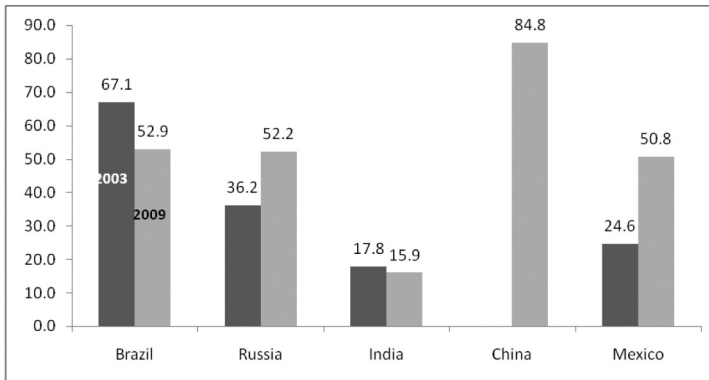
In other words, the challenge for India's policymakers is huge. Vocational training can be provided firstly by enterprises, known as in-service training; secondly, pre-employment at the government-funded training institutions, and thirdly, by private providers of out-of-service or pre-service training. This is in addition to vocational education in the secondary school system, which is currently so small that it is practically non-existent (as noted above) (see Mehrotra, 2014 for a full length discussion of India's skill challenges).

Moreover the share of firms that are currently providing in-company training to their workers is only 35.9 per cent (World Bank, 2014), and in 2006 that share was 16 per cent; only large firms train.

3 The emphasis here is on the word 'formal', since 80 per cent of all those in the non-agricultural workforce have only informal vocational training.

Figure 6.1: Estimates of additional training requirements by 2022 (million)

Source: Santosh Mehrotra (2014)

Figure 6.2: Firms offering formal training (per cent of firms)

Source: World Bank enterprise surveys, World Development Indicators, www.worldbank.org.

India clearly has the lowest level of in-firm training among the BRIC countries (see Figure 6.2). Figure 6.2 shows that not only is the share of Indian firms offering training low compared to other emerging market economies, but there was a decline in the percentage of firms offering in-firm training between 2003 and 2009 – the years of the fastest economic experienced by India ever. In China, the percentage is very high and this is consistent with the fact that China has a much larger manufacturing sector.

The important question as to why firms in developing countries prefer not to provide in-firm training can be best understood theoretically as a ‘moral hazard’ problem combined with a ‘free-rider’ problem. For instance, firm A bears the

cost of setting up the infrastructure needed to provide training, as well as hires professional staff to provide the training, while firms B, C and D do not. Therefore, firm A runs the risk of losing its trained staff to its competitors. Firm A faces, in other words, a moral hazard since the free labour market is such that other firms will free-ride upon its investment. As a result, no firms are willing to make the investment in in-firm training. Moral hazard becomes a generalised problem for all firms.

Since skilled persons are a public good (and non-excludable, in the sense of being usable and useful to all firms on payment), the government has historically facilitated their provision, or often provided them. In the latter case, they are practically free to the private sector, which bears little or no cost. A typical example is the system of Indian Institutes of Technology and Indian Institutes of Management, where the best young brains in the country are trained at considerable public expense, and they have been employed at large Indian private firms or foreign firms at very high salaries (not just by Indian standards). The latter, however have had to contribute precious little towards their training/education. Well trained/educated managers and engineers are, however, a scarce commodity (and becoming scarce as suggested in Chapter 4) and the economy needs them in much larger numbers than are currently available. The moral hazard problem arises due to lack of willingness to pay for creating the physical and human resource infrastructure to skill the people required for a growing emerging market economy to sustain its growth. This is a supply side problem that has to be resolved.

There is, however, an additional problem that exists on the demand side. There needs to be effective demand from youth for training. If there is such a serious shortage of skilled personnel, why are the young people not coming forward in larger numbers to acquire the skills? We suggest that there are two sets of constraints preventing what apparently would seem to be a rational act on the part of youngsters and their parents. One is information asymmetry and the other is the problem of the 'ability to pay'.

Young people who can be trained are not aware of sector needs and skills that are in short supply, since there is no publicly accessible labour management information system (labour exchanges run by the Ministry of Labour and Employment are a poor substitute), nor is there a publicly available and credible skill gap analysis by sector for each state, let alone by district. In other words, there is a problem of information asymmetry. Employers, industry or services, are looking for skilled people to employ but cannot find them. Youth looking for

jobs who can afford to pay for pre-service vocational training do not know which skills are in demand, and therefore cannot find jobs.

A further demand problem arises from the fact that young people turning 15 often do not possess the ability to pay for the training. They face two kinds of costs if they decide to acquire pre-service vocational skills. First is the financial cost of the training itself. The second is the opportunity cost of not being in a job and hence foregoing earnings. The reason such young people leave school after (or even before) completing elementary school (class 1–8) is that they were not sure any further general, academic education would improve their employability, specially for a formal sector job. The dual burden of the financial and opportunity cost of pre-service vocational training is a serious barrier against entry of youth into VET. Hence they don't wish to join vocational education in senior secondary school or pre-employment vocational training that may be on offer from the public or private sector.⁴

It is precisely on account of the moral hazard problem on the supply side, and the information asymmetry plus inability to pay on the demand side that both skill supply and demand for training is as low as it is in India. Both these problems could be addressed simultaneously if financing was available through a dedicated training fund in India.

Meanwhile, general tax revenues have been financing most forms of pre-service VET so far. In India, vocational training refers to certificate level crafts training available at Industrial Training Institutes (ITI) and is open for students who leave school after completing grades 8–10 from any school. This scheme is looked after by the Directorate General for Employment and Training (DGE&T), part of the Ministry of Labour, Government of India. The training comprises the craftsmen training scheme. In addition there is the apprentice scheme, one offered by Ministry of Human Resource Development (MHRD) for 18–22 year olds (for diploma/degree holders in engineering) and the other by the DGE&T for 17–18 year olds (who may/may not have graduated from Industrial Training Institutes).

4 On top of all these problems, there is the additional issue of the quality of VET available, and hence their concern whether they will actually be more employable if they decide to cross these barriers and enter VET. This fear arises from the societal concern that VET is not of the quality that industry perceives makes youth more employable (see Mehrotra, 2014 and the next chapter on these issues).

The ITI⁵ system's public sector component (i.e., the 2000 odd government ITIs) are financed from general tax revenues and have hardly seen any growth during the 11th Plan (2007–12), despite the 11th Plan's focus on skill development. It was during the 11th Plan that the National Skill Mission came into existence. The National Skill Development Corporation (NSDC) also came into existence during the 11th Plan, and is also financed 49 per cent by general tax revenues, although the remaining 51 per cent comes from private industry chambers.⁶ The only growth during the 11th Plan period in the private sector has come from privately owned ITIs,⁷ and the NSDC-financed private providers. The total numbers receiving VT in all these pre-service institutions in a year does not exceed 5 million (NSDC, 2012).

Similarly, vocational education (VE) carried out in secondary schools (since the mid-1980s) has received very limited funding in recent times, and during the 11th Plan it actually shrank in coverage on account of it being non-aspirational, of poor quality and involving no industry collaboration. Vocational education in India is a part of the formal education system wherein vocational courses are offered in classes 11 and 12 under a centrally sponsored scheme termed 'Vocationalisation of Secondary Education' that falls under the purview of All India Council for Vocational Education (AICVE), under the MHRD. This programme was revamped in 2011–12 and the design proposed is very similar to the National Vocational Education Qualification Framework (NVEQF) (see Mehrotra et al., 2012 and the discussion in Chapter 7). The central government scheme on VE, however, did not receive much funding from the central government prior to the NVEQF; hence several states closed down the VE stream at senior secondary level. It is only with the beginning of the 12th Plan (1 April 2012) and the launch of a new VE central scheme by the MHRD

5 The craftsmen training scheme is executed by ITIs, both public and private. In 2014 there were about 12,000 such ITIs, nearly 10,000 of which are in the private sector (up from under 2000 in 2007).

6 The private chambers are Federation of Indian Chambers of Commerce and Industry (FICCI), Confederation of Indian Industry (CII) and Associated Chambers of Commerce and Industry (ASSOCHAM).

7 As a part of the policy push, the Union budget 2012–13 of India doubled its allocation of funds for skills development under the National Skill Development Fund (NSDF) to ₹ 1,000 crore, raising the corpus of the fund to ₹ 2,500 crore aiming at the huge skill development goal of the country. Further, to make skill development/ training affordable, the government has launched the credit guarantee fund and also exempts vocational training institutions from paying service tax.

– along with the national vocational education qualification framework – that VE began to receive additional resources. But those too will be resources from central government general taxes.

Even apprentices in the age group 18–23 who have a certificate, diploma or degree in engineering are paid stipends shared the employer and the GoI (MHRD)⁸ although the younger apprentices (15–18 year olds, often graduates of ITIs) are paid by industry. In any case, the formal apprenticeship system, as found in India, suffers from serious weakness, as it is miniscule in coverage (i.e, restricted to the formal sector of manufacturing), mostly confined to large and medium enterprises, offering barely 265,000 apprenticeships in a country with a 485 million workforce (Mehrotra, 2014b). In all, the private sector has barely stepped forward to provide much training over the decades.

Given this poor response by both the public and private sectors relative to the needs of the country, there is a clear need for a paradigm shift in addressing the problems identified above, both on the supply side of training provision as well as the demand for training (Mehrotra, 2014a). Both these sets of problems can be addressed by a National Training Fund. In the next two sections, we will discuss the manner in which these funds have serviced the training needs of countries around the world, especially developing countries.

6.2 Types of Vocational Training Funds: An Introduction

Although there are many elements in improving the efficiency and effectiveness of the existing skill development systems, the most important one is to discover an appropriate method of financing vocational educational training, since the latter is costlier than general education due to its technical nature (Tilak, 2003). Pre-service training requires the installation of equipment to enable youth to be trained. This raises the cost of training and remains a factor preventing pre-service training from expanding more rapidly. The rising costs of such training as technology changes make it imperative to explore means of financing training other than just depending on government initiatives or funds. Even if some large firms are willing to finance training, not all will, and especially not small firms.

Costs of training could in principle be borne by different stakeholders and Table 6.3 puts together the costs and benefits of whether the incidence of costs

8 This changed from 2015 when the new government (elected May 2014) raised the stipend and half the stipend is to be borne by the government.

should fall on individuals, the employer or the government. As mentioned before, the free rider problem becomes evident if the one who benefits most doesn't pay for it. It is in fact the government and the individual who pays in real terms and often the employer remains a free-rider. Partly to address this free-riding problem the national training funds across the world are becoming an instrument for financing training. These funds provide an institutional framework for collecting and allocating finances to the training providers.

Table 6.3: Who should pay – the individual, the employer or the government?

	Costs	Benefits
Individual	• Financial cost of training • Opportunity cost (he may earn more being an unskilled labour)	• Flexibility and mobility to move vertically and horizontally across jobs • Higher salary
Employer	• Mistakes by inexperienced trainees. • Training material etc.	• Higher efficiency – larger profits • Solving supply side shortage of unskilled workers
Government	• Subsidies to training firms • Vouchers, loans • Financial concessions to employers	• Lower cost of supporting people as higher wages would mean higher standard of living • Inclusive growth • Increase in tax income from higher earnings

Source: Author's estimates.

Training funds can be differentiated by the purpose they are used for. One can categorise them in three ways as given in Table 6.4.

Table 6.4: Typology of funds

Type	Main purpose
Pre-employment training fund	To finance the expansion and delivery of initial training before employment
Enterprise training fund (formal sector)	To provide incentives to increase in-service training of workers within enterprises
Informal sector training	To provide funding to skill workers in microenterprises as their training needs are neglected in traditional training programmes
Equity training fund	To increase opportunities for skills acquisition by disadvantaged groups not covered by enterprise schemes

Generally countries have a mix of these types and the source of such funds is either payroll levies (discussed in the next section), which are either government-funded or internationally supported. The logic behind such dedicated funds is minimum political intervention.

Dedicated funds for training have existed in several Latin American countries since 1940s–50s. These Latin American countries collected their depository (training funds) from training levies. In the beginning, training funds (for example, in Brazil) were only used for pre-employment training while other Latin American countries also focused on increasing in-service training, ensuring a good correlation between who is financing the levy and who gets the benefits.

6.2.1 Pre-employment training fund

The logic behind the pre-employment training funds is to have a constant supply of skilled persons and thus reduce the supply-demand gap. This training is financed by the revenue generating payroll levy from formal enterprises (Johansen, 2009). These firms do not directly benefit from such a training scheme but they are ensured a good supply of well trained individuals in the future from the labour market. The funds thus obtained from the levy are used to support and finance the vocational training institutes offering this training. Such training funds are commonly found in Central and South America, Hungary, Tanzania and Fiji.

A successful example and one of the earliest forms of levy scheme can be found in Brazil. In a very short period of time, Brazil managed to change its production structure from a very traditional one to a highly diversified manufacturing sector and today Brazil is known as one of the top ranked automobile and commercial

airplane manufacturing countries (Castro, 2012). The secret behind Brazil's success is its vocational training system which is quite different from the one established in European economies but similar to the one in United States. The main feature of the Brazilian framework is that there is no certification or qualification framework. Brazil's system clearly demarcates between vocational training and technical education leaving little room for overlap or grey areas. The vocational training is offered by private providers and the funding is from a 1 per cent levy on the payroll collected by the government but managed by employers. On the other hand technical education is organised by the Ministry of Education.

This network 'S' is operated and managed by the Brazilian Confederation of Industry since 1942 and is not accredited by the government. The initial and quick success of Serviço Nacional de Aprendizagem Industrial (SENAI) led the government to create sister concerns of a similar kind but independent of each other. The other four organisations for skill development, which were created were Serviço Nacional de Aprendizagem Comercial (SENAC) for the commercial sector, Serviço Nacional de Aprendizagem Rural (SENAR) for the rural sector, Serviço Brasileiro de Apoio as Micro e Pequenas Empresas (SEBRAE) for small enterprises (both of them being initially under government supervision but were later privatised due to efficiency issues) and Serviço Nacional de Aprendizagem dos Transportes (SENAT), the transport organisation that split from SENAI.

In fact the whole system runs on its reputation in the labour market. It is therefore an independent set of institutions whose performance is based on tracer studies of their graduates. Thus the very existence of the training institutes is based on its ability to place students. As management of these funds is in the hands of employers they cater well to market demand. The first institution established in this system was SENAI – the National Service for Industrial Training, whose main focus was to train skilled labour in classical occupations like electricians etc. This training was also combined with the basic training on mathematics, language and other basic skills. A major drawback of SENAI is that, as it is based on apprenticeship training, there were too many laws attached to it (as it was meant to protect apprentices from abuse), which made the scheme a bit unattractive to employers (Castro, 2012).

The success story of SENAI is proof of how industry can play an important role in training but one must consider that conflicts of interest and crowding out of other training providers in the market should be taken care of. The case of Tanzania is an example of such a problem. The vocational training set up of

Tanzania, known as Tanzania's Vocational Education and Training Authority (VETA) is also financed by a payroll tax on the formal sector enterprises. The problem with their system is that this tax was not implemented in consultation with the employers and is mainly used for the running of administrative purposes of VETA. Further, only a very small portion of the tax collected reaches the private training providers, who do not get much encouragement from the government.

6.2.2 Enterprise training fund

Despite the importance of training in raising firm productivity, many enterprises do not provide in-service training because of market failure (the free-rider problem mentioned before). This fund aims at promoting in-service training within firms (which, as seen above, is low in India with only 36 per cent of the firms providing such training). This scheme's main objective is to eliminate or at least minimise the free rider problem (Garavan, 1995). The basis is to raise the productivity of the firms by upgrading the skills of workers internally or externally (Johansen, 2009). The way this fund is collected and how the whole system operates through ear marked levies has been explained in section 6.3. Training levies in general have emerged as a very common way of financing training and mainly the bigger enterprises seem to reap benefit of this system. This fund is mainly collected under three levy based options are (a) cost reimbursement; (b) levy-grant; and (c) levy exemption (train, or pay) (which are discussed in the next section).

6.2.3 Equity training fund

This fund aims at the people who are not included in the formal sector and hence often get excluded from training. In short, this fund aims at 'inclusive growth through training'. The objectives of such funds are to train specified target beneficiaries, for example, unemployed, women, youth, and informal sector (Johansen, 2008). These funds are generally financed by the government and some form of training levy, and in low income countries are internationally supported.

This type of fund is generally found in countries where there is a very small proportion of formal enterprises. Such enterprises are very reluctant to pay up any levy to train individuals, which might then in the future seek employment in the informal sector, again highlighting the prevalence of market failure. An example of a government-based equity fund is the National Training Fund (FONCAP) of Chile. The fund here targets excluded low income workers without any basic

qualification entering the labour market. The registered training providers further bid to get funding from the government. Small enterprises also get included in the training programmes as they are supported by non-profit intermediaries that organise and contract training for groups of small enterprises. Some projects are also funded by the World Bank.

The National Skills Fund (NSF) of South Africa serves as an example where in one sees how payroll levies are directed towards including all sections of the society. Twenty per cent of the training payroll levy on formal sector enterprises is sent directly to the NSF and 80 per cent goes to sectoral authorities. Further the funds of NSF are used to finance projects to skill people under the National Skills Development Strategy (NSDS). The NSDS has a reservation policy where in 85 per cent (out of the 80 per cent allotted to NSF) of the fund benefits the black population, 54 per cent for women and 4 for the disabled (Johansen, 2009).

Equity-based training could be one way of funding vocational education in India (for marginalised communities) but it should be noted that there could be problems of quality degradation, unless there is a requirement that private employers are engaged in the training, and providers/private industry collaborate to ensure placement. Their design must avoid the risk of training for poor people becoming 'poor training'.

The governance of such funds varies across countries. Some funds are managed by broad-based national training authorities, some being governed by small sector- specific bodies. They usually operate under the general purview of labour ministries with some stakeholder representation.

6.3 Financing and Payout Mechanisms in Training Funds

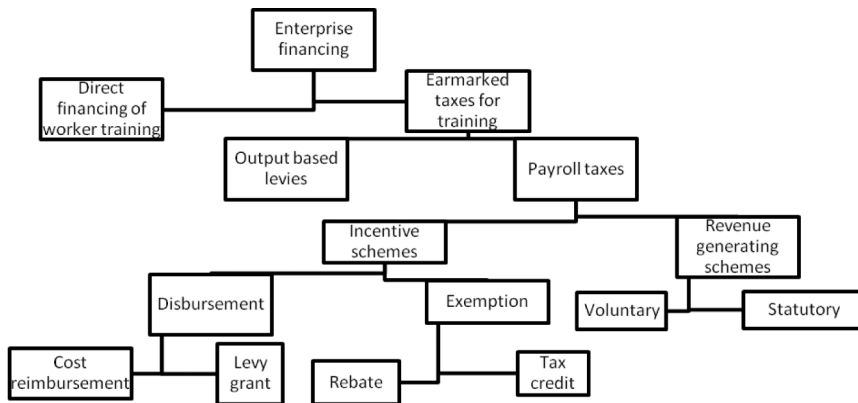
The types of funds mentioned in section two can be successfully financed via payroll levies. It should be noted that enterprise-based financing of skill can take place either via direct own financing by the economic unit, which is seen in very few enterprises and are concentrated in very large firms, export oriented firms or firms with foreign concentration (Froumin et al., 2007), or by earmarked taxes for training. It is the latter that has to be yet tapped in India to expand the former.

Some 62 countries have resorted to imposing payroll taxes on enterprises, which have become a significant source of financing for skills training, both in specialised training institutions and in enterprises (Middleton, Ziderman and Adams, 1993). Levies can provide a steady and protected source of funding for

training, particularly in the context of unstable public budgets (Johanson, 2009). Most of these levy schemes are found in Latin America and Africa and are also very popular in Europe. Further, these schemes are not just restricted to small countries but also found in larger ones as well.

In some parts of the world payroll training levies are the principal source of financing for training funds and have been part of their system for many years (for example, Brazil for last 50 years). Early training funds (for example, Brazil) tended to be single purpose aimed at financing pre-employment training. Others focused on expanding the volume of in-service training within the enterprises.

Figure 6.3: Types of levy financing



Source: Adapted from Johansen, 1996

Payroll taxes characterised by earmarked levies are further distinguished between two types based on the objectives that they serve (Figure 6.3). In the usual (revenue generating/raising) scheme, firms are taxed to generate revenues to finance training provided by the public sector. In the alternative incentive mechanism like levy-grant or levy-rebate scheme, in-plant training provision is encouraged by providing firms with training incentives. They are briefly discussed in turn.

- *Revenue-raising schemes:* This scheme provides a wide range of pre-employment and in-service training courses such as in Brazil and Morocco and are often referred to as the Latin American model, after its origin in that region. The emphasis is on public sector training provision rather than encouraging of firms to undertake training. The coverage of this levy also varies, both in terms of sectors and firm size. In many countries this levy is restricted to the industrial

sector of the economy, reflecting the limitations of the programmes offered by public training establishments, but it may also cover the commercial sectors and in some cases, may be all-encompassing (Dougherty and Tan, 1991; Gasskov, 1994).

There is clearly need for such a revenue-raising scheme in India, since the public sector has not managed to expand either vocational education (VE) in schools or VT in public Industrial Training Institutes during the 11th Plan period significantly (though private ITIs have grown). It should cover both industry – manufacturing as well as non-manufacturing – and services. It should cover services since this sector has been growing faster than manufacturing even during the 1990s, while during the 2000s both manufacturing and services output have risen at similar rates (with services now accounting for 57 per cent of GDP). More importantly, employment in services is greater (127 mn.) as against in manufacturing (59 mn.) in 2011–12 and growing faster too (Mehrotra et al., 2013).

- *Incentive schemes:* These schemes are of two types, exemption and disbursement (Figure 6.4). Under the exemption variant, tax credit is not used frequently in developing countries. In payroll tax exemption the firms can reduce or eliminate their levy obligations by the amount of training they provide or purchase.

Under the disbursement schemes, the payroll tax is linked to disbursement of the fund (collected via tax) or exemption to the firms in proportion to the level of training that their employees undergo. The advantage of this scheme is that the payroll tax proceeds are used to encourage firms to either set up programmes of in-service training or upgrade skills of their workers by purchasing training for them at a recognised training centre, and thus qualify for a rebate of up to a specified percentage of the tax paid by them. Interventions where the tax is linked to a disbursement scheme takes various forms involving payroll tax exemption, training cost reimbursements or levy-grants.

The disbursement system is thus further categorised as:

- a. *Training cost reimbursement:* The firms are paid grants based on the cost incurred for certain designated forms of training.
- b. *Levy-grant schemes:* These grants are paid to firms conditional on criteria met, once a systematic training approach is adopted. Levy-grant schemes encourage firms to act systematically in relation to their training programmes.

6.3.1 Coverage of the schemes

There are 62 countries, which have implemented training levies (as listed in Table 6.5).

Table 6.5: Approximate distribution of training levies by region and type

Region	Countries with training levies	Revenue-raising levies	Incentive levies			Not available
			Cost reimbursement	Levy-grant	Levy exemption	
Central, Latin America and Caribbean	17	16	–	–	1	4
Sub-Saharan Africa	17	6	2	9	6	–
Europe	14	2	1	9	2	2
Middle East & North Africa	7	2			4	1
Asia & Pacific	7	1	2	4	2	–
Total	62	27	5	22	15	7

Source: Johansen, 2009

Most levy based schemes are implemented in Latin America and Africa, and are also widely found in Europe. South Asia has no country with such levies. The Central American, Latin American and Caribbean countries rely on revenue raising schemes whereas, other regions mostly have incentive schemes, where the firm has an incentive to provide in house training or apprenticeship.⁹

These schemes have major implementation problem in countries where administrative capacity is lacking or have a large informal base. The implementation of such schemes in low income countries is a problem (Dar et al., 2003).

Some countries exclude the public sector from collections of levy (as seen in Mauritius and Tanzania) and this results in some resentment among the private players since they are subsidising training in the rest of the economy. A similar situation may also arise if the small sector enterprises are exempted

9 Training levies have been implemented in big and small countries. Fiji, Botswana and also small countries of Central America have a variety of such levy schemes.

from paying the tax and only medium and large companies pay. The size of the enterprises covered under such scheme also varies with annual payrolls to number of workers.

While most schemes are national in coverage, they could also be sectoral in coverage. A distinction may be made between general revenue-raising levy schemes and sectoral levy-grant schemes. General schemes are those in which taxes raised go into a public budget for training. On the other hand, under the sectoral levy-grant scheme, firms are taxed within a particular sector and the levy money is disbursed in firms within the sector. As they are a part of the levy grant scheme, firms get over compensated based on their level of training, which is sometime more than the levy that they pay, and non-trainers become net payers into the system. Among countries that have a levy system, Brazil has five sectoral funds as compared to 23 sectoral funds in South Africa, which are not very big. Sectoral levies are more common in Europe (for example UK, Denmark and the Netherlands), and have shown excellent capacity to administer fragmentation in their tax system. These sectoral levies are limited to a defined sector of the economy. Thus, the problems of sector specific skill gaps may be better addressed. Also retaining funds in the sector where they were collected can increase the sense of ownership of training.

On the other hand, a standard national system is preferred for its greater ability to permit funds to be allocated where training needs are greatest. National levies also encourage a sense of unity in approaching skill development and require much less administrative hassles as compared to sectoral funds. However, as mentioned before, success of such a system is based on a wide economic base in the formal sector and reasonable administrative capacity. With reference to the size of India's economy (it is the world's third largest economy in purchasing power parity or PPP terms) the organised sector may not be large relative to the size of industrial/service sector employment, but it is still very large in absolute terms. In any case, such a levy, if used in India could only be levied on registered large and medium-sized firms, since it would be administratively very cumbersome to levy on small firms, and not consistent with principles of equity.

Although payroll levies are a perfect form of benefit taxation and augments the resource base tremendously, they also tend to fragment the tax system and make the tax base more complex. The evidence shows that there has been a positive impact on training levels through these levies but as it is a burden on employers, it is also seen as a discouragement by the employers to employ more people. It

is quite possible through the technicalities of the pay slip the burden of the tax is largely shifted back to the worker in the form of lowered wages.

Government needs to make sure that in times of fiscal pressures, these funds are not diverted to non training needs as it would be quite discouraging for the whole system. The problem of cross subsidisation on the one hand and exclusion of smaller firms from the tax (but not the benefits of the fund) on the other would always remain. So a consultation with industry leaders is needed on how a pool of skilled people can be created under such circumstances (Ziderman, 2003; CEDEFOP, 2008).

6.3.2 Financing the informal sector

In many Asian economies such as India, the unorganised sector is defined to include units whose economic activities are not monitored under any legal act nor do they maintain any regular accounts.¹⁰ It has been estimated that approximately 93 per cent and 84 per cent of employment in India is in the unorganised sector¹¹ (Table 6.6). India is an outlier among emerging market economies in having such a high proportion of the workforce in informal employment.

Table 6.6: Formal and informal employment by type of enterprise, 2009–10

Sectors	Employment in mns (%)		
	2009–10		
	Informal	Formal	Total
Unorganised sector enterprises	385.08(99.4)	2.26(0.6)	387.34(100)
Organised sector enterprises	42.14(57.8)	30.74(42.2)	72.88(100)
Total	427.22(92.8)	33.00(7.2)	460.22(100)

Source: Estimated from National Sample Survey, 66th Round, 2009–10

Further doing a decade based analysis it is noted that although the share of unorganised sector employment has declined from 86 per cent between 2000–05 to 84 per cent between 2005–10, and further to 78 per cent in 2011–12 the share

10 'The unorganised sector consists of all incorporated private enterprises owned by individuals or households engaged in sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers.'

11 'Unorganised/informal workers consist of those working in the unorganised sector or households, excluding regular workers with social security benefits, and the workers in the organised/formal sector without any employment and social security benefits provided by the employers.'

of informal employment in total workers has actually increased (Mehrotra et al., 2012). Due to the realities of the huge informal sector in India, it is necessary that skill development initiatives include them for economic growth to be more inclusive.

India may be an outlier in having a very high proportion of its workforce in informal employment (and in this respect it is similar to low income countries), even other emerging market economies have a significant share of employment that is informal, Brazil 55 per cent, Peru 76 and 66 per cent for women and men, respectively; similarly, South Africa 37 and 30 per cent and Egypt 23 and 54 per cent respectively (World Bank, 2013).

Unorganised sector enterprises, which comprise the self-employed, small firms and micro-enterprises, have special training financing needs that cannot be met in the same manner as for the rest of the formal economy. Most of those workers who have received informal on-the-job training are employed in unorganised sector enterprises, and receive lower wages. Some country schemes have developed mechanisms to raise effective demand for these informal sector training services.

Supply-side interventions for the informal sector in low income countries: This training is given through the existing training providers to the individuals who have secured apprenticeship training in a workshop. In Tanzania, such a programme exists but on a small scale.

A very interesting skill training arrangement exists in Cote d'Ivoire; the programme cross-subsidises informal sector training by using levy funds raised from formal sector employers. The cross-subsidy constitutes about a fifth of the fund's allocations for training. Cost sharing in the beginning was minimal with trainees paying no fees but the contribution from trainees has been increasing in the form of both cash and kind over the years.

Voucher Schemes: Kenya's Jua Kali programme (Kiswahili for work under the hot sun) offering training vouchers to those working in the informal sector in the mid-1990s was funded by the Micro and Small Enterprise Training Fund and run by a privately managed Project Coordination Office (PCO). The scheme focuses on existing workers in the sector rather than new entrants and operates on both the demand and supply side of the training market for informal sector skills. It provides an opportunity for supplying training in skills for whose demand was determined by these vouchers bought by the enterprises. The only drawback of this scheme was that training was provided by public funded institutions and they were not fully equipped to meet the demand.

6.4 Some Preliminary Lessons for India

Financing vocational educational training is costlier than general education due to its technical nature. Pre-service training requires the installation of equipment to enable youth to be trained. This raises the cost of training, and remains a factor preventing pre-service training from expanding more rapidly. Meanwhile, in-service training remains well below requirements. This historical situation calls for exploring alternative new mechanisms of financing, given the constraints upon increasing public allocation of resources by the Ministry of Finance.

There are four ways in which TVET can be financed, which are discussed below:

- general tax revenues, used to fund public and private providers (VTPs);
- in-firm financing and provision of training by and for firms conducting such training;
- Corporate Social Responsibility (CSR) requirements by the government, mandating a certain proportion of CSR funds by companies to be spent on VT; and
- levy on firms by government, held in a special fund, resources from which are ear-marked for VT.

6.4.1. General tax revenues

In India, only the first two forms of financing have been used. Even the National Skill Development Corporation (NSDC) is a result of a special form of the first form of financing, with supplementary funding from private chambers of commerce contributing into a fund that is used to finance (in the form of equity and debt) training by private for-profit VTPs. However, regardless of how successful the NSDC-model of financing is, its scale is too small, and runs the risk of being expanded too rapidly at the cost of quality/employability of its graduates (a problem that has existed with too fast growth of private engineering and management colleges, and also private ITIs, in India).

A variant of financing skill development from general tax revenues is the provision in the Income Tax Act, 1961 of tax deduction (of 150 per cent) of the expenses incurred on skill development projects. There are two problems with this form of financing. The government's tax revenue to GDP ratio has hardly improved since the economic reforms began in 1991; it remains below 17.5 per

cent, the level achieved in the peak year of 2007–08, just before the economic crisis. Giving a tax deduction for skill development, no matter how laudable the objective, further reduces tax revenues, rather than increasing it. Second, the Income Tax Act, especially corporate taxes, is regularly criticised for already being too accommodative by providing too many exemptions, reducing the effective corporate tax rate to 23 per cent. This fact should be taken into account before the government pushes this option further.

6.4.2. In-firm training by firms

This second form of financing is confined to merely 36 per cent (2014) of all Indian firms, and that too only the very large ones (contrast that to 85 per cent of Chinese firms that conduct in-house training). Even the smaller of large firms, and certainly the medium and small enterprises, do not conduct much in-house training. Hence, the problem of shortage of trained personnel continues.

One outcome of the rising need for skilled personnel on the one hand, and limited financing available for skill development on the other is that the wages and salaries of skilled and highly skilled staff has been rising sharply in the past decade. In other words, firms are paying rising input costs that are attributable to the scarcity of skilled human resources. This tends to raise firms' recurrent costs. Yet another outcome of rising skilled labour costs is that large firms decide to invest in machinery, substituting capital for labour, thus reducing jobs (Mehrotra et al., 2015). Thus, the current situation is neither efficient from a micro nor a macroeconomic perspective.

6.4.3. Skill development as Corporate Social Responsibility (CSR)

A third form of financing for skill development (SD) has been under discussion in India: CSR. The policy for CSR in India is governed by clause 135 of the Companies Act 2013, which is applicable to companies with an annual turnover of ₹ 1,000 cr or more. The Act encourages companies to spend at least 2 per cent of their average net profit in the previous three years on CSR, and a minimum of 6,000 companies will be required to undertake CSR projects to comply with the Act.

However, the provision in the Act is 'indicative', not mandatory. There is nothing that will ensure companies undertake such activities. Besides, putting SD in the category of CSR activity assumes that SD is not directly profitable and

beneficial to the company in its core business. Besides, many large companies, as we noted earlier, are already undertaking SD activities, as the company requires skilled staff that no else can provide. In other words, putting SD into the category of CSR may enable such companies to transfer costs of normal SD activities the firm was running in any case prior to the Companies Act 2013, and pass them on now as CSR activities, substituting for other equally worthwhile activities eligible for CSR under the new 2 per cent requirement. Besides, if CSR is mandatory for companies with an annual turnover of ₹ 1,000 cr, that means it is not applicable to medium-sized companies, let alone smaller ones, entrenching the current position if medium enterprises are not conducting training. Finally, SD may be undertaken by the company under its CSR obligation for meeting its own requirements for skilled HR. The training may be overly specialised, and may leave the trainee not particularly employable if he was to move jobs. In sum, while CSR could be used as a means of enhancing financing for SD, the government has to be careful that it does not end up subsidising activities by the firm that it might have undertaken anyway, and is not meant to exclusively serve the purposes of the firm, rather than a broader public good purpose.

6.4.4. Why create a National Training Fund in India now?

There are several reasons why such a fund is appropriate at the current stage of India's SD efforts. First, the requirements for skilled workers are huge, and the current capacity to train has grown very slowly. Whether one believes the more realistic number of 200 mn needing VT (Mehrotra et al., 2013), the fact remains that the country is still only training no more than 5 mn per annum in total (even though the annual reports of ministries may report larger numbers). The requirement is to train 50 mn per annum over 2012–22 according to the government estimate, and 20 mn per annum as per Mehrotra et al. (2014). There is significant need to upscale efforts.

Second, despite the fact that SD became a priority in the middle of the last decade, the expansion of capacity to provide TVET in India has grown very slowly. The 11th Five Year Plan (2007–12) was the first time a five year plan had a chapter on SD. But the only two major changes on the ground since then have been the growth of private ITIs and the NSDC-financed VTPs, which has brought the numbers being trained to 5 mn per annum. At this rate, our goal of 'Make in India' will not be realised, youth power will remain underutilised, and the country may miss the demographic dividend. There are millions already in the workforce who should be trained. Third, Mehrotra (2014) provided data that

formal manufacturing firms have fought shy of providing training as part of the Apprenticeship Training Scheme. In a country with 59 million persons working in manufacturing in 2011–12, the numbers engaged as apprentices under the Ministry of Labour scheme are barely 211,218. Engineering graduates, technicians and technician (vocational) engaged as apprentices under the Ministry of Human Resource Development scheme number only another 65,219.

Fourth, there is a limit to the extent of general tax revenues that can be mobilised for SD, given the need to keep the fiscal deficit under control on the one hand, and the multiple very important demands on government resources from health, education and infrastructure investments, that must remain the responsibility of the state. The private sector cannot be expected to provide either public health or school education, and even for infrastructure the private sector enters only when there are major state funded projects. But employers must take primary responsibility for SD, since the output of their investment will benefit them directly.

Finally, globally, the source of financing for SD has been the private sector, since they are the direct beneficiaries of such SD, even though the state may play a facilitating role. In Germany, the private sector's share is 84 and government's 16 per cent. India's private sector needs to step up, given its own requirements.

6.4.5. Counter arguments against a new tax to finance the National Training Fund

- Industry opponents might argue thus: 'The economy has slowed down, and investment has declined in the last few years. Adding another tax would reduce the investible surplus with firms, and thus would be opposed by firms. There is already a cess for elementary education, and now a cess for higher education. Yet another cess would be opposed by industry.'

However, these arguments ignore some realities. Companies have already been paying for shortage of skilled persons as salary rises for skilled persons have been much larger than justified by productivity increase, putting an upward pressure on prices of goods and services, thus contributing to inflation, since goods/service prices are usually passed on to consumers.

The fact that cesses already exist is a more difficult argument to counter. However, there is now a case, after 12 years of a cess for elementary education for it to be removed altogether. Elementary education must be funded from general tax revenues in any case, rather than specialised ear-marked funding.

- Industry opponents may argue thus: ‘Government-controlled funds are very poorly managed, and the private sector does not find worthwhile the time and effort to access such funds for SD’.

This is a very important concern. However, it can be addressed by the private sector being in complete control of the allocation of funds from NTF. Sectoral NTFs (as in Brazil) would enable industry to completely manage the funding, without government control. Only some government representation will be necessary to ensure that funds are not misused.

A number of preliminary conclusions could be drawn from the preceding analysis for India.

- *Indian policymakers should consider a national training fund:* The preceding analysis has shown that as many as 62 countries of the world have training levies. As Table 6.5 shows, there are 17 countries each with training levies in Latin America and sub-Saharan Africa and an additional 14 have them in Europe. Given that India needs to increase the numbers of personnel skilled from 5 to 20 million per annum by 2022, the financing requirements for meeting such an extremely ambitious goal would require a very significant increase in public and private investment of financial resources. Indian policymakers should seriously examine the experience of 62 countries that already have training levies, specially some large economies: Brazil has had a training fund for over half a century, and South Africa for at least 15 years.
- *Collect levies from organised sector and medium and large enterprises:* Given the overwhelming share of unorganised sector enterprises in both services and industry, most of the burden of the training tax or levy will end up being borne by organised sector enterprises. In fact, it is relevant that in manufacturing 78 per cent of output is accounted for by the organised sector, but these firms contribute only 15 per cent to total manufacturing employment in the economy (correspondingly unorganised sector share in manufacturing output is 22 per cent, and share in employment is 85 per cent) (Mehrotra et al., 2012). The levy in India should be, to start with, only on organised sector enterprises. However, there is a very large number of small enterprises even in the organised manufacturing and organised services sectors of India. It may be difficult to collect taxes from the smallest enterprises among them. Therefore, a decision will need to be made in regard to the cut-off for applying the tax, depending upon the turnover and size of employment in the enterprises. Attempting to include a large number of the smallest enterprises will not only

be administratively infeasible, but may elicit a great deal of resistance from the smallest enterprises.

- *Beneficiaries of the fund should include both organised and unorganised enterprises:* The training needs of the country are vast, and both organised and unorganised sector enterprises suffer from shortages of required personnel of the requisite quality. Since the majority of employees are working in the unorganised sector who have acquired their skills informally (on the job), at least some proportion of the funds must be reserved for training in unorganised enterprises. However, since large and medium organised enterprises will be the dominant contributors of the training fund, they should benefit to a significant extent from the fund. The exact distribution of allocation between the organised and unorganised segments will need to be worked out through consultation of stakeholders, so that organised sector enterprises feel that they have a stake in the system, while at the same time equity considerations are taken in to account in deciding on disbursement of funds (see Mehrotra, 2015 for further discussion).
- *Need for India to adopt both revenue-raising and levy disbursement schemes:* Given the wide variety of enterprises in terms of size, and in the form of organised/unorganised segments, it would be wise to adopt a variety of modalities to raise revenues. Exactly which modalities should be adopted for which segments of enterprises should be a matter of discussion between relevant stakeholders.
- *There should be considerable scope for demand side financing of training through payment of stipend:* Training provision in India has been historically supply-driven, while the demand for skills has been neglected. There is a very strong case for using training levy funds for financing students from poor financial background who are unable to bear the opportunity cost of first undertaking training before entering the labour market. Students must earn in order to survive, and cannot 'afford' to be trained. If trainees are provided a stipend, it would partially offset the opportunity cost of not working, and the financial cost of training itself.

China has incentivised vocational education financially for students very effectively. As noted earlier, half of all children graduating from nine years of compulsory academic schooling enter the senior secondary schools that offer vocational education (under the Ministry of Labour). An important reason is that since 2005 onwards vocational education at that level has become free, and covers the entire country and all students, rural and urban. In addition, all poor

rural children coming to urban senior secondary vocational schools receive an additional financial help to meet accommodation costs in urban areas of nearly Yuan 500 (Mehrotra et al., 2014b).

In India, such schemes of demand side financing could be encouraged to pay for in-service training. This would encourage not only the trainees to come forward and obtain training in various industries but also the companies to participate in such schemes while offering training so as to get trainees paid by the fund directly. The defining feature of a demand side subsidy is a direct link between the intended beneficiary, the subsidy and the desired output i.e., training in this case (Bhatia et al., 2006). Different techniques that could be used to fulfill these are stipend, targeted bursaries and vouchers.

The eventual design of any scheme should be mainly dependent on policymakers' objectives and priorities with regard to a wide range of issues including costs, equality of opportunity and the maximisation of social benefit. The system should also be transparent so as to ensure that levy rebate or incentives are not used on a false pretext and corruption is avoided.

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A Common Platform for Skill Development

Implementing the National Skills Qualification Framework

As GDP began to grow rapidly from the turn of the century, India started experiencing skill shortages. We have argued elsewhere (Mehrotra, 2014; Mehrotra et al., 2013) that skill shortages will continue as long as the secondary school system does not vocationalise much more rapidly, and makes technical and vocational education and training (TVET) aspirational. Making TVET acquire a better status is a challenge that faces many economies, but nowhere more so than in India. Table 7.1 shows that South Asia has amongst lowest enrolment of the relevant age cohort in TVET.

Even more than raising the demand for training is the need for expanding the supply of VET. The current VET system in India is highly fragmented as we will discuss in this chapter. There is urgent need for this fragmentation to end, and a common platform to be created on the basis of which VET provision in India begins to work as a system, rather than a multitude of institutions offering certificates unconnected to each other, which give no assurance that the certificates can be treated as actual competencies to perform a task in a job environment, which is the currently prevailing situation. This is an important reason why a National Vocational or Skill Qualifications Framework (NSQF), is needed to serve as a common platform for all providers. But it will also enable students to access and progress in VET more easily while giving them the ready employability that current VET does not offer. That is why the Government of India's decision in 2011 to introduce a NSQF in the secondary school and higher technical education and VET institutions of the country is a move that will foster inclusiveness.¹ Too many young people

1 The author of this book chaired the task force that wrote the blueprint of what was called the National Vocational Education Qualification Framework (see Mehrotra et al., 2012)

who need skills which make them employable are remaining excluded from the education and training system.

Table 7.1: Selected Asian countries – Secondary and TVET enrolments, 2010

Regions	Lower secondary enrolment	Upper secondary enrolment	Tertiary enrolment	TVET enrolment as % of secondary enrolment	TVET enrolment as % of upper secondary enrolment
Bangladesh	66	40	–	4	9
Cambodia	60	–	13	2	8
China	92	71	26	21	46
India	81	50	18	1	2
Indonesia	92	63	23	17	41
Kyrgyzstan	94	62	–	3	15
Lao	55	32	17	–	1
Mongolia	89	90	53	10	29
Sri Lanka	103	97	15	5	11
Timor Leste	63	49	–	6	14
Vietnam	88	65	22	–	–

Source: Unesco Institute of Statistics (UIS)

This chapter is organised as follows. Section 7.1 describes briefly the education and TVET set-up in the country. Section 7.2 defines a NSQF and explains why it is needed. Section 7.3 discusses the challenges India's VET set up and hence its youth/industry face that the NSQF can address. Section 7.4 spells out the content of the NSQF, and shows in concrete ways how the TVET system will be created, with a complete paradigm shift occurring. Section 7.5 spells out the role of employers and industry, in skilling and the NSQF.

for the Ministry of Human Resource Development which was simply renamed the NSQF. The term NSQF was officially first used in the 12th Plan Chapter 22 (Employment and Skill Development) written under the leadership of this book's author.

7.1 General Education and TVET System in India

The present general education system in India comprises elementary education (classes 1–8),² secondary education (classes 9–10), higher (or senior) secondary education (classes 11–12) and higher education. Graduation in higher education can take three to five years, depending on the stream (for example, Science, Commerce, Arts, Medicine, Engineering, etc.), but there are diploma courses of 1–3 years duration in polytechnics as well. Post graduate courses are generally of two year duration. After completing post graduation, the scope for doing research in various educational institutes also remains open.

Barely 2 per cent of those in the total Indian workforce have formally acquired VET skills, as explained in a detailed critique of the TVET system elsewhere (Mehrotra, 2014). This group of people is made up of four segments; the first three acquired pre-employment TVET and the last is those who undergo in-house training once they are employed. First, historically vocational education has been offered only at the higher secondary level (classes 11 and 12). In other words, the school system gives young people no opportunity to acquire any vocational skills until they reach age 16 and enter the higher secondary level. This situation is unlike in China, where children can opt for either the general academic or the vocational scheme after completing nine years of compulsory academic education and half of all senior secondary students join the vocational stream (Mehrotra, Gandhi and Devi, 2015). Until 2013 children did not have any opportunity to acquire vocational education until they completed at least secondary schooling (classes 9 and 10) at general academic level. Thus, it is not surprising that only 3 per cent of all youth of the relevant age group are in the vocational education stream (Planning Commission, 2008).

Second, the Ministry of Labour (but since 2015 the Ministry of Skill Development) runs ITIs (nearly 2000 in 2013) in the public sector. In addition, there are about 10,000 private ITIs that are supposedly regulated by the same Ministry. Children who have completed eight years of education can enter in some vocational training courses in these ITIs, but most courses require at least 10 years of general education. In addition to the Ministry of Human Resource Development and the Ministry of Labour, 19 other central line ministries provide training to numbers that are much smaller.

2 Ages 6–14 (ie. classes 1–8) are discussed in chapter 9.

TVET in India operates at three levels:

- certificate level training in various vocational trades offered by the senior secondary schools and ITIs;
- diploma level education and training in a variety of engineering/technological and other vocational disciplines offered by polytechnics, colleges and universities; and
- undergraduate and post graduate education in a number of engineering/technology disciplines, offered by colleges and universities.

In addition, 21 ministries and departments of the GoI offer TVET courses or programmes.³ However, majority of the formal skill development programmes are with two ministries, namely Human Resource Development and Labour (since 2015 all Labour programmes with Ministry of Skill Development). The former Ministry has two departments viz., Department of School Education and Literacy (for TVET programmes in senior secondary schools) and Department of Technical and Higher Education (for Technical Education in Polytechnics and Higher Education in Universities and Colleges). The Directorate General of Employment and Training looks after the vocational training programmes (i.e., the ITIs and the apprenticeships) and schemes of the Skills Ministry. The National Skill Development Agency created in 2013 is supposed to coordinate these ministries.⁴

Third, since 2010, when the NSDC was created, hundreds of new private providers emerged across the country, which are financed by the NSDC. In addition, there are a very large number of private VTPs who are unregulated

3 These include the Ministries of Human Resource Development, Labour and Employment, Agriculture, Food Processing, Health and Family Welfare, Heavy Industries and Public Enterprises, Medium, Small and Micro-Enterprises, Social Justice and Empowerment, Textiles, Tourism, Tribal Affairs, Urban Development and Poverty Alleviation, and Women and Child Development.

4 During the 11th Five Year Plan (2007–12) three new institutions came into existence due to the efforts of the GoI. One was Prime Minister's Council on Skill Development, whose role was mainly advisory and at the policy discussion level. In June 2013 this became the National Skill Development Agency (NSDA). Second, a National Skill Development Coordination Board was created (of which the author was a member), whose role was essentially to coordinate between the central line ministries. It ceased to exist in 2013. Finally, a key dimension of implementation of the National Skill Development Policy (produced in 2009), whose major objective is to promote private sector involvement in skill development, was entrusted to a new institution called the National Skill Development Corporation. The private industry chambers (FICCI, CII, and the ASSOCHAM) have 51 per cent equity in NSDC and the GoI owns the remaining 49 per cent.

and unrecognised by the government; it is impossible to estimate their number precisely because these are neither registered nor recognised by any government body and hence continue to mushroom in whichever sector might be seen by entrepreneurs as profitable.

The NSDC-supported private VTPs, however, are not only registered but have to, when they receive funding from NSDC in the form of equity and loans, promise that they will ensure 70 per cent of their trainees will get placement. Thus, the NSDC has promoted vocational training provision on a for-profit business model, but these providers are registered and recognised, and are not fly-by-night operators. The Information Technology (IT) sector in India has long used this business model, very successfully. The National Institute of Information Technology (NIIT) is a classic example, and has also opened offices in many other countries. But in other sectors this business model has not taken off.

The fourth form of skill development occurs in-house, provided by medium and large enterprises. This form is confined to the organised segment of Indian industry, which accounts for only 22 per cent of all employment in India (as of 2011–12), of which only a small fraction provides in-firm training. This training can occur in three forms. First, under the Apprenticeship Act 1962, the Ministry of Labour has been encouraging organised sector enterprises to engage apprentices, mostly those graduating from the ministry ITIs, either private or public. However, a potential apprentice does not need an ITI certificate as an essential prerequisite. The second form of apprenticeship is intended for those who have at least a post-higher secondary diploma or certificate, or a degree in one of the many engineering disciplines from polytechnics or engineering degree colleges, supervised and regulated by the Ministry of Human Resource Development.

In other words, while the Ministry of Labour (since 2015 the Ministry of Skill Development) promotes apprenticeships for those aged 17 to 18 who have graduated from its ITIs, the Ministry of Human Resource Development promotes apprenticeships for a slightly older age cohort, people who have received a higher level of skill training than the ITI graduates. The third form of in-firm training is usually offered by private companies, and has nothing to do with the apprenticeship schemes of either ministry. Mehrotra and Ghosh (2012) analysed the World Bank's World Development Indicators and found that only 16 per cent of all Indian firms in 2009 actually provided any form of training; this rate is lower than in most other emerging economies and developed economies, even after it rose in 2014 to 36 per cent.

Given these numbers, the VET system in India is rather narrowly based (Swaminathan, 2005; Tilak, 2002). It manages to provide VET to a maximum of only 5 million persons a year. Clearly, the TVET sector must be reformed and expanded. The current capacity of the VET system is woefully inadequate, if one accepts the requirement that an additional 191 million persons need skills training by 2022, since 100 million of the 291 million in Table 7.1 are to receive general academic education. In other words, India should be skilling nearly 20 million a year, as opposed to the current 5 million.

The TVET system must therefore be expanded, but if the current fragmented system was to be expanded, it can create confusion for youth looking for training as well as entrench the poor quality of TVET imparted currently. An NSQF is needed to bring the system on to a common platform, with all stakeholders having a stake in it. Also, the introduction of NSQF in India should not be seen in isolation but as part of a broad strategy of reform of the education and training system and to improve progression of people within the TVET programmes. (One reform, enhancing financing, was discussed at length in the previous chapter.)

7.2 Defining a National Skill Qualification Framework

A NSQF is a descriptive framework that organises qualifications according to a series of levels of knowledge and skills. These levels are defined in terms of learning outcomes i.e., the competencies, which the learners must possess regardless of whether they were acquired through formal, non-formal or informal education and training. This is intended to be very different from the current situation in VET wherein a certificate means you have passed a certain exam, regardless whether you have the competency to perform certain tasks that you were trained to perform.

Qualifications are made up of a number of occupational standards. Occupational standards provide the basis for judgments and assessments that are made for specific areas of learning units (similar to modules, but more focused). This allows learners, education and training providers and employers to gain information about the broad equivalence of qualifications. It is, therefore, a nationally integrated education and training that will link one level of learning to another and enable learners to progress to higher levels from any starting point in the education and training system. The key elements of the NSQF are to provide:

- multiple entry and exit to TVET;
- transfer within and between TVET and general academic education; and
- progression within and between TVET.

These will be discussed further later.

Several countries are in the process of developing national vocational qualifications framework to bring about necessary reforms in TVET, so that their workforce acquire globally benchmarked skills, thereby improving upon their productivity for national development and enhancing their access to the global employment market. In the Indian context, the employment scenario demands a different approach towards NSQF. Since the majority of the workforce (about 78 per cent) is in the unorganised sector, which possess lower levels of literacy and numeracy skills and there is no mechanism available for them to enter into the formal education system, it would be desirable to develop the 'educational component' for adults already in the workforce that have less than primary education and have acquired skills informally, for building a sound base of TVET and providing clear educational pathways for progression. In addition, there is a need to build a general education element into the vocational training programmes and vice versa for a holistic approach to human capability development.⁵

7.2.1 Do we need a NSQF?

International experience on vocational qualification frameworks (VQFs) is very recent. Until 2004 almost no country in the world had one. Even now just a dozen countries have a framework, although more than 100 countries have initiated the process (Allais, 2012). An important consideration is that countries that have been very successful in building their education and training systems (for example, Germany), or have experienced rapid economic growth (the East Asian 'tigers'), have done it without a VQF. In India itself, in the IT and telecom industry and employment therein has grown rapidly without an VQF in place. Therefore, it is absolutely critical that in India the authorities think very carefully as to why there is a need for NSQF and what are the problems that (a) the employers; and (b) the potential employees (i.e., students) are facing, which the NSQF will supposedly address. Building an interface between the educational system and labour market is not the easiest of processes and is

5 The MHRD, GoI had, therefore, adopted the term NVEQF as it emphasised the importance of the integration of the vocational education and training and general education in all types of education and training. The Ministry of Labour adopted the term National Vocational Qualification Framework. However, in writing the 12th Five Year Plan chapter on Skill Development we adopted the term National Skills Qualification Framework; hence NSQF is what is used in this chapter. The government of India formally notified the NSQF in December 2013 as the official term.

fraught with unintended consequences. There should be an attempt to anticipate as many of the consequences of implementing a NSQF as possible, which is also attempted in the next section.

7.3 The Challenges that NSQF can address

- *Lack of uniformity in qualifications across institutions:* In general academic education, despite the common National Curriculum Framework (NCF), 2005 for schools designed at the national level by National Council of Educational Research and Training (NCERT), there are reasonable variations in the level and standard of courses and programmes offered by various state examination boards and teaching institutions. However, the general academic curriculum at secondary level is not at issue here.

In the absence of a national level approach to TVET planning, the courses and programmes in TVET lack uniformity in terms of duration, entry requirements for the course/programme and nomenclature of qualification across institutions. For example, in the plumbing sector, the duration for the 'Certificate' course in Plumbing/ Sanitary Hardware Fitter/Plumber through the face-to-face mode in different institutions is two years, one year, six months and four months and the entry requirement also differs and could range from senior secondary certificate fail to 10 class pass.

In addition, the private sector training institutions are offering VET according to their own curriculum. As a result, there are wide variations in the quality of training imparted through these institutions. This lack of uniformity is not good for the credibility of the VTPs or for the potential employers, since the latter cannot make out what competencies the certificate holder brings to the job.

The contrast with course curriculum design in China across the entire country is worth noting. After completing nine years of compulsory general academic education, nearly half the children enter senior secondary vocational schools in the government system. The course curriculum in the latter schools is split as follows: one third consists of general academic subjects common across the country; another third consists of a nationally common curriculum for the vocational subjects; the remaining third also relates to the vocational subject, but is determined locally in accordance with local needs and demand. Thus, there is need for uniformity across the country, but local variation to suit local needs in a large country (Mehrotra

et al., 2015). In addition, competencies must be defined for each level, so that a level implies actual specified ability to perform a job role.

- *Lack of clear recognised pathways of learning:* The National Policy on Education 1986 envisaged vocational courses at the tertiary level for facilitating vertical mobility of students of senior secondary level. However, at present a majority of TVET programmes are terminal in nature as they have been designed without any clear cut entry requirements and progression routes for vertical mobility and therefore become dead ends. One of the factors responsible for the low demand for vocational education in schools is the lack of opportunities for vocational students for professional growth and educational advancement. Provision for vertical mobility of the students is not available for the majority of vocational courses at senior secondary level of the Central and State Boards.

Vertical mobility should be provided to vocational students beyond senior secondary level through specially designed industry-driven diploma, degree and professional degree courses. However, there are no clearly agreed 'admission criteria' for students wishing to progress from a school vocational education programme to a programme offered by polytechnics or universities. Similarly, there are no arrangements for admission of trainees completing courses offered under Modular Employable Scheme (MES) of Ministry of Labour and Employment (a 3–4 month programme at the ITIs), to those offered by higher education institutions.⁶

- *Lack of credibility among stakeholders:* One of the problems that TVET currently faces is that it suffers from low esteem. The vocational education system in secondary schools has very little credibility among employers, students and parents because the quality of instruction is poor, there is no practical industry-based internship, the curriculum has not been developed with industry

6 This issue was also raised by the report of the committee to advise on 'Renovation and Rejuvenation of Higher Education' (under the chairmanship of professor Yashpal published) in 2009, which *inter alia*, states 'Alienation of this sector [vocational education] can be overcome by bringing it under the purview of universities and by providing necessary accreditation to the courses available in polytechnics, industrial training institutions, and so on. In the context of the rural economy and livelihoods, certain institutions and programmes have attempted to provide opportunities for further education after the higher secondary stage. They also need to be brought under the purview of the university system. Such inclusion will create the possibility of addressing long neglected issues of social justice and inequity arising out of the hierarchical social order and entrenched rural-urban disparities.'

participation, and industry is not involved in the process of certification of competencies. TVET, unlike general education, is supposed to lead to a certain level of competence to perform tasks. In fact, the notion of competency itself is absent from the current VE system in higher secondary schools.

Low esteem of vocational education is a global phenomenon. However, that does not prevent half of all Chinese youth at age 15 (after completing the compulsory nine years of general academic education) to enter the vocation stream at senior secondary level. That is primarily because the employability of such vocational education students is high. The prospects of getting a job, if the vocational education is of good quality and involves the private sector in its design, would make such education aspirational. The poor quality content of general academic schooling at secondary level does not equip youth for formal sector employment.

- *Lack of horizontal mobility:* There should also be the possibility of horizontal mobility so that the students from the vocational stream are able to enter the general education stream, if they so desire. The challenge therefore is to create a new system of secondary and higher education where all students develop vocational skills along with academic skills. Vocational education students in the schools should, therefore be offered an option of taking general subjects. It could be achieved through modularisation and credit transfer arrangements. The NSQF, which was piloted in 2011 in a small number of schools in two states, is being generalised.⁷ It is designed to integrate the academic and vocational education sectors at school and higher education level through the same set of competence levels. It will make it easy to carry credit from vocational education to general education and vice versa. It will thus promote quality through consistency in competency standards, and can help build the associated regulatory system of approval and monitoring of learning outcomes. However, this will require major changes in national policy initiatives, curriculum and organisational structure.

Most importantly, it will require both the general and vocational education systems in secondary schools to shift to a credit-based semester system, as opposed to the current prevailing system of one-year courses with an end of year examination. The ITIs have succeeded in 2014 to introduce a semester system (Mehrotra and Kumra, 2014). The credit-based system has several

⁷ It had been introduced in 2,000 secondary government schools across 22 states by early 2015.

unique features: (a) ability to match students' scholastic needs and aspirations; (b) inter-institution transferability of students (following the completion of a semester); (c) part-completion of an academic programme in the institution of enrolment and part-completion in a specialised (and recognised) institution; (d) flexibility for working students to complete the programme over an extended period of time; and (e) standardisation and comparability of educational programmes across the country. Very importantly, the credit-based semester will allow students unable to continue in education/TVET system to exit, join the labour market, but later return to resume his/her course if she so wishes. This is the meaning of multi-entry and multi-exit that NSQF will enable.

- *No formal recognition of informal (prior) learning:* India has had a long history of informal apprenticeship in the presence of a craftsman or a senior technician. However, the problem has been that there is no certification (recognition) for such learning, which disadvantages the worker in the labour market, and constrains labour mobility between jobs. The Indian education system so far has been planned and organised primarily to cater to the needs of the organised sector, which employs only 22 per cent of the workforce (Mehrotra et al., 2014). A majority of workers in the unorganised sector have low levels of literacy, as they have left school at early stages of education. They face difficulty in returning to schools or training institutions to improve their skills, as the education or TVET system does not facilitate them to do so. Being adults, such skilled but older youth may feel stigmatised if they return to a regular school. That is why in China's TVET there are Adult Schools, which accommodate them. India may well consider using the infrastructure of existing secondary schools for adults, after normal school hours in a second shift, so that such adults have access to recognition of prior learning (RPL) through such courses. The MES in ITIs has a similar objective.

The NSQF can facilitate the recognition of informal learning. For example, skills acquired at the workplace could be formally certified through an awarding body. The NSQF can provide opportunities to the people working in the unorganised sector to gain recognition of their competencies for national and international mobility or join the formal education and training system. This will be one of the most important contributions to inclusiveness in Indian society that the NSQF can make. It will also put the 98 per cent of the 485 million workforce that does not currently have any formally certified vocational skills on some measure of parity with the minority who do have such certification.

- *Input-based traditional education system that promotes rote learning:* Input-based or traditional education is all about what resources have been placed at the disposal of the students. Classes in schools and colleges have grown, but the educational materials and delivery systems have changed only slightly. The major learning modes in schools and universities are lectures and textbooks; as a result there is lot of emphasis on rote learning rather than experiential learning. Both textbooks and lectures provide little individualisation, so do not work well considering the wide range of background and experience of the students today. A blend of input and outcome based education would be promoted through the NSQF, which would be geared towards assessing a student's performance as the factor in deciding how worthy they are of being granted passing marks on a subject/unit. A NSQF will encourage the development of curriculum, at least in Vocational Education, that will require an acquisition of competencies corresponding to a certain level of education/training in a trade.

7.4 Operationalisation of NSQF

Table 7.2 shows the levels in the VET system that will make it comparable to the general education system. There will be 10 levels in the VET system, starting with level 1 at class 9 in school. The 10-level qualifications framework is to be implemented in the following three stages:

Stage One: NVEQ levels 1–4 will be implemented in Schools/ITIs/private ITIs/Vocational Training providers (VTPs).

Stage Two: NVEQ levels 5–6 will be implemented in Polytechnics/Private TVET providers.

Stage Three: NVEQ levels 7–10 will be implemented in Colleges and Universities.

However, development of guidelines, setting of National Occupation Standards (NOS)/ competency standards and development of competency-based curriculum (CBC) and training packages is to be done simultaneously for all levels.

Open learning institutions like National Institute for Open Schooling (NIOS), State Open Schools (SOS), IGNOU, and State Open Universities (SOUs) will not only have to align their courses to suit the requirements of NSFQ levels, but will also play a major role in offering bridge or foundation courses for seamless progression of students from one level to another.

Table 7.2: The design of the NSQF

Level	General education qualifications	TVET qualifications	Proposed certificate awarding bodies
10	Doctorates	NCC 8	Universities and SSC
9	Masters	NCC 7	Jointly by universities/ IGNOU/state open universities and SSC
8	Post graduate certificates, post graduate diplomas and bachelor degrees (honours)	NCC 6	-Ditto-
7	Bachelor degrees and graduate diplomas	NCC 5	-Ditto-
6	Graduate certificates/ advanced diplomas	NCC 4	-Ditto-
5	Diplomas	NCC 3	Jointly by colleges/ polytechnics/ universities/IGNOU/ state open universities and SSC
4	Class XII (general academic/vocational education)	NCC 2	Jointly by CBSE/state boards/NIOS/state open schools and SSC
3	Class XI (General academic/vocational education)	National Competence Certificate 1 (NCC 1)	-Ditto-
2	Class X (pre-vocational)	NCWP-2	Jointly by institution and SSC
1	Class IX (pre-vocational)	National Certificate for Work Preparation 1 (NCWP-1)	-Ditto-

Source: Mehrotra, S. et al. (2012)

Note: NCC= National Competency Certificate; IGNOU= Indira Gandhi National Open University; SSC= Sector Skill Council; CBSE= Central Board of Secondary Education; NIOS= National Institute of Open Schooling.

7.4.1 Sectoral framework

A 'sectoral framework' (or if required sub-sectoral frameworks) will have to be developed to map out all existing, skills and qualifications held by the current workforce, analysis of the future skill requirements, training requirements, national occupational standards relevant for the sector and design for clear cut progression pathways and provision for seamless vertical mobility of a student. A sector could be an industry sector (for example, organised retail, plumbing, etc.) or an education sector (for example, teacher preparation, special education, etc.). This would require initial agreements by the various stakeholders on levels, description of each level, requisites for mobility between different levels and so on.

7.4.2 National Occupation Standards (NOS)

One immediate step that needs to be taken is to develop learning outcomes, which describe what people will be able to do at the end of a learning programme. The learning outcome can be linked to employment outcomes defined in NOS. NOS specify the standard of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Essentially NOS are benchmarks of good practice and they must be established directly by the private sector employers; they cannot be pre-determined by instructors employed by the government or education and training institutions.

Most countries have NOS, and many of these are linked to one of the international classifications such as the International Labour Organization (ILO), International Classification of Occupations (ISCO), and United Nations Industrial Development Organization (UNIDO)/International Classification of Industries (ISCI).

This is an entirely new requirement upon India's TVET system. National Occupation Standards did not exist until 2012, and since then the newly-created Sector Skills Council (SSCs) have been creating them. NOS for each industry sector would be laid down by the respective SSCs (discussed later). NOS are dynamic and can change based on changes in the workplace, technology or processes. Occupational standards need to be developed around occupations; and not jobs, which are time-bound, and tied to individual employers.

Every NOS will therefore, be accompanied by a set of performance criteria, which defines the outcomes of that NOS. These performance criteria define

the curriculum, pedagogy, assessment and certification norms for achieving a particular NOS. NOS will be reviewed and updated in a two to three year cycle so that they can assist in improving the quality of education and training programmes. Translation of NOS competency-based curriculum and training packages into Hindi and regional languages will need to be done.

7.4.3 Credit requirements

Learners would be required to complete a given number of units. Some units would be core compulsory units, while others would be optional. The optional units would be selected from a basket of academic and vocational units. The selection of the optional units will be done by the student under the guidance of the mentor/counselor.

7.4.4 Recognition of Prior Learning (RPL)

Currently, India's VET system has almost no system where the prior learning of someone who may have worked in the unorganised sector for decades is recognised and certified. This is specifically relevant to the diverse traditional occupations of the various parts of the country.

For the recognition of prior learning or qualifications acquired outside the learning path learners will have to provide evidence to support their prior learning claim. They will need to establish they have the required knowledge and skills if they expect the VE provider to give them formal recognition or to waive off some credits. Such evidence may include:

- work experience (for example, 1–5 years work experience for NSQ levels 2 and 3 and further 2 years for NSQ 4); and
- certificates of completed courses and qualifications awarded.

7.4.5 Competency Based Curriculum (CBCs)

CBCs relevant to the world of work will need to be developed to implement NOS and to communicate the desired outcome to teachers and students. This innovation is likely to create tension between educators/instructors on the one hand, and the potential employers (i.e., the private sector) on the other. Mechanisms will have to be developed through mutual consultation for this process to succeed. It should not be understood as an attempt to centralise the development and implementation of curriculums, but should be taken as a

modest reform in bringing about a quality assurance system through alignment and benchmarking of curriculums. The vocational curriculums developed by a central institute of vocational education (Pandit Sunderlal Sharma Central Institute of Vocational Education or PSSCIVE, Bhopal), National Institutes of Technical Teaching, Training and Research (NITTTR), the CBSE and State Boards will have to be aligned to the NSQF levels 3–4. Government organisations like PSSCIVE and NITTTR in association with SSC discussed later will be integral to the creation of CBCs. Polytechnics and VTPs will have to redesign their curriculums to suit the requirements of the NSQ levels 5–6. Similarly, University Grants Commission and universities will have to redesign their curriculum to align their courses with NVEQ levels 7–10.

The reconstruction of the curriculum for schooling and higher education will be essential in order to provide necessary flexibility and to get rid of the redundant teaching-learning practices prevalent in the Indian education system presently. In fact, a critical prerequisite for the success of NSQF will be the participation of private industry in the selection of TVET courses and design of the curricula. Without this element, students graduating from VE courses in schools will find no employment, which is the current problem with the TVET system.

7.4.6 Assessment and certification

At present there are different types of examination systems (i.e., annual and semester), being followed by the schools, ITIs, colleges and universities. Pointing to the issues of the entrenched examination system under which the student faces a question paper at the end of the year, or in some universities, at the end of the semester, the Report of the Committee to advise on Renovation and Rejuvenation of Higher Education 2009 *inter alia* states,

This archaic examination system, ostensibly used as a means of certifying the ability of students, unfortunately does not really test the kind of skills they require to be successful in either the pursuit of pure theoretical knowledge or in practical real world situations.'

The competency-based assessment is about achieving standards rather than performance in a set task or over a whole course. It involves the collection of evidence of what learners know, understand and can do. That evidence is then judged against criteria expressed in NOS. The criteria for assessment would be established

by National Skill Development Corporation (NSDC)/SSCs based on the knowledge and skill levels for technical competencies at each level of qualifications.

Awarding bodies in association with NSDC will issue qualifications (certificates, diplomas or degrees) formally recognising the achievements of an individual, following a standard assessment procedure, for all TVET learning. They will adopt the national guidelines for continuous competency-based assessment and guide the learners towards assessment of their existing skills and knowledge.

7.4.7 Teachers and trainers

Currently there is a severe shortage of teachers and trainers in TVET. There are several colleges and universities, which conduct teacher education programmes, both in the government and private sector. However, there are no competency standards for training teachers, trainers and instructors. A completely new approach is needed for pre-service and in-service vocational education or teacher development, which should be linked to the concept of mechanism of recognition of competencies rather than just the qualifications. Teacher education curriculums and programmes will have to be redesigned to respond adequately to the demands for new teachers and trainers for transaction of competency units of skill qualifications. Teachers and trainers will have to prepare their students for the new realities of the workplace and labour market by ensuring that competencies imparted to them are attuned to labour market requirements. The present system of teaching-learning in the majority of education and training institutions is highly teacher centric. The shift must take place to make the teaching-learning process more student-centric through participatory workshop experiences, project work and assignments. This will indeed require extensive training of teachers. Because of the high degree of automation on the shop floor, use of computer and management skills should be an essential part of teacher and trainer training programmes.

Three different types of teachers and trainers would be needed for effective transaction of competency units: (a) teachers and trainers for general, cultural or scientific subjects (for example, language, environmental education, information and communication technology, health science, entrepreneurship development, sustainable development, rural development, etc.); (b) teachers and trainers for specialised theory (for explaining scientific principles, facts and figures, etc.); and (c) instructors for vocational practice (for example, operation of tools, equipment, machines, safety aspects, etc.).

Teachers must be required to spend time in industry, doing practical training, on a regular basis as in China. In senior secondary vocational schools (as also at tertiary levels of vocational education) teachers in China require at least two months every two years in practical training in an industry. This in-service regular training is in addition to the fact that each teacher in senior secondary vocational schools must also be a graduate in a discipline she teaches apart from having a pedagogic qualification. This situation is superior to the one prevailing in India, where senior vocational secondary school teachers often lack basic qualifications, are not in regular positions (but in ad hoc or contractual posts) and certainly in ITIs have often received their training in ITIs themselves (see Mehrotra, 2014 for details). Such teachers simply lack the capability to teach effectively, and impart practical-level competency to their students/trainees.

7.4.8 Changes in recruitment policies

The recruitment policies, rules and procedures will have to be amended by the central and state governments and employers for giving preference to students with competencies rather than just qualifications. It would require changes in recruitment and employment policies for hiring 'competent' rather than just 'qualified' people for a job. The financial institutions will also have to align their policies of funding to encourage people with 'skills' rather than just a 'qualification'.

The involvement of private industry in both vocational education in schools as well as the vocational training set-up – which function in two separate watertight compartments presently – will help to integrate the two set up.

The ITIs will need to undertake curricular changes, and also turn to a semester and credit-based system (which they did in 2014). They will also need to provide for some general academic courses. A test of the competencies in literacy and numeracy will have to be taken by all students on completion of compulsory education at the end of the eighth grade, which would be used as a selection criterion for further educational progression. Courses offered under the Craftsmen Training Scheme in ITIs will have to be revamped to suit the needs of the NSQ levels 1–4.

Table 7.3: Vocational education and vocational training in India, 2011

<i>Vocational education</i>	
No. of schools offering vocational courses (approx)	6000
No. of students enrolled in Classes XI and XII	6,00,000
No. of vocational courses offered	150
Entry qualification	10th Class pass
<i>Vocational craftsmen training in/ITIs/private ITIs</i>	
No. of ITIs offering vocational trades	8800
Total seating capacity created:	1.22 million
No. of vocational trades offered	116
Entry qualification	8th – 12th class pass
<i>Short-term Modular Employability Skills (MES) Scheme</i>	
No. of VTPs offering MES courses	6398
No. of MES courses	1257
No. of independent assessing bodies	41

7.4.9 Technical education

Polytechnics are meant to provide skills after class 10 and the duration of Diploma programmes is three years and Post Diploma and Advanced Diploma programmes is of one or two years. The student intake in degree and diploma level technical institutions is 653,000 and 354,000 respectively (Ministry of Human Resource Development, 2012). Arrangement for progression into the qualification offered by Polytechnics will have to be made uniform and explicit to suit the needs of NVEQ levels 5–6.

7.5 Role of Employers and Industry

The private sector led by NSDC is expected to participate substantially in policy planning, development of NOS, curriculum design, credit frameworks, accreditation and assessment as the NSQF is rolled out in India.

As the ultimate consumer of the output of the education and training system, industry has to play a proactive role in skill development initiatives and to support

the action taken by other stakeholders in accordance with current market needs. Greater involvement of industry and enterprises for shouldering responsibilities of financing and training would also be required to achieve the objective of providing quality education and training. We have already discussed this issue in the previous chapter that if skill development opportunities are to expand, both pre-employment as well as during employment, financing by the private sector must increase. It should, however, be recognised that without the acceptance of the elements of NSQF by employers, students of VE will still find themselves in the same situation that they are at present i.e., without their education having relevance to the labour market. Sector Skills Councils (SSCs) can be a institutional means of aggregating the needs and involvement of the private sector. They began being created in 2011, and will continue to cover new sectors.

7.5.1 Sector Skills Councils (SSCs)

SSCs are being formed in all industry sectors by NSDC (the latter functions under the aegis of a new Ministry of Skill Development). NSDC is performing two roles to promote greater private sector engagement with skill development. One is to incubate private companies that will be VTPs but do it as a business model. The second is to incubate Sector Skills Councils, whose main stakeholders will be private sector-specific industry associations, which will come together to engage in all dimensions of skill development (as discussed in this chapter).⁸ SSCs will have members from industry, government bodies, industry associations, distinguished business leaders, training providers, NSDC and trade unions. SSCs in association with other institutions will impart training to trainers for vocational schools and industry, for building capacity and upgrading skills of existing workforce. SSCs will provide certificates to successful candidates and will ensure acceptance of the qualification by the industry. Assessment of training and providing credible certification will allow employers to use it as a proxy to fast track job applications.⁹

8 The SSCs constituted (until early 2015) are for the following services: beauty and wellness, security, retail, IT-ITEs, media, healthcare, tourism and hospitality, sports, plumbing, banking, financial services/insurance, and logistics. The industry SSCs are: construction, automobiles, rubber, gems/jewellery, electronics, telecom, food processing, capital goods, aviation, iron and steel, apparel, textiles, handicrafts, hydrocarbon, chemicals and paints. There is also one for agriculture.

9 The functions of SSCs laid down in National Skill Development Policy 2009 are as follows: identification of skill development needs including preparing a catalogue of types of skills, range and depth of skills to facilitate individuals to choose from them; development of a sector skill development plan and maintain skill inventory; determining skills/competency

7.6 Concluding Remarks

It has been argued in this chapter that a NSQF is needed in India in order to put the rather fragmented and disparate TVET on a common platform. This will become more and more an imperative because the economy has been growing fast and diversifying simultaneously. But the NSQF is not the only element of reform required in the TVET system. There are other reforms required as well.

First, India needs a law on VET that places on a statutory basis the NSQF. Such a law would also promote skill development in the form of in-house training by employers. It must also require employers to engage with each component of the TVET system: vocational schools (which since 2012 have been growing in number); vocational training centres (for example, the ITIs, which have been growing, but the private ITIs that have quadrupled in five years (2007–12) especially need monitoring of training quality), and the growing number of VTPs growing under the aegis of NSDC. Such a TVET law has proved very effective in China (see Mehrotra et al., 2015).

Second, industry must still be required through a earmarked tax (discussed in the previous chapter) to contribute to TVET. China has a requirement that companies spend 1.5 per cent of payroll on training its staff.

Third, teachers in the VET systems (in schools, ITIs, polytechnics) must be required to spend at least a month a year in practical training themselves. This too is a requirement in China, and it ensures both students/ teachers upgrade their knowledge and skills regularly.

Fourth, the secondary vocational schools and ITIs must be given some autonomy over new course/trade introduction so that they are responsive to local industry needs. There is no such autonomy currently.

Together with the rapid implementation of the NSQF and the National Training Fund (proposed in the previous chapter) these reforms can transform the prospects for employability of youth. Generating employment in industry and services is critical to the structural transformation of the economy while ensuring inclusion, but improving the employability of youth is equally critical to realising the demographic dividend.

standards and qualifications; standardisation of affiliation and accreditation process; participation in affiliation, accreditation, examination and certification; planning and executing training of trainers; promotion of academies of excellence; establishment of a well-structured sector-specific Labour Market Information System (LMIS) to assist planning and delivery of training.

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Part 2
Human Capital Formation

Addressing Capability Deprivation of Women for Inclusive Growth

8.1 Introduction

As half of the human race, women have a human right to be treated equally.¹ In other words, there are intrinsic reasons why gender equality is a human right of women. However, much of this chapter deals not mainly with this intrinsic and constitutive human right, but with the instrumental reasons why gender equality is good for the economy and good for the quality of life of *all* its citizens, not just its women. Gender equality is important for economic growth for a variety of reasons. First, it makes it possible for women to control their reproductive rights; their reproductive rights are an essential element in lowering the total fertility rate, which in turn has a direct impact on per capita income growth. Second, women's status in society directly impacts the quality of the care imparted to children, and thus through the quality of physical and intellectual upbringing of children, impacts the quality of the workforce. Third, where women are educated and thus enter the non-agricultural labour force, women contribute to value added in industry and services, given that productivity levels in the industrial and service sectors are higher than in agriculture (which is where most women are 'employed' in agrarian societies).

Yet, gender inequality is pervasive in India – as this chapter demonstrates, on all the counts that the author listed above. First, population growth has been seen at different times as a major impediment to income growth in India.² However, the fertility rate of Indian women especially in North India, could still drop sharply, provided health services could meet the needs of family planning

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- 1 On 3 September 1981, 30 days after the twentieth member-state had ratified it, the Convention on the Elimination of Discrimination Against Women entered into force – further entrenching the human right to equality. Yet discrimination against women on grounds of gender is pervasive (see Sen, 1990; Klasen and Peters, 2013; Agarwal, 1994; World Bank, 2012).
 - 2 This discourse changed over a decade ago or so as the young population became the source of a demographic dividend.

services. In fact, unmet need for family planning is an important though not an overwhelming reason behind involuntary pregnancy. A main source of higher than optimal number of children being born to a woman is simply that the family's demand for children, especially sons, is itself high, since the household has no social insurance, and therefore perceives children as an insurance against old age (a subject that has been dealt with in chapter 13). But another very important problem is that in Indian patriarchal society, the woman does not have any control over her reproductive rights; the decision in regard to whether or not to become pregnant is left with the husband (or the husband's family). Her autonomy (or lack of it) is determined by her status in the household, or more generally, in society – which, in turn, is itself determined by a host of other factors that are discussed in this chapter.

Second, her health, education and well-being and hence caring capacity for children is seriously impaired in India by her status in society. Hence, since her caring capacity determines the productivity of her children, and thus new entrants into the labour force, it is critical that her status is examined carefully – which this chapter will attempt.

Finally, the international evidence shows that the higher the per capita income is the level of a country, the higher the share of women in the work force, and also higher is the labour force participation of women. However, India (and South Asia) is, as briefly discussed in chapter 4 and will be discussed further in this chapter, almost an outlier in Asia in respect of the labour force participation of women. Women's entry into the non-agricultural workforce would contribute significantly to raising India's output and productivity. OECD (2014) shows that raising female participation in the labour force with a package of pro-growth and pro-women policies can boost the growth rate by 1.5–2.4 per cent per year over time.

The chapter reviews the status of gender discrimination in India, but it does so by comparing India's various human development outcomes along a variety of indicators for other countries in Asia. In the *Human Development Report Gender Inequality Index*, India is ranked 132 out of 146 countries (UNDP, 2013). Section 8.1 examines conceptually why women's autonomy is essential to the growth and structural economic transformation of developing countries. It also touches on why this is especially the case in India. Section 8.2 then reviews aspects of gender discrimination in India as revealed from empirical information for indicators such as health, education and fertility. Section 8.3 focuses on the relationship between gender relations in India and nutritional outcomes, as that is where the problem

appears to be most severe according to the data – relative to other countries in Asia. Section 8.4 examines a particular demographic phenomenon which is systematically found in many parts of Asia, but especially in its larger and more populous ones – the imbalance in the sex ratio of the population, a phenomenon that reflects deep-seated discrimination. Section 8.5 examines one very important determinant of the status of women in India – the severe under-representation of women in political decision-making bodies. Section 8.6 examines the prospects for the labour force participation rate of women in India, reversing its falling trend and actually increasing in the medium-run. The chapter closes with the conclusion that the country suffers from perhaps the greatest gender discrimination than any other Asian country and draws some policy implications.

8.2 Why Women's Autonomy is Essential to Economic Transformation?³

A key exploration in this chapter is why women's autonomy is so central to the structural transformation of developing countries – or at least a hastening of the economic transformation in a way that was less fundamental to an earlier similar transformation in the west. The instrumental rationale for women's autonomy derives primarily from the dire need to hasten the demographic transition in the developing world, which many countries in Southeast and Central Asia have succeeded in doing, while those in Africa have not; India however, entered the period of its demographic dividend by the early 1980s, much later than East and Central Asia.

India's population growth has been consistently declining, during every decade after 1981. It was 1.96 per cent pa in the 1950s, and fell to 1.64 per cent in 2001–11, which is sharply lower than the population growth rate in Sub-Saharan Africa, even though it is significantly higher than China's growth rate (0.4 per cent). It should also be added that 21 states (and Union Territories) including 11 of 15 major states of India, including all four southern ones (Andhra Pradesh, Kerala, Tamil Nadu, Karnataka), four small northern states (Punjab, Himachal Pradesh, Delhi, Jammu and Kashmir) and two western ones (Goa and Maharashtra) – have already achieved a total fertility rate of 2.1, which is the replacement rate of

3 This section draws heavily upon a keynote lecture given by the author at the second conference in 2002 in Cambridge University on Human Development of Women and the Capability Approach. That paper is now published in Comim and Nussbaum (CUP, 2013).

population.⁴ However, the reason the population growth rate matters is: when will the population of India stabilise? It is a policy goal for India's population to stabilise in year 2045 (Ministry of Health, 2012), several years after the population will stabilise in China. The quicker the population stabilises, the better it is for the resource constrained nature of India's economy (or for that matter, any economy).

It is important to establish why a faster demographic transition is necessary by comparing the population increase in Europe and North America over the first century (1800–1900) of the industrial revolution, with that in developing countries as they attempted a similar revolution in the twentieth century. In 1800, the world's population was 906 million; by 1900 that had grown to 1,608 million, or it less than doubled. Similarly, in Europe, where the industrial revolution began in the last quarter of the nineteenth century, the population was 185 million in 1800, and had *only doubled* to 400 million in 1900 – over the first century of the industrial revolution. However, over the next century, when developing countries were attempting their own industrial revolution, populations *multiplied several fold*. From 62 million in 1900 in Latin America to 480 million in 1995; from 118 million in Africa to 732 million; and from 937 million in Asia to 3,458 million. Thus there is a considerable difference in terms of a population explosion in comparable periods of their development between what the North experienced during its economic transformation and what the South has faced.

Recall from chapter 1 the central role of economic growth in the macro-synergies at country level. The relatively slow growth of population in Europe (and North America) over 1800–1900 enabled per capita income to rise in a secular manner, while comparable structural change in the structure of production proceeded apace. Rise in per capita income went hand in hand with structural transformation: a shift in the shares of sectoral output (away from primary towards secondary and tertiary sectors) in total output, and the shift in the sectoral shares of employment in favour of industry and later into services.⁵ Over

4 Several small north eastern states (Manipur, Tripura, Mizoram, Nagaland, Sikkim) and tiny Union Territories have also achieved replacement level fertility (for example, Andaman Nicobar Island, Puducherry, Chandigarh, Lakshadweep). It is the seven most populous northern states that still have much higher (3.6) fertility rates; UP, Bihar, Madhya Pradesh, Rajasthan, Jharkhand, Chattisgarh and Assam. In fact, India's average fertility rate may decline to 2.1 from its level of 2.5 (2011), only because the 11 states, which had already achieved replacement level by 2010 would go on seeing a decline below the 2.1 level. But it is the northern states that will keep the overall national fertility rate higher than 2.1.

5 The rise in per capita income and structural change in output tend to go hand in hand in the process of economic development, because overall GDP growth tends to be driven

the same nineteenth century, women's entry into labour force increased sharply – mainly into the secondary and tertiary sectors – especially in the last quarter of the nineteenth and the twentieth century. However, this three-fold process (rise in per capita income, structural changes in the composition of output and employment, and rise in women's share in labour force) has not been universally the experience of the developing regions – or most countries in most developing regions in the twentieth century. Hence, without women being able to control their own reproductive life, which would bring down population growth rates, the key elements in this structural transformation in developing countries, including India, could be hampered (Mehrotra, 2013).

It is per capita economic growth that had stalled over the last two decades of the twentieth century for a large group of countries. During the Golden Age of income growth between 1950 and 1973 both developed and developing country economic growth was rapid by historical standards. GDP growth rates fell in Africa and Latin America in the 1980s and did not recover significantly till the mid-1990s. The growth rates did rise thereafter, but fell again after the global economic crisis of 2008. Except for a minority of countries in East and South East Asia, China, and India, many developing countries of Africa and Latin America experienced much slower growth, and also structural transformation in terms of shifts of sectoral output and employment. How different structural change is in different regions is evident from the following figures. While the share of agriculture in GDP declined to 12 per cent in Asia, 6 per cent in Latin America, 18 per cent in South Asia, and 15 per cent in Sub-Saharan Africa (2006), what has taken its place is the service sector – not industry. Of all regions, East Asia's service sector share in GDP is the lowest at 42 per cent, and industry share highest at 42 per cent. For low and middle income countries as a whole, the services share in GDP is as high as 60 per cent. In others words, industry has grown relatively much more slowly at the same time that per capita incomes were growing slowly in the majority of developing countries.

Moreover, per capita income growth in developing countries in South Asia and sub-Saharan Africa is stemmed by high fertility and the underlying women's lack of control over their reproductive rights. Controls over their reproductive rights of women are central to a rising trend in *per capita* income growth. But whether or not women acquire effective control over their bodies (i.e., the reproductive rights of women) is itself a function of women's overall status in society. Lower

by faster increases in industrial and services output, which tend to have a higher rate of growth of productivity than agriculture.

fertility in most households, especially the poorest ones, is a necessary condition of the demographic transition.

If the demographic transition is to be further hastened in India as it has been in China and South East Asia (see analysis of total fertility rates in next section) gender equality and women's autonomy is an essential prerequisite. The hastened demographic transition in China and the South East Asian economies was a key underlying determinant of rapid per capita income growth in this sub-region, and thus the decrease in the head count ratio of poverty – for which this sub-region is justifiably well-recognised in the development literature. In India (and South Asian countries in general), in fact, this growth and the accompanying process of structural transformation has been much slower. The demographic dividend, for example, was essential to East Asia's extraordinary economic achievements, accounting for as much as one-third of its 'economic miracle' (Bloom and Williamson, 1998; Bloom, Canning and Malaney, 2000).

8.3 Reviewing Gender Progress in the Asian Region: The Contrast with India

Sen (1995) speaks about how women's agency is an instrument of not only their own well-being but that of the entire family. The notion refers to the freedom women have to engage in work outside the home, to earn an independent income, to have ownership rights, and, of course, to receive education. Wherever these freedoms and rights prevail, the well-being of women and through their care-giving, that of the whole society, is positively affected. We will examine these issues for India (and for the Asian region), using internationally comparable data.

One of the key aspects of women's autonomy (and hence their agency) is their control over their reproductive rights. Control by women over their bodies are central to the reduction of total fertility. The pace of a demographic transition in any economy is determined by the demand for, and the supply of, children. While the supply of children can be impacted by the quality and coverage of family planning facilities and reproductive health services, ultimately instruments of family planning will be used by couples only if they do not want any more children than they already have. The demand for children is critically affected by the educational level of the parents, in particular that of the mother – as discussed in chapter 1 (see discussion of synergy 1 between interventions in basic social services; Bhat, 2002).

In fact, we have argued elsewhere that countries that have been early high achievers in terms of health and education development are also the countries that lowered fertility and achieved a rapid demographic transition early in their development process. In South Asia, Sri Lanka and Kerala come to mind; just as in South East Asia, Thailand, Malaysia, South Korea and Indonesia are obvious examples (see, for example, the analysis in Mehrotra and Jolly, 1997 on these high achievers). These countries closed the gap between males and females on health/education indicators early in their development.

Not all these social high achievers experienced rapid growth in per capita income. For instance, while the South East Asian countries did experience rapid economic growth, Kerala state (until 1990) in India and Sri Lanka did not.⁶ This differential experience suggests that economic growth is affected by factors other than health and educational status of the population. However, it is also true that there is hardly any country in the developing country that has experienced rapid GDP growth on a *sustained basis for a decade or more*, without also having high levels of health and education for its population (see Chapter 1 for evidence). In fact, since it is women and girls who have been historically disadvantaged in terms of health and education indicators, it is their health and education indicators that matter most for societal progress and sustained economic growth (see Mehrotra and Jolly, 1997, for a more detailed analysis of the international experience).

In fact gender discrimination begins with the girl-child (and continues over the life-cycle). Thus, comparing infant (i.e., under-one year olds) and under-5 mortality rates in India (IMR and USMR), it is found that the greatest contribution to the 1–4 year olds' death is among the rural girl child. Remarkably the difference between rural female IMR and rural female USMR is 20 but the IMR-USMR difference is only 12 for rural males and only 11 for urban females and 7 for urban males. Gender acting through neglect of the girl-child more than through nutrition, has a disproportionately high role to play in mortality among 1–4 year old girl-children. Therefore, it is no surprise that the already low child sex ratio (for 0–6 year olds) has dropped from 927 females in 2011 against 1,000 males to 914 girls in 2011. In other words, gender discrimination and sex-selection has worsened for the youngest.

6 For Kerala, slow growth prevailed only until 1990. After that, Kerala has experienced fairly rapid per capita income growth, and in any case much faster than in the earlier decades. For a comparative analysis of India's states in respect of social indicators, see Bhagwati and Panagariya (2013) and the India Human Development Report 2011.

Table 8.1: Total fertility rate, 1990–2012
(number of children born to a woman during reproductive age, 15–49 year)

	1990	1995	2000	2003	2012
East and North East Asia					
China	2.10	1.92	1.89	1.88	1.55
Korea, Dem. Rep.	2.39	2.16	2.02	1.99	1.99
Korea, Rep.	1.59	1.65	1.47	1.19	1.39
Mongolia	4.03	3.13	2.62	2.40	2.54
South East Asia					
Brunei	3.20	2.86	2.58	2.46	1.98
Cambodia	5.51	4.84	4.28	4.06	2.42
Indonesia	3.10	2.66	2.42	2.37	2.06
Lao PDR	6.00	5.50	5.02	4.72	2.54
Malaysia	3.77	3.40	3.06	2.87	2.57
Myanmar	3.95	3.32	2.68	2.38	1.94
Philippines	4.31	3.84	3.39	3.15	3.05
Singapore	1.87	1.71	1.44	1.25	1.37
Thailand	2.22	2.01	1.94	1.92	1.53
Timor-Leste	..	..	..	..	5.49
Vietnam	3.62	2.67	1.90	1.80	1.75
South and South West Asia					
Afghanistan	..	..	..	..	5.97
Bangladesh	4.32	3.77	3.22	3.00	2.16
Bhutan	5.64	5.23	4.64	4.29	2.26
India	3.80	3.40	3.07	2.92	2.54
Iran, Islamic Rep.	4.84	3.25	2.29	2.11	1.59
Maldives	6.26	5.56	4.69	4.22	1.67
Nepal	5.11	4.62	3.97	3.63	2.59
Pakistan	5.84	5.20	4.68	4.50	3.2
Sri Lanka	2.54	2.20	1.90	1.97	2.24

Source: UN Statistical Division

The decline in total fertility rates, i.e., the number of births per woman in the reproductive age group 15–49, is a good indicator of women's control over their reproductive rights and health, and could be treated as one (not the only one) important indicator of progress in gender relations. We were interested in examining when countries achieved a replacement fertility rate of 2.1 in the Asian region. Table 8.1 shows a series since 1990 for the total fertility rate (TFR) for most Asian countries. While India's average total fertility rate is 2.6 (2008 data, though fallen to 2.4 in 2013), for China and much of Southeast Asia, TFR is close to or below the replacement rate of 2.1.

By 1990 most of the East and South east Asian countries that sustained rapid economic growth over several decades were also those that had managed to contain TFRs: China (by 1990), Hong Kong, Republic of Korea, Thailand, Singapore. Vietnam's recent explosive growth in *per capita* income came after the mid-1990s, when its TFR had fallen below 2.4.⁷ By contrast, TFRs were, and still remain quite high in a majority of South Asian countries (Table 8.1). Thus, the majority of South Asian countries have also had slower (relative to South east and East Asian economies) *per capita* income growth rates.⁸

A well known determinant of low TFRs is reproductive health services that are functional. A good indicator of how functional the reproductive health system is, is the proportion of births that are attended by skilled health staff. Table 8.2 shows that India (and other South Asian countries) have an extremely low share of births attended by skilled health personnel (43 per cent in India in 2004), while the majority of countries with low TFRs in Asia are also the countries where women have access to skilled health staff at the time of giving birth. It is only in recent years that institutional births' share in all childbirth has risen sharply – from 53 per cent in 2005 to 73 per cent in 2010. This is primarily on account of the first ever

7 There are indeed some countries that did experience rapid economic growth (for example, Malaysia, Indonesia) without TFRs reaching replacement levels, but that impact only their *per capita* income level, and not overall GDP. Both are countries where governments (despite good reproductive health policies being in place) have tended to follow pro-natalist policies for a variety of reasons (outside the scope of this chapter). Like Malaysia and Indonesia, the Central Asian republics of the former Soviet Union also had maintained relatively high TFRs compared to the rest of the former Soviet Union. The usual explanation offered for this phenomenon is cultural influences.

8 Sri Lanka had lowered TFR to replacement levels by the mid-90s, but the TFR has climbed again in recent years. Perhaps this is the result of the civil war coming to an end, and Tamil fertility rates rising after peace was established.

conditional cash transfer – Janani Suraksha Yojana⁹ – that institutional deliveries have risen; it incentivised delivery in a health facility as opposed to at home.¹⁰

Table 8.2: Proportion of births attended by a skilled health staff (per cent)

Country name	1997	1998	1999	2000	2001	2002	2003	2005–10
East and North East Asia								
Korea, Rep.	100	..	..	..	..	..	..	100
Mongolia	..	94	..	97	..	..	97	99
Brunei	..	..	99	..	..	..	..	100
Cambodia	..	34	..	32	..	..	..	71
Indonesia	43	..	56	..	64	68	..	75
Lao PDR	..	..	..	..	19	..	..	37
Malaysia	..	96	..	..	97	..	97	..
	..	..	56	..	..	..	57	..
Timor Leste	..	26	..	..	..	..	24	29
Vietnam	77	..	..	70	..	85	..	..
South and South West Asia								
Afghanistan	..	..	..	12	..	..	14	24
Bangladesh	8	..	..	12	12	..	14	27
Bhutan	..	..	..	24	..	..	37	65
India	..	..	42	43	..	..	..	73
Nepal	..	..	..	12	11	..	..	..
Pakistan	18	..	20	..	23	..	..	..
Sri Lanka	..	..	..	96	..	..	..	..

Source: World Bank, World Development Indicators, 2012

⁹ See chapters 12 and 13 in this volume for more on the subject.

¹⁰ However, in states in India with the highest TFR, institutional deliveries were still less than a quarter of all deliveries in 2005 (Uttar Pradesh, Bihar, Chhattisgarh, Jharkhand), according to the NFHS-3 (National Family Health Survey) (IIPS, 2006).

Table 8.3: Adult literacy in Asia – male and female (per cent)

Country or region	Adult literacy rate 2005–10		
	Total	Male	Female
East and North East Asia			
China	93	97	91
Mongolia	100	100	100
South East Asia			
Cambodia	74	83	66
Indonesia	93	96	90
Lao Republic	72	82	63
Malaysia	93	95	91
Myanmar	92	95	90
Philippines	95	95	96
Singapore	96	98	94
Thailand	94	96	92
Viet Nam	93	95	91
South and South West Asia			
Bangladesh	57	61	52
Bhutan	52	65	39
India	62	75	51
Nepal	60	72	48
Pakistan	55	68	40
Sri Lanka	91	92	89

Source: The State of the World's Children 2006, UNICEF.

It has been noted above (and we had argued in chapter 1) that the educational level of women is a critical determinant of the health and nutritional status of children and, inter-generationally, impacts the health status of the entire adult population, both male and female. Female education also exerts strong negative effects on fertility (Bhat, 2002). Table 8.3 (male and female adult literacy rates) shows the gender differences in adult literacy rates across Asia, including India.

Actually, in China, and in the smaller least developed South East Asian states, there is almost no gender difference in literacy rates. However, except Sri Lanka, South and South west Asian states display a remarkable difference between men and women in respect of adult literacy rates even in the current decade – with women's literacy rates being systematically lower. The gender gap in literacy in India was 20 in 2001, and fell by 2011, but still remains unconscionably large (19 per cent). The fact that there is a negative relationship between mother's education and her fertility, should not mean that policymakers need wait for female literacy to rise to bring fertility down.¹¹

The gender differences in adult literacy rate are mirrored in the primary and secondary enrolment ratios as well (Tables 8.4 and 8.5). In other words, the sub-regional patterns across Asia that we see for the health indicators as well as literacy rates are also found in respect of school enrolment rates. Until recently, gender discrimination in education in India was perhaps the worst in the world, when female to male literacy rates or enrolment rates are compared across the regions of the world. In India, gender parity has been finally achieved by 2007–08 at primary level in terms of enrolment, but at upper primary level (i.e., classes 6–8) gender parity in enrolment is still absent (see the *India Human Development Report 2011*, IAMR, 2011).

Nevertheless, change is happening in India – though it has come late. In the age group of 5–14 years (elementary education, or classes 1–8), 89.3 per cent of children were in school in 2009–10, up from 82.4 per cent in 2004–05. Further this increase was higher for girls, rising from 79.6 per cent in 2004–05 to 87.7 per cent in 2009–10. In the 15–19 years age group (secondary and upper secondary education), 59.5 per cent of young people were in the educational system in 2009–10 as compared to 46.2 per cent in 2004–05. Once again, the increase was more for girls, from 40.3 to 54.6 per cent. It is in the next higher age group of 20–24 years (tertiary education), that gender differences are much greater; 22.5 per cent of boys and 12.8 per cent of girls were still in the

11 Bhat (2002) argued that an exogenous fall in mortality (caused by improvements in health services) would cause expansion of family size unanticipated by parents. In such a situation, parents might begin to send selectively their later born children to school in order to enable them to leave their inherited traditional occupations, especially in rural areas, and to diversify occupations of their children. This would make child schooling positively related to family size. Bhat (2002) notes that in such situations where both trends intersect (as he observes in India) one may not observe any significant relationship between family size and child schooling.

educational system in 2009–10 against only 14.9 and 7.6 per cent respectively in 2004–05 (Planning Commission, 2011).

Table 8.4: Primary and Secondary school enrolment ratio (2007–10)

Country or region	Primary school enrolment ratio (net)		Secondary school enrolment ratio (gross)	
	Male	Female	Male	Female
East and North East Asia				
China	–	–	80	83
Korea, Rep.	99	98	–	–
Mongolia	99	98	79	85
South East Asia				
Cambodia	96	96	49	44
Indonesia	95	97	77	77
Lao Republic	98	95	51	43
Malaysia	–	–	66	71
Myanmar	–	–	53	56
Philippines	88	89	82	88
Thailand	90	89	76	82
Timor-Leste	86	85	56	56
Viet Nam	–	–	74	81
South and South West Asia				
Afghanistan	–	–	60	30
Bangladesh	–	–	48	55
Bhutan	87	90	69	71
India	93	92	66	60
Iran (Islamic Rep.)	–	–	98	84
Maldives	96	96	–	–
Pakistan	81	67	39	29
Sri Lanka	94	94	–	–

Source: UNESCO, Global Monitoring Report 2012

Table 8.5: Tertiary enrolment ratio – male and female, 2012

Country	Tertiary gross enrolment ratio		Women's share of tertiary enrolment
	Women	Men	per cent
Afghanistan	...	2	20
Bangladesh	4	9	32
Bhutan	...	...	34
Brunei Darussalam	20	10	66
Cambodia	2	4	31
India	9	14	38
Indonesia	15	19	44
Iran, Islamic Rep.	24	21	51
Kazakhstan	56	40	57
Kyrgyzstan	43	36	54
Lao Republic	5	7	38
Malaysia	38	27	57
Mongolia	48	29	62
Myanmar	14	8	63
Nepal	3	8	28
Pakistan	3	4	43
Philippines	32	25	55
Republic of Korea	69	110	37
Thailand	45	41	52
Viet Nam	9	11	43

Source: United Nations Statistics Division

These gender differences are mirrored in respect of higher education across the Asian region (Table 8.6). Tertiary gross enrolment rates in most developing countries in the world rarely exceed 15 per cent. However, no matter whether one considers developed or developing Asian countries, there are gender differences in tertiary enrolment rates, with women's enrolments rates being systematically lower in all countries in Asia. Only the high income countries of Asia have tertiary enrolment rates that are higher than 30 per cent. In Thailand and Malaysia, women are doing slightly better than men. In India (and the other South Asian countries), however, the overall enrolment ratios for men and women are systematically lower.

Table 8.6: Share of women as per cent of total non-agricultural workers

Country or region	1990	2008–10
East and North East Asia		
Hong Kong, China	41.2	49.5
Korea, Rep.	38.1	–
Mongolia	47.5	52.7
South East Asia		
Cambodia	48.0	–
Indonesia	29.2	–
Lao PDR	42.1	–
Malaysia	37.8	
Myanmar	36.4	39.2
Philippines	40.4	41.9
Singapore	42.5	45.4
Thailand	45.3	45.5
Timor-Leste	19.0	–
Vietnam	45.2	–
South and South West Asia		
Afghanistan	17.8	18.4
Bangladesh	17.6	–
Bhutan	12.0	26.8
India	12.7	–
Iran, Islamic Rep.	17.2	15.2
Maldives	31.1	–
Nepal	11.8	–
Pakistan	6.6	12.6
Sri Lanka	39.1	31

Source: World Bank, World Development Indicator 2012

The male-female differences in schooling and also higher education then get reflected further along in the life cycle, in the share of women in non-agricultural employment (see Table 8.7). Women have always participated in developing countries in the agricultural sector work force. In largely agrarian societies, with a high proportion of the total workforce engaged in agriculture, women are key producers; in particular, in food production in Africa, and to a lesser extent in

Asia, women provide most of the labour power. But agricultural employment is not a source of liberation for women, since in agrarian societies the farm is merely the extension of the home, and the home is the central location of gender subordination in patriarchal societies. In fact, with growing fragmentation of farms in agriculture in India, the number of marginal farms has been increasing. The result has been male migration in search of wage work, both rural-rural (to areas with faster agricultural growth) and rural-urban migration.

Women's participation in the non-agricultural labour force tends to be higher in countries that have demonstrated relatively higher levels of health and educational indicators for the entire population (Mehrotra, 1997). The reason is that work outside the home is usually possible with some education, and with the individual acquiring higher levels of education and skills, the choice set of jobs and wage work increases.

Several East Asian (China, Republic of Korea and Mongolia) and South East Asian countries (Vietnam, Malaysia, Thailand) have female shares in the non-agricultural labour force that are consistently high ever since 1990. But by contrast, as Table 8.7 shows, women's participation in the non-agricultural labour force is extremely limited in India. In fact, as was noted in chapter 4, women's labour force participation rates fall sharply between 2005 and 2012 though this is largely on account of a sharp increase in girls schooling (as we saw above).

Not only women's capabilities, but their autonomy has been severely restricted in India. For example, women in India face impediments even to their leaving the home, let alone seeking opportunities for paid employment. Thus, the National Family Health Survey 1998–99 (NHFS-2) reports that freedom of movement is limited for the majority of ever-married women in India. Only 32 per cent of women say that they do not need permission to go to the market, and only 24 per cent say that they do not need permission to visit friends or relatives. As expected, women who earn money have much more freedom of movement than other women. Twenty years ago even in Sub-Saharan Africa half of all women in SSA were involved in some kind of work outside the home, while only a quarter of women in South Asia were so engaged (Ramalingaswami et al., 1996).¹² In India, NHFS-2 reported that 61 per cent had not worked in the past 12 months; only 20 per cent were employed by someone else with 14 per cent working in family farm/business and 5 per cent self-employed (IIPS, 2000). The restrictions on

12 These authors also suggest that while in Africa, the greatest obligation on a woman is to look after her husband's children, in South Asia tradition requires a woman to make her husband and mother-in-law the focus of her responsibilities.

the capabilities and agency of women in India have profound consequences for themselves, and for the human development of the next generation, as discussed further in the next section.

8.4 Linking Child Malnutrition to Gender Discrimination

Half of the world's malnourished children are to be found in just three countries – Bangladesh, India and Pakistan. In fact, the child malnutrition rates in India and Pakistan are also much higher than in Sub-Saharan Africa on average. This section considers how women's capability deprivations in India are related to child malnutrition in India.

8.4.1 Child malnutrition in cross-regional perspective

There are three indices of under-nutrition – underweight, stunting and wasting – expressed in standard deviation units from the median for the reference population. Among all regions, South Asia (whose numbers are dominated by India) has the worst record on malnutrition by all three measures. In developing

Table 8.7: Child malnutrition by region, 2008–12

Regions	% of under-fives suffering from:			
	Underweight		Wasting	Stunting
	Moderate and severe	Severe	Moderate and severe	Moderate and severe
Sub-Saharan Africa	21	7	9	38
Middle East and North Africa	7	–	8	18
South Asia	32	15	16	38
East Asia and Pacific	5	4	4	12
Latin America and Caribbean	3	–	1	11
CEE countries/CIS	2	–	1	11
Least developed countries	23	7	10	37
World	15	9*	8	25

Source: The State of The World's Children, 2014

Note: Data refers to the most recent year available during the period. Excludes China.

countries, on average, 25 per cent of children were underweight; in India (and South Asia) it is 46 per cent (UNICEF, 2012). Twenty-nine per cent children

in developing countries were stunted; but 48 per cent in India (47 per cent in South Asia). Ten per cent children in developing countries are wasted; the share was 20 per cent in India (19 per cent in South Asia) (see Table 8.8). For all three indicators of malnutrition, Indian (and South Asian children) are worse off than children in SSA. A 2013 survey in India (financed by UNICEF) concluded that India's rate of underweight for under-5s fell to 30 per cent, but that still puts India's child malnutrition rate at the same level as SSA's ten years ago.

Ramalingaswami et al. (1996) appropriately asked the question: if child malnutrition rates are so strongly associated with child deaths, and child malnutrition rates in South Asia are much worse than in SSA, then why are child survival rates in South Asia so much better (and U5MRs so much lower) than in SSA? Thus, U5MR in SSA is 121, while in South Asia it is only 67 on average while child malnutrition afflicted half of South Asian children, but only a third of African ones. Their answer was that the South Asian child usually has better access to modern medical care, especially antibiotics – available from the myriad of private doctors available in rural and urban areas who are also interested in selling medicines. The child in SSA is more likely to have only government health services, which may be more oriented to providing preventive services, not life-saving ones. If this is the explanation for lower mortality in South Asia of children (compared to SSA), then what explains the much higher child malnutrition rates in India (and South Asia) – in fact the highest rates in the world?

8.4.2 The determinants of malnutrition rates in India

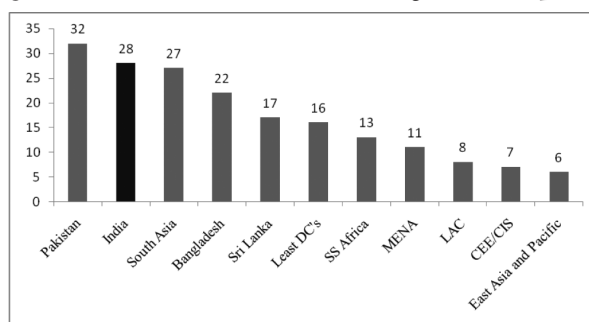
An adult is underweight if he/she has a body mass index (BMI)¹³ of less than 18.5. In 1998–2009, 36 per cent of India's adult women of reproductive age (15–49 years) were underweight. In 2005–06 that share had barely changed, with 33 per cent of women malnourished (NFHS-2 and 3). If malnutrition begins *in utero*, then the first evidence that one gets that the child will be born undernourished is from the birth-weight of the infant. The first marker of the high rates of malnutrition in India (and South Asia) is the high proportion of infants who are born with low birth-weight. Infants who weigh 2000–2499 grams at birth have a four-fold higher risk of neo-natal death than those who weigh 2500–3499 grams. This is what explains the overwhelming share of neo-natal deaths in IMR in India (Muthayya, 2009). In fact, as Figure 8.1 shows, the incidence of low birth-weight is highest in India after Pakistan. The figure

13 BMI is defined as the individual's body mass (in kg) divided by the square of his/her height.

is even higher than the South Asia average, compared to any other region in the world. Nearly a third of Bangladeshi and Indian children and more than quarter of Pakistani children are born with low birth-weight.

Why is the incidence of low birth-weight so high for babies born in India (and South Asia)? Low birth-weight of babies is essentially an indicator of the nutritional status of mothers. Simply put, small mothers give birth to small babies. In addition, the weight that mothers are supposed to put on during pregnancy in India (and South Asia) is lower than what is required for the healthy growth of the child. Thus during pregnancy, the average woman should gain about 10 kilos of weight. While most women in Africa do gain nearly that much weight, most women in South Asia gain around 5 kilos only (WHO, 1995). In other words, the baby's nutritional status at birth is a direct outcome of the woman's nutritional status.¹⁴

Figure 8.1: Incidence of low birth-weight babies (per cent)



Source: UNICEF, State of the World's Children 2012.

In poor households, the mother will feed the husband and the sons first and eat last herself along with the daughters. In poor households, there may be inadequate, or the poorest quality, food left over for the females. Combined with the work requirements for a woman in a patriarchal society, the limited food or poor quality food may translate into poor health status for her.

As has been discussed earlier, the height of an adult is an outcome of several factors including nutrition during childhood and adolescence. A woman's height

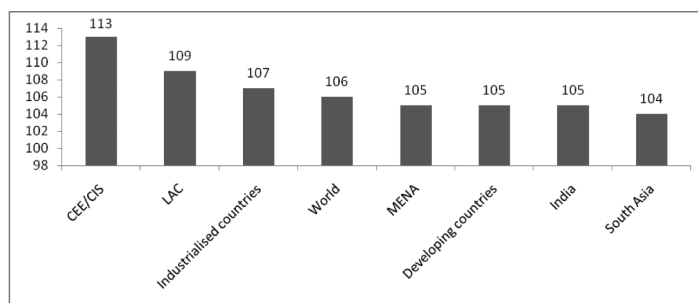
14 The mother's health status affects not just the child's nutritional status, but the prospects for survival of the child. Thus, in India, 60 per cent of the infant mortality rate is accounted for by neo-natal mortality (i.e., death within 28 days of birth). In fact, while vaccine preventable causes of infant mortality reduced IMR in India in the last two decades, neo-natal mortality has remained constant. Neo-natal mortality is highly correlated with low birth-weight.

can be used to identify women at risk of having a difficult delivery, since small stature is often related to small pelvic size. The risk of having a baby with a low birth weight is also higher for mothers who are short. Women who can be identified as nutritionally at risk, in terms of height, are those below the range of 140–150 centimetres. Thirteen per cent of women in India were below 145 cms in height (NFHS 2, 1998–99).

While BMI and shortness are indicators of protein-energy malnutrition, there is also a ‘hidden hunger’, as reflected in micro-nutrient deficiency (iron, vitamin A, or iodine). Thus, one indicator of the nutritional status of women is the prevalence of iron-deficiency anaemia. Anaemia is the status of having a low haemoglobin level in the blood.¹⁵ Anaemia may become an underlying cause of maternal mortality and pre-natal mortality. In addition it results in an increased risk of premature delivery and low birth weight. In other words, it is an important determinant of child malnutrition in South Asia, quite apart from blighting the lives of millions of women. While 47.5 per cent of non-pregnant women in Africa suffer from anaemia, this statistic is 45.7 per cent in south East Asia (WHO, 2005). In India, the proportion of women suffering from anaemia was 57 per cent in 2005–06, and the share of pregnant women who were anaemic was 75 per cent (according to National Family Health Survey 3, IIPS, 2006).

By far the most important evidence of *systematic* gender discrimination over a life time is provided by the fact that the life expectancy of women in South Asia is lower than that of men by a greater margin than anywhere else in the world (Figure 8.2).

Figure 8.2: Life expectancy – females as a per cent of males by region



Source: UNICEF, State of the World's Children 2012.

¹⁵ Haemoglobin is essential for transporting oxygen from the lungs to other tissues and organs of the body. Anaemia results from a deficiency of iron, folate, vitamin B12, or some other nutrients.

It is well known that for biological reasons, women tend to have a longer life expectancy than those of men. Thus, as Figure 8.2 shows, in all regions women live longer than men. Women's life expectancy exceeds that of men most in the industrialised countries and Central and East Europe and the Commonwealth of Independent States (CEE/CIS).¹⁶ That shows the potential for women's life expectancy to exceed that of men. While in all regions life expectancy for women relative to that of men is lower than in industrialised countries, it is by far the lowest in South Asia. This can only happen as a result of systematic discrimination against women over a lifetime, which gets perpetuated over generations. It is precisely this phenomenon that Sen (1990) had referred to in his analysis of the 'missing millions' of women, since lower life expectancy translates into a lower than possible female-to-male ratio in the total population of a country.¹⁷

8.4.3 Other factors underlying child malnutrition

Gender discrimination is not the only reason for high child malnutrition rates in India (and South Asia). The duration, frequency and severity of disease, especially diarrhoeal disease, is an important determinant, since it affects the absorption of nutrients by the child. The prevalence of disease is affected by the availability of safe water and sanitation. Even though India (and South Asia) has a much higher coverage of population by safe water (87 per cent in total), compared to SSA's 54 per cent, it has a much lower share of the population covered by safe means of excreta disposal (see Chapter 11).

When one combines this fact with the phenomenon that the density of population in SSA (below 100 per sq. km for most SSA countries) is a fraction of that of India's 421 per sq. km, the enormity of the problem becomes clear. The overcrowding worsens the environmental hygienic conditions for the child in India (and South Asia). The greater density of population would be particularly harmful in urban areas, where overcrowding in South Asia is intense (Ramalingaswami et al., 1996). The situation is compounded in South Asia by the fact there is worse coverage of safe sanitation in rural areas (the level of urbanisation is 38 per cent in SSA as against 29 per cent in South Asia). Overcrowding would clearly lead to much greater disease, thus affecting the absorption of nutrients by children.

16 The ratio is highest in CEE/CIS countries on account of excess male mortality after the transition began. Hence, the proper comparator is really the ratio for industrialised countries.

17 For more on the 'missing women' phenomenon, see Klasen and Wink (2007).

However, here too the story may not be as simple as the mere quantitative differences in coverage of safe sanitation and the density of population suggest. It has been noted that in South Asia there is a much larger number of physicians per 1,00,000 population than there is in SSA. Thus in India there are 48 and in Pakistan 57 physicians, compared to the much less than 20 per 1,00,000 in the majority of countries in SSA. That would suggest that despite the greater prevalence of disease in India (and South Asia) for the reasons mentioned above, people also have much greater access to medical care (Ramalingaswami et al., 1996). However, the real issue is whether women have the autonomy to actually seek medical attention for their sick children or for themselves when it is needed. In other words, given the worse sanitation conditions, morbidity and mortality from the combination of poor sanitation and high density of urban population could still be reduced if access to life-saving medical facilities is good. But can women access such medical facilities?

From the NFHS-2 in India, we have information regarding women's autonomy in these respects, which might shed light on this question. In order to measure women's participation in household decision-making, NFHS-2 asked the woman to report who in their household makes decisions about obtaining healthcare for herself. About half of all women were not involved at all in decisions about seeking healthcare for themselves (49 per cent). Only 28 per cent of the women interviewed took that decision independently. Moreover, those women who earned an income were asked who decides how the money they earned was to be used. This is relevant for the health seeking behaviour by women – whether for themselves or for their children – since over 80 per cent of contacts with health professionals in India are with private practitioners, rather than with the public health system. Thirty per cent of women who earn money report that only their husbands or only others in the household make the decision on how the money they earn will be used.¹⁸ In other words, despite the plethora of physicians in the country, including in rural areas, there is no certainty that medical care will be sought at all given the out-of-pocket costs involved, or sought in time before the malaise worsens, thus delaying recovery and recuperation and prolonging the disease. Repeated episodes of illness without timely treatment is likely to reduce the child's (or the mother's) ability to absorb nutrients. The situation is unlikely to be very different in other parts of South Asia, as women's mobility tends to be even more restricted in the Muslim societies of South Asia.

18 41 per cent reported that they make the decision on their own, and 28 per cent reported that they make the decision together with their husbands or someone else in the household.

Table 8.8: India: Sex ratio by state (females per 1000 males)

India and major states	1971	1981	1991	2001	2011
India	930	934	927	933	940
Andhra Pradesh	977	975	972	978	992
Assam	896		923	935	954
Bihar	954	946	911	924	916
Gujarat	934	942	934	920	918
Haryana	867	870	865	861	877
Himachal Pradesh	958	973	976	968	974
Karnataka	957	963	960	965	968
Kerala	1016	1032	1036	1058	1084
Madhya Pradesh	941	941	931	937	930
Maharashtra	930	937	934	922	925
Orissa	988	981	971	972	978
Punjab	865	879	882	876	893
Rajasthan	911	919	910	921	926
Tamil Nadu	978	977	974	987	995
Uttar Pradesh	879	885	879	901	908
West Bengal	891	911	917	934	947

Source: Census of India (1971–2011)

Yet another explanation is available for the high child malnutrition rates in India (and South Asia). WHO-UNICEF guidelines recommend that an infant must be exclusively breast-fed for the first six months. The available data suggests that in India 46 per cent (South Asia 45 per cent) of all infants were exclusively breast-fed (while that share was 37 per cent in SSA, 56 per cent in East and Southern Africa, 25 per cent in West Central Africa) (UNICEF, 2012).¹⁹ Although the share of breast-fed babies may be higher in South Asia (and India) compared to SSA, the point that has already been established is that the health status and general status of women in South Asia is worse than in other parts of the world. Their poorer health status would prevent Indian (and South Asian) women from breast-feeding their babies adequately. In fact, a study based on findings from the NFHS-1 in India (1992–93) concluded that breast-feeding with supplements is more beneficial

¹⁹ Data from the NFHS-2 for India suggest that 55 per cent of infants were exclusively breast-fed in 1998, 23 per cent receive breast milk plus water, and 20 per cent receive supplements along with breast-milk.

than exclusive breast-feeding even for children at very young ages (less than four months). That report suggests that mothers who are in poor health themselves may not be able to provide adequate breast milk for their infants. In other words, yet another explanation for the high child malnutrition rate ultimately comes back to the status of women.

8.5 Sex Ratio as a Marker of Gender Discrimination

One overwhelmingly important indicator of gender discrimination, as noted in the earlier section, is the ratio of females to males in the population (usually measured as number of females to every 1,000 males). For biological reasons, women live longer than men, and so the natural expectation is that women's share in the total population of any country will be higher than that of men. However, Table 8.9 shows sex ratio by state in India, especially how adverse the female-to-male ratio in the population is in India; in fact, over four decades (1961–2001) there is no systematic evidence that the situation is improving in India. It was 930 in 1971 and 933 in 2001. There are states in India where the sex ratio is actually less than 900 (Punjab 893, Haryana 877) and these states are among the richer states of the country. The states that have shown a worsening of the sex ratio over time are: Bihar, Gujarat, Haryana, Madhya Pradesh, Maharashtra and Orissa. In only some of the states that have had the worst sex ratios historically there has been marginal improvement: Assam, Rajasthan, and West Bengal. The very serious sex ratio is the phenomena that Sen referred to as the 'missing women' of India. Underlining the fact of gender discrimination over the life-cycle is the fact that the child (i.e., 0–6 year old) sex ratio is not only extremely low, but has actually fallen from a low of 927 girls per 1,000 boys in 2001 to 914 in 2011. Much of the fall is due to declining sex ratio at birth, and the most common reason for this is sex-selective abortion, which despite an Act of parliament banning it, has not been adequately curbed. Another major contributor to the falling child sex ratio is the differential mortality with much lower child survival rates of the girl child in the 0–5 age group.

However, Kerala, with the best female literacy rates and the best health indicators in the country, is also the only state with a sex ratio greater than 1,000, and in fact improving all the time over the 30 year period. In fact, all the four major southern states have the best sex ratios in the country: Kerala, Tamil Nadu, Andhra Pradesh and Karnataka (in descending order).

South Asia is not the only area in Asia where there is an adverse sex ratio in the population. Table 8.9 shows that China's overall female to male ratio per 1,000 population is much better than India's, 967 compared to 940. However, it disaggregates the male-female population by state for China and shows that the sex ratio is a serious problem in most parts of China as well. The adverse sex ratio in China is a reflection mainly of the one child policy that has been in place for over two decades – and hence different from the South Asian problem of systematic gender discrimination over the life cycle of a woman. The emphasis on one child (which started in 1981) led many parents to use modern technology for purposes of sex selection, and sex-selective abortion has resulted over time in an adverse sex ratio. However, given that gender discrimination in China over the life cycle is nowhere close to what is found in South Asia, the sex ratio in no Chinese province (except one) is less than 930. By contrast, six major states of India have a sex ratio that is less than 930. In fact, the sex ratio is particularly adverse in Indian states where increasing incomes has facilitated the growth of private clinics (for example in Punjab, Haryana, Delhi, Gujarat) and sex selective abortions have been carried out for a fee, even though clandestinely (since there is a law against such abortions).

Table 8.9: China – sex ratio by province females per 1000 males

Province	Sex ratio	Province	Sex ratio
National total	967	Beijing	952
Tianjin	1017	Hebei	957
Shanxi	948	Inner Mongolia	946
Liaoning	994	Jilin	996
Heilongjiang	970	Shanghai	1035
Jiangsu	1015	Zhejiang	974
Anhui	949	Fujian	992
Jiangxi	942	Shandong	993
Henan	943	Hubei	973
Hunan	950	Guangdong	948
Guangxi	930	Hainan	917
Chongqing	1007	Sichuan	982
Guizhou	930	Yunnan	976
Tibet	1051	Shaanxi	945
Gansu	940	Qinghai	948
Ningxia	978	Xinjiang	966

Source: UNESCAP, Economic and Social Statistical Database, Bangkok

The adverse sex ratio in China has profound human and economic consequences. First, in a rapidly urbanising economy, with rural males migrating in large numbers to urban areas in search of work, there was already feminisation of agriculture taking place on a vast scale. However, this feminisation will continue to intensify, as the share of women in the total population is low and falling.

It is only in North and Central Asia that the sex ratio is systematically in favour of women, as it should be (and this is consistent with the earlier statement that the CIS countries and the industrialised ones are the ones where biology is working as it should).²⁰ In the South East Asian countries, the sex ratio is pretty close to 1,000. But it is in India and the South Asian countries that the sex ratio is far lower than anywhere else in Asia.

8.6 A Voice for Women – Legislative Representation of Women in Asia

The high levels of gender discrimination in India could be mitigated if the voices of women were heard on a regular basis in the national parliament. However, data (see Table 8.10) until 2000 shows that irrespective of sub-region, the representation of women in parliament in Asia is appalling. However, it had improved remarkably for almost all South East Asian countries (except Malaysia) after 2000. In fact, it improved sharply after 2004 even in much of South Asia. India remains the major exception. India ranks 105 out of 139 countries by the share of women in parliament, far behind Nepal, Pakistan and Afghanistan.²¹

If women are half the population of a nation, it is not unnatural to expect that they should constitute half of the nation's parliamentarians. However, the reality throughout the world and Asia is nowhere close to what one might expect. Even in North and Central Asia, where earlier women were faring much better than in most other sub-regions of Asia, the representation of women in parliament remains low. This is particularly revealing, since in the former centrally-planned economies of Eastern Europe, before 1991 there was a pervasive policy in most

20 However, one should note that there is a perversity in the CIS sex ratio being more favourable to women than even in the industrialised countries. The reason is simply that the death rates of men rose sharply in the CIS countries after the transition to a market economy, partly as the public health system collapsed, and partly as incomes fell and alcoholism increased sharply.

21 Inter-Parliamentary Union (www.ipu.org) reports that women occupying more than 30 per cent of seats increased from 5 to 42, while those with more than 40 per cent have jumped from 1 to 13 over 2010 to 2015. India has shown no change.

countries of reservations for women seats of parliament. As a result, in most of these countries the representation of women was much higher than anywhere else in the world. In fact, once the reservation was removed, the share of women in parliament fell. This decline in women's representation has become permanent in the case of the former Soviet Union republics.

Table 8.10: Women in parliament
(per cent of total seats occupied in lower or single house)

Country or region	1997	2000	2004	2012
East and North East Asia				
China	21	22	20	21
Korea, Dem. Rep.	20	20	..	16
Korea, Rep.	3	4	6	16
Mongolia	8	8	11	13
Cambodia	6	8	10	20
Indonesia	13	..	8	18
Lao PDR	9	21	23	25
Malaysia	8	..	11	10
Philippines	11	12	18	23
Singapore	3	4	16	24
Thailand	6	6	9	16
Vietnam	19	26	27	24
South and South West Asia				
Afghanistan	..	..	..	28
Bangladesh	9	9	2	20
Bhutan	2	2	9	9
India	7	9	9	11
Nepal	3	6	6	33
Pakistan	..	..	22	23
Sri Lanka	5	5	4	6

Source: World Bank, World Development Indicators.

While women's representation in parliament is not a sure fire method of enhancing women's status and pushing back gender discrimination, the fact that half of Asia's population in the best-performing countries only accounts for less than a quarter of all seats in parliament suggests that in the political sphere gender

discrimination is pervasive. In fact, there could be no better case of this hypothesis than Pakistan. As Table 8.10 shows, in Pakistan – where gender discrimination is visible in all the tables above – the share of women in parliament was barely 2 per cent till the end of the last century. However, that share jumped up ten-fold in 2003 and 2004. As a result of a new indirect system of election, whereby the parties are required to elect only women to a certain proportion of seats, depending upon how many seats each party wins in the parliament, the representation of women in parliament has shot up dramatically.

When assured political representation in this way, women truly come into their own. For instance, in India, while the struggle has gone on for a decade to reserve seats in the national parliament for women, a constitutional amendment in 1993 had ensured that a third of all seats in locally elected councils (in the panchayati raj system) were reserved for women. This has meant that throughout India, through quinquennially held elections to three levels of local bodies in all parts of India, women are firmly ensconced in local bodies. In fact, in many states local bodies are required to have 50 per cent of all seats reserved for women.

There is no one-to-one correlation between social outcome indicators and women's political representation – at least the data does not necessarily suggest such a relationship. But one thing is clear even from the data (see Table 8.10): that countries in the sub-region (South Asia) that have historically had the lowest representation of women in parliament in Asia, are also countries where the social outcome indicators for the entire population are among the poorest in Asia.²² The data also suggests that the sub-region in Asia that has, relatively speaking, among the best social outcome indicators (South East Asia) is also the region, with the highest share of women in parliament in the Asia region.

In India there is an additional issue beyond missing women in Parliament and state assemblies; they are missing in the electorate too. Ravi and Kapoor (2014) have argued persuasively that even though fair elections are held regularly in India they do not reflect the true consent of the people since a large number of women are missing from the electorate. They compute the sex ratio in the Indian electorate using data over 50 years. They use Kerala, the state with the best sex ratio in the electorate, as a reference for all the states to complete the number of missing women. Three findings stand out. First, the absolute number of missing women increased four-fold from 15 to 68 million over 50 years to 2013. As a percentage of

22 Sri Lanka is an exception, in that it has low female representation in Parliament, but also has much higher social indicators than any other country in the region.

the female electorate, missing women have gone up from 13 per cent to nearly 20 per cent – clearly, a serious worsening of the phenomenon. Second, in the poorest states with the worst HDI – Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan but also richer Maharashtra – the phenomenon has worsened. So fewer female voters will voice their views through elections in the very states where their voices are weakest. Third, the sex ratio in the electorate for most states is worse than the general sex ratio in the population. Their names don't show up in the registered voter list, and this difference is higher in UP and Bihar.

8.7 Some Policy Implications

A clear policy implication of the conceptual and empirical discussion about the differences in the demographic transition between the now industrialised countries and most developing countries is that the economic transformation in the latter will be structurally determined to a greater extent by gender equality than was the case in an earlier phase of transformation in the former group of countries. Since the demographic pressure during the first industrial revolution was much lower, with the population growth rate much slower than during the second industrial revolution (being experienced by the developing countries now), gender equality becomes an essential determinant to hasten the demographic transition in developing countries.

In fact, in many Asian countries (especially in South East Asia and East Asia) the rapidity of per capita GDP growth is partly accounted for by a hastened demographic transition in turn determined by investments in basic social services, by rapidly expanding female education, and an increase in the participation rates of women in the non-agricultural labour force. These countries reflect the success of the first synergy we discussed in chapter (growth-human capital formation-poverty reduction). In these respects, these are relatively unique countries in the development experience in the post-colonial epoch. For India to ride the wave of the demographic dividend more effectively, there is a need to reverse the systemic gender discrimination. Reversing this discrimination offers the strong possibility that we will not only create a more equal society, but also push up the economic growth rate.

A gender-fair intra-household food allocation in India will be determined in the long run by women's autonomy, which can be enhanced by ensuring schooling for all, and further reinforced by employment outside the home, particularly in non-agricultural employment (see chapter 4 for more discussion).

Since employment in the non-agricultural sector is a function of schooling, the latter is a prerequisite for triggering women's autonomy. NSS data for 2009–10 shows that female participation in the labour force has fallen between 2005 and 2010. One reason is a fall in self-employment. Perhaps a bigger reason is that there is a very significant increase in educational participation of both of over-14 year olds (who would otherwise have been in the work force), as well as of girl child labour (who would also appear in the workforce). About 44 per cent of the reduction in female LFPR is on account of increased educational participation; this should be recognised as a positive development, since in future these girls can earn higher incomes (assuming they enter the workforce). A reduction of child labour, especially of girls, to 2 per cent in 2009–10 is its lowest level ever, having fallen from 6.6 per cent in 1993–94. In order to ensure that girl children complete upper primary schooling, all the provisions of the Right to Education norms must be implemented rapidly (see chapter 9).

Finally, the data in this chapter has shown the systematic gender discrimination prevailing in India. The political system, dominated by men, has failed women in this sub-region. However, the public policy implication of our analysis in the last section suggests that systemic gender discrimination can be impacted if governments were willing to reserve seats in national and local assemblies, so that women acquire a political voice.²³ Today those voices are muffled, and will remain so if legislative action is not taken. In fact, in the countries of Eastern Europe and the former Soviet Union, when reservations in Parliament for women were removed, after 1991, women's representations in national parliament actually fell, and have remained low.

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23 Clearly, this conclusion underlines the need for the Womens' Reservation Bill in India's Parliament to be passed. The first step has been taken in that the Rajya Sabha has already passed the law, but the Lok Sabha has also to clear it. The new government with its absolute majority in the latter (lower house) can do it – provided the political will exists.

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From the Right to Education to the Right to Learning

India's population of illiterates in the year 2001 was greater than the total population of the country at the time of independence (1947). The illiterate population of around 343 million (in 2001) was the outcome of policies and funding patterns that prevailed in India from the Second Five Year Plan onwards (1957–62).¹ While the First Five Year Plan had taken serious note of the requirements of elementary education, very soon thereafter higher and technical education began to take precedence over elementary education in policymakers' priorities. The nation is still paying the price for this monumental lack of vision, and the poor in particular have remained excluded from the fruits of even elementary education. In an already highly socially stratified society, the exclusion from elementary education of girls, SCs, STs and Muslims has been the underlying cause of chronic poverty. As seen in chapter 1, the feedback loops from education impact every other human functioning and hence human capabilities generally. It is not surprising that in 2004–05 the number of poor (as estimated by the Planning Commission) was not dissimilar from the number of illiterates in India – 300 million.² This is the context that gives urgency to the Right to Education (RTE). India is already half a century too late and behind the constitutional directive to universalise schooling for 6–14 year olds within 10 years from independence.

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- 1 To be fair the number of illiterates fell between 2001 and 2011 by 31 million, with the number of literates rising by 218 million. Literacy rates rose over the same period from 65 to 74 per cent. However, the number of illiterates still remained 312 million in 2011 (Planning Commission, 2013). During the 12th Plan, through the Saakshar Bharat Programme (a successor to the National Literacy Mission) operating in 372 districts, functional literacy would be provided to 70 million adults (60 million women and 10 million men) in the age group of 15 and above. Operating since 2009, it is based on voluntary teachers.
 - 2 The 12th Plan strives to raise the literacy rate to 80 per cent by 2017, and reduce the gender gap in literacy (male 81, female 65 per cent) from 16 to 10 per cent, with the objective of achieving universal literacy by 2025. The special focus will be on young adults and out of school adolescents (15–19 years), (Planning Commission, 2013).

In December 2002 the Indian Parliament passed the Constitution 86th Amendment Act, which mandated the provision of free and compulsory education, by inserting Article 21A in the Fundamental Rights guaranteed by the Constitution: 'the State shall provide free and compulsory education to all children of the age of 6–14 years in such a manner as the State may, by law, determine'. Article 21A in the Fundamental Rights chapter replaced Article 45 in the Directive Principles of State Policy: 'the State shall endeavour to provide early childhood care and education for all children until they complete the age of 14 years'. But the 86th Constitutional Amendment stipulates that 'It shall come into force from such date as the central government may by notification in the Official Gazette, appoint'. Unfortunately, this notification was never issued. Therefore, the 86th Constitutional Amendment did not come into force. It is for this reason that the need arose for the RTE Act (2009).

Many arguments were made in the intervening period (2002–09) against the need for a RTE Act. For instance, it was suggested that resources have not been an obstacle for some Indian states to provide free and compulsory education. States like Kerala, Himachal Pradesh, Mizoram and Tamil Nadu have already provided universal elementary schooling³ to a large extent even without legislation like the proposed one and it was argued that other states can also do the same.⁴ However, this argument overlooked the large backlog of out-of-school children, and the fact that the vast number of illiterates in India is geographically concentrated in very poor, northern and the eastern states, with a large population. In fact, Uttar Pradesh (undivided), Bihar (undivided), Madhya Pradesh (undivided) and Maharashtra together accounted for 49 per cent of the poor in India in 1993, but by 2004–05, the share of the same territory in the total poor of the country had increased to 58 per cent (Planning Commission, 2008). These states will need to give priority to elementary education in their own plans and allocations, but they will also need additional fiscal support from the central government to universalise elementary education. This is the key to the achievement of universal elementary education in India and is a subject we return to later in the chapter.

Another argument against the RTE was that the central government should not take over the responsibility for an ever-expanding list of key subjects such as

3 The Indian school system consists of 12 years of education, elementary for the age group 6–14 (consisting of primary level, classes 1–5, and upper primary level classes 6–8); secondary level (classes 9–10); and higher secondary level (classes 11–12).

4 Based on discussions with knowledgeable sources.

law and order, health and education.⁵ It was also suggested that if the centre were to go on doing this, state governments would go on with their lopsided prioritising of populist, not priority programmes. While there is indeed a need for correcting the lopsidedness in state governments' allocations, there is an equal need to incentivise the poorest states to prioritise elementary education and not penalise them for their erstwhile populism in economic and social policy. Such a system of incentivisation should be the responsibility of both the the new National Institute for Transforming India (or NITI Aayog), created in 2015 (to succeed the Planning Commission) as well as the Finance Commission. We will return to this issue later in the chapter.

This chapter focuses on the challenges facing the realisation of the RTE over the next five year period or so, i.e., until the end of the 12th Five Year Plan (2012–17). Section 9.1 critically discusses in brief some key provisions of the RTE. Section 9.2 examines issues relating to the cost and financing of the RTE, and concerns around it. Section 9.3 goes on to discuss the challenges still facing the elementary education system, and touches upon some key concerns facing the secondary school system. In particular, the challenge facing the educationally backward states in the north and east of the country are especially daunting, and they need support to raise their per student elementary education expenditure up to the average national per student elementary education spending of government.

9.1 Provisions of the Right to Education Act

First the norms and standards for a school laid down in the Act will be discussed and then the provisions in the main Act will be dealt with briefly. The schedule appended to the Act lays down the norms and standards for a government elementary school. These relate to pupil-teacher ratio per school as well as infrastructure. The prevailing pupil-teacher (PT) ratio at primary level in India was 47 (in 2007–08 just before RTE was enacted) but the RTE ambitiously pegged the target PT ratio at 30 for each primary school. In other words, the PT ratio of 30 is not applicable at a block or district level but at the level of each and every school, so that the phenomenon of single or two teacher school (still found in many rural areas) will practically disappear with the implementation of the RTE

5 The Indian Constitution of 1950 divides subjects into three categories: those on which only the central government can legislate, those on which only the states can do so, and those on which both can do so (called concurrent subjects) such health and education.

norms and PT ratio of 30.⁶ Second, at upper primary level (classes 6 to 8), the PT ratio should be 35 with at least one teacher per class for science and mathematics, social studies and languages.

Third, in respect of infrastructure, there should be at least one classroom for every teacher, which implies that the age-old though still current phenomenon of two- or three-room schools has to disappear. The school building must also provide for separate toilets for boys and girls. The position prevailing in 2005–06, was that 45 per cent of the primary schools and 15 per cent of upper primary schools did not have a toilet. The RTE Act also provides that the school must have safe drinking water facilities, which again would be a remarkable change from the situation where 15 per cent of primary schools and 5 per cent of upper primary schools did not have drinking water (2007–08). Thus, we have found that children in schools (in a village) that do not have drinking water go home to drink water and then do not return to school that day (Mehrotra et al., 2005). The problem has practically been addressed almost throughout the country, with 95 per cent of all schools in India (in practically every state) having drinking water by 2012–13 [DISE, 2013]). The RTE also provides a kitchen where the mid day meal is cooked in the school. In addition, it provides a playground and the need for the school building to have a boundary wall or fencing. *While these are all desirable, there is little evidence to suggest that they improve learning, which remains the biggest area of concern.*

The RTE Act states that the minimum number of working days should be 200 for primary schools and 220 for upper primary schools. This again is a welcome change from the prevailing situation prior to RTE where in most states the number of school working days rarely exceeded 180 (Mehrotra et al., 2005). After the RTE, this situation has changed by 2012–13 with only 6.6 per cent of primary schools with less than 200 working days, but with only 26 per cent of upper primary schools working for 220 days.⁷

6 In India, 12 per cent of all primary schools in 2012–13 were single-teacher schools. However, they were much more of a problem in northern states: Rajasthan 30 per cent, Jharkhand 20 per cent, MP 17.6 per cent, but only 4.5 per cent in UP. (District Information System for School Education or DISE database, available at the website of the National Council for Educational Research and Training www.ncert.gov.in).

7 However, the situation remains serious in Bihar where 18.5 per cent at primary level work for less than 200 days, and 22 per cent in Karnataka, but 98 per cent in Kerala. UP, however, is remarkable at 3.2 per cent at primary and 10 per cent at upper primary level.

In addition to the norms and standards mentioned above, one should also take note of some key provisions in the Act itself. First, the Act provides that children between the ages of 3–6 years should have access to early childhood care and education and indicates that the ‘appropriate government may make necessary arrangements for providing free pre-school education’. Although there was little progress in this regard during the 11th Plan, (2007–12) the 12th Plan finally recognises this issue head on and suggests measures, which, if implemented, can have a transformative impact on schooling.

Secondly, the Act provides that private unaided schools will be required to admit in class-I children of weaker sections (i.e., poorer parents) and disadvantaged groups (usually consisting of the Scheduled Castes and Tribes) in the neighbourhood, and offer them free elementary education till completion. Such children must constitute at least 25 per cent of the strength of that class. The school will be able to get reimbursement on the basis of per child expenditure prevailing in government schools from the state. This has been criticised, as it has been seen to encourage private schooling, and to entrench the current segmentation in the school system between high-quality private and low-quality government schools. It is also seen as signifying the death-knell of the idea of a ‘common school system’ (as opposed to a segmented one), that has been advocated ever since the Kothari Commission, 1964 (Sadagopal, 2009; Dubey, 2009). However, given that the private sector’s share has grown to 25.6 per cent in 2011 in enrolment (Pratham, 2012) and 21 per cent in total number of schools (DISE, 2012–13), bringing them into the process of improving access is not to be scoffed at.⁸

Empirical evidence on the implementation of this provision of the RTE Act has been so far limited (Sarin and Gupta, 2013; Centre for Media Studies, 2011). Both studies point to the struggle that is inherent in elite schools having to admit children from disadvantaged and economically weaker sections, with most parents and principals in elite schools resisting and the parents of poorer children insisting on ensuring their rights under the RTE Act. The provision was challenged legally, and the Supreme Court of India, in a judgement in April 2012, upheld the constitutional validity of the Act, exempting only unaided minority schools and boarding/residential schools.

8 Of the 21 per cent schools that are private, only 16 per cent are private unaided by government, the remainder being aided by government (which makes the latter similar in most respects to government schools) (DISE, 2012–13).

However, elite schools are not the only ones that are affected. All private unaided schools are required to admit 25 per cent of their students from disadvantaged groups. Such non-elite private schools have perceived the 25 per cent quota as a godsent (as unit costs per child in such schools are lower than for government schools) to admit more children, and receive government money.

Third, the Act ensures that no school can be established without obtaining a certificate of recognition from the government. This is a welcome development from the hitherto situation of unrecognised unaided schools proliferating in the country in the private sector. However, this clause has implications that can be widespread: existing unrecognised private schools were required to meet the norms within three years of the RTE Act coming into force (1 April 2010); or else face closure.⁹

Fourth, every school is required to constitute a School Management Committee (SMC) formed by the elected representatives of local authorities, parents of children studying in such a school and teachers. The SMC could control teacher absences – a well known problem in Indian government schools – overtime. However, as noted later, the research evidence does not support this view.

Fifth, to address the long standing complaint of teachers and guardians that their services are often used for non-educational purposes by the government, the Act provides that their services will not be used for any purposes other than the decennial population census, disaster relief duties or duties relating to elections of the local authorities, state legislatures or parliament. These issues will be discussed later.

There are two broad types of concerns with the provisions of the RTE Act. First, there are those which have financial costs associated with them. Second, there are concerns which do not necessarily have any financial implication. Each will be discussed later in turn.

9 In all states, all aided and unaided private schools, established either before or after the RTE Act, are required to submit a self-declaration form to the designated authority who, after examination can issue the certificate of recognition to the school. The authority must then conduct an inspection of the school to check whether the norms and standards laid down in the schedule of the RTE Act are being fulfilled. In case a school fails to fulfill the conditions, it is given only a provisional certificate and must request another on-site inspection (Tucker and Saigal, 2012).

9.2 Concerns about Cost and Financing

9.2.1 The cost

There is a concern around the cost of RTE. The additional cost of universalisation of elementary education, as estimated by the government of India (the Ministry of Human Resource Development) for the five year period from 2010–11 to 2014–15 is ₹ 1.71 lakh crore (or ₹ 1,710 billion). Of this total the amount for teacher's salary for the five year period comes to around ₹ 56,383 crore (or ₹ 563.83 billion), nearly 32.8 per cent of the total additional cost until 2014–15.¹⁰

There are very significant recurrent spending requirements (67 per cent of total additional requirements, including for teacher salaries) to meet the commitments of the RTE Act. Already teacher salaries account for 80 per cent of total elementary school expenditure.

There was genuine fear that states will be unable to meet the additional costs (Mehrotra, 2012) – especially the educationally backward states whose fiscal situation is weak. These fears have come true as these have been unable to recruit teachers to bring P-T ratio down to RTE norms although other states have.

9.2.2 Financing the RTE

Never has total public expenditure on education exceeded 4 per cent of GDP. When public expenditure is low, household out-of-pocket costs rise (Mehrotra, 2006).

Post-RTE there are concerns whether the additional cost requirements to universalise elementary education can be financed. First, on account of the global financial and economic crisis that began in late 2008 there was an increase in the fiscal deficit following the multiple stimuli the central government initiated to sustain economic growth (Mehrotra, 2012).

10 The teacher salaries are the state level salary of ₹ 8,400 per month for all teachers at primary level and 80 per cent of teachers at upper primary levels, and ₹ 11,200 per month for 20 per cent of the upper primary teachers who are Trained Graduate Teachers. These salary levels are arrived at on the basis of pay scales as per the Sixth Central Pay Commission. Kingdon (2009) discusses how much regular teachers' salaries have increased following Sixth Pay Commission recommendations. For example in UP, the starting salary of a teacher rose from ₹ 8,300 pm to ₹ 18,000 per month, an increase of 115 per cent in one go. She also shows that teacher salary as a multiple of state per capita GDP in UP now is 17: 1, i.e., the regular teacher's pay is 17 times the state per capita income.

There may be another constraint on fiscal resources, arising from the demands of higher levels of education. Thus, the 11th Plan had already increased allocation for secondary education by a factor of 12.8 in nominal prices (as the central government initiated a national programme to universalise secondary education during the 11th Plan period), and for higher education by a factor of five as compared to the 10th Plan period. This naturally put a downward pressure upon the requirements of elementary education in plan funding.

Three-fourths of total plan expenditure on elementary education is accounted for by the central government, and the remaining one-fourth comes from state governments (Tilak, 2009); in fact, the state governments must provide their share of the planned resources in order to receive the allocation from the central government. Most additional expenditure costs of RTE would fall under the Plan category. The states' expectation will be that the centre will meet the additional expenditure mostly on its own, since the RTE is central government legislation.

After much debate it was agreed that over the 11th Plan the centre's share would taper down from 65:35 to 50:50 in the final year of the Plan (2011–12). However, the 13th Finance Commission, which covered the period from 2010 to 2015, made earmarked allocations to states for elementary education. The new funding pattern (50:50) would start only after end of the 12th Plan (2016–17), i.e., from the beginning of the 13th Five Year Plan (Planning Commission, 2013).

Almost all (99 per cent, according to Tilak, 2009) of the non-plan expenditure on elementary education is undertaken by state governments. Most of this expenditure is, of course, on teacher salaries. It is unclear whether the additional costs on teacher salaries (see previous section) for the RTE will be met by state governments from non-plan funds. In fact, for plan and non-plan expenditure together, the share of the central government in total elementary education (by centre and states together) increased from 11 per cent in 2001–02 to 27 per cent in 2007–08, while the share of the state governments fell accordingly (Tilak, 2009). However, the 14th Finance Commission and the new government changed this situation dramatically. Budget 15–16 enhanced tax devolution resulting in an increased flow of untied funds to states (of ₹186,150 cr), but reduced flow of grants to states (by ₹ 87,730 cr) – a pattern that will continue. The reduction in central grants meant that the programmes for funding elementary education (Sarva Shiksha Abhiyaan, Integrated Child Development Scheme, Mid Day Meal) will have to be funded by states, using the larger funds they will receive from

tax devolution. Whether states will do so or not, only time will tell. Yet, there is no question that the absolute increase in both plan and non-plan expenditure due to the RTE means that states will have to increase their expenditures under the non-plan head. In any case, states do have to meet one-fourth of plan expenditure, so that head of expenditure will also increase.¹¹

The central government's share of plan funding for elementary education had increased steadily. The central government's funds for elementary education come from two sources: the education cess, which is an earmarked 'tax-on-income tax', which goes straight into the earmarked fund for elementary education (or Prarambhik Shiksha Kosh); and Gross Budgetary Support, which is sourced from the general revenues of the central government. The contributions from the education cess increased over 2006–07 to 2008–09, with the cess accounting for 53 per cent, 66 per cent and 59 per cent respectively in the three years of central government's allocation for the Sarva Shiksha Abhiyaan (elementary education) (CPR Budget Briefs, 2009/10).¹² This cess (of 2 per cent on income tax) was levied in 2004 to finance elementary education. Further, in 2007 the government of India levied another cess of 1 per cent on income tax (raising the total to 3 per cent) to benefit secondary and higher education. However, given that one is nearing universalisation of access to elementary education, the cess on elementary education should be rolled back. The need for rolling back derives from several other reasons. Firstly, there is some evidence that the government should have maintained its own expenditure on elementary education from general revenues, while the cess was intended to be an addition. However, that hope was partially belied. Secondly, in Chapter 6 on skills the author has made the case for a cess to finance the National Skill Development Fund to provide vocational education and training. Ten years ago there may have been need for a cess to finance elementary education. Now the need is to rapidly take skill development to scale, hence the elementary education could be rolled back. This action will also create more

11 The plan and non-plan distinction could well disappear from fiscal 2015–16, since the plan fund allocation function in 2014–15 was not performed by the Planning Commission but by the Ministry of Finance. The Planning Commission ceased to exist with the new government coming to power in 2014. It was replaced by the National Institute for Transforming India (or 'NITI'), which has no powers to allocate funds.

12 The Sarva Shiksha Abhiyan and the Mid Day Meal (MDM) given to school children at elementary level together account for 97 per cent of the central government's elementary education expenditure. For MDM, the education cess contributed 45 per cent, 54 per cent and 36 per cent of total central funds, while the remainder of MDM funds came from gross budgetary support in those same years.

backing from industry, especially from medium and large enterprises, which the author proposes should pay the training fund cess – which will benefit industry as well as be mainly controlled by them (see chapter 6).

The biggest area of concern remains: how will the states, especially the educationally backward states, meet their obligations under the RTE? A major reason for the poor educational performance of the northern and the eastern states has been the much lower per student expenditure at elementary level compared to the national average.¹³ The Finance Commission, which makes allocations to states in the form of grants as well as devolves tax revenues to them, could only ensure that over 2005–10 barely 10 per cent of the gap between per student elementary education expenditure of backward states and the national average was met from earmarked grants. The 13th Finance Commission (for the period 2010–15) did increase the earmarked grants for elementary education over the period 2010 to 2015. But there is no getting away from the dire necessity that per student expenditure must be equalised across states. Hence, 'Central assistance to the states in terms of per child norms and performance-based financing would gradually be built in along with results-based management', as the 12th Plan rightly emphasises (Planning Commission, 2013, Para 20.74).

However, the 14th Finance Commission recommended an increase in states' share of devolved taxes (see chapter 15) for 2015–2020, and the new government implemented it. The central government therefore reduced its own allocation to elementary education (from 2015 onwards). Whether states will actually implement the programme to universalise elementary education with the new found increase in resources remains to be seen.

A final issue relates to states' capacity to absorb the resources. The problem can be illustrated by examining the relationship or ratio of expenditure to central government's allocation for the programme to universalise elementary education (SSA), and the ratio of expenditure to releases for Sarva Shiksha Abhiyaan (SSA). SSA is implemented by the State Implementation Society through its state and district level officers. There are major delays in the release of funds from the central and state governments to the implementing agency. For all states taken together, the expenditure-allocation ratio in 2006–07 was

13 Some of the literature shows that per pupil expenditure shows no relationship with student learning. For example, Hanushek [2003] in the *Economic Journal* provides evidence from a large number of developing and developed countries. However, I find this literature less than believable given the very low levels of per pupil expenditure in India compared to other countries [see UNESCO, *Global Monitoring Report*, 2013] on spending.

70 per cent or 30 per cent of funds remained unspent. The expenditure-release ratio in 2007–08 was 78 per cent for all states, so 22 per cent of funds released to the societies were unspent. In 2007–08, for most of the educationally backward states, the expenditure-release ratio was much worse than 78 per cent. In other words, even if the financing was available, there will still be issues around the capacity of the weakest states, which account for most children out of school, to absorb the funds available (Mehrotra, 2012).

9.3 The Policy Priorities

Table 9.1: Infrastructural inputs in schools pre and post-RTE Act:
Remarkable improvements

Indicator (DISE)	Norm as per RTE Act, 2009	2007-8	2013-14
PT ratio (at primary level)	30	47	30 (UP – 41, Bihar – 50)
Number of classroom	One classroom for one class in all schools	9 per cent were one classroom schools	7.9 per cent were one classroom schools
Student to classroom rates	Schools with student to classroom rates <30 (primary level)		33.5 per cent of schools had student to classroom rates >30
Girls' toilet	School building should have separate toilet facilities for boys and girls	Half of schools did not have separate toilets for girls	5.4 per cent did not have separate toilets for girls
Drinking water	School building should have safe drinking water facility	87 per cent had drinking water	95.3 per cent had drinking water

Source: DISE (2013)

Table 9.1 shows that in terms of inputs, the investments made so far are paying off. It presents the norms in the RTE, and the actual status prior to the implementation of RTE Act, and then the status in the latest year for which data is available (2012–13). It shows a remarkable improvement in terms of inputs and outputs. It demonstrates that there were major changes within five years. At primary level India had also achieved a net enrolment ratio (NER) of 96 per cent by 2007–08.

However, two sets of issues still preclude the achievement of RTE. Firstly, student learning levels remain extremely disappointing. The Annual Status of Education Report (ASER) (Pratham, 2012) shows that fewer than 50 per cent of children who are enrolled in class 5 are able to read a simple paragraph at the class 2 level and fewer than 27 per cent of children enrolled in class 3 can solve a two-digit subtraction problem with borrowing; fewer than 55 per cent of children in class 5 can solve the same problem. In 2008, according to ASER, 47 per cent of government school students in class 5 could not read a class 2 text, compared to 32 per cent of private school students (Banerji and Duflo, 2011). In other words, the private school students were doing better but not that much better.

Although the GER increased from 111.2 per cent in 2006–07 for 6–14 year olds to 115 per cent in 2009–10, and the NER rose from 92.7 to 98 per cent, a serious problem of access still remains at upper primary level (classes 6–8). Even though the gross enrolment ratio (GER) at this upper primary level improved between 2005–06 and 2013–14 from 59 to 89 per cent not all children are still in school (DISE, 2014, www.dise.in); Upper primary NER varies from 47 per cent in UP and 53 per cent in Bihar to 91 per cent in Tamil Nadu and 83 per cent in Himachal Pradesh. This is what explains the following phenomenon: GERs at secondary level (classes 9–10) and senior secondary level (classes 11–12) are only 62.7 and 36 per cent respectively (Planning Commission, 2013). In other words, children continue to drop out in large numbers, and most join the labour market without any marketable skills.

In our view, the most serious policy imperatives for India to ensure all children are completing elementary education with adequate levels of learning are the following:

- all pre-6 year olds to have access to proper pre-school education, so that they are better prepared than now to learn in class 1;

- ensuring teacher absenteeism falls, teachers teach, and their subject knowledge improves, since these matters go to the heart of why children are not learning, and hence dropping out;
- specific actions are needed targeted at improved learning;
- finally, to ensure that children that complete eight years of elementary schooling, and make the transition to secondary schools, of the vocational type increasingly (as discussed in Chapter 6) but also the general, academic type.

Each of these points will be discussed in turn.

9.3.1 Universalising effective pre-school education

The Act pays scant attention to pre-school education (PSE). There is overwhelming research evidence on the efficacy of early childhood care and education, which has established that pre-school age children who undergo PSE not only perform better in school but also do better in life. This evidence holds even for children whose parents have had reasonably good education. PSE becomes even more important for children of functionally illiterate parents, who constitute a quarter of the total adult population of India. The children of illiterate parents are ill-prepared for entry into primary classes at class I, and hence such poor children often tend to drop out from class 1 and 2. PSE has not been taken into account in the total cost of achieving universalisation of elementary education for the purposes of RTE. Even though the RTE refers to ages 6 to 14 the fact remains that the retention of children in primary and upper primary school critically depends on their successful preparation for primary school by undergoing PSE. While PSE has been seen in India as belonging to the domain of the Integrated Child Development Scheme (ICDS), and over 2007–12 the ICDS was universalised and covers all villages with its centres rising from 600,000 to 1.2 million over the period, the fact remains that PSE is among the most neglected aspects of the programme.

Hence, there is a case for restructuring ICDS (see Chapter 10 and 14) to enable the anganwadi worker to focus on PSE. Increasingly ICDS centres are physically located in the premises of primary schools. The fact that there is an overlap of ICDS (which enrolls children between ages 3 and 6) in respect of pre-primary education with the idea that the primary school should offer one year of PSE, as reported by the 12th Plan (Planning Commission, 2013), this overlap should clearly be avoided. The PSE element should remain with ICDS centres, and the anganwadi worker should be better trained to perform her PSE function.

9.3.2 Teacher absenteeism

Teacher absenteeism remains a problem. In a 2003 survey (Kremer et al., 2004), based on a nationally-representative sample of all major states, where enumerators made sudden visits to schools, 25 per cent of teachers were absent; the absence rate was 26.3 per cent in rural schools.¹⁴ That rate had barely fallen in a 2010 survey (Muralidharan et al., 2013) for rural schools to 23.7 per cent. It had also found that private schools were more likely to be found in villages where the public schools were especially bad. Moreover, although private school teachers were 8 percentage points more likely to be in school on a given day than government school teachers in the same village, the difference does not inspire confidence in private schools either.

Can increasing the number of teachers solve the problem of absenteeism? Very remarkable improvements occurred in the PT ratio across all states (down from a national average of 47 in 2007–08 to 30 in 2012–13, exactly to the level of the RTE norm) as shown in Table 9.1. In fact, it was already down to 32 in 2010–11. However, there is no evidence that teacher absence improved. Nor have learning levels improved over this time. The total number of teachers in government schools has gone on increasing (4.1 million in 2010–11 and 4.5 million in 2012–13); contract teachers constitute only 10.4 per cent of all teachers (2012–13). Clearly, there seems to be no evidence that hiring more teachers to reduce class size is correlated with reduced teacher absence.

What is remarkable is that this finding is validated experimentally in many settings. Thus, Muralidharan and Sundararaman (2013) and Duflo, Dupas and Kremer (2012) find that the programmes that provided a randomly selected set of schools with an extra teacher led to an increase in the absence rate of pre-existing teachers in India and Kenya respectively. The impact on learning levels was modest. Clearly, the impact of reducing class size by hiring additional teachers is not the answer to reduced absenteeism and greater learning outcomes.

This point remains relevant as a guide to policy decisions even though at the national level, the PTR had improved significantly by 2011–12 already to 31. But in the educationally backward states of UP and Bihar, the PTR was 41 and 50 respectively even in 2012–13. So there will be pressure to continue to hire more regular teachers even though the hiring is not reducing the incidence of teacher absenteeism.

14 India's teacher absenteeism rate was exceeded by only Uganda, while six other developing countries were doing better than India (although they too had a teacher absenteeism problem).

Hiring more permanent teachers will not solve the problem of poor learning. It is clear that the research evidence has established that the gains of hiring regular teachers are modest because of teacher absence (Muralidharan et al., 2012; Kingdon and Sipahimalani-Rao, 2010). The evidence suggests that the common outcome for students when their teacher is absent is that the class is combined with other classes (typically from other grades) whose teacher is present. Having more teachers make it easier for teachers to be absent, as other teachers can handle their class. The estimates suggest that a 10 per cent reduction in PTR is correlated with a 0.5 per cent increase in mean teacher absence (Muralidharan and Sundararaman, 2013; Duflo et al., 2010).

If the research evidence is clear about teacher absenteeism of regular teachers, what about the contract/para-teachers? A survey in UP (Kingdon and Banerji, 2009) finds that in UP para-teacher absence rate was half that of regular teachers (12 per cent instead of 25 per cent). In Andhra Pradesh, Madhya Pradesh and UP a study by Sankar (2008) found that para-teachers were absent from school for much fewer days than regular teachers. Govinda and Josephine (2004) also showed that there were many positive features for the local community resulting from para-teachers' appointments. They found that schools where para-teachers were appointed had increased the access of poor and marginalised groups to education, and since they were locally hired they had good community linkages. Thus, schools functioned regularly even in remote areas on account of para-teachers. Kingdon and Rao (2010) cite an NCAER study that also found that 80 per cent of head teachers noted that para-teachers had either 'good' or 'very good' teaching skills.

It is true that Govinda and Josephine (2004) also discussed that para-teachers in UP received inadequate training. Others have also found that the training curricula for para-teachers did not address the classroom situation that most para-teachers faced, i.e., multi-grade with a large class size. However, the quality of teacher training is a matter of some concern not just for para-teachers but also for regular teachers. In fact, learning levels for students overall are low for children taught by both teacher types. It is also true that being taught by para-teachers does not mean a student will necessarily have lower achievement. In fact, Muralidharan and Sundararaman (2013) point out that they can never reject the hypothesis that contract teachers are at least as effective in improving student learning as regular teachers. If anything they suggest that contract teachers are more effective than regular teachers who are better trained and paid five-time higher salaries. Thus the policy conclusion is that schools need to hire more local teachers, especially

females for the summer and after hours for remedial teaching to be given to weaker students. This task should be entrusted to contract teachers.

However, it is true that there are often conflicting viewpoints expressed about contract or para-teachers. Para teachers are a relatively recent phenomenon in India. Himachal Pradesh and Rajasthan began hiring them in mid-1980s for specific projects. The trend grew to other states in the 1990s and their numbers increased in most states since then. Despite this increase they still accounted for only 9.9 per cent of all basic school teachers in 2007 (which is 5,14,000 para-teachers) (Mehta, 2008). States that have very few para-teachers – Kerala, Karnataka and Tamil Nadu – all have stable child populations, hence have not faced teacher shortages. It should be clarified that although there is a commonly held view that para-teachers are less qualified, the facts are that the academic qualifications of para-teachers are overall somewhat higher than those of regular teachers (Kingdon and Sipahimalani-Rao, 2010).

The second major policy implication of higher teacher absenteeism among the regular teachers is the following. Increases in the frequency of inspections by district education officials are strongly correlated with lower teacher absence. Regular inspection is 10-times more cost effective than hiring additional teachers. Moreover, top down inspection is better than SMCs or PT associations; in other words, bottom up community-led monitoring is not as effective (Muralidharan et al., 2013).

We also doubt whether the SMC instituted by the RTE Act will have the necessary clout to ensure improvement in this state of affairs. The SMC does not seem to be any different from the already existing village education committees found in every village (gram panchayat) – which are captured by local elites and the teacher, if they function at all. It would be far better if the rules formulated (by the Union Education Ministry) after the passage of the RTE Act in Parliament ensure that in future the SMC will be awarded the power to (a) sanction the leave of the teachers when she wishes to be absent; and (b) to sanction the salary release, subject to attendance and performance. In other words, the rules should provide that the teacher should remain an employee of the district administration and will receive his salary from the administration, but neither leave nor salary will be granted until the SMC approves. This kind of measure has the potential of offsetting the power yielded by teacher unions in a state. The original draft RTE bill actually did give SMCs the power to appoint teachers, and made teachers a school-

based, rather than a district-based, cadre. They were the only two reforms that were going to reform the teacher accountability/incentive structure, as opposed to most of the input-based reforms that are included in the Act. However, these reforms were dropped from the final version of the bill when it was presented to Parliament.¹⁵

The Act also compromises further the possibility of improving teacher attendance by requirement of his services for such non-educational purposes as the census, PRI, state and parliament elections, and disaster relief duties. In other words, what is proposed in the Act is hardly different from the earlier situation in regard to the diversion of teachers' time for non-teaching duties. Of course, studies that examine teacher absence in detail find that by far the most important reason for teacher absence is personal leave days, and that non-teaching duties account for only a small portion of the total days of teacher's absence from school (Sankar, 2008). This is also confirmed by DISE (District Information System on Education) data, which shows that by schools' own self-reporting, only 8–10 days (out of the mandated 220 days) are spent on non-teaching duties.

9.3.3 Improving learning

A controversial method to improve learning has been technology-aided instruction. In India it has taken the form of 'one laptop per child'. However, this is an expensive way of improving learning, especially at young age. Besides, the evidence from the ground suggests that the effective use of technology itself requires higher initial levels of learning. Other less expensive methods (for example, radio) have not been found to be very effective (Muralidharan, 2012).

Some evidence has also emerged that performance-linked pay can improve teacher performance and student learning.¹⁶ Where teachers receive incentives the students performed significantly better than those in controlled schools in mathematics and language tests. Similarly, Duflo *et al.* (2012) find that paying teachers on the basis of number of days they work (as opposed to a flat salary that does not depend on performance) led to halving of teachers' absence rates

15 Our information is that the rules also do not make any reference to means to improve teacher presence in schools, and sanction them if teachers absent themselves without adequate reason.

16 Thus Muralidharan and Sundararaman (2011) present evidence on the impact of a programme in Andhra Pradesh that gives bonus payments to teachers based on the average improvement of their students' tests scores in learning assessments.

and increases in student test scores. It was found that group incentives are less effective, and individual incentives are better.

Finally, the research evidence also suggests that RTE's requirement that all students between the ages 6–14 should benefit from automatic promotion should be reconsidered. The RTE Act could be amended to make learning the focus of schooling, and make teaching accountable for it. More effective will be sending out a clear message that learning outcome improvement will be incentivised through performance pay. In other words while most of the pay will still be as currently determined, some part of the pay could be performance-linked, with performance being measured by the learning outcomes of students.

9.3.4 The vocational education option at secondary level

If learning levels of upper-primary children improve, they are likely to continue to secondary level. Until the roll-out began of the National Vocational Education Qualification Framework in 2012, no school in India offered vocational option at class 9 (i.e., secondary level). That is slowly changing with the roll-out of the qualification framework. As more and more girls and boys continue to secondary level (see Chapter 4), the potential for acquiring vocational skills at secondary level – as Chinese students do – will be an incentive for children to remain in school, rather than enter the labour market (see Chapter 6–7 on this subject). After completing nine years of compulsory general academic education, hardly any Chinese 15 year olds enter the labour market (only 12 per cent). Half enter the vocational stream, while only the remaining half continue into general academic education. This will need to be the way forward for Indian children completing the eight years of compulsory general education provided for by the RTE, as it will prepare them for the world of work.

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Food Security, Nutrition and Health

Policy Dilemmas and Interlinked Challenges

A development process usually involves synergies between interventions. There are two synergies present (as we discussed in chapter 1). One synergy of outcomes plays out at the macro level among income-poverty reduction, human capital development (or human functioning at the aggregate level), and economic growth. The other synergy of outcomes, at the micro or individual level, occurs as basic social service provision leads to improved human functioning at aggregate societal level. These two are linked by the mutually reinforcing interaction among good health, nutrition, and education, which are both ends in themselves, but also means to other ends at a macro-societal level, and hence common to both sets of synergies. It is the second synergy that is one focus of this chapter, especially as it relates to nutritional outcomes. Child malnutrition is among the most serious obstacles to attaining and maintaining health in later life.¹

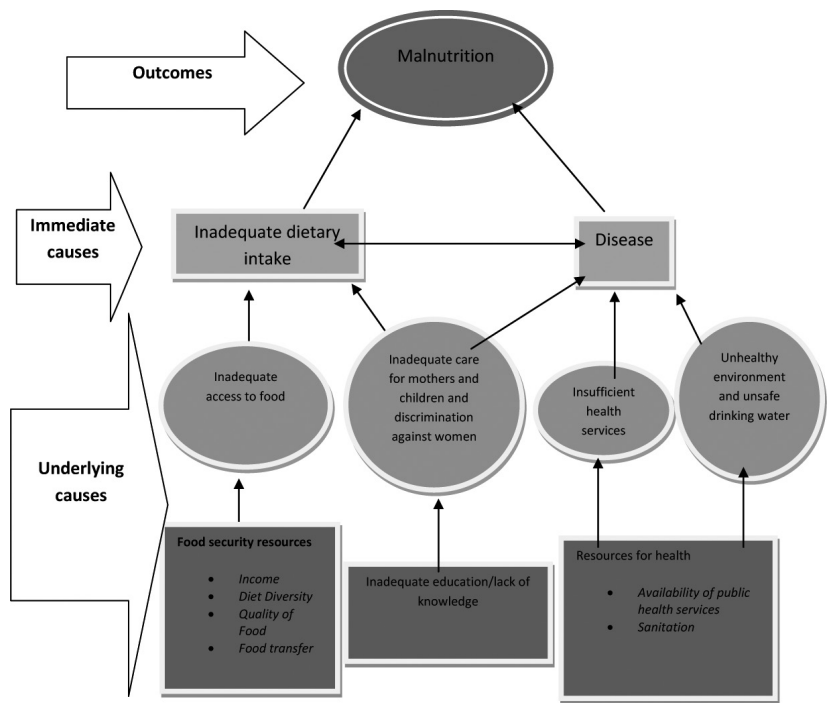
India has one of the highest levels of child and hence adult malnutrition in the world. It is not known to non-specialists that the damage to child health and mental development that sets in between ages 0 to 2 is irreversible, and damages the health and nutrition status of the person for life, as well as her learning ability.

When poor nutrition starts in-utero, it extends throughout the life cycle, particularly in girls and women. This not only amplifies the risks to the individual's health but also increases the likelihood of damage to future generations, through

1 Scientific evidence suggests that mental damage due to early childhood malnutrition is irretrievable. For a detailed discussion see Berg (1968) and UNICEF (1981). Child malnutrition is measured in three ways – underweight, wasting and stunting. In 2005–06 (NFHS 3) the underweight rate (or weight-for-age) for under-fives was 43 per cent (46 per cent for under-threes); the wasting rate (weight-for-height) was 23 per cent (19 per cent for under-fives; and the stunting rate (height-for-age) was 38.4 per cent (48 per cent for under-threes). By 2013, the underweight rate had declined to 30 per cent for under-fives (a fall of 13 percentage points in eight years) according to a Unicef supported survey for the Government of India. Despite the fall, these rates are still higher than those prevailing in sub-Saharan Africa.

further foetal retardation. Poor nutrition of the mother during pregnancy leads to low birth weight of the baby. Low birth weight increases the risk of infant and child mortality and those infants who survive are usually undernourished, fall ill frequently, and fail to develop optimally, both physically and mentally. Further, undernourished adults are functionally impaired and unable to sustain productive physical activity throughout the day. The lack of nutritional requirements leads to sluggish recovery from an illness. Malnutrition can also be linked to the growing HIV/AIDS pandemic as malnutrition makes adults more susceptible to the virus. The conceptual framework for the causes of malnutrition is presented in the Figure 10.1.

Figure 10.1: Conceptual framework: Determinants of malnutrition



Source: Adapted from UNICEF, 1990; Jonsson, 1993; Smith, Haddad, 2000 and Mehrotra, 2003

This graph suggests not only the underlying and proximate causes of malnutrition, and can explain why malnutrition is so high in India, but also within it lies the policy implications to ensure the elimination of malnutrition and adult chronic hunger.

Since malnutrition that sets in-utero can either get exacerbated or improve during the first two years after birth, it is critical that caring practices for mothers (just before and after childbirth) and children are optimal. This is because, if caring practices are suboptimal, the nutritional damage will become irreversible after age three – and can never be corrected again in the life of the child as she grows into an adult. As we argue in this chapter, prevention of this damage is contingent upon having a functional primary health system. In practical terms, this requires that (a) child birth takes place under the supervision of a professionally-trained health provider or at a medical institution; (b) the new born baby is fed colostrum within the first hour after birth, so that the infant develops the immunities that only the mother's first breast milk (colostrum) can provide; (c) the mother and baby receive very careful post-natal care during the first 28 days after birth, since that is the period during which infections lead to most of the infant deaths during the first year after birth; (d) for the first six months, the mother exclusively breastfeeds the baby, and the baby is absolutely not fed anything else; (e) after six months the mother introduces solid mushy food, alongside breastfeeds, in adequate amounts and at appropriately short timely intervals; and (f) full immunisation of the baby is ensured.

As will be argued in this chapter, most of these conditions are not met in the case of a shockingly high proportion of the population. Equally worrying is the fact that dietary intake itself is inadequate for a significant proportion of households in India. This is the issue that will be addressed in the next section, i.e., food security.

This chapter argues that given the multiplicity of sectors involved, as explained in the conceptual framework above, the desire for inter-sectoral coordination, as well as the incentive for it, among senior managers located within each sectoral ministry needs to be very high indeed. Without such inter-sectoral coordination it is likely that the individual and separate interventions of the various ministries may not have synergistic impact on nutritional outcomes, which in an ideal world should be the goal of policymakers. Coordination failure is an endemic characteristic of the Indian bureaucracy. Therefore, it is argued in this chapter that it may be more realistic if policymakers were to focus on improving the cost effectiveness of current interventions within each sector. Aiming to achieve inter-sectoral coordination between ministries for the target group in a specific geography may be asking for the moon, given the rigidity of institutional structures currently in place in central and state government line ministries in India.

Each of three types of interventions (involving three separate ministries) are the subject of this chapter. Section 10.1 deals with the deep flaws in the

current system to ensure household-level food security (which is handled by one ministry). Section 10.2 examines the problematic design of the interventions of another ministry, that deals with women and child development, which have prevented any serious impact on child nutritional outcomes. Section 10.3 on health sector and sanitation interventions needed to improve nutritional outcomes is necessarily brief, for reasons of space. However, each section will establish how profoundly flawed are the priorities within each sector. Under the circumstances, the concluding section reasons that not much value will be added by merely attempting to ensure, inter-sectoral coordination, through administrative fiat, in a situation where even the design of sectoral interventions related to diet, care for mother and children, and disease themselves leave much to be desired.

10.1 Ensuring Food Security: Reforming the Public Distribution System to implement the Food Security Act

10.1.1 The facts

Food access and availability has remained a problem at the household level – an immediate cause of the high levels of both child and adult malnutrition found in India (43 per cent and 36 per cent, according to the last NFHS-3, 2005–06). The following facts, from the India Human Development Report 2011 (IAMR, 2011) are evidence that the immediate causes of inadequate dietary intake have been present for many decades:

- availability of calorie consumption including per capita cereal consumption has been declining, with consumption of poor below norm (see Table 10.1);
- increase in the share of non-cereals is not enough to compensate for decline in cereal consumption;
- calorie consumption of the poorest quartile is significantly lower than the top quartile of the population;
- calorie and multiple nutrient deficiencies contribute to the high incidence of malnutrition in India; and
- no improvement in intergenerational height of mother and daughter.²

2 Some economists argue that India does not really suffer from worse child malnutrition than sub-Saharan Africa (Panagariya, 2013; Bhagwati and Panagariya, 2012). The basis of their argument is: 'The central problem with the current methodology is the use of common height and weight standards around the world to determine malnourishment, regardless of differences that may arise from genetic, environmental, cultural and geographical factors'.

10.1.2 The programmes

The targeted public distribution system (TPDS) is an extremely inefficient form of transfer of resources (see for example, Planning Commission's evaluation of TPDS in 2005), and marked by large-scale leakages and corruption. In fact, so serious are its failures outside of some southern states (Kerala, Tamil Nadu and Andhra Pradesh) and recently Chhattisgarh that even the 11th Five Year Plan document speaks about the need for massive reform of the TPDS system.

As someone who co-authored the chapter on Food Security in the 11th Plan (Planning Commission, 2007), I found it distressing to see that over five years later there had been precious little reform of PDS (except in a minority of states). The major problems with PDS were identified then as follows. First is the leakage of subsidised grain from the PDS system in the transportation between the public sector Food Corporation of India (FCI) warehouses and the Fair Price Shops (FPS). Thus, one can establish the extent of leakage (as in the 11th Plan chapter on Food Security) by comparing the off take of PDS cereals by states from FCI with the estimates by the National Sample Survey estimates of PDS consumption of those same grains. The leakage was 28 per cent for wheat and rice together in 1993–94, but it had risen to 54 per cent by 2004–05. This leakage since declined to 40 per cent of total PDS grain released for FPS in 2009–10, and further to 35 per cent by 2011–12 (Himanshu-Sen, 2013) – which is still higher than the leakage 20 years ago.

Second, this leakage is only compounded by the following fact. The off take of cereals by the state is being consumed by many non-poor, while many poor are still left out. Only about 36 per cent of the poor have BPL ration (including the ultra-poor Antyodaya) cards, and so many poor simply don't have access to subsidised grain under PDS. At the same time about 40 per cent of the ration cards are with the non-poor. Thus, both exclusion and inclusion errors compound the

The author goes on 'Though medical literature recognises the importance of these factors, the World Health Organisation totally ignores them. The facts are otherwise'. However, as Gillespie (2013) rightly points out, the basis for WHO's adoption in 2006 of the current growth standard involving 8,440 sampled children was evidence from six countries (India, Norway, Brazil, Ghana, USA and Oman), from across the globe, including India. Panagariya goes on: 'What is needed is evidence that some sub-populations of children born and raised within India have managed to entirely eliminate the gap with respect to the WHO 2006 population. That evidence has remained elusive so far ...' That again is untrue, as the growth of well-fed, well-cared for Indian children in the sample matched that of children from the remaining five countries from different continents and the sample addresses the issue of different levels of income and development.

problem of leakage. This problem may well get mitigated with coverage expanding to 67 per cent of the population on account of the National Food Security Act (2013) (see discussion below).³

While these are the two main problems with PDS, there are others: the absence of storage capacity with FCI means that high share of procured grain cannot be stored in silos and is left to lie in the open under tarpaulins, and rots as a result.

It is well recognised even by the most ardent supporters of the expansion of PDS that it suffers from serious design and implementation problems, and these problems continue to plague it even after several states in the country have made attempts at reforming PDS (Himanshu-Sen, 2013). They make a case for universal PDS and rightly so on the ground that the *targeted* PDS (or TPDS), introduced in 1997, worsened its effectiveness. TPDS served the majority of urban households in only four states in 2004–05, much lower than the 24 states where the urban majority was served in 1993. They account for this worsening by 2004–05 by arguing that the universal PDS naturally ensured a higher coverage, while targeting resulted in excluding a large proportion of the deserving. Further, they argue that leakages from PDS also doubled after targeting of the below poverty line households was introduced. They also suggest that reforms carried out since 2004–05 in several states in PDS had led to the majority of households accessing PDS in 13 out of India's 30 states. In fact by 2011–12, they suggest that the number of states in which the majority of households had access to PDS rose to 20 (Himanshu-Sen, 2013). This is a credible argument which is supported with data.

However, they admit that even in 2011–12, despite all the reforms of PDS, as much as 35 per cent of all grains was leaking from PDS. Thus while targeting the PDS resulted in a rise in leakage from 28 per cent in 1993–94 to 55 per cent in 2004–05, the much-touted reforms, while bringing down leakage to 40 per cent in 2009–10, still did not succeed in reducing leakage below 35 per cent in 2011–12.⁴ If after reforms over a third of grain procured by the Government of

3 However, the new central government that came to power in May 2014 may be re-thinking the coverage of 67 per cent of the population, and may reduce it.

4 Himanshu-Sen (2013) also argue, rather remarkably, that cereals purchased from fair price shops under the PDS account for only seven per cent of monthly per capita consumption expenditure for the bottom quintile. Yet, they argue food transfers lifted 55 million people above the poverty line in 2009–10. The number would be 402 million without these transfers, 16 million more than the 347 million who remained poor after transfers. How such a miniscule proportion of monthly per capita expenditure (MPCE) rise could

India was getting leaked between the warehouses of the FCI and the FPSs (from where consumers purchased them at a heavily subsidised price), then the reforms cannot be claimed to be a success. Nor can extension of reforms necessarily be expected to bring down the scale of leakage (which effectively involves black marketing by a mafia of traders with the connivance of officials and the political class). Such black-marketing involves a distortion of the market, which serves neither the poor consumers (since the FPSs deny the 35 kg. of cereal entitlement to the ration card holders) nor the state (whose fiscal deficit on account of the food subsidy continues to mount). The only benefits are flowing to farmers who are assured of a minimum support price on grains purchased from them by the state.

10.1.3 PDS expanded with the National Food Security Act

Without reforming the PDS the Government of India decided to expand the coverage of PDS. The Food Security Act is a misnomer, because all it does is to guarantee 5 kg of cereals per person for 65 per cent of the population, as opposed to food. Therefore, any claims in regard to either PDS or the NFSA contributing to enhancement of food security, let alone malnutrition, are far-fetched. Thus claims in regard to NFSA being an Act intended to achieve household food security are unfounded. The Act has many weaknesses. First, it will deliver only 5 kg of cereals per person per month. But the mean consumption of cereals per person in India is 10.7 kg. In other words, all beneficiaries of PDS grains will continue, as in the past, to access the open market for over half of their cereal needs. Moreover, even the relatively poor Indians are consuming some fruits, vegetables and protein foods (milk, eggs and fish), all of which are purchased from the open market, prices of which are rising faster than that of cereals. Thus the so-called food security bill hardly guarantees *food security*.

Secondly, food inflation was running well above the CPI since 2007–08, and real food security requires that food inflation rates are brought down.

In India's federal system of governance reform of PDS depends crucially upon the goodwill and commitment of state governments. There is a case for full rollout of the NFSA to be held back until the reform of PDS delivery mechanism

contribute such a large decline in poverty is baffling, and defies logic. It is particularly notable that they find that PDS raised the calorie intake of the population as a whole by about 6 per cent in 2009–10. This contribution had fallen from in 1993–94 to 2004–05 but increased to 6 per cent with PDS revival. That PDS contributes so little to calorie intake is self evident. This small rise in calorie intake raising so many persons above the poverty line remains a puzzle.

and of the inefficient Food Corporation of India is carried out first. This will happen only if the new government has the political courage to do so. There is a vast mafia that built up over the decades in every state linked to the possibility of black-marketing afforded by the PDS. It is not entirely clear how, even after nearly a decade of PDS reforms, the state governments will be able to destroy the power of this mafia, when one knows 35 per cent of all cereals to be leaked even after reforms in several states.

The proponents of the Act claim that if India has 67 per cent of the population under a Food Security Act then the problem of exclusion/inclusion will be resolved in one stroke. What no one has clarified is how the problem of black-marketing (cheap PDS grain is diverted into the open market and sold at higher prices by a mafia consisting of state officials, transporters of grain from FCI warehouses, and FPS shopowners all operating with political patronage), will be addressed by coverage of a larger share of the population. The proponents claim that the leakage will be addressed by computerisation of the supply-chain management system (as argued by a Report of the Task Force on an IT strategy for PDS [Nilekani Committee, 2011]).

Proponents also point out that by leveraging information technology and the biometric platform (the Unique Identification or Aadhar number, a unique 12 digit identification number being issued to all residents of India) the leakage problem will be resolved. The argument goes as follows.

They propose that an Aadhar-enabled PDS is created online, that allows for stock positions to be updated in real time. Consumers would give their biometric details to the FPS owner through a point-of-sale device that is connected through a global system for mobile (GSM) network to a networked stock management system. This would ensure the end of fake cards/beneficiaries, but also allow citizens to buy their rations from any FPS (not just the one FPS as at present), and thus generate competition among vendors. This would also enable entitlement portability, so even migrants who are unable to access their entitlement will be unable to do so, as has happened in Chhattisgarh (Patnaik, 2013).

There is, however, a slightly different approach to the same problem. The PDS subsidy could be transferred into the citizen's bank account – provided a bank account existed, which did not for 50 per cent of Indians⁵ – so that they can

5 With the new central government's (May 2014) push, through its Jan Dhan Yojana, 100 million new bank accounts were opened until February 2015, so that the share of the population that does not have a bank account should have come down sharply.

pay the full price of the subsidised foods to the FPS owner. As the FPS owner would also pay the full price for commodities when collecting them from the FCI warehouse, the possibility of resale in the black market by the FPS owner or the transporter would disappear. We would argue that this is a far superior approach to the previous one.

Proponents of the first approach argue (Patnaik, 2013) that the second approach could lead to diversion of the money meant for food grains to other household expenditure. This assumes that the family does not know what is good for it. If the family needs more cereals it will buy as much cereals as it needs. It also ignores the fact that our approach would give flexibility to the household to choose its consumption basket according to its needs. All the evidence suggests families choose wisely (SEWA, 2013; Barrientos and Hulme, 2010; Standing, 2011). Needs do vary between households, even within the same income group.

There is an even larger benefit that might flow from the adoption of this second (as opposed to the first) approach. It will encourage financial inclusion in a way that has not happened in the entire post independence history of India. The fact that nearly half the rural population did not have a bank account leaves millions of India's citizens outside the pale of the modern economy. Three recent developments have begun a 'game-changing' transition. The first is the fact that almost all wage payments under the Mahatma Gandhi National Rural Employment Guarantee Act (that guarantees 100 days per year of work on public works to every rural household that demands such work) are since 2011 being made directly to bank accounts of such workers. As a result 110 million new bank or post office accounts were opened in a matter of merely two years in rural areas, obviously for the poorest who would never had an account before. The second development is the biometric identification of residents under both the Unique Identification number programme, which started only in 2011 and had covered 900 million residents by 2014 (including in the National Population Register, which is engaged in a similar exercise in such states as Tamil Nadu, Bihar, UP, Chhattisgarh and West Bengal though at a slower pace). Prior to such biometric identification public sector banks would ask for so many means of personal verification⁶ from poor citizens it was impossible for them to produce them. The Unique Identify number now enables them to open a bank account easily. The PDS cash payment would give an impetus to this process.

6 For instance, proof of address, voter ID card, electricity bill in the person's name, and so on.

There is a third, and almost equally important reason for the government to adopt this second approach to PDS subsidy payment into residents' bank accounts. The number of bank branches in rural areas had shrunk after the economic reforms began in 1991. The Reserve Bank of India is giving India Post the status of a bank, in which case it will promote the inclusion of the un-banked poor. The number of post offices, which also offer bank services, is much greater than of bank branches. An important externality of PDS transfers to bank accounts would be a higher revenue flow to business correspondents (BC) that have been hired by banks in recent years from local rural youth in order to provide deposit and cash withdrawal services, using a mobile telephone technology to establish electronic contact between the BC and his home bank. The BC works on a commission per transaction basis. The PDS subsidy transfer to residents' bank accounts would increase the revenue to BCs, attracting more youth to such jobs, while simultaneously increasing bank accounts and thus financial inclusion.

The rapid increase in number of bank accounts (by 100 million) after the new central government directed public sector banks in mid-2014 to reach the unbanked, can only lead to sustained financial inclusion if the BCs secure sufficient commission – only possible if the bank accounts don't become dormant since the poor new bank account owners may have too few transactions. Hence, it would be sensible to direct cash transfers related to PDS, at least in cities, through bank accounts.

However, proponents of the continued physical supply of subsidised cereals through the PDS continue to argue their case. Dreze and Khera (2012) covered 1,227 BPL households in nine states over May–June 2011 in a survey of PDS (in 106 randomly selected villages). They report two major findings. The first is that there is evidence of a major revival of the PDS across the country, even in states like Orissa and UP (with the main exception being Bihar). They report that average monthly purchase of PDS grain (kg/household) was 24, as opposed to the 35 kg allocated for each household. On this basis they claim that the days when up to half of the PDS grain was 'diverted' to open market are gone. That this claim has only some validity is shown by the fact that the analysis of NSS data on consumption of grain demonstrates that leakages have declined from 54 per cent of FCI released in 2004–05 to 40 per cent in 2009–10, and further to 35 per cent in 2011–12. However, a leakage of 35 per cent is still huge. Their second finding is that when they put the question to PDS recipients whether they would prefer

to receive grain (as under the PDS),⁷ the answer was that the majority showed a preference for food. However, this finding cannot be taken as a basis for policy, as the recipients of PDS grain have never been given the option of cash. Only an impact evaluation using two separate groups – one given cereals and the other the cash-equivalent of cereals as a control group can put such a finding on a firm basis.

10.2 Care: Does the ICDS Address Malnutrition?

The paras above make it abundantly clear that the strategy must be multi-sectoral, involving many ministries and many levels of government. However, the problem is that the Integrated Child Development Scheme, the largest programme in the world aimed at early childhood care and development (ICDS, run by the Ministry of Women and Child Development), has proved to be a relative failure in addressing the problems of pregnant/lactating mothers and 0–6 year old children, the two main groups whose problems need to be addressed if malnutrition rates are to fall. This is because it suffers from major design flaws.

The programme is supposed to deliver six services: (a) supplementary nutrition for pregnant and lactating mothers and take-home rations for 0–3 year olds; (b) hot cooked meals served in the ICDS centre for 3–6 year olds; (c) immunisation; (d) health referral; (e) health and nutrition education; and (f) PSE for 3–6 year olds. The 11th Plan had made serious recommendations to restructure, and only to universalise the programme.⁸ However, in fact the ICDS was universalised during the 11th Plan but not restructured. So all the problems that have plagued the programme since its inception in 1975 practically survived. In fact, we would suggest that the universalisation of ICDS (that took place over 2007 to 2012) before its reform and restructuring is simply a repeat of the experience with PDS – the National Food Security Act has expanded PDS coverage, without first ensuring its reform.

7 China's success in ensuring national household food security, as well as low levels of nutrition should offer lessons to India in its legitimate efforts to realise household food security. As a UN World Food Programme study notes, 'Improvements in food security and nutrition (in China) over the past 30 years have largely been attributed to increases in food supply and incomes. Surprisingly there were very few direct interventions' (Lin, 1992).

8 See chapter 4 vol. 2 of the 11th Five Year Plan (Planning Commission, 2008) on Food Security and Nutrition (that the author had the privilege of drafting) for recommendations.

10.2.1 Is increased financial allocation in Plan after Plan for ICDS a good thing?

The allocation to ICDS had been quadrupled for the 11th Plan compared to the 10th Plan allocation on the condition that the programme would be restructured. The allocation had been around ₹ 10,000 crores for the 10th Five Year Plan (2002–07), and despite the increase to about ₹ 40,000 crore for the 11th Plan (2007–12), the programme was not restructured. In fact, all the money was utilised to expand the coverage to all the 160 million 0–6 year old children of the country, when in 2007 the programme only covered one-fourth of the country's children. Thus, a dysfunctional programme was allowed to be universalised, when the obvious way forward in 2007 was that it is reformed, redesigned and restructured first. The 12th Plan (2012–17) increased the allocation for ICDS over three times that for the 11th Plan, to ₹ 1,23,000 crores (but the restructuring of the ICDS was approved by the National Council of Ministers only in late 2012). It is only in the 12th Plan document (Planning Commission, 2013) that finally there was recognition of the 1000-day window of opportunity of a foetus and child: 270 days of pregnancy and the 730 days of the first two years of the baby. Whether it will get translated into actual practice, when it has not happened in nearly four decades since the ICDS began in 1975, remains to be seen – since restructuring was agreed by the line ministry even at the time of 11th Plan (2007).

At the same time, a new focus has to emerge on the 1000 days. For this the 12th Plan recommends several actions. First, it recommends an additional anganwadi worker in 200 high burden districts to prioritise home visits for children under three years and mothers to promote infant and young child care and feeding practices (IYCF). Second, though an IYCF component in the form of infant and young child feeding exists in the National Rural Health Mission, it should be ensured that each health facility has skilled IYCF counselors. Third, the frontline workers' team (comprising Accredited Social Health Activists or ASHA, Anganwadi Workers or AWW, Auxiliary Nurse Midwife or ANM, and the Panchayati Raj Institutions or PRI representatives) should be fully involved in organising village health and nutrition day to bring about changes in child caring practices and promote IYCF practices. Fourth, community owned ICDS accreditation system should be introduced to ensure quality standards in child care service delivery at all levels, with grading of AWCs. Finally, community ownership of ICDS should be ensured through the common village health, sanitation and nutrition committees and the anganwadi centre management committees.

However, notice that the one AWW, who works part-time on a stipend of ₹ 3,000 per month (her helper who mainly does the cooking of the hot cooked meal for the 3–6 year old children, who normally attend a 3–4 hour day at the centre), is supposed to perform four health-related functions (immunisation, health check-up of children, health and nutrition education, and health referral to a health centre of a malnourished child or pregnant/lactating mother experiencing problems), in addition to providing supplementary nutrition (of hot cooked meal to the 3–6 year olds, as well as the once a week ‘take home rations’ to pregnant/lactating mothers), as well as pre-school education to the 3–6 year olds. So to summarise, this semi-educated woman is supposed to perform multiple and complicated tasks related to health and infant care counseling/education/referral and assist the ANM from the Ministry of Health’s sub-centre as well as the ASHA (the latter another semi-educated woman from the village who is not a paid government employee but is provided incentives for her to encourage institutional child birth) in organising health check-ups of the children/pregnant women and immunisation. This is in addition to providing the 3–6 year old children with PSE, and hot cooked meals every day. But is she even equipped or trained to do so, by her training or education?

The central government’s website (www.mwed.nic.in) showed (in 2013) clearly that there were no clear eligibility norms for the job of an anganwadi worker. Many of them clearly are not even class 8 pass, and the majority do not have any secondary education (class 10 pass). A Parliamentary Standing Committee on Empowerment of Women suggested (in September 2012) fixing class 10 and class 8 as minimum qualifications for the job of anganwadi workers and helpers respectively.⁹ The Parliament Committee noted:

No minimum educational qualifications have been prescribed by the government for anganwadi workers and helpers ... In view of the inclusion of multifarious activities in the ambit of the scheme, it is high time to prescribe a minimum educational qualification for anganwadi workers and helpers.’¹⁰

9 *Deccan Herald*, 4 September 2012.

10 In addition, the possibility of political interference in recruitment process is recognised by the Parliamentary Committee, when it found that some states have included members of the state Legislative Assemblies (i.e., the state’s parliament) in the selection committees. Besides, no matter how good the training imparted in 500 or so Anganwadi Training Centres in India (less than one per district of 2 million population each), the training cannot compensate for their poor education. Also, it is unclear how much training one training centre of 2–3 full-time and 1–2 part-time trainers can impart (NIPCCD, 2010).

10.2.2 Is multi-sectoral action to reduce malnutrition still possible in India?

The International Food Policy Research Institute or IFPRI has been promoting the cause of multi-sectoral action to address malnutrition recently (Garrett and Natalichio, 2011). It has shown that such coordinated action has worked in both Latin America (Peru, Colombia, and Bolivia) and Africa (Senegal, Uganda, and South Africa). Since nutritional status is a multi-sectoral outcome (as seen in Figure 10.1 at the beginning of this section) so the actions must be similarly multi-sectoral. It is suggested that there should be a continuous collaboration between different sectoral actors: the most basic form is networking (involving an exchange of information for mutual benefit); coordination (involving achieving a common purpose and altering activities); cooperation (involves sharing resources); collaboration (involving enhancing one another's capacity); and finally, the most advanced form is integration (involving sharing structures and merging sectoral remits).

While such an approach may be advisable in India, the real question is whether it is feasible, given the time lag in achieving such coordination between central and then state line ministries, and their lower level staff at village level. India is already beyond the mid-point of its demographic dividend (which started in the early 1980s and will end by the end of the 2030s); ICDS has been around since 1975 as the cutting edge of India's anti-malnutrition strategy, and yet has made hardly a dent in the problem in four decades. The question the governments (central and state), and the parents-citizens of India have to ask is: are we going to wait for another five years to elapse with possibly little to show for an increased (tripled after being quadrupled) budget between the 10th and 12th Plans? Is the additional year lost in a malnourished/stunted/wasted child's life not worth anything? And can India afford an additional year gone in the quarter-century remaining for the demographic dividend to pass?

Therefore, waiting for multi-sectoral coordination is a dream that India's policymakers may aspire to, but perhaps realise only in the very long run. The pre-conditions for serious multi-sectoral coordination simply do not exist, and can only be potentially created in the very long run. Meanwhile, if India is serious about reducing malnutrition rapidly, which it needs to do if the demographic dividend is to be realised, then focus has to shift to the following three sets of actions, all of which will reduce the burden of work on the existing one anganwadi worker in all the 441 districts that are non-high burden of malnutrition districts of India (there are 200 districts with a high burden of malnutrition).

First, the responsibility for the health-related functions of ICDS must essentially shift from ICDS to the ANM at the primary health sub-centre, which is managed by the ANM. The Ministry of Health has to incentivise the ANM financially to ensure that on the Village Health and Nutrition Day, she takes care of all the four functions – immunisation, health check-up, health education/IYCF counseling, referrals of seriously malnourished or disease prone children – systematically. The Anganwadi worker (AWW) and ASHA can assist in maintaining mother/child health report cards, and record maintenance, but little more than that. It is the ANM who should be incentivised for discernible improvement in health and nutritional indicators, provided transparency can be ensured in collecting such monitorable indicator data. The ANM, under the Ministry of Health (and not the Anganwadi) should be held accountable for these four functions. There is no case for the 200 high burden districts to get an additional AWW under ICDS. Rather, the same additional staff member should be a second ANM in the sub-centre. As it is there are shortages of ANMs (27 per cent), as noted in the next section (Health). This would reinforce the message that it is ANMs and the Ministry of Health that must deliver on the four ICDS functions hitherto performed so poorly by the ill-educated AWW, who is also poorly trained.

Second, the ICDS scheme for take-home rations (THRs) for pregnant/lactating mothers and 0–3 year old children must be terminated immediately in its current form. There continue to be complaints about the quality of THRs, and it should be replaced by a cash transfer. The manner in which this replacement should occur is discussed in chapter 14.

Third, adolescent nutrition is important to the health of pre-teenaged and teenaged girls and is relevant for its consequences for maternal nutrition. Adolescence is a period of rapid physical growth and transition from childhood to adulthood for the girl child. In fact, some researchers have argued that adolescence provides some potential for height catch-up in children suffering from stunting from early childhood (Prentice et al., 2013).

Yet adolescent girls' programming in India is among the weakest of programmes. During the 12th Plan the government of India and states must correct this situation forthwith. Adolescent girls between 11–18 years are 16.8 per cent (or 83.2 million) of female population. Of these 27.5 million (33 per cent) are malnourished. Moreover, adolescents have a high prevalence of anaemia. For instance, 55.8 per cent of adolescents age 15–19 years and 56.7 per cent of women aged 20–24 were anaemic in India while corresponding

values for Guatemala were 21 and 20.4 per cent respectively (Black et al., 2013). Their health and nutrition is further at risk due to early marriage and early child-bearing. In fact, nearly 43 per cent of currently married women in the age group of 20–24 years were married before attaining the age of 18 years (National Family Health Survey, 2005–06).

In fact, adolescent fertility is three times higher in low middle income countries than in high income countries. Black et al. (2013) point out that pregnancies in adolescents have a higher risk of complications and mortality in mothers and children and poorer birth outcomes than pregnancies in older women. Furthermore, pregnancy in adolescence will slow and stunt a girl's growth.

Hence, it is recommended that adolescent girls that are no more in upper-primary school, or have dropped out before completing upper primary level, must attend anganwadis and thus receive the hot cooked meal with the children. This will help them socialise with the younger children, who may often be the siblings, and also thus assist the AWW in her work for a brief period. One would exclude the adolescent girls in upper-primary level only because they are already receiving a hot cooked meal in school.

Moreover, the adolescent girls at upper-primary as well secondary and higher secondary levels must also receive health education, zinc and iron tablets, so that the micro-nutrient deficiency, especially anaemia, falls. The real question is whether the anganwadi worker is equipped to perform these functions. An even more challenging question is whether the once a month village health-nutrition-sanitation day where the ANM from the nearest sub-centre of the public health systems is present, can meet this need.

10.3 Sanitation and Health Services

In section 10.1, we examined the programmatic weaknesses with the government's efforts to ensure household food security. Those weaknesses were on account of the inability of the National Food Security Act (and its instrument, the PDS) to ensure either access or availability of food to deficient households. In section 10.2 we showed the weaknesses of the care-related programmes. Now we turn to the the third and fourth underlying causes (discussed in section 10.1): quality of sanitation, and the weaknesses of the health systems, which also contribute to the state of under-nutrition (and hence health outcomes).

10.3.1 Sanitation

Open defaecation (69 per cent of Indian rural households lacked a toilet in 2011) is an underlying reason for child/adult under-nutrition. Diarrhoea is associated in much research with lack of toilets and poor hygiene (no hand washing), of which the secondary effect is under-nutrition. In a pooled analysis of nine studies with diarrhoea and growth data for 1,393 children, the possibility of stunting at 24 months increased by 2.5 per cent per episode of diarrhoea, and 25 per cent of all stunting in 24 month old children was attributable to having five or more episodes of diarrhoea in the first two years of life (Humphrey, 2013). However, other authors (for example, Briand, 1990) have argued that the effect of diarrhoea on permanent stunting is small because growth velocity can be faster than average for very young children between illness episodes, resulting in catch-up growth. Hence, Humphrey (2013) notes that the relative contribution of diarrhoea to under-nutrition, and hence the potential effect of diarrhoea control through sanitation and hygiene could have on growth are still unresolved.

However, Humphrey reports that a major cause of child malnutrition is a sub-clinical disorder of the small intestine called tropical enteropathy, that increases permeability, inflammation of cells and modest mal-absorption; that tropical enteropathy is caused by faecal bacteria ingested in large quantities by young children living with poor sanitation and hygiene; the route from sanitation and hygiene to under nutrition is tropical enteropathy and not diarrhoea.

It is clear, therefore, that while all anganwadis (ICDS centres) must have a child-friendly toilet to promote good hygiene practices, the need for a home toilet is overwhelming. If the mindset of at least 600 million Indians, who still defaecate in the open, is not changed through the programme designed for that purpose then under-nutrition and stunting will survive regardless of any other programmatic intervention.

However, India's sanitation programme (Total Sanitation Campaign until the 11th Plan, and since renamed the Nirmal Bharat Abhiyaan in 2012 for the 12th Plan and after a new central government came to power [May 2014] renamed to Swachh Bharat Abhiyaan [Clean India Campaign]) is deeply flawed in design (discussed in chapter 11). This is an important reason why India still accounts for 60 per cent of the world's population that defaecates in the open, although India's total population is only 16 per cent of the world's population.

10.3.2 Health

As noted in the dual synergy framework articulated in chapter 1 of this work as well as the conceptual framework at the beginning of this chapter, health outcomes are the result of the social determinants of health status (food security, nutrition, water and sanitation) and the coverage and quality of the health system. This section deals with the coverage and quality of the health system only.

The current stage in the evolution of India's public health system needs to be understood, if the current dysfunctionality is to be appropriately addressed. Public health expenditure as a proportion of GDP in India is the lowest for any developing country at 1.2 per cent, even after a major increase in health public expenditure began with the National Rural Health Mission (NRHM) from 2005 onwards. However, because of the then prevailing fiscal crisis, unfortunately states' expenditure on health in the 1990s had fallen. This was especially a problem as state governments account for 65 to 80 per cent of total health expenditure by state and central governments combined. There was no expansion of public health system capacity, and many states did not replace retiring staff. The private sector grew in size, but this growth was concentrated mainly in urban areas. These factors combined led to a decline in access to healthcare, especially in rural areas. As a result, assessment by the National Health System Resource Centre (NHSRC, 2012) notes that this process 'led to an understanding of health sector reform which was aligned to the economic reform of these years' (NHSRC, 2012, 10).

Public health financing got confined to a selective list of health priorities (for example reproductive and child health, and vertical programmes related to tuberculosis, HIV AIDS, vector diseases and control). The public health sector was exposed to market mechanisms, so that user fee for all hospital services was made a part of financing conditionalities, and public hospitals aimed at cost recovery. Most public hospitals withdrew provision of free drugs and diagnostics except for National Disease Control Programmes. There was no effort to fill government health system vacancies, especially in the high focus states (i.e., the ones with the lowest per capita income and located in the North and East of India) where there were significant gaps even before the 1990s.

Medical education, which until 1990 had been mainly government-run, became predominantly private run by the end of the decade with new private medical colleges mushrooming. However, with market forces predominant, medical and nursing colleges set up by the private sector grew in only about

6 of the more developed states in the south and west India. Thus, India saw stagnation of the public health system, while the private sector expanded further. As a result, out of pocket (OOP) expenditures in health remained an important cause of households falling below the poverty line (often due to catastrophic out of pocket expenses). OOP expenditures accounted for 70 per cent of total health expenditure, making India's health system one of the most privatised in the world.¹¹

The public health system in India consists of four levels: health sub-centres to cover a few villages at a time, primary health centres (PHCs) at the block level, community health centres (CHCs), and district hospitals at the district level. At the end of the Eleventh Plan (2012), the shortfall in terms of this infrastructure were of the order of 20 per cent for sub-centres, 24 per cent for PHCs and 37 per cent for CHCs, based on the Indian Pharmacopeia Health System (IPHS) norms. Most of this shortfall was concentrated in the states of Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh, the northern states with the highest communicable disease burden and the lowest per capita income level. In 2005, of the 30,969 facilities in the public system only 2,243 facilities could qualify to be called 24×7 facilities. However, by 2012 this number of 24×7 facilities grew to 15,014, a five-fold increase. But despite this increase India is still at 48 per cent of the target. Thus while very significant achievements have been made as a result of the health expenditures undertaken by the Central government through the National Rural Health Mission, the achievements still fall short by 52 per cent. In the northern and eastern states the shortfall is much higher (of the order of 65 per cent). In any case, the concept of a functional 24×7 First Referral Unit needs to be expanded beyond Reproductive and Child Health (RCH) services, for which most of the infrastructure is now in place but the specialised skills gap remains to be filled.

As regard human resources there have historically been three kinds of interrelated problems. First, a shortage of physicians and specialists compared to the IPHS norms has existed in the country as a whole. Second, an imbalance between doctors on the one hand and paramedic staff (including nurses) on the other has historically existed, compared to international norms, demonstrated by a severe shortage of nurses and paramedics. This situation was worsened by the closing of nurse training institutions in the 1990s. Third, a historical imbalance has

11 Total expenditure on health is 4.1 per cent of GDP in Thailand (77 per cent public), 5.1 per cent in China (56 per cent public); 8.9 per cent in Brazil (46 per cent public). In OECD countries it is upwards of 9 per cent of GDP (about 80 per cent public). Also see Dreze and Sen (2013).

existed in the deployment of staff within the public health system, with doctors and nurses all preferring to be located in urban areas.

The NRHM, a central government flagship programme was started in 2005 to carry out an architectural correction in regard to some of these imbalances. There has been an improvement in the number of health personnel in position. Nevertheless the gap between staff in-position and staff required at the beginning of 2012 was 62 per cent for midwives and nurses, 67 per cent for doctors, 88 per cent for specialists and 58 per cent for pharmacists. Addressing these shortages would require the allocation of funds by both central and state governments.¹²

10.4 Concluding Remarks: Reasons Why Multi-sectoral Actions Will Inevitably Fail

This chapter shows that each 'sector' that impacts on nutritional outcomes – food, care, health, safe water/sanitation – suffers from pre-existing design flaws in government-run programmes that are supposed to deliver services. In the absence of credible programmes it is not meaningful to suggest that better coordination among the multiple ministries will deliver better outcomes, when programmes in each area are failing to deliver services.

Even if programmes were delivering, the question still remains: do the bureaucrats who are charged with delivering these services have any incentive to collaborate or cooperate, beyond mere meetings in Delhi and state capitals that are meant to discuss inter-sectoral coordination (as opposed to actually achieving inter-sectoral cooperative action at the local level)?

There are three sets of reasons why even if each programme was operating at high levels of effectiveness, the objective of achieving cooperative action at local level is likely to fail. The first is that the bureaucracy charged with delivering programmes only cares about inputs, not about outcomes. The second is that personal, individual incentives for official-level cooperation are not only not present but they actually, and positively, discourage cooperation. The final reason is that the local governments in India's system of governance are among the weakest

12 The new government (mid-2014) proposed a new National Health Policy 2015 Draft (www.mohfv.nic.in) which lays out rightly, the policy shifts needed: in primary service, from fragmented selective care to comprehensive care, in secondary/tertiary care from input based to output-orientation; in public hospitals, from user-fees and cost-recovery based services to free drugs and diagnostic services; and in urban health from under-financed interventions to on-scale interventions to reach all urban poor.

parts of the governance chain. Coordination (let alone cooperation) can only be ensured within a limited geography to be effective. Weak local governments cannot deliver multi-sectoral interventions in a cooperative manner, when the state and central government functionaries themselves have no incentive to cooperate.

An incentive to collaborate/cooperate would exist if senior officers' performance was measured for achieving outcomes/impact, as opposed to merely spending money to deliver inputs. However, despite attempts by the Cabinet Secretariat's Performance Management and Evaluation Services Division to get senior bureaucrats to report through the Results Framework Document on outputs/outcomes, the input-orientation of service delivery model continues (Mehrotra, 2013). The overworked Joint Secretary in any ministry, who is normally responsible for overseeing and financing a programme across a vast country of 29 states, cannot realistically be expected to ensure effective delivery of services. These programmes, even if they were well-designed, are actually delivered by state level bureaucrats who are also not evaluated or assessed by outcomes/impacts (see chapter 15 for more). The centre-state coordination is difficult to ensure even when the same political party is in power in the centre and the state, and becomes more difficult if different parties are in power.¹³

The second set of problems arise from the fact that there is no incentive or reward for cooperating across ministries, either at the central government level or even state level. In fact, even coordination across two departments, which are under one Ministry, and hence led by one minister of cabinet rank, is rare. Under the circumstances, expecting that at least three or four ministries will coordinate actions in respect of nutrition in each of India's 641 districts, is asking for the moon. Joint Secretaries control thousands of crores worth of programme funding. Coordination or cooperation may involve sharing funds, which means possibly losing control, even though it may involve only a small part of total programme funding. Sharing funds is the equivalent of losing control and a bit of power. The bigger the funds of a programme, the greater the power. There is no incentive in the administrative system for sharing power. Thus if external accountability is not ensured through any emphasis on outcomes or impacts of services, internal efficiency in processes to deliver services is undermined by the lack of incentive to cooperate.

13 The effort by the new government (post-May 2014) to build Team India (three teams are the PM and the Chief Ministers of states, the central council of ministers, and the bureaucrats in the centre and states) risk failure in the absence of incentives to cooperate.

The final reason why multi-sectoral interventions will be a non-starter in India is deeper and more structural, as coordinated action can only happen in a limited geography, and local development in such a geography requires empowered local government. However, the three tiers of local government created in rural areas in 1993 (Panchayati Raj) and the urban local bodies created in 1994 (by the 72nd and 73rd amendments to India's Constitution), that can trigger and sustain multi-sectoral action not only for nutrition, but also to achieve many other development outcomes are effectively disabled by the centralised form of governance practiced in India. Local bodies are unable to mobilise local officials to implement inter-sectoral action to address malnutrition (see chapter 15 for more).

Hence, at the current stage of development, the only administratively feasible course of action is to ensure that design flaws in existing sectoral programmes are addressed. Regrettably, the evidence of the last decades is that even though the first National Family Health survey was conducted in 1992–93, that showed worse levels of underweight, stunting and wasting than in sub-Saharan Africa, the evidence on malnutrition has not jolted the administrative machinery to course correct even for flawed sectoral programmes.

However, there is some progress, with child malnutrition falling from 43 per cent in 2005–06 to 30 per cent in 2013–14 (based on a 2013 nation-wide survey). Our conceptual framework (see Section 10.1) can help to explain this improvement. In terms of food security at household level, the increase in incomes (as reflected in the poverty numbers falling by 138 million over 2004–05 and 2011–12) had increased consumption expenditure, including of food. Second, the universalisation of ICDS between 2007 and 2012 should have improved the care dimension, despite the design weaknesses of the programme. Finally, the fact that NRHM improved access to preventive health services (by increasing access to primary health centres functioning 24x7) should also have improved the health services to both mothers and children. However, as we emphasised there remain far too many design weaknesses in each of these areas for further improvement in nutrition and health outcomes to be substantive without serious reform.

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Redesigning Sanitation Programmes to Make India Free from Open Defaecation

Although open defaecation is a global problem it is much more serious in India as approximately 60 per cent of the world's population that defaecates in the open lives in India (WHO, UNICEF, 2012). Even worse, a World Bank study revealed that in five states only 67 per cent of the toilets in the villages that have received the Open Defaecation Free (ODF) prize (called Nirmal Gram Puraskar) were being used, and this percentage was lower (46 per cent) in non-ODF villages.

A decade ago in 2002 the Government of India had indicated that less than 20 per cent of India's population in the rural areas have access to proper hygiene although since the mid-1980s the country has had a well established government-funded sanitation programme offering subsidies for individual and community households. Yet at the same time, India has more phone users (around 54 per cent households) and television access (33 per cent) in rural areas than people with access to tap water (31 per cent) and toilet facilities (31 per cent), according to Census 2011. This clearly indicates the failure of government programmes to change a centuries-old practice of defaecation in the open, and hence the lack of demand for toilets.

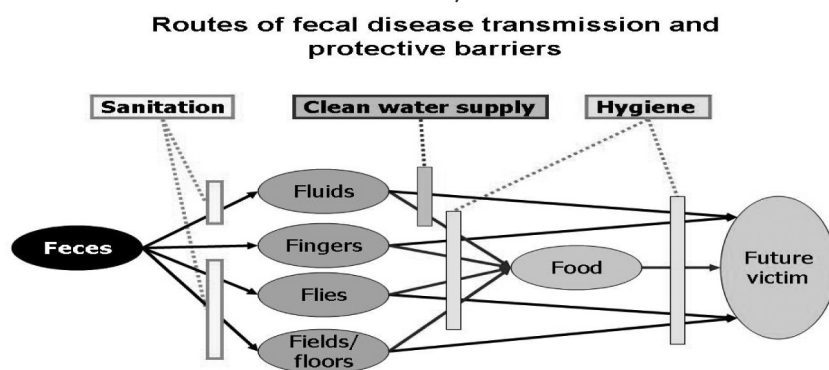
The chapter is organised as follows. Section 11.1 presents the empirical evidence on the relationship between safe sanitation on the one hand, and nutritional, health and educational outcomes. Section 11.2 examines the current state of India's sanitation problem. Section 11.3 discusses the various government sanitation programmes historically and why they have been less than successful. Section 11.4 analyses the lessons to be learnt from international experiences and section 11.5 discusses the way forward to improve India's sanitation.

11.1 Sanitation and its Impact on Nutritional and Health Status: The Conceptual Framework

Lack of sanitation, defined as the improper management (toilets, conveyance and

treatment systems) of human excreta, solid waste and drainage, has substantial health effects. As seen in Figure 11.1, open defaecation affects even those who have household latrines on account of the negative externalities caused by the defaecated area in that locality.

Figure 11.1: Faecal-oral disease transmission and primary and secondary barriers



Source: Cited in WSP document

In communities where safe disposal is absent, diarrhoeal disease originates from the infection spread by open faeces, which are first transmitted from faeces to hands and then to the mouth. This route to the human body can be taken by the pathogens directly or indirectly i.e., toilet surfaces or contaminated food or water. Figure 11.1 (known as the F-Diagram) is one of the many tools in Participatory Hygiene and Transformation (PHAST) methodology and describes in detail the 'faecal-oral' transmission route. The diagram indicates that the transmission happens through flies, which sit on the food, fingers with which one eats food, fluids (the drinking of contaminated water, washing of clothes with such water, bathing, and cooking with it). Further improperly disposed excreta are a major soil and water pollutant and deplete water of oxygen, which is imperative to sustain aquatic life. This chain needs to be broken. Not only human faeces but animal faeces too can create similar nuisance and therefore equally contaminate food and water supply too. Such water reaches fields where the food comes from, that cause a variety of diseases, which become life threatening at times, due to the mixing of human excreta in the water table. These germs further harm growth and development especially of children without necessarily causing diarrhoea, although diarrhoea still remains the most common outcome.

Breaking this faecal-oral transmission route can be achieved by combining clean water, improved sanitation and good hygiene. Sanitation refers to managing excreta and hygiene refers to good practices by people. Good practices by people include not just hand washing but the following: food hygiene (cooking, storing, preventing cross contamination); ensuring safe water at point of use; respiratory hygiene; safe disposal of faeces (both human and animal); general hygiene (laundry, surfaces, toilets, baths, sinks); and disposal of solid waste, control of wastewater and rainwater (WSSCC, 2012).

Since malnutrition accounts for half of all child deaths, sanitation also impacts health outcomes through nutritional outcomes. In an econometric evaluation, which assesses the impact of India's Total Sanitation Campaign (TSC) over 2001 to 2011 on health, using large District Health Surveys and Census data, Spears (2012a) found that TSC reduced infant mortality, on average, by 4 deaths per 1,000 and increased height for age (i.e., better known as stunting) by 0.2 standard deviations. This evidence is further corroborated by international comparisons of sanitation coverage and height, using 140 Demographic and Health Surveys. Thus, Spears (2012c) finds that the number of years a country has open defaecation affects how tall children are: country-years with less open defaecation have taller children, a result that is not caused by fixed differences among countries and regions. In fact, people in Africa are taller than their level of economic development would predict, and Indians are much shorter. This mystery is not explained by international differences in genetic height potential: although the median Indian child is two standard deviations below the international reference population, Indian children from better off households meet international norms (Bhandari et al., 2002). Spears (2012b) found that international differences in open defaecation offer an answer to the puzzle. He collapses each of the 140 Demographic and Health Survey (DHS) survey rounds with height and sanitation data into one observation, so a country-year is an observation. He then finds that sanitation coverage alone explains 54 per cent of the cross-country variation in the height of children under three years old. In India, open defaecation may have especially adverse consequences because even in rural India population density is very high.¹

1 Spears (2012d) carries the argument even further. Health does not merely depend on whether one's own household defaecates openly; it also matters what others do. So he separates children in his own village surveys by the fraction of households in their village who openly defaecate. This village-level factor adds explanatory power beyond the household's own behaviour: within both groups, children who live in villages where fewer households defaecate openly are taller, on average. He admits this is only suggestive of a causal relationship, but it is merely corroborating other evidence that open defaecation

Under-nutrition rate in India for 0–5 year olds was as high as 43 per cent, (NFHS 3, 2005–06), and fell to about 30 per cent in 2013, according to a government survey. Therefore it is important to understand the five ‘As’ for proper nutrition. The first two are the availability and access to clean food and next three relate directly to faecal infections (absorption, antibodies and allopathogens). When a person suffers from faecal infection of the gut the absorption capacity decreases tremendously. Protein-energy under-nutrition often occurs because there is lack of *availability* of food for reasons of drought or flood in a location. Lack of *access* implies that even if food/micro-nutrients are available in the market, adults or children cannot access them. Adults’ access may be limited by prices, while that of girls within poor households could be limited by unfair allocation within the household. Similarly, infants too may suffer from lack of access: less than six months old infants may find that their mothers cannot breastfeed as the latter are themselves undernourished and therefore do not produce enough breastmilk to feed the infant adequately. Or the six to nine month old infant cannot access solid, mushy food (in addition to breast milk) if the mother does not possess the knowledge that the infant needs such complementary foods in order to grow. Moreover, if poor sanitation, unsafe water and/or poor hygiene practices cause infection the result is that the antibodies that were to be used to building the body are now used to fight infections. Due to faecal infections, other pathogens with faecal-oral pathways (for example, Hepatitis A, B and C or even typhoid fever) can attack the body. This is the reason that the focus should not only be diarrhoea but also other negative externalities caused by these faecal infections. All these infections are directly related to clean drinking water, safe sanitation and basic hygiene and thus can be avoided easily via behavioural changes (Chambers, 2013).

WASH (2012) reports that in developing countries approximately half of all primary schools do not have proper water and sanitation facilities, which further puts survival of children at high risk. Practice of safe sanitation in school improves enrolment rates of girls. It induces girls who have attained puberty to remain in school, as both menstrual hygiene and safety is ensured for growing school girls. Also, toilets in school inculcate good habits in children as they grow and teaches them not to defaecate in the open.

The effects of improved sanitation go well beyond enrolment, and extend to actual learning and better cognitive skills. Just as Spears (2012) has shown

has negative externalities. So it is not just that the household itself does not defaecate in the open matters, but that other households also do not matters too.

that children who live in environments without open defaecation are taller, he also shows that taller children score higher on learning tests in India (using India Human Development Survey data from the National Council of Applied Economic Research or NCAER) with a much steeper association in India than in the US. Spears (2012) also shows, in an econometric evaluation of impact of TSC in India (2001–03) on cognitive skills (using data from Pratham's Annual Survey of Education), that children exposed to TSC latrines in early life recognised more letters and numbers at age six.

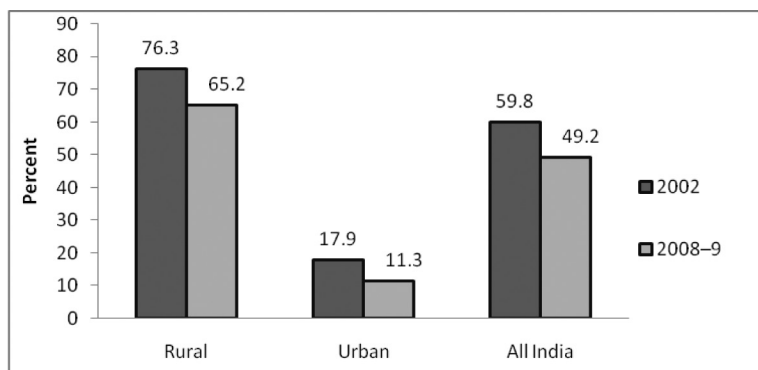
All these effects demonstrate that the feedback loops in the human development process as discussed in Figure 11.1 really work (just as had been discussed in chapter 1).

11.2 Sanitation: A Situation Analysis of India

Of the 626 million in the world who defaecate in the open nearly 60 per cent are in India (i.e., 90 per cent of total South Asia). This number is more than double the number of the next 18 countries combined where open defaecation is prevalent (WHO, 2012). As per NSSO data, the percentage of population who do not have any type of toilet facility was approximately 60 per cent in 2002 and improved very little by 2009 to 49 per cent (IHDR, 2011) (see Figure 11.2). Figure 11.4 shows the distribution of toilets by states using NSSO data.

To re-emphasise synergy 2 in chapter 1 (the relationship between human capital and economic growth), we note that the approximate economic loss due to lack of sanitation could be as huge as ₹ 2.4 trillion in a year, which is approximately 6.4 per cent of India's GDP in 2006 (World Bank, 2010). These costs are associated with death, disease, accessing and treating water, and losses in education, productivity, time, and tourism.

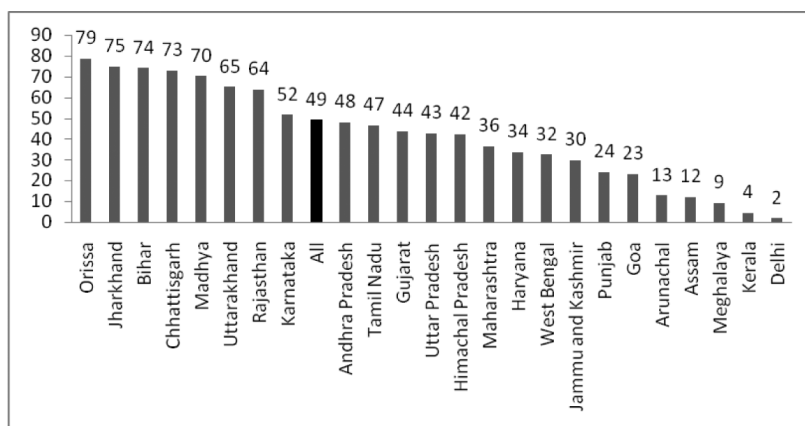
As emphasised before, good sanitation leads to good health, which then translates into other better development indicators. In the human development index India ranks at 134 for the countries across the globe (UNDP, 2013). A similar attempt to calculate the HDI by the IHDR in 2011 indicates that over the years of 2000 to 2008, the HDI has improved due to education and income but health index, which is defined in terms of life expectancy shows less improvement with a percentage increase of only 13.2 over 2000–08, which is way below the average of 20.7 improvement in the HDI over the same period. A major reason is the continuing widespread practice of open defaecation in India.

Figure 11.2: Open defaecation in India – no latrine facility

Source: India Human Development Report, 2011 based on NSS 58th and 65th Rounds.

11.2.1 Sanitation: The variation by state in improvements over time

Except in a handful of states, the practice of open defaecation is widespread across all states in India (see Figure 11.3).

Figure 11.3: Distribution of households by percentage of open defaecation (2008-9) (per cent)

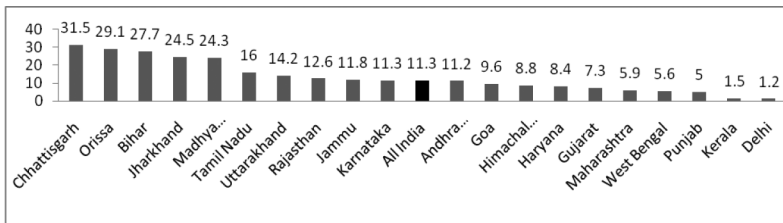
Source: India Human Development Report, 2011 based on NSS 65th Round.

Most low income states are well below the national average for households with toilets: Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and Uttarakhand. But even relatively well-off states had almost half of their population defaecating in the open (for example, Karnataka, Tamil Nadu and Gujarat).

11.2.2 The rural-urban difference

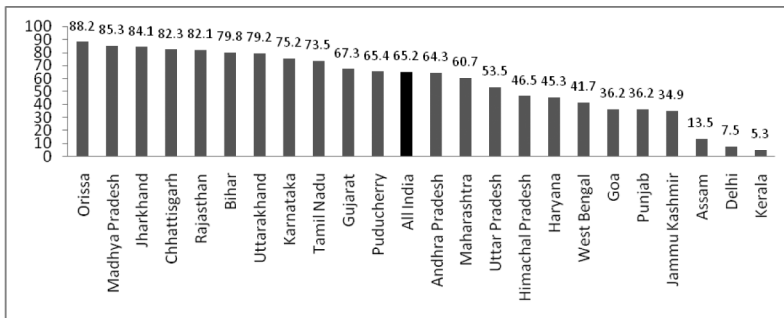
The problem of poor sanitation is most evident in rural areas where around 65 per cent people have no access to latrines. The situation in urban areas is not as grave as about 89 per cent do have access to toilets. But due to the overcrowding of cities plus numerous slums which are not connected to the city's sanitation infrastructure, open defaecation in these areas is still widespread (Figures 11.4 and 11.5).

Figure 11.4: Urban share of population with no latrine, 2008–09
(per cent of all households)



Source: India Human Development Report, 2011 based on NSS 58th and 65th Rounds.

Figure 11.5: Rural share of population with no latrine, 2008–09
(per cent of all households)



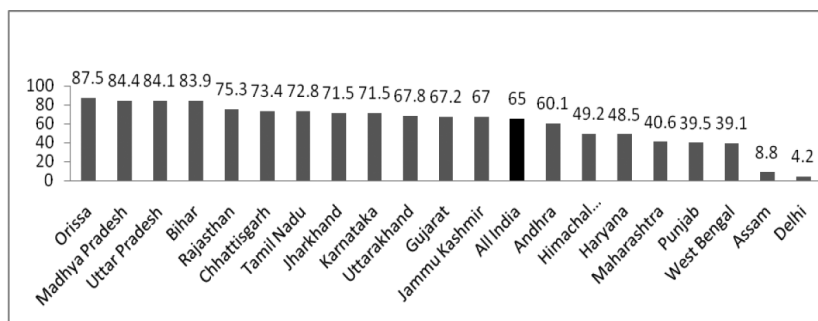
Source: India Human Development Report, 2011 based on NSS 58th and 65th Rounds

In cities the schools sometimes do not have this facility and children are forced to defaecate in bushes or open areas. Therefore, while urban areas are attracting poor migrants, they have also increased the exposure to sanitation related diseases through overflowing cesspools, sewers and drains. Yet residents of unauthorised slums in cities continue with open defaecation as the only solution. Overall, the stark reality remains that only 50 per cent have access to any sort of toilet facility with only 36 per cent being proper flush tanks (IHDR, 2011). This is more

problematic for women as finding a secluded place in congested areas becomes difficult, but also very unsafe and hence in rural areas the women have to wait till the dark. This has serious implications on their health.

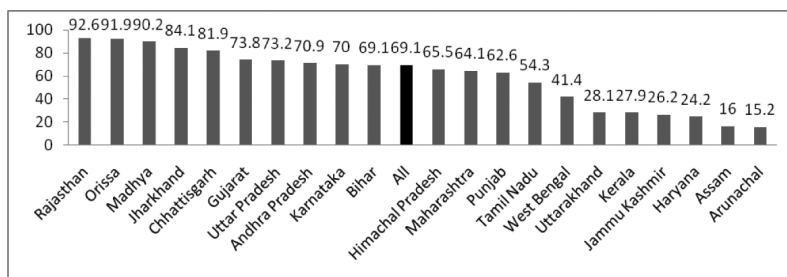
11.2.3 Toilet access by caste

Figure 11.6: SCs with no latrine, 2008–09 (per cent)



Source: India Human Development Report, 2011 based on NSS 65th Round

Figure 11.7: STs with no toilet facility, 2008–09 (per cent)



Source: India Human Development Report, 2011 based on NSS 65th Round

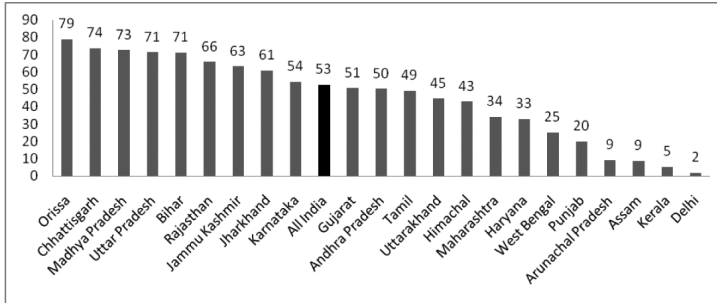
The population with no toilet is around 49 per cent for India; for SCs and STs it is as high as 65 and 70 per cent respectively (Figures 11.6 and 11.7).

11.2.4 Toilet access by religious group

Similar to the urban-rural differences and the caste-wise differences in respect of access to toilets, there is a variation among the four major religious groups namely, Hindus, Muslims, Sikhs and Christians (Figure 11.8 and Figure 11.9). Only 35 per cent in the Muslim population do not have a proper toilet whereas 53 per cent Hindus do not. This is mainly because the Muslim population is predominantly

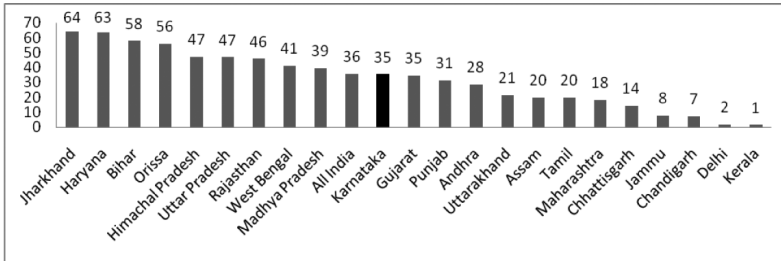
residing in urban areas, where toilet access is better than the national average. This is consistent with the fact that IMR for Muslims is 52.4 whereas for Hindus it is 58.5 per 1,000 live births.

Figure 11.8: Hindus with no toilet, 2008–09 (per cent)



Source: India Human Development Report, 2011 based on NSS 58th and 65th Rounds

Figure 11.9: Muslims with no toilet, 2008–09 (per cent)



Source: India Human Development Report, 2011 based on NSS 58th and 65th Rounds

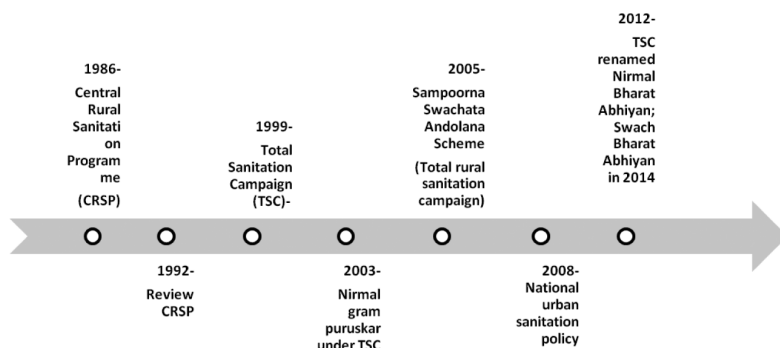
Of the total sum allocated to sanitation by the Government of India 75 per cent is spent on just building toilets and just five per cent on Information, Education and Communication (IEC) for generating demand for sanitation.

11.3 Brief history of Sanitation Programmes in India and Why They Failed

Water supply and sanitation is a state responsibility under the Indian constitution. This function in turn is with the village panchayat in rural areas or municipalities in urban areas (Urban Local Bodies, ULB). However, the centrally sponsored scheme of the union government related to sanitation is implemented by state governments and the PRIs and ULBs since the local bodies are poorly resourced

in terms of own sources of revenue (see chapters 4 and 15). Figure 11.4 provides a brief timeline about sanitation programmes in India.

Figure 11.10: Time line of sanitation programmes in India



11.3.1 The phase of Central Rural Sanitation Programme (CRSP)

The First Five Year Plan recognised that the availability and quality of drinking water supply is a serious concern, and access to safe drinking water needed proper attention. In fact drinking water improvements were emphasised in the first three decades after independence but sanitation remained neglected.

It was not until the 1980s, which was also considered as the International Water and Sanitation Decade, a nationwide programme on rural sanitation was launched as the CRSP in 1986 by the Ministry of Rural Development. Indian sanitation policy has always focused on the construction of pit latrines with little consideration of how to transform the cultural reasons for open defaecation and the resistance to latrine use. Open defaecation is much more common in India than in other countries where people are poorer, literacy rates are lower and drinking water is more scarce. Researchers (Coffe et al., 2014) find that having a simple latrine at home is considered by many to be ritually impure. They also find that open defaecation is seen as promoting purity and strength particularly of male bodies.² The CRSP programme provided a subsidy of around US\$ 50 to

2 This is important because men typically decide which large financial investments (like building a toilet) household can make. Their primary surveys find that households are unlikely to use simple inexpensive pit latrines, as they are considered a middle option in the sanitation ladder: they are more costly than defaecating in the open but not as costly as constructing a septic tank. India's National Family Health Survey 2005 found that only about 20 per cent of rural Indian households that do not defaecate in the open use a pit latrine. By way of comparison, in Bangladesh 94 per cent of rural households that do not

build toilets for BPL households and was mainly supply-driven in nature. This programme was supported by international organisations like UNDP, World Health Organisation (WHO) and UNICEF and was reviewed after six years. The review showed that the subsidised toilets constructed for the poor were not being used and people continued with their earlier practice. The programme was hence revised. The programme assumed that open defaecation is rampant in rural areas because people are poor and cannot afford to build a toilet for the household, and therefore the government-provided subsidies for the identified poor (BPL). This kind of thinking still heavily dominates the mindset of the senior bureaucracy: 'if they had the money they would build the toilets'. In other words, there is still no recognition that if for centuries people have defaecated in the open, they are not suddenly going to change their practices on their own. The mindset of the Hindi text *Manu Samhita* (which underlines the notion of caste purity and treats the handling of human faeces as the task of the manual scavenger caste) will not change, even though the physical spaces available for defaecating, even in rural areas, have been shrinking as the density of population rises. Even in the 68 years since independence India's population has increased four times.

The other reason was that there was no community participation in programme design and the subsidy was seen as a transfer and not as something the community felt it required. Also, the toilets that were recommended were not something that a poor household could afford. Further, there was little awareness regarding how sanitation and hygiene are important in their own interest. It was therefore mainly a supply driven model and it was seen by the community as a requirement to build a toilet to have access to water supply (WSP, 2008).

11.3.2 The phase of Total Sanitation Campaign (TSC)

The poor progress under the Central Rural Sanitation Programme led to a revamp. The TSC was launched in 1999 and aimed to eradicate the practice of open defaecation by 2010. It was meant to be demand-driven and people-centred in nature. This revised approach on sanitation emphasised information, education and communication (IEC), and capacity development activities to increase awareness of rural people and generation of demand for sanitary facilities.

defaecate in the open use a pit latrine. Rural Indians that do not defaecate in the open are in contrast far more likely to use expensive septic tanks. The fact that cultural considerations are paramount in rural India, especially but not only in the north, is underlined by the fact that Indian Muslim rural households are 19 per cent points less likely to defaecate in the open than rural Hindu households, despite the fact that they are poorer on average.

Under this scheme financial encouragement was provided to BPL households for construction and usage of individual household latrines in recognition of their achievements. The main differences between CRSP and TSC are summarised in the table below.

TSC, which was launched to make sanitation demand-oriented instead of being supply-driven, was one of the flagship programmes of the Government of India. Since its initiation and increasing budgetary allocation each year, there was an increase in total number of toilets built. To strengthen the campaign a new incentive was put in place known as the 'Nirmal Gram Puraskar (NGP)' in 2003 (see Figure 11.10). NGP or village free of open defaecation was given to those villages, which have become fully free of open defaecation (ODF). This award increased competition among rural local bodies to hasten toilet construction.

Table 11.1: Differences between CRSP (1986–90) and TSC (2000–11)

	CRSP	TSC
Technology choice	Limited	Range of options
Motivation	Individual subsidy	Creation of felt need for safe sanitation through awareness creation and health education, but subsidy for toilet construction continued
Construction	Through local contractors	Households construct latrines on their own with help from trained local masons
Financial	Individual, upfront hardware subsidy given to BPL households for latrine construction	Latrine construction to be undertaken by BPL household itself and on completion and use of latrine by them, cash incentive of ₹ 1,200
Incentive	No incentive to reward communities for achievement of safe sanitation outcomes	Gram Panchayats eligible for a cash reward Nirmal Gram Puraskar - upon achievement of safe sanitation at community level
Monitoring	Focus on number of toilets constructed	Focus on meeting open defaecation free outcome at the community level

Source: WASH, 2008

This incentive programme worked well initially but once the award was achieved by the villages, the practice of open defaecation started again. For example a study in 2008 by UNICEF, which covered around 162 NGP gram panchayats in six states, showed that in the 162 Gram Panchayats in six states, which received the Nirmal Gram Puraskar, of the 81 per cent households which had built toilets, only 64 per cent used them. About 6 per cent used the community toilets. The remaining were still defaecating in the open. The toilets which were not used for defaecating were used for storing, bathing, and other uses. Hence once this award is achieved it becomes difficult to sustain ODF states. This indicates the strong need for proper monitoring by external agencies, but also simultaneous triggering of behaviour change.

However, the NGP prizes for achieving ODF status have at least encouraged village-level latrine construction. The NGP incentive amount per village increases with village population size: below a village population of 1,000 (according to Census 2001) the prize is ₹ 50,000; it is ₹ 1,00,000 for a village with a population between 1,000 and 1,999; ₹ 2,00,000 between 2,000 and 4,999; ₹ 4,00,000 between 5,000 to 9,999; and ₹ 5,00,000 for a population 10,000 or more. Using two different data sets he constructs,³ Spears (2012a) carried out an econometric test on the dataset: he regressed latrine construction per capita on that village's NGP incentive per capita, with controls for population and other village level characteristics. In both cases, he found that a higher NGP incentive encouraged village-level latrine construction. The most densely populated discontinuity in the prize is around a village population of 1,000.

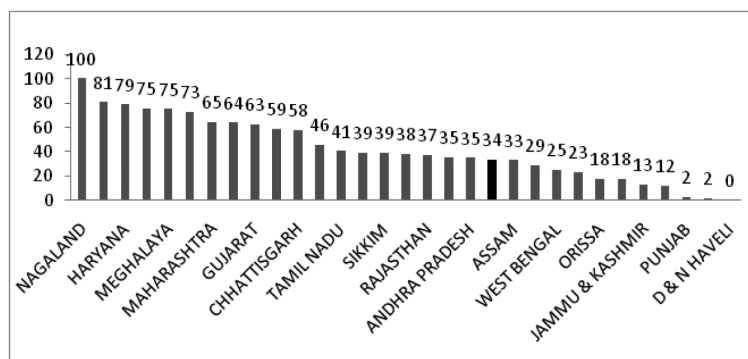
For the larger argument what is important is that a collective prize given to the village as a whole for further development does encourage toilet construction. Second, it is an ex post prize given after monitors have observed actual ODF status. Third, to reiterate what was noted earlier, toilets once built were not being used; in other words, there was no collective behaviour change even with an ex post collective prize.

3 Spears (2012a) constructed two data in order to test the idea that the NGP incentive motivated village pradhans to undertake TSC latrine construction in villages. He drew a random sample of villages from all states from the 2001 census, from among villages with population within 100 people of the discontinuities of prize size by village population. 460 of these villages could be matched to TSC data, based on the village name. A second data set was constructed by matching the TSC toilet construction data to the TSC's own baseline survey for 50 districts. Entire blocks were randomly selected to be representative of the 280 districts used in the district-level analyses.

The implications are two-fold. First, even giving an ex post financial incentive to the village collectively does not guarantee that a village will remain ODF. Hence, financial incentives must be guarded against. Second, just because the increase in prize from ₹ 50,000 per village to ₹ 1,00,000 per village over the 1,000 population cut-off seems to have led to greater latrines constructed (a ₹ 100 increase in the NGP incentive per capita was associated in the regression with a 20 percentage point increase in household sanitation coverage), this does not mean the incentive should be increased. Increasing the size of the NGP incentive may encourage village pradhans (chiefs) to game the system, unless much better monitoring of ODF status is simultaneously assured.

Despite the revamp of the CRSP to TSC, and emphasis on information, education and communication, TSC did not produce the desired result. Under the TSC guidelines, the gram panchayat (the village panchayat) was supposed to have an important role but unfortunately the whole idea of demand creation for toilets with the help of panchayat collapsed as the instruments to fulfil this responsibility were not provided. Effectively the scheme was run by the line department and the major funds were routed by the administrators (see chapter 15 for more on this issue, since this administrative approach to programme implementation affects the efficiency and effectiveness of all government programmes in a large and diverse country like India). The role of the panchayats was limited to raising awareness and assisting TSC staff to build toilets. The expenditure on information, education and communication was not even utilised fully in 2012 (see Figure 11.11). In any case, the nature of the IEC activity envisaged itself was poorly conceived.

Figure 11.11: Total expenditure against total approved (per cent) on information, education and communication regarding safe sanitation



Source: Ministry of Drinking Water and Sanitation

11.3.3 Nirmal Bharat Abhiyan and Swach Bharat Abhiyan: The rechristening of TSC

As India did not achieve the 2010 target, the United Progressive Alliance (UPA) government (2004–14) set a new target of ODF India by 2022, including a much larger budget and doubling of hardware subsidy to households and emphasising decentralised funds to gram panchayats. A big difference between the earlier and the new approach was that the focus was now on ODF communities rather than toilet construction but the efficiency of the system remained doubtful as the possibility of corruption was higher due to higher subsidies (Chambers, 2013). The subsidy for individual toilet construction was increased from ₹1,500 to ₹10,000 per household. With the beginning of the 12th Plan, the Total Sanitation Campaign was renamed as ‘Nirmal Bharat Abhiyan’ (NBA or the Clean India Campaign). The objective was to accelerate the sanitation coverage by comprehensively covering rural communities through a saturation approach (TSC website, 2012). The two main features of the renamed programme were the increase in subsidy to households and a convergence with public employment. Convergence with the national rural employment scheme was mandated through labour inputs being provided (by the Mahatma Gandhi National Rural Employment Guarantee Act or MGNREGA) for toilet construction.

The new NDA Government at the centre (May 2014) renamed the programme again to Swachh Bharat Abhiyan (October 2014). However, its success depends on how efficiently panchayats are provided with financial and technical support to develop a holistic sanitation plan, including solid and liquid waste management for their regions. Further, another crucial element for its success is that the money released by the government is now used more for IEC and not just financing toilet construction requirements. To enable panchayats to effectively plan and implement their strategies, technical expertise is essential. This new avatar should hence focus on training and developing a pool of engineers from district colleges that panchayats can hire. These engineers would then be accountable directly to panchayats and free them from being dependent on overworked government administrative staff.

Leakage of funds is an important factor underlying the failure of TSC, and could still undo the new rechristened programme. The source of this corruption is the large budget for sanitation, especially the hardware (i.e., toilet-building) incentives, and a supply-led, programme with pressures to disburse (as with all such government programmes, for example ICDS for children, or SSA for schooling discussed in chapter 9 and 10 respectively) and count toilets. If anything the scope for leakage was clearly increased by increasing the incentive for households (now to ₹12,000 per household).

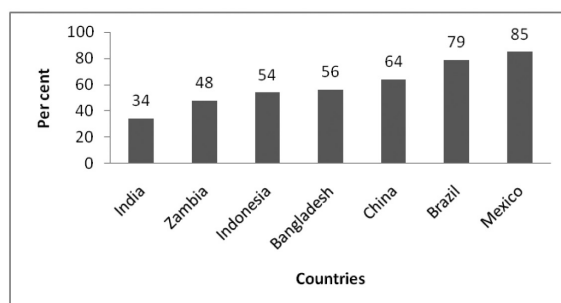
The toilet subsidy cannot be completely removed from the Indian system, so there has to be some innovative way to implement community-led collective behaviour change to achieve ODF. One such idea would be that the subsidy is released only once the whole village achieves and sustains the ODF status for at least six months. The extra money they would receive can be used for solid and liquid waste management.⁴ We will discuss the way forward in the final section, partly drawing upon the international experience of strategies that have been successful in rapidly enabling communities to achieve ODF status.

11.4 Lessons from International Experiences

The goal of the Twelfth Plan is that 50 per cent of the gram panchayats attain Nirmal Gram (ODF) status by the year 2017. The new central government has the goal of achieving a 'Clean India' by October 2019, but no target is mentioned for ODF status. On a reality check of the goal setting by the Indian Government, it is worth reminding ourselves that it was initially planned in 2000 that India would be open defaecation free by 2010. But still more than 50 per cent of Indian population defaecates in the open (69 per cent had no toilets in rural India according to Census 2011). Strong commitment had led to the initiation of TSC with an outlay of ₹ 120 billion, which was claimed to be the world's largest sanitation campaign. But India has around 60 million missing toilets, which were reported to be constructed but the actual structure is not there (Chambers, 2012).

A comparison of India with countries from other regions shows how India still has a long way to go (Figure 11.12).

Figure 11.12: Percentage of households with access to safe sanitation, 2010



Source: UNICEF, JMP-2010

4 This was the intention under TSC as well, but was never achieved, so the focus in case of TSC was on showing toilets constructed in order to claim the individual toilet subsidy.

11.4.1 Introduction to community-led total sanitation

In many middle and low income countries, community led total sanitation campaigns have proved to be extremely effective in areas where constructing toilets alone was not seen as enough. Community-led collective behaviour change (CCBC) (also known as Community-led Total Sanitation or CLTS) is a methodology which entails leaving the decision with the community without directly teaching them about sanitation as such. This methodology is inspired by participatory rural appraisal. PRA, a family of approaches and methods to enable rural people to share, enhance, and analyse their knowledge of life and conditions, to plan and to act can be effectively utilised for increasing sanitation in a locality. This approach owes much to the Freirian theme that poor and exploited people can and should be enabled to analyse their own reality (Chambers, 1997). This method was first introduced as Rapid Rural Appraisal (RRA) by Robert Chambers following the dissatisfaction due to typical field visits by officials and poor implementation.

CLTS is based on having a collective sense of achievement and decision making characterised by innovative low cost toilet structures. It is therefore based on the community's own analysis of their sanitation condition and making them aware. This awareness of health risks of open defaecation instils shame and embarrassment to inculcate a desire to end open defaecation.

Such CCBC initiated in Bangladesh (in 2000) promoted a participatory approach to sanitation rather than just top-down toilet construction by giving a subsidy. This method was first applied to a small village in Bangladesh while evaluating a traditionally subsidised sanitation programme. This led the evaluators to persuade a local NGO that toilet construction subsidy is a total failure in achieving ODF status. They promoted the idea that without a change in attitude and local mobilisation, the mammoth task of ending open defaecation was impossible. This approach spread rapidly across Bangladesh with the help of NGOs and other non- formal organisations (Hanchett et al., 2011). This method then rapidly spread to some states of India, Indonesia and parts of Africa under the Water and Sanitation Programme (WSP) of the World Bank. Later, Water Aid and UNICEF have become important promoters and it is being implemented in around 40 countries of Asia, Africa, Latin America and the Middle East, 15 of which have even adopted it as the official method for improving rural sanitation (Chambers, 2012).

Some international experiences have been discussed below to understand how this programme has been implemented.

- *Sierra Leone*: This country suffered a long period of war, which destroyed much of its infrastructure. To improve conditions, Department for International Development (DFID) and UNICEF agreed to work for a five year programme and improve water, sanitation and hygiene services. In this attempt, CLTS was regarded as the basic mode of scaling up sanitation. The government and international agencies held participatory activities with key water and sanitation stakeholders and did a pilot exercise with 28 villages. The CLTS method in this country included school-led sanitation programmes and then motivating behaviour change in nearly 800 villages in the country. The result was a very quick around with 169 of 754 communities declared ODF with around 24,000 people living in such an environment. The CLTS methodology was widely accepted in the country and by government authorities.
- *Zambia*: This country adopted CLTS by giving special significance to traditional leaders who worked in collaboration with the government. Good hygiene was propagated from household level to district level. CLTS was viewed as a holistic sanitation campaign encompassing all areas of social upliftment and strengthening institutions. Although Zambia had many sanitation and hygiene related laws they were not enforced. It was through CLTS that the laws came into action. The results were astounding. After the pilot it was implemented throughout the country. Of 517 villages where this programme was triggered, 402 were verified as ODF. The sanitation coverage jumped from 38 per cent to 93 per cent in these areas.
- *Nepal*: The case of CLTS in Nepal was very similar to Sierra Leone, wherein children were the main catalyst to propagate the message of good hygiene and cleanliness. This programme was implemented with the help of UNICEF in 2005 and since then school-led total sanitation (SLTS) has been the reason for its success. The CLTS has reached about 90,000 households through 300 schools. 730 child clubs were established, which are managing upkeep and cleanliness of toilets. But the problem with Nepal's sanitation programme is similar to India's, i.e., it is subsidy-driven, which is creating a problem in effective implementation of the programme.
- *India*: CLTS in India was first implemented through the framework of TSC, which provided subsidies to BPL households in rural areas. It was first introduced in two districts of Maharashtra in 2002 and today approximately

16 out of 35 states have implemented it benefitting over 5 million people. However, in no state has the CLTS approach been the predominant one adopted, hence the results were very patchy. States of Himachal Pradesh and Haryana have implemented it in most districts. The approaches of HP and Haryana have been different to implement this.

In Himachal Pradesh it was public policy that no subsidies would be given for the building of individual toilets in households. Instead, communities would only be rewarded on achieving an ODF environment. The whole process was in a campaign mode with clear involvement of the district administration, proper training and a monitoring structure focused on creating ODF communities and not counting toilets (Kar and Sanan, 2013).⁵ There was an intense campaign, including for example popular street theatre, that drove much of the change. Also important was high and middle level political and bureaucratic support. In any case, the fact remains that in Himachal Pradesh, rural household toilet coverage increased from 31 per cent (Census 2001) to 68 per cent by Census 2011, way higher than the 32 per cent average for India. In states like Haryana, Meghalaya and to some extent Maharashtra, subsidy was underplayed or withheld with some success. Haryana did not completely stop the subsidy but restricted the provision to support those who had tried to make sanitation a community-led drive (for example, in Panipat and Sirsa). It was seen that in both states there was around 60–70 per cent sanitation coverage increase during 2006–10. In contrast to these states is Bihar where CLTS was not implemented at all but the subsidy was given to both above the poverty line and BPL groups. In the same time period i.e., 2006–10, sanitation coverage of this state remained only 20 per cent.

11.5 Way Forward for India

We suggest a way forward consisting of the following five components.

- a. The de-emphasis on individual subsidy for toilet construction should not mean that those who don't have a toilet cannot receive financial assistance. Important point is that the government (i.e., gram panchayat) must not build the toilet. The individual household must take responsibility for building it. However, it can be offered a voucher to subsidise purchase of hardware required to build the toilet. This voucher can be redeemed by the toilet-related hardware store at

5 Others have suggested that CLTS was not applied uniformly all over the state: 'evidence suggests that it was deployed selectively' (page 7) for example in communities that were slow to change (Chambers, 2013).

a public sector bank, entitling the retailer to the subsidy given to the customer. In other words, the subsidy works in the form of a cash transfer (see chapter 14 for similar such examples). This possibility is recognised by the Government of India guidelines for rural programmes (Swachha Bharat Gramin Guidelines, para 5.2.2). Given that the new guidelines have increased the financial incentive for individual households from ₹ 4,500 under the previous programme to ₹ 12,000 per household (as of October 2014), the risk remains that the focus of the new government will also remain counting toilets constructed, rather than actual behaviour change in favour of toilet use once it is constructed.⁶

- b. *Focus on triggering behaviour change and training people who will motivate change:* At habitation level, IEC should take the specific form of catalytic leaders 'triggering' behaviour change at the collective level. Hitherto, IEC has meant posters in villages and radio spots and TV advertisements. This has proved less than effective in changing the behaviour accepted by the community as normal i.e., open defaecation. If open defaecation has been practiced for centuries, it is suddenly not going to change because people see a few posters, which in any case illiterate persons (310 million according to Census 2011) cannot read.

Since even one person or household that is defaecating in the open is a risk to all the other individuals/households that are using their toilets, the triggering of behaviour change must happen collectively at community-level. The biggest challenge is to train the 'champions', who will trigger behaviour change at the habitation level. A budget line item should be provided in the capacity building budget for (a) training the 'champions' who will trigger behaviour change; and (b) training of trainers of 'champions' and community level leaders who will conduct the 'triggering' of behaviour change. Such training should be conducted at block level in every district of the country. States, which have made progress with community-led sanitation (for example, Haryana, Himachal Pradesh, Maharashtra), should be prepared to provide the initial master trainers. Historically, there was no incentive to work on collective behaviour change. High subsidies for households reduce the incentive to focus on collective behaviour change.

6 The Ministry of Drinking Water and Sanitation data suggests exactly as we anticipated: a total of 3.1 million toilets were constructed between April 2014 and January 2015, while the plan had been to construct 120 million toilets. The 12th Plan outlay for rural sanitation was a massive ₹ 37,159 cr. (or ₹ 3715 billion). Of this, only ₹ 4724 cr. was utilised in the first two years of the Plan (2012–13 to 2013–14).

CCBC, a concept based on changing people's mindset requires knowledge of the effects of ODF. It therefore requires trained people who are, willing to motivate communities to change mindsets. To create a cadre of trained people in this field India lacks institutions where such skills are imparted or people are trained.

Encouraging behavioural change not to defaecate in the open is an objective that cannot be met without participation of women. It is women who are responsible for fetching water and maintaining hygiene at home and hence have more at stake to improve access to safe water and sanitation. The only time available for women and girls to defaecate is after dark due to lack of toilets in their own homes. This causes discomfort and illness apart from the risk of being harassed on their way to the common field. The Maryada movement in Madhya Pradesh is pioneering women's empowerment as a force for rural sanitation. This and other women's movements should be studied (for example Mahila Samakhya, which has engaged with sanitation and hygiene) to encourage cross-state learning. The new government's programme does provide for triggering behaviour change, but only for one motivator per village panchayat (GP). Since one GP consists of several villages, and a village may itself consist of several habitations, many more persons will be needed to trigger behaviour change and sustain that change. The new programme guidelines speak of village Accredited Social Health Activist (ASHA), the ICDS worker, the school teacher, women from self-help groups and NGOs being used as motivators (though one person will be paid for full-time IEC work, being paid ₹ 150 per case/household).

- c. *Monitoring system:* There is no proper monitoring system to ensure that villages which achieve the open defaecation free status continue to follow the same path. TSC built a Management Information System (MIS) for the purpose of monitoring implementation, which monitors physical and functional progress. However no data is collected on dysfunctional toilets built earlier under the TSC nor is any data collected about actual use of toilets once built and after the village has been declared as NGP winner (Mehrotra et al., 2013). Nor is there any data, which does ground-truthing of actual toilets built as opposed to the number claimed by the reporting officers. Local researchers/university teachers could be mobilised for collecting such information on a yearly timeframe on a sample basis. Secondly, there is no authentication or verification of data collected by administrators on a

routine basis in each district, which then gets uploaded on the programme website as MIS. The central ministry for drinking water and sanitation should involve the National Sample Survey Organisation to verify and authenticate the administrative data on a sample basis. The objective would be to ensure that wide variation does not emerge in future between MIS data reported on the ministry website on physical progress and outputs on the one hand, and Census or NSS data on the other. Whether a state is actually achieving its objectives/milestones of toilets constructed and toilets used should be verified by this means.

- d. *Incentive system for collective behaviour change*: Financial assistance to states by the central government should have two parts. First, a normative grant to states based on population should be allocated as per state priorities (infrastructure, communication, training, subsidy, etc.). Second, a performance grant to states to reward (a) the proportion of rural population certified as ODF communities, and (b) improvements in critical health and nutrition related indicators.

Further, there are other changes in the strategy that are needed:

- No priority selection of village panchayats based on availability of piped water supply, unlike what is proposed in the 12th Plan document (Planning Commission, 2013).
 - Piped water supply schemes should be prioritised for ODF gram panchayats.
 - No direct linkage between toilets to be constructed and the amount to be given to a gram (village) panchayat – to avoid overreporting of toilets constructed.
 - Funds for toilets in schools, anganwadi and public places should flow after verification of ODF status of the village and again this should be a normative allocation.
 - Awards for best performing ODF gram panchayat in every block, district, and state (the new government ended such awards in 2015).
- e. *Developing a menu of design options for hardware*: The 12th Plan emphasises that the technology used by programmes is stereotyped and that it cannot be used under all geographical conditions. This has basically resulted in rejection of these technologies by local communities, water pollution in shallow water

regions and ultimately waste of public funds. Hence region-specific technology needs to be implemented. There are Rural Sanitary Marts and Production Centres in existence in states, which are outlets dealing with the hardware, materials and designs required for constructing sanitary latrines. However, experience suggests that the diverse states of India need improved and different designs.

One function of a new state level body above the rural sanitary marts and production centres could be the development of a menu of designs for hardware (i.e., for a toilet itself, the slab platform and superstructure around the toilet). The soil conditions are different in different states and even within states, which will influence the design of hardware. Hence, there should be a menu of options for hardware type required in each state. Secondly, one function of the state-level body should be to promote the commercial production of such hardware. There is barely a handful of manufacturers of toilet pans in India. The 12th Plan may be right in suggesting that SHGs could be incentivised to undertake manufacture of the construction materials, but this is not a tested approach; better may be to encourage manufacture by small units in each state, while operation and maintenance may be entrusted to SHGs. A low interest loan can be provided by the state body for the commercial production of hardware designs that are among the menu of options. The focus of MGNREGA fund utilisation for the purpose of meeting the NBA objectives should be on using them for solid and liquid waste management rather than on building toilets for households. Households should themselves provide labour inputs for the purpose of buildings toilets in their own homes, as this will contribute to a sense of ownership.

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Part 3

Building a System of Social Protection

Minimising Leakages in Welfare Programmes

How to Identify the Poor Correctly?¹

While the estimation of poverty at the national and state levels was done from time to time by the Planning Commission, periodic Censuses to identify those households that subsist below the deemed poverty line (BPL) have been conducted by the Ministry of Rural Development of the central government. The purpose of these censuses has been to identify the BPL households living in the rural areas who could be targeted for various transfers. This Census was carried out in each of the states of India three times (1992, 1997 and 2002) and each time the methodology used was different, because each time it was recognised that the methodology used earlier was seriously flawed. A new Census to identify the poor was already overdue in 2009, started in 2011 and was completed in 2013 (but its results were still being released slowly on the government's website at the time of writing in early 2015). This chapter spells out a methodology that was eventually used in the latest survey. This new method addressed the many large-scale exclusion and inclusion errors in identifying the poor that had resulted from the previous three Censuses, causing widespread discontent, injustice and fiscal loss to the exchequer due to targeting errors.

The BPL list is of enormous practical importance to both central and state government officials, as well as the rural population at large. This is because the central government uses it to identify the recipients of a series of Ministry of Rural Development and other ministry programmes. The Department of Rural Development was implementing a self employment programme (i.e., Swaranjayanti Gram Swarozgar Yojana or SGSY), under which the rural poor are

1 This is a revised and updated version of a paper published in *Economic and Political Weekly* by Santosh Mehrotra and Harsh Mander. Both were members of the NC Saxena Expert Group (2009) and the drafting committee of the expert group report. This paper's earlier version/expert group report became the basis of the methodology actually employed in the Socio-Economic and Caste Census (see Ministry of Rural Development, 2011).

organised into SHGs, and provided financial assistance and capacity building to set up economic activity through a mix of credit and subsidy (see chapter 3). The objective is to provide economic assets to BPL families so that they get incremental income on a sustainable basis. Similarly, the Indira Awaas Yojana (IAY) is a rural housing programme under which financial assistance is provided to BPL families for construction of a house. Indira Gandhi Old Age Pension Scheme (IGNOAPS) was extended to all BPL households in 2008 having elderly members of 65 years and above (see chapter 13). Further, the Department of Drinking Water Supply implements a individual household toilet building programme (since 1999) under which BPL rural households are provided with financial assistance for construction of toilets (see chapter 11).

Equally importantly, the BPL list is used to give ration cards to beneficiaries who access the public distribution system for cereals (see chapter 10), which entitled them to a 35 kg ration of wheat or rice, depending upon the state. Further, state governments also used this database for targeting several schemes and services to the poor. These include maternity benefits, and insurance paid at the death of a bread-winner of BPL families. Some states even require BPL cards for accessing free medicines, hospitalisation or medical investigations in government hospitals. Despite repeated directions, including of courts, to not use BPL ration cards for this purpose, these are used also as proxy identity cards, as *de facto* proof of identity, residence and even (in cases of contested citizenship such as of alleged Bangladeshis) of citizenship. No wonder then, there was a great demand to somehow get included in the BPL list.

Given the enormous importance of the list, the methodology should have been as close to foolproof as possible. If anything, it was quite the opposite – as will be seen in this chapter. Section 12.1 reviews the criteria that were used over the first three surveys (over 1992 to 2002), focusing in particular on the first two. Section 12.2 spells out the basis of the third survey (of 2002), which has been the basis for the BPL list between 2002 and 2015, and critiques it thoroughly. Section 12.3 spells out the theoretical framework underlying the practical proposal we put forward (in 2008) in the next section. Section 12.4 proposes the alternative set of criteria for identifying the poor, and elaborates on the procedure for the Census that was in fact conducted by the government of India over 2011 to 2013. Section 12.5 uses a similar conceptual frame that drives the choice of criteria for the rural survey to suggest criteria for a urban census. These urban criteria were actually used in the state of Delhi in 2008 (in which the author was involved). The final section discusses the actual survey conducted (2011–13), its design and how it

was implemented, and the problems therein – thus hinting at the problems that may continue to arise in the future.

12.1 The Origins of the Below-the-Poverty Line Census

The Integrated Rural Development Programme (IRDP) was launched in October 1980 in all the blocks of the country as an instrument of poverty alleviation in the rural areas. Under IRDP, the approach was to assist the poorest of the poor rural families first and the target group was the rural families with annual income below the cut off line of ₹ 4,800. But in fact families with an annual income up to ₹ 3,500 were assisted first. Registers were maintained at the village level for recording persons identified in monetary terms to be under the poverty line as defined by the Planning Commission. There was no systematic survey or Census to prepare the BPL list. The resources under IRDP were limited. Therefore, under the guidelines, priority was to be given to the poorest of the poor. However, it was noticed that a large number of beneficiaries who were either ineligible or were comparatively better off got assistance under the programme.

12.1.1 BPL Census 1992

In 1992, for the 8th Five Year Plan a detailed procedure was prescribed to identify BPL families in rural areas. The need for a systematic survey of BPL families was felt because a significant part of benefits of IRDP had gone to either ineligible categories or to the non-poor, the most eligible families were left out, including those living in outlying hamlets of villages, nomadic families and women headed households. The 1992 Census used income as a criteria; the annual income cut-off was ₹ 11,000 per household, below which all were poor. The BPL families were classified into four income ranges of ₹ 0–4,000, ₹ 4,000–6,000, ₹ 6,000–8,500 and ₹ 8,500–11,000.

However, in the 1997 Census the income criteria was dropped, since it was felt that there is always an inherent bias among the population to under-report income so as to be covered within the target group.

12.1.2 BPL Census 1997

In the 1997 Census, it was decided to use exclusion criteria – and all rural households that were not excluded were considered as BPL. Five exclusion criteria were used: (a) whether the household was operating on more than 2 hectares of land; (b) whether it had a *pucca* house; (c) whether any resident member of

the household has an annual income from salary/self-employment exceeding ₹ 20,000 per annum; (d) whether the household owns the following consumer durables: tv, refrigerator, ceiling fan, motorcycle/scooter, three-wheeler; and (e) whether the household owns the following farm implements: tractor, power tiller, combined thresher/harvester. These exclusion criteria could be used for weeding out those families for the Census which are *prima facie* not poor.

Once the poor were thus identified, further information was sought about all BPL families, but this information was not intended to be used for ranking the BPL. It was intended merely to acquire further information about the characteristics of the household. These criteria were housing status: whether the house was *kutcha* or *pucca*; whether it was owned or rented. Information was also obtained about whether the family was landless or was a small/marginal farmer, and whether the land was irrigated or not. Other information was about ownership of livestock assets, formal training acquired; expenditure of the household on various food items; receipt of assistance from government programmes (for example, IRDP, Training Rural Youth for Self Employment or TRYSEM, Development of Women and Children in Rural Areas or DWCRA, Employment Assurance Scheme or Jawahar Rozgar Yojana); perception of household regarding sufficiency of food (for example, “two square meals a day”); indebtedness of the household; and whether any household had migrated.

It is remarkable that most of these same questions were used, and then given a score when the 2002 Census was undertaken. In other words, roughly the same questions were used in 2002 as in 1997 – as one can see in Box 12.1.

Box 12.1: Indicators used for identification of BPL in Census 2002

1. Landholdings (tick ✓ one and indicate score)	2. Type of house
i. Nil holdings	i. Houseless
iii. Less than one ha un-irrigated or 0.5 ha irrigated	ii. Kutcha
iii. More than one and less than 2 ha un-irrigated or 0.5 to 1 ha irrigated	iii. Semi pucca
iv. More than 2 ha and less than 5 ha un-irrigated or 1.0–2.5 irrigated	iv. Pucca
v. More than 5 ha un-irrigated or more than 2.5 ha irrigated	v. Urban type

3. Availability of clothing i. Less than two pairs ii. More than two pairs but less than four iii. More than four pairs but less than six iv. More than six pairs but less than ten v. More than 10 pairs	4. Food security i. Less than one meal per day in major part of the year ii. Normal one meal but sometimes less iii. Normal one meal throughout the year iv. Two meals per day and occasional shortage v. Enough food
5. Sanitation i. Open defaecation ii. Group latrines with irregular water supply iii. Group latrines with regular water supply iv. Group latrine with irregular water supply and sweeper v. Private latrine	6. Ownership of consumer durables viz. TV, electric fan, kitchen appliances, cooker, radio etc. i. Nil ii. Any one item iii. Two items only iv. Any three v. All items
7. Literacy status of highest literate i. Illiterate ii. Up to primary iii. Completed secondary/passed 10th iv. Graduate/professional v. Post graduate/professional	8. Status of household labour i. Bonded labour ii. Women and child labour iii. Only adult female and no child labour iv. Adult males only v. Others
9. Means of livelihood i. Casual labour ii. Subsistence cultivation iii. Artisan iv. Salary v. Others	10. Status of children i. Not going to school and working ii. Going to school and working iii. Nil iv. Nil v. Going to school and not working

11. Type of indebtedness	12. Reason for migration
i. Daily consumption purposes from normal sources	i. Casual work
ii. For production purposes from normal sources	ii. Seasonal employment
iii. For other purposes from normal sources	iii. Other forms of livelihood
iv. Borrowing from institutional agencies	iv. Non-migrant
v. No indebtedness and process assets	iv. Other purpose
13. Preference for assistance	
i. Wage employment	
ii. Self-employment	
iii. Training and skill up gradation	
iv. Housing	
v. Loan/subsidy more than ₹ 1 lakh or no assistance require	

Source: Ministry of Rural Development, 2002

12.2 BPL Census 2002 – Problems with the 13 Criteria

The criteria for identifying BPL households should be of a directly verifiable and observable nature. Box 12.1 lists the questions in the household questionnaire used to identify the poor in 2002. Most of the 13 criteria, on the other hand, are not easily or clearly verifiable. The list of BPL arrived on this basis has been used since 2002 till the time of writing (January 2015) to identify the poor.

These criteria have been widely and bitterly attacked, by rural poor and their organisations, and by NGOs. We will deal very briefly with each question in the list of 13 in turn, and some of the obvious difficulties with each:

- *Landholdings*: The question on land holdings does distinguish between irrigated and unirrigated land, but it does not distinguish between land irrigated as a result of private investment (for example a privately dug tube-well) from a publicly irrigated piece of land. Private investment in irrigation implies an ability to invest, and could hence imply a higher income. Secondly, the question makes no provision for distinguishing land by its quality, which goes beyond the issue of irrigation.

- *Type of house*: This question is reasonably clear cut. Census criteria used by the Registrar General of India enable us to clearly distinguish between a *kutcha*, semi-*pucca* and *pucca* house. But there is a contradiction: for nearly two decades governments, both central and state, have been providing BPL households houses either under IAY or state government programmes. How these families will be accounted for – given that despite being poor they now have *pucca* houses – is a question that was never adequately discussed.
- *Availability of clothing*: This question investigates whether a person owns less than two pair of clothing at a minimum, increasing up to ‘more than 10 pair’. This question is flawed for several reasons. First, in colder climates more clothing is required than in warmer climates. Second, it is unclear from the question whether undergarments are counted among clothing or not. Answers to such a question are bound to lead to very unclear outcomes.
- *Food security*: This question is comparable to the NSS question on ‘whether a family gets two square meals a day’. Even if all the members of a household eat two meals per day there may be serious problems with the quality of the meal, as reflected in the calorie intake and protein intake per meal. Moreover, there is no way the answer to the question will reveal how the food is being shared between men in the household on the one hand, and women and girls on the other. It is also a humiliating question to put to any household and is unlikely to elicit a honest response.
- *Sanitation*: This question investigates whether the family defaecates in the open or in a group latrine or in a private latrine. If the family has a private latrine the household would get four points, i.e., the maximum number of points. By getting the maximum number of points even for one question the family runs the risk of scoring itself above and out of the BPL category. In other words, this is a perverse question and encourages perverse behaviour. This kind of question would discourage families from actually investing in a private latrine.
- *Ownership of consumer durables*: Possession of a TV requires a much higher purchasing power than possession of an electric fan or radio. Therefore, simply counting, as the BPL Census questionnaire does, whether the household has any such item or ‘all items’ is not a meaningful exercise. However, we proposed that in future the criteria could be modified to consider possession of consumer durables (for example, a motorcycle, colour TV, refrigerator) as exclusion criterion, as a criterion for excluding a house hold from the BPL category.

- *Literacy status of highest literate*: The lowest scoring category under this criterion is 'illiterate' while the highest scoring category 'post graduate'. There is a risk that this question will not yield very meaningful answers for many reasons. First, even with a post graduate degree the holder of the degree may still be unemployed. An unemployed person may still thus be the head of a poor household. Second, what means will the investigator use to interrogate and then confirm the educational status of the highest literate is also not clear. Once again this provision also perversely places at a disadvantage a poor family that did send a child to school as it would have sacrificed money and the opportunity costs of child labour earnings foregone by sending the child to school.
- *Status of household labour*: As formulated in the questionnaire, this question does not address the problem that in most rural households women and children work alongside the adult male on the family farm. In any case, it is unclear how the investigator will ascertain that only the adult male in the household is working, while the woman and children are not.
- *Means of livelihood*: This question asks whether means of livelihood is casual labour (zero points), or subsistence cultivation (1) or artisan (2), or salary (3), or others (4). This question simply fails to understand that the poor always have multiple sources of livelihood, and members of a household are likely to be engaged in different kinds of work, and even the same individual may engage in different kinds of work and derive income from those sources at different times of the year. In other words, it is impossible for households, while answering the question, to merely tick one of the five listed answers to the question.
- *Status of children*: This question investigates whether the children are 'not going to school and working', or 'going to school and working', or 'going to school and not working'. As with the question on literacy, the answer to this question would be either perverse or not meaningful if it encourages parents to force the child to not go to school and only work, simply because it would entitle them to zero points and hence increase the chances of the household being counted as BPL.
- *Type of indebtedness*: This question, of all questions among the 13 criteria, shows the least understanding of ground realities of rural indebtedness. The poorest people lack assets, which can be used as collateral, and hence are unable to borrow. But this question gives the highest score '4' to the household that is not indebted. In another words, the poorest household might end up getting four points and thus rule itself out of the BPL category.

- *Reason for migration:* This question gives the lowest score to the household which has a member migrating for casual work, and gives the score of 3 to non-migrants, and score of 4 to those migrating for reasons other than casual work. Quite apart from the fact that this question does not distinguish those households from which only one member has migrated from those where more than one member might have migrated thus determining total remittance income, it is entirely unclear why the reason for migration should merit different scores for the purposes of determining whether a family is BPL or not. Fittingly, the West Bengal government excluded the criteria in its rural survey.
- *Preference of assistance:* This question is also among the most meaningless among all the criteria. It does not attempt to establish the current status of a household in respect of a particular tangible dimension of well-being, but rather interrogates whether the household would like to receive assistance in the form of wage employment (zero) or self-employment (1) or training (2) or housing (3), or a loan worth more than rupees one lakh (4). Given that such a question would yield answers that are less than meaningful when comparing across categories of answers, the West Bengal Government eliminated this criterion from its rural survey.

12.2.1 Other issues related to the Census 2002

For each question, the enumerator was supposed to tick one answer. For the first answer the score given was 0, for the second it was 1, for the third it was 2, for the fourth 3, while for the fifth answer the score was 4. The higher the score, the more likely it is that the household would not be counted as BPL. The maximum score would be 54 for the 13 questions taken together. The cut-off for BPL category was determined by the head-count ratio as given by Planning Commission's estimates for poor in the state concerned. In other words, there could only be as many poor as the Planning Commission had estimated. This estimate by the Planning Commission was based on the latest consumption expenditure estimates provided by the National Sample Survey organisation. It is these estimates that were the basis of the discussion of poverty in chapter 1. However, as noted above, this current chapter is focused on how to identify the poor, and not the estimate (of head-count ratio) of the poor. While the identification is done by means of a census of households in the country, the NSSO estimates household consumption expenditure by means of a sample survey across the country. Naturally, the score for determining those households identified as poor was going to be different in

each state. In most cases, the cut-off was between 16 and 25. In other words, these could be the households that become beneficiaries of special direct interventions to benefit the poor.

One important feature of the guidelines issued for BPL census 2002 was to put a ceiling on the number of BPL households to be identified in a state in conformity with the poverty estimates of Planning Commission.

The fact that there is a cut-off for determining the total number of poor for a state had several implications. First, there was, as Hirway (2003, 4805) notes, a 'mad rush' to be enrolled as poor, and 'the rich and powerful in a village frequently pressurise the talati and the sarpanch to include their names in BPL lists.' The 'mad rush' led to Type I and Type II errors, or errors of exclusion of the legitimate and inclusion of the illegitimate from the list of beneficiaries. The scale of inclusion and exclusion errors was huge. Thus, in 2004–05 the percentage of poor with no ration cards (which entitled them to subsidised cereals and kerosene for cooking/lighting under the TPDS – see chapter 10 for more discussion) was 19 per cent (exclusion error). The share of poor who had a BPL card was only 36 per cent. And the percentage of BPL cards that were with the non-poor was as high as 60 per cent (inclusion error) (Planning Commission, 2008). Hence, the dissatisfaction with the 2002 methodology of identifying the poor was great, especially among the poor. Our approach, as outlined in the next section, is quite different:

- There is no cut-off that we suggest that corresponds to the Planning Commission cap for the number of poor in a state. In fact, we suggest that each scheme should have its own cut-off, depending upon the resources available, and the resources are a function of the financial allocation made not just by the central government (which is usually the bone of contention between the central and state governments) but by the state. If the state government decides that the allocation required by the needs of its population is greater than can be achieved from central government's funds, then the state government should be willing to utilise its own resources for the programme.
- Our effort is simply to give scores to families, and thus produce a ranking of the population in the village.
- The criteria are so directly verifiable or observable that almost no one – poor or rich – can pretend to be what they are not.

Another criticism, pointed out by Jain (2004), was that, for instance, in Madhya Pradesh the block panchayat officers announced that the first list of BPL families

was final and did not entertain any grievances, and that the cross-checking did not function. However, this kind of problem should not arise with what we proposed to the government since our exercise is not intended to lead to a 'BPL List'; we were only proposing that the objective of the household census will be to generate a ranking of households according to directly observable criteria, and the cut-off will come later for each scheme/programme, and the cut-off may well vary for different programmes.

Another criticism (Alkire and Seth, 2008) of the 2002 criteria is that the BPL Census focused mainly on resources (land, house, clothing, food bathroom, consumer goods, loans), rather than capabilities (i.e., the things that households are able to do and be (nourished, educated, health). We should state at the outset that our proposed criteria also do not capture capabilities. But we are not apologetic about that, since such capabilities are not easily measured in the field by ill-equipped officers who are expected to do a census of the entire rural population of 800 million people (or nearly 170 million households). For instance, we earlier felt that there is a case for targeting households by body mass index, given that a third of Indian adults (according to NFHS 3 of 2005–06) were malnourished (i.e., have a BMI of less than 18.5). However, we had to abandon the idea since we know that sturdy weighing scales that will also measure height are very expensive, and are likely to malfunction after repeated use, especially when the weighing scale must be carried around from village to village and from house to house in dusty conditions.

Some state governments raised objections to capping the total number of BPL households to be identified. This problem usually arose because this database of BPL Census is often used by state governments for other centrally sponsored and state sector schemes also. Therefore, a number of states had expressed difficulties in restricting the number of BPL households in their state to the limit fixed by Planning Commission based on its official head-count ratio of the poor for that particular state.

Given the variety of problems that arose with the 2002 Census, it was felt necessary to completely revise the criteria for identifying the poor.

12.3 Conceptual Framework

For identifying the potential beneficiaries of government welfare programmes, we propose that the entire population should be conceptualised as consisting of three

groups. The first are those who are well-off enough to be automatically excluded from the beneficiary category. The second are those who could automatically be included in the beneficiary category – the poorest of the poor. The third will be the remainder, in-between the automatically excluded and included category. They will have to be ranked by degree of deprivation.

There is a theoretical framework that led us to the choice of criteria. First, the exclusion criterion above shows that we propose automatically to exclude those households that have at least one member working in the formal economy, either in the public or private sector. This is because they constitute barely 7 per cent of the nation's population, and by definition they do not experience the kind of vulnerability to exogenous shocks that we are trying to capture here. In other words, we are concerned exclusively with those who toil and subsist without any social security in the informal or unorganised sector of the economy. However, 93 per cent of the workforce is informal work, so we must have a variety of filters to clearly identify the poor, through directly verifiable and observable characteristics (to make for administrative ease and convenience).

So our filters are not amenable to easy manipulation by the local elite. The inclusion criteria use multiple principles for identifying the poor. There are essentially three inclusion criteria:

- workers in low income-yielding, undignified, unsafe or highly vulnerable (to exogenous shocks) occupational categories;
- households where the bread-earners' working (and earning) capacity is significantly compromised by constraints over which they have no control;
- households subjected to social exclusion on the basis of their ascribed status in historically disadvantaged groups, which we call affirmative action categories.

The occupational categories are in some ways self-explanatory since most of the members listed in this category relate to agriculture, which is the principal occupation in rural areas. Inclusion of the self-employed artisan may require some explanation; quite often they will have limited land, and in a rapidly modernising economy, they face competition to their craft from manufacturing industry that is gradually making their earnings highly vulnerable. In addition, there are those residing in forests or close to heavily-forested areas that are dependent mainly upon forest products for acquiring their food, and thus again quite vulnerable.

It is the remaining two categories that perhaps require further explanation.

They are both categories that involve social exclusion. Karl Marx (1862-1990, 603) wrote evocatively of the exclusion of destitute populations from what he described as the 'political economy' perspective:

Political economy does not recognise the unoccupied worker ... The beggar, the unemployed, the starving [and] the destitute are figures which exist not for it, but only for the eyes of doctors, judges, gravediggers and beadles. These are nebulous figures, which do not belong within the province of political economy.

Incidentally, Marx was right about their exclusion, but not about their being 'unoccupied workers'. On the contrary, we have found that the destitute (many of which are captured in the third category) are forced to labour in arduous, low-paid, undignified work in order even to stay barely alive as each new day dawns.

In a perceptive paper, Barbara Harriss-White tries to unravel the features and sources of destitution. First, it involves the absence of any control over assets and the loss of access to income from one's own labour. This loss of control may result from mishaps, addictions, disasters, health emergencies, and collapse or withdrawal of family support.

A plausible common sequence involves the progressive liquidation of small stock, livestock, consumer goods and eventually the failure to protect from sale the key productive assets. The right to the asset of one's own labour may be forfeited. This right may be sold (bonded) to others. The concept of dependence may be transformed and the labour of non-labouring dependents sold or bonded. The most extreme tactics do not involve the sale of labour so much as the marketing of the body itself (as in the sale of blood or of organs or the renting of the body as in sex work) (Harriss-White, 2003, 2-4).

The destitution and helplessness of highly marginalised groups do not arise frequently from low incomes or even from their own intrinsic and irrevocable biological infirmities (such as of age and disability), but from the fact that in many cases these infirmities are externally imposed by social arrangements themselves. There are some echoes of this idea in some of the recent literature on social exclusion. Whereas concepts such as poverty, vulnerability, deprivation and inequality do not impute causality, a social exclusion framework implies not only that a person or persons are being excluded but that someone or something 'is doing the excluding'. The word 'exclusion' suggests that there is a core and a periphery, and that 'excluded' people are those who are actively blocked access to the core. The importance of these perspectives is that poverty is not perceived to be

a mere attribute of certain categories of people. Instead, it is seen as something that is actively done to people. It is not what they are, but what they have been made. It is interesting that the ex-untouchables of India have discarded the appellation given to them by Gandhi – harijan, meaning children of god, which they regard as patronising. They prefer dalit, which means one who is crushed – because the term implies that they have been oppressed, and it has therefore, acquired a cultural context of assertion and anger (which is what we try and capture in the affirmative action categories like most backward castes, scheduled castes, primitive tribes). In this sense, the term ‘exclusion’ is useful.

So also is the word ‘social’. The most evolved definition of food security, so far, at the time of writing that we could locate in the literature appears in *The State of Food Insecurity in the World 2001*: ‘(Food security is) a situation that exists when all people, at all times, have physical, *social* and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life’ (FAO, 2001; emphasis added).

The inclusion in the definition of social access is highly significant, because it acknowledges that people may be barred from access to food even if it is locally available and they have the economic means. These social barriers to food security may include gender, caste, race, disability or stigmatised ailments (e.g., HIV/AIDS or leprosy). Herein lies the foundations for the last two categories in our inclusion criteria for identifying the poor.

12.4 A Proposal for a Census to Rank Households by Deprivation

We proposed the following procedure for the new census of BPL families, which will overcome most of the problems encountered in earlier censuses, by methods which are indeed transparent, objective and verifiable. We list our proposals separately for rural and urban areas.

The households which fulfill any one of the following conditions should not be surveyed for BPL status:

- families who have 2 standard hectares of agricultural land or its equivalent plantation land;
- families who have two or four wheeled diesel and petrol vehicles;
- families who have at least one running bore well;
- any person in the family is drawing a salary of over ₹ 10,000 per month in government/non- government/private organisations; and

- income tax payers.

Thus, the above categories should be automatically excluded from a BPL list. The survey should include all households in the village except those that are excluded by criteria listed in the preceding paragraph, and will not have any cut-off line. Ideally, there should be a category who should be automatically included in a BPL list – who could be considered the poorest of the poor. However, to identify them, the survey will rank them. It will only rank families by the criteria below according to the scale and weightages given below. Each department which uses the list will have to take a decision about where it wishes to establish its cut-off.

12.4.1 The criteria

For the sake of simplicity and clarity, each household should be marked out of 100 (this method worked well in BPL census done in Kerala in the noughties). It is easy even for illiterate poor people to understand that they obtain marks out of 100 (instead of the 54 maximum that a household could have received in the 2002 Census). It is possible for highly disadvantaged households² to be awarded more than 100 points on this scale such as for a landless, aged, single woman-headed household from a designated primitive tribal group.

a. The ranking should be done on the following parameters:

i. Occupational categories:

- Destitute/dependent on alms:³ 40
- Forest gatherer:⁴ 40
- Landless workers:⁵ 35

2 Definition of a household: 'Household' should mean a nuclear family comprising mother, father, and their (unmarried) children, and may include any person wholly or substantially dependent on the head of the family. Household will also mean a single-member family. Within households, which may even share a kitchen and roof, the following will be treated as separate household: (a) a single woman and her children; (b) old individuals or couples in which one or both are beyond the age of 65 years; (c) every disabled adult with spouse and children; (d) every adult with leprosy, mental illness or HIV/AIDS with spouse and children; and (e) bonded labourers with spouse and children.

3 Destitute/dependent on alms: A household in which no member is 'employed' in regular, casual or seasonal employment and the household is completely dependent on alms for survival.

4 Forest gatherer: A household in which no member is 'employed' in regular, casual or seasonal employment and the household is completely dependent on foraging, gathering and hunting from the forest for survival.

5 Landless worker: A landless worker household is one in which no member owns any cultivable land either himself/herself or through his/her parents.

- Tenant/sharecropper:⁶ 30
 - Marginal farmer:⁷ 30
 - Small farmer: 25
 - Self-employed artisan:⁸ 30
- ii. Affirmative action categories:
- SC/ST:⁹ 30
 - MBC (designated Most Backward Castes):¹⁰ 15
 - Muslims: 15
 - Designated Primitive Tribal Group:¹¹ 50
- iii. Disability categories:
- Single women headed household:¹² 40
 - Disabled bread-earner:¹³ 40

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- 6 Tenant/sharecropper: A farmer who does not own but cultivates land owned by other persons and leased from those other persons, provided that the total land that the farmer cultivates (both as land owner and lease) should not exceed 2 hectares.
- 7 Small farmers and marginal farmers: For the definitions of small and marginal farmers it is suggested that the Planning Commission sets up a Committee to decide the definitions for each state (or sub-regions of states) based on state-specific local conditions. The following is the categorisation used by the NCEUS in its report on 'A Special Programme for Marginal and Small Farmers' landless <0.01 ha; marginal 0.01–1.00 ha; small 1.01–2.00 ha; semi-medium 2.00–4.00 ha; medium 4.00–10.00 ha; large >10.00 ha.
- 8 Self-employed artisan and worker: This is a household, which is primarily dependent on income from non-agricultural work, which is not regular and is based on either daily wages or piece rate basis, and which is based entirely on family labour with no wage employment of other workers.
- 9 All the groups that come under SC/ST in each state, as scheduled in the Constitution.
- 10 MBC (Designated Most Backward Castes): In states where there is a government defined list of MBCs, the castes under these lists should be treated as MBC for this purpose as well.
- 11 Designated Primitive Tribal Group: All designated PTG families based on the state lists.
- 12 Single women headed household: A woman who is either a widow, deserted/separated, divorced or is above 35 years of age and is unmarried is a single woman. A single woman and her unmarried children must be considered as a separate household even if they are living in a larger unit sharing a common roof and kitchen.
- 13 Disabled adult (breadearner): All persons who are defined as disabled by the Persons with Disabilities Act (PWD), 1995 should be considered as being 'disabled'. The Act defines a disabled person as one who is 'suffering from 40 per cent or more disability'. This can be certified by the gram panchayat. If any adult member of the household, between 18 and 65 years of age is disabled, then the household should be given the 40 points under this category.

- Bonded workers (bread-earner or dependent):¹⁴ 40
- Old person headed household:¹⁵ 40
- Bread-earner with HIV AIDS, leprosy, mental illness:¹⁶ 40
- Bread-earner with TB:¹⁷ 20
- Disabled dependent: 20

Our suggestion was that those will be treated as automatically included in the BPL list that scored on their own 40 points i.e. any household category that has an individual score of 40 would get automatically included. Thus, in the occupational category, the destitute dependent on alms and forest gatherers in rural areas would be included.

Since such a massive survey is to be undertaken, certain questions will be asked which will not be included in the scoring system, but which will give useful feedback about the status of poor families, their access to government schemes and the services that individual families should be able to access. For instance, additional questions that should be asked in the survey could be as follows:

- Does the household have a job card under NREGA?
- Do members of the household migrate seasonally?
- Does the household have a BPL or AAY ration card at present?
- Does the household have title to their house-site?
- Is their home (a) *kutcha*; (b) *pucca*; or (c) they are houseless?
- Does the household have individual sanitation?
- Are all children below six years, if any, enrolled in ICDS?
- Are all children between six and 14 years, if any, enrolled in ICDS?
- Is there any person above the age of 65 who receives old age pension?

14 Bonded workers (bread-earner or dependent): A household in which any one (or more) of the adult or minor members is working as a bonded worker – i.e., is working in lieu of an advance (or loan) taken, is not free to work elsewhere and is receiving less than minimum wages.

15 Old person headed household: Any person above 65 years of age is an old person. An old person or a couple where one or both the members are above 65 years of age must be considered as a separate household even if they are living in a larger unit sharing a common roof and kitchen.

16 Bread-earner with HIV/AIDS, leprosy, mental illness: A household in which any member has been diagnosed as being HIV +, has leprosy or is mentally ill.

17 Bread-earner with TB: A household in which any member has been diagnosed with TB in the last five years.

Proposed procedure for census of rural families: The Census should be undertaken by government functionaries from a different block or mandal from the one in which the village is located. It will be supervised by the gram panchayat. The survey will be shared in a meeting of the Gram Sabha and its approval obtained before it is finalised. The first appeal against both automatic inclusion and exclusion errors alleged in the list will lie with the Gram Sabha. The second appeal will lie with the Chief Executive Officer of the District Panchayat, and his/her decision and reasons (in writing) will be final and binding.

The Census should be valid for a period of 10 years. However, each state government/UT should invite objections and undertake a summary revision of the list every two years, specifically to take account of (a) death; (b) new households; (c) in- and out-migration; and (d) changes in fortunes of the households.⁵ The revised lists prepared on the basis of this summary process will be read out and approved by the Gram Sabha.

Any individual should also retain the right to apply for correction in the list at any time to the Gram Panchayat, and his/her application will have to be disposed of within a period of 3 months of the application. The first appeal against the application should be to the Gram Sabha, and the final appeal should be to the Chief Executive Officer of the District Panchayat.

The basic unit of the census should be a household as defined above. Care must be taken to not exclude homeless households who may not have a roof, but who reside in the village; and destitute and isolated single individuals who should be treated as separate households for purposes of the survey.¹⁸

12.5 Criteria for Identifying the Poor in Urban Areas

Apart from the natural increase of the urban poor already residing in the areas, migration from rural areas and from smaller towns to larger towns is an important source of the rise in the number of urban poor. NSSO's 64th Round (2007–08) shows that the proportion of migrants in the urban population was far higher (35 per cent) than the share of migrants in rural areas (26 per cent). Among the migrants in urban areas, nearly 59 per cent migrated from rural areas

18 Care must also be taken also not to exclude out-migrants. The survey deliberately should coincide with the *kharif* sowing and harvesting season, when seasonal migrants are expected to return home. But in regions when the sowing and harvesting season does not fall within the prescribed time period, a special dispensation should be sought from the Ministry of Rural Development, GoI to reschedule the dates to include the sowing and harvesting season.

and 40 per cent from other urban areas. Casual employment and uncertain livelihoods among males living in temporary urban shelters is a common feature of urban life. At the same time there is a large floater population living in shifting camps, mostly construction workers, which raises a problem with service delivery to them.

While there has been some attempt over the past two decades to identify the poor in rural areas, even though very inadequately, in the urban areas no serious attention had been given to the task of identifying the poor correctly. As a result politicians and officials have had a field day in using the identification of poor as a means of political manipulation for decades. For instance, in Delhi the method of identifying the 'poor' used to be anyone who had a self-declared income per annum of less than ₹ 100,000 – as long as a local member of parliament or legislative assembly would certify that income. The scope for rent-seeking by politicians and fraud by citizens is obvious in such a scheme of things. We, therefore, made an effort in 2008 to suggest some criteria for identifying the poor for a metropolitan city like Delhi. In fact, the outline suggested here has been the basis for determining the questionnaire that was used in late 2008 for a first round of survey in Delhi.

Again, the principles are the same as for rural areas. First, the criteria should be easily verifiable and directly observable, and hence they should be simple and transparent. Only then can we avoid misuse or misinterpretation to suit special interests or as a basis for building a network of patronage. Second, the social vulnerability criteria are the same: for example child-headed households, single women and single women-headed households, disabled people and families with disabled people, old people without caregivers, and so on.

Essentially, there should three filters used in identifying the poor, the first being social vulnerability (as just noted). The second filter should be occupational categories – as in rural areas, except that the occupational categories would be different in urban areas. The occupational categories we have suggested for urban areas are: rag pickers, casual daily wage workers, rickshaw pullers, porters, construction workers, street vendors and hawkers, domestic help. The difficulty with this category is how to come up with a sufficiently exhaustive list to capture the poorest people in the unorganised sector.

The third filter is completely different and relies upon place of residence,, which is absolutely critical as a clear, transparent means of identifying the poor in urban India. In Delhi we suggested the use of three categories: (a) shelterless;

(b) dwellers of unauthorised slums; and (c) dwellers of authorised slums and residents of resettlement colonies (in the latter case only direct allottees would be eligible, not later purchasers). The place of residence is an indicator of access to public services, as it may safely be assumed that the shelterless will have least access to public services, followed by residents of unauthorised slums (where government would have undertaken no up-gradation of services), followed by authorised slums and resettlement colonies.

An expert group under the chairmanship of S. R. Hashim (2011–12) came with a set of appropriate criteria for identifying the urban poor in India. The expert group started with the determinants of vulnerability facing the poor: residential vulnerability, social vulnerability and occupational vulnerability – similar to the ones suggested above.

Besides these three sets of criteria the expert group suggested a methodology to identify the urban poor. Automatically excluded from the BPL category would be those households which, in a house-to-house survey, have a four-wheeled motorised vehicle, an air-conditioner or a computer. Also excluded would be households possessing any three of the following assets: refrigerator, landline telephone, washing machine, and two-wheeled motorised vehicle. Secondly, the BPL will automatically include some specific categories facing residential, occupational or social vulnerability. An example of residential vulnerability would be a household with a house in which the roof and wall are made of polythene. An example of occupational vulnerability (which would lead to automatic inclusion in BPL) are such households where all earning adult members are daily wagers. Finally, as an example of social vulnerability a household is automatically included in BPL category where members between 18–60 either have a disability or are chronically ill. All or each of the three types of vulnerability – residential, social and occupational – could be scored and thus ranked. The minimum possible score under each type of vulnerability would be one and the maximum would be five.

12.6 The Design of the Actual Survey Conducted over 2011–13

In the appendix of this chapter, the actual questionnaire that was administered to both rural and urban areas over 2011–13 is appended as part of the Socio-economic and Caste Census. It is clear that the questionnaire has indeed tended to be guided by the ideas articulated in this chapter (which had significantly influenced the Saxena Committee Report).

The rural part of the survey asks households whether the predominant material used for the walls and roofs of the dwelling is *kutchha* or *pucca*. It also asks whether the dwelling is owned or not, and the number of rooms in the dwelling. Sections 2 and 3 of the questionnaire for rural areas try to determine their occupational and income characteristics. Sections 4 and 5 deal with the assets owned by the households, both consumable assets and land or equipment. For each person in the household, the questionnaire tries to determine: (a) the occupation; (b) highest educational level completed; (c) disability; and (d) religion and caste or tribal status.

For urban areas, there are similar questions as for rural households in respect of the dwelling. The next section deals with the drinking water source, main source of lighting, latrine and waste water outlet. Section 3 assesses whether the household owns the following assets: refrigeration, telephone, computer, motorised vehicles, air conditioner and washing machine. As in the case of rural areas, for each person, the questionnaire also asks about occupation, highest educational level, and income from work. The questionnaire also tries to determine if the person is suffering from any disability or chronic illness. Finally there is a question about the religion and the caste or tribal status of the person.

What is noticeable is that in the questionnaire there is no attempt to rank households. Nor there is any attempt to reveal whether belonging to a certain caste or tribal or religious status is automatically going to lead to inclusion in, or exclusion from, the BPL category. In fact the entire process of (a) automatic inclusion; (b) automatic exclusion; and (c) ranking of households in-between (a) and (b) will be done by government officers, at probably the state level. However, it is understood that later there will be an attempt to go to the public and transparently get the facts vetted in meetings of the gram panchayat and gram sabha, and again there will be no public disclosure of the ranking.

States will be free to determine a cut-off after the ranking is done at discretion after the entire exercise is complete. However, the National Old Age Pension Scheme will have a central government determined cut-off since it is seen as an entitlement programme.

12.7 Concluding Remarks

The Government of India (Ministry of Rural Development) has since 2011 been implementing the Socio-economic and Caste Census (SECC). The SECC is not only complete but the data is being collated and gradually uploaded on

their website – a process that will be over by 2015. Presumably the SECC will become the basis for identifying beneficiaries for different programmes, on the basis of the three-fold principle discussed in section 12.4. Finally, the country may well have a reasonable method of identifying the poor, with different programmes choosing different cut-offs for those households that are ranked – a decision that state governments should take. The poorest will be those that will be automatically included, and there will also be the middle class and above who will be automatically excluded. This Census should constitute a major advance upon any Census conducted in India in the past to identify the poor.

Appendix

Socio Economic and Caste Census 2011: Questionnaires for Rural and Urban Areas

RURAL:

For each household:

Section 1

Housing/Dwelling

1. Predominant material of wall of the dwelling room (s) (Give code)
Codes
Col.1 Predominant material of wall of dwelling room
1=Grass/thatch/bamboo etc.; 2=Plastic/polythene; 3=Mud/unburnt brick;
4=Wood; 5=Stone not packed with mortar; 6=Stone packed with mortar;
7=G.I./metal/asbestos sheets; 8=Burnt brick; 9=Concrete; 10=Any other
2. Predominant material of roof of the dwelling room (s) (Give code)
Col.2 Predominant material of roof of dwelling room
1=Grass/thatch/bamboo/wood/mud etc.; 2=Plastic/polythene; 3=Hand made tiles; 4=Machine made tile; 5=Burnt brick; 6=Stone; 7=Slate; 8=G.I./metal/asbestos sheets; 9=Concrete; 10=Any other
3. Ownership status of this house (Give code)
1=Owned; 2=Rented; 3= Any other
4. Number of dwelling rooms exclusively in possession of this household (Record 1,2,3...)

Section 2

Is any household member:

5. From Primitive Tribal Group: 1=Yes, 2=No

6. A legally released bonded labour: 1=Yes, 2=No

7. A manual scavenger: 1=Yes, 2=No

Section 3

Employment and Income Characteristics

8. Does any Household Member have a salaried job? (1=Yes, 2=No)

9. If 'Yes' in Col. 8, Salaried job is in (give code)

1=Government; 2=Public sector; 3=Private sector

10. Pay income tax or professional tax (1=Yes, 2=No)

11. Own/operate an enterprise which is registered with the Government (1=Yes, 2=No)

12. Monthly income of highest earning household member (give code):

1=less than ₹5,000; 2= between ₹5,000 and ₹10,000;

3= ₹10,000 or more

13. Main source of household income from (Give code)

1=Cultivation; 2=Manual casual labour;

3=Part-time or full-time domestic service; 4=Foraging, rag picking;

5=Non-agricultural Own Account Enterprise;

6=Begging/Charity/Alms collection; 7=Others

Section 4

Assets

Does the household own the following assets (Give code)

14. Refrigerator: =Yes; 2=No

15. Telephone/Mobile phone:

Yes: 1=Landline only; 2=Mobile only; 3=Both; 4=No

16. Motorised Two/Three/Four Wheelers or Motorised Fishing Boat requiring registration (1=Yes; 2=No)

Section 5

5A Land owned

17. Own any land (excluding homestead)? (1=Yes, 2=No) If landless, skip to Section-5B

18. Total un-irrigated land (in acres)

19. With assured irrigation for two crops (in acres)

20. Other irrigated land (in acres)

5B Other assets owned

21. Mechanised Three/Four Wheeler Agricultural equipment (1=Yes; 2=No)

22. Irrigation equipment (including diesel/kerosene/electric pumpset, sprinkler/drip irrigation system, etc.) (1=Yes; 2=No)
23. Kisan Credit Card with credit limit of ₹ 50,000 or above (1=Yes; 2=No)

For each person:

1. Sr. No.
2. Name of the person Start with the head of the household
3. Relationship to head (record the relationship in full)
4. Sex: 1=Male; 2=Female
5. Date of birth(as per English Calendar)
6. Marital status: 1=Never married; 2=Currently married; 3=Widowed; 4=Separated; 5=Divorced
7. Name of father
8. Name of mother
9. Occupation/Activity Describe the actual work
10. Highest educational level completed: 1=Illiterate; 2=Literate but below Primary; 3=Primary; 4=Middle; 5=Secondary; 6=Higher secondary; 7=Graduate or higher; 8= Other (Specify)
11. Disability: 1=In seeing; 2=In hearing; 3=In speech; 4=In movement; 5=Mental retardation; 6=Mental illness; 7=Other disability; 8=Multiple disability; 9=Not disabled
12. Religion (Write name of the religion in full)
13. Caste/Tribe Status Give Code
Scheduled Caste (SC)-1: Scheduled Tribe (ST)-2: Other-3
No Caste/Tribe-4 (SC can be only among the Hindus, Sikhs and Buddhists.
ST can be from any religion)
14. If code 1, 2 or 3 in Col. 13, Write Name of Caste/Tribe
If code 4 in Col. 13, put 'X'

URBAN:

For each household:

Section 1

Housing/Dwelling

1. Predominant material of wall of the dwelling room (s) (Give code)

Codes

Col.1 Predominant material of Wall of dwelling room

1=Grass/thatch/bamboo etc., 2=Plastic/polythene, 3=Mud/unburnt brick;

- 4=Wood; 5=Stone not packed with mortar; 6=Stone packed with mortar;
7=G.I./metal/asbestos sheets; 8=Burnt brick; 9=Concrete; 10=Any other
2. Predominant material of roof of the dwelling room (s) (Give code)

Codes

Col.2 Predominant material of Roof of dwelling room

- 1=Grass/thatch/bamboo/wood/mud etc.; 2=Plastic/polythene; 3=Hand made tiles; 4=Machine made tile; 5=Burnt brick; 6=Stone; 7=Slate; 8=G.I./metal/asbestos sheets; 9=Concrete; 10=Any other
3. Ownership status of this house (Give code)
1=Owned; 2=Rented; 3=Shared; 4=Living on premises with employer;
5=House provided by employer; 6=Any other
4. Number of dwelling rooms exclusively in possession of this household
(Record 1,2,3...)

Section 2

Amenities

5. Availability of drinking water source:
1=Within the premises; 2=Near the premises; 3=Away
6. Main source of lighting: 1=Electricity; 2=Kerosene; 3=Solar; 4=Other oil;
5=Any other; 6=No lighting
7. Water-seal latrine exclusively for the household (1=Yes, 2=No)
8. Waste water outlet connected to
1=Closed drainage; 2=Open drainage; 3=No drainage
9. Separate room used as kitchen exclusively for the household
(1=Yes, 2=No)

Section 3

Assets Does the household own the following assets (Give code)

10. Refrigerator (1=Yes; 2=No)
11. Telephone/Mobile phone:
Yes: 1=Landline only; 2=Mobile only; 3=Both; 4=No
12. Computer/Laptop:
Yes: 1=With internet; 2=Without Internet; 3=No
13. Motorised Wheelers (1=Two/Three wheeler, 2=Four wheeler; 3=No)
14. A. C. (1=Yes; 2=No)
15. Washing machine (1=Yes; 2=No)

For each person:

1. Sr. No.

2. Name of the person Start with the head of the household
3. Relationship to head (record the relationship in full)
4. Sex: 1=Male, 2=Female
5. Date of birth (as per English Calendar)
6. Marital status: 1=Never married; 2=Currently married; 3=Widowed; 4=Separated; 5=Divorced
7. Name of father
8. Name of mother
9. Occupation/Activity (Describe the actual work)
10. Highest educational level completed
1=Illiterate; 2=Literate but below primary; 3=Primary; 4=Middle; 5=Secondary; 6=Higher secondary; 7=Graduate or higher; 8=Other (Specify)
11. Main source of income/earnings from work:
1=Beggar/rag-picker; 2=Domestic worker; 3=Street vendor/cobbler/hawker/ other service provider working on streets; 4=Construction worker/plumber/ mason/labour/painter/welder/security guard/coolie and other head-load worker; 5=Sweeper/sanitation worker/mali; 6=Home-based worker/artisan/ handicrafts worker/tailor; 7=Transport worker/driver/conductor/helper to drivers and conductors/cart puller/ rickshaw puller; 8=Shop worker/ assistant/peon in small establishment/ helper/delivery assistant/attendant/ waiter; 9=Electrician/mechanic/assembler/repair worker; 10=Washer-man/ chowkidar; 11=Other work non-work; 12=Non-work (Pension/Rent/ Interest, etc.)
12. Are Wages earned (Give code): 1=daily; 2=weekly; 3=monthly; 4=irregularly; 5=not wage earner
13. Disability: 1=In seeing; 2=In hearing; 3=In speech; 4=In movement; 5=Mental retardation; 6=Mental illness; 7=Other disability; 8=Multiple disability; 9=Not disabled
14. Chronic illness: 1=Cancer; 2=HIV/AIDS; 3=TB; 4=Leprosy; 5=Other illness; 6=No chronic illness
15. Religion (Write name of the religion in full)
16. Caste/Tribe Status Give Code Scheduled Caste (SC)-1 Scheduled Tribe (ST)-2 Other-3 No Caste/Tribe-4 (SC can be only among the Hindus, Sikhs and Buddhists. ST can be from any religion)
17. If code 1, 2 or 3 in Col. 11, Write Name of Caste/Tribe
If code 4 in Col. 16, put 'X'

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Needed a Social Insurance System for Unorganised Workers below the Poverty Line

India is probably unique among developing countries, and certainly among emerging market economies and middle income countries, in having 93 per cent of its labour force in informal employment (defined as those who don't have any social insurance). This is a higher share than that found in both middle income Southeast Asia as well as Latin American economies. With such an overwhelming proportion of its workforce living without any social insurance and also with limited social assistance, and with 22 per cent of its population in 2011–12 (or 268 million persons) below the national poverty line, the question is inevitable: should the state be thinking seriously about ensuring basic social insurance for at least 268 million people?

If the state wishes to influence the quality of life of wage workers in the unorganised sector, it faces two courses of action. It could focus on improving the conditions of work in the unorganised enterprises, and/or it could act to bring such workers under a social insurance mechanism.

There is very little hope that the state can influence the work conditions of those in the unorganised sector. Can the state expect to successfully improve the conditions of work (for example, hours of work, hazardous nature of work and hence safety conditions, wage rates,¹ which are all demands made in the otherwise excellent report of the National Commission on Enterprises in the Unorganised Sector – 2008) in the prevailing labour market conditions, where there is excess supply of labour, where the unorganised sector workers themselves are fragmented and not organised into unions, where they suffer from imperfect information, and where they are not fully aware of their limited

¹ In chapter 4 we argued that wage rates, both rural and urban, have been rising in the period 2005–10, as is consumption expenditure since non-agricultural employment has been growing.

rights² and, to make it even more difficult, they are mostly illiterate or barely literate?³ If the pre-requisites for improving their conditions of work do not exist, it is obvious that the state should focus its attention on improving the social protection for such workers, i.e., social insurance and social assistance. That is, the state should prioritise this objective (Mehrotra, 2008). This is one of the central arguments of this chapter.

It is physically impossible for the Indian state to even pretend to improve conditions of work by means of a system of labour inspection, when the dice in the labour market is so heavily loaded against informal workers. Even in the small scale organised sector enterprises, the state has recognised that the inspector raj does more harm than good, fattening the official inspectors at the expense of both the employers as well as the employee, with very little to show for it in terms of improved worker conditions. In the unorganised sector, therefore, there is little chance for the state to effectively monitor conditions of work, even if the requisite legislation was in place for hundreds of thousands of workplaces (there are about 125 million enterprises in the unorganised sector), vastly varying trades, spread throughout the length and breadth of this vast country. Fewer laws (which are not inconsistent with each other) will allow for some improvement in monitoring compliance. The inspector raj barely functions in the large organised sector, so to expect it to function in the micro-enterprises and household enterprises, where the production value chain extends to the household, is to live in a pipe-dream. Therefore, the recommendations of the National Commission for Enterprises in the Unorganised Sector (NCEUS, 2009) regarding (a) National Minimum Wage; (b) migrant workers; and (c) other conditions of work are rather unrealistic and hence infeasible – not surprising that the Bill on the Conditions of Work did not, since 2009, move in Parliament.⁴ Without the rationalisation and harmonisation

- 2 The Ministry of Labour lists 52 separate central government Acts in the area of labour. Probably there are 150 more state-level laws (Bhagwati and Panagariya, 2012). However, most of these relate to organised sector employers. Very few laws apply to unorganised sector workers. Among those that do apply to the latter are Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979; the Contract Workers Act; the Construction Workers Act; and Abolition of Bonded Labour Act; and so on.
- 3 Fifty-three per cent of the workforce is either illiterate or has less than/equal to primary level of education (the latter implies functional literacy).
- 4 However, there is scope for using a national IT system, that involves the source state, the destination state and the centre to register and update the records of migrant workers (NSS 2007–08 put their number at 326 million). This will ensure that they can continue availing of the government's social security benefits, irrespective of their movement between different states.

of multiple laws that deal with the same/similar category of workers, it will be impossible for the state machinery to regulate let alone monitor implementation of the laws.

Social protection, on the contrary, is not only necessary but feasible. The Parliament passed an umbrella Act creating a National Board in the Unorganised Workers Social Security Act to facilitate social insurance for unorganised workers in 2008. The problem is that precious little happened since then till June 2015, when the new central government announced universal schemes of accidental death/disability insurance, normal death insurance and contributory pensions.

The absence of social insurance for unorganised sector workers has proved to be a serious barrier to achieve inclusiveness in growth. This chapter makes the case for a system of social insurance for at least those below the poverty line and spells out its content. It also discusses its cost and financing. This chapter is organised as follows. Section 13.1 presents the reasons why a social insurance system is necessary at India's current of development. Section 13.2 examines the historical evolution of social protection in the now rich countries and its relevance for India (and Asia in general). Section 13.3 presents what social security is currently available in India (at the time of writing in May 2015), and spells out what social insurance regime could be put in place. Section 13.4 suggests indicative costs by component. The last section concludes.

13.1 Why Social Insurance for Unorganised Sector Workers is Needed?

Why should such social insurance be available for the unorganised sector? There are a number of reasons. First, although the ratio of the poor has been declining, the numbers of poor were not for 30 years (320 million in 1973 and 302 million in 2005 based on the Lakdawala method and uniform recall period). The numbers did decline between 2004–05 and 2009–10 from 410 million to 353 million in 2010 and further to 268 million in 2012 based on the Tendulkar method and mixed recall period. The fact remains that most poor work in the unorganised sector. 'Inclusive growth' cannot have much meaning without some minimum social safety net for them. Second, 93 per cent of India's work force only has access to informal employment, and hence without any social protection (NCEUS, 2007; Mehrotra et al., 2012). Only the organised sector workforce has access to social protection. Third, this workforce in the unorganised sector contributes a very significant proportion of total exports and 60 per cent to total

GDP in the economy and deserves more respect by policymakers and more dignity from their employers. Unorganised sector enterprises, as long as they are registered, are also generating tax revenues for the state, and are entitled to receive some protection. This is especially so since the state has so far failed to universalise even elementary education for the workers' children or to provide universal healthcare.

For a rapidly growing economy, which has achieved middle income status in 2007, it should be fiscally possible to provide such social protection.

The cost of a social insurance system is well within the realm of fiscal feasibility for India. In fact, the cost is less than 0.40 per cent of GDP per annum, provided such social insurance is confined to the poor among unorganised workers. (Mehrotra, 2008). We will return to this issue later in the chapter.

While these first three reasons are moral ones, the next four are purely economic ones. The first economic reason is that, the lack of social protection reduces productivity. Not only does lack of health protection reduce man-days of work, but out of pocket medical costs are the second most important cause of households first falling into debt, and then poverty, after dowry. The second economic reason is that the lack of social insurance leads to coping mechanisms by the vulnerable and insecure, which run the risk of turning transient poverty into long-term poverty. Thus, transient poverty may lead to the withdrawal of children from school or lead to workers in agriculture into debt bondage, thus causing long term damage to human capital formation. A third reason is that historical evidence from the now industrialised countries suggests that social insurance for workers has a downward effect on the total fertility rate (Cigno and Rosati, 1992; Cigno et al., 2003). Fertility rates are kept high by need of children as an insurance against old age. Son preference is part of this sociological phenomenon, which has the effect of raising fertility rates in a family to a level greater than it might otherwise be.

Finally, there is another important economic reason for providing social insurance for workers in the unorganised sector, who have incomes below the poverty line. These workers still normally own agricultural land in their villages, albeit very small plots. However, these small plots are their safety net, their social security. They will never part with this land as long as they don't have at least some partially similar sense of social insurance at the workplace in urban areas. Until 2005 there had been a consistent absolute increase in the numbers employed in agriculture. But it is only between 2004–05 and 2011–12 that India saw, for the

first time in its post-independence history, workers falling in agriculture by 36 million. However, most of these would still be landless agriculture labour, not cultivators owning farms. The latter retain ownership of their land when they migrate, leaving part of their family behind to the land. If they don't have adult male children in the village, they will leave the farm land fallow or possibly lease out the land to a bigger farmer in need of land. But they never leave the land, as it is a form of safety net.

Moreover, the rate of urbanisation in India has been very slow, and one reason for this is precisely the attachment of the small, marginal farmers (who are 84 per cent of all cultivators in India) tilling < 2 hectares of land to their land, as a form of personal insurance. If the 28 per cent of India's rural population estimated by the Planning Commission to be poor (in 2011–12) had access to social insurance, these smallest of farmers who migrate for urban employment only to diversely their portfolio of livelihood sources would be able to do so on a more permanent basis, by selling their land. That could increase farm size, thus slowly relaxing one constraint upon agricultural productivity.

India's most recent labour market history has only reinforced the case for social insurance for informal workers. The quality of non-agricultural employment growth has to be such as to attract agricultural workers to urban areas. There was an increase in the share of those in the organised sector enterprises with informal employment over 2000 to 2012 (from 32 to 62 per cent of all workers).

13.2 Historical Evolution of Social Protection in Now Industrialised Countries⁵

What does the history of social security in rich countries teach us? Social protection in the now industrialised countries was the result of a long struggle, and was introduced only in fits and starts.

In the age of Adam Smith and the rise of classical economics, governments barely imposed any taxes, and there were hardly any social programmes either. Through much of the nineteenth century, there were only two kinds of redistributive tax-based social spending: poor relief and public schools. By 1880, a full century after the beginning of the first industrial revolution in Britain and

5 This section draws heavily upon the chapter 'Extending Social Insurance to Informal Wage Workers' in Mehrotra and Biggeri (2007).

its spread to Europe, social programmes had barely grown. Data for 21 European and North American countries show that all social transfers for these countries were still only 0.29 per cent of GDP at current prices (1880). However, by 1990, the median had grown to 24 per cent of GDP. The century from 1880 to 1980 was the period that saw the rise of the state – and it was social spending that led to its rise (Lindert, 2003).⁶ India's policymakers need to keep this fact in mind when issues arise about the size of Gross Budgetary support for social spending at budget preparation time each year in January-February.

Secondly, whether rising social spending in these 21 rich countries damaged economic growth – as neo-liberals are likely to fear – is a key question. Research has established that the growth of the welfare state in Europe and North America did no damage to GDP per capita, which is why welfare states did not collapse. That the net national costs of social transfers were zero is of significance to current day developing countries, including India. Lindert (2003) points out that there are two general principles, which explain why social spending has not weakened long-term economic growth. One is that high budget democracies show more care in choosing the design of taxes and transfers so as to avoid compromising growth. Second, broad universalism in taxes and entitlements fosters growth better than the low-budget countries' preference for strict means testing and complicated tax compromises.

The sequence of types of social programmes in advanced capitalist countries – which is of relevance again to contemporary developing countries – was as follows. Throughout the nineteenth century, poor relief (or what today would be called social assistance or cash transfers) was the main form of social protection offered until around 1880. In fact, until 1880 there was almost no social insurance. Social insurance in Europe rose sharply over the half century 1880–1930, including work accident insurance and old age pensions. Work accident was the first to be legislated; then came old age pension. Unemployment insurance and unemployment benefits came last (along with housing subsidies) – halfway through the twentieth century. It would be not unreasonable to suggest that in India too unemployment insurance and unemployment benefits are likely to flow to workers at a much later stage of development than prevails currently.

The fact that social insurance systems are facing fiscal strains since the global economic crisis began in 2008 must be seen in context. A social insurance system must be able to pay for itself. This risk is underlined in the fear expressed in a middle

6 See chapter 5 for a further discussion of this history, and its lessons for India.

income country that it may become an aging society before it becomes 'rich' and able to pay for the social insurance system (a real fear of the Chinese state). In Europe the contribution of slowing growth, falling population and aging has combined to strain social insurance systems that became perhaps over-generous during periods of the golden age of economic growth after the Second World War. Nevertheless, this situation in the OECD countries arises from an overstretched welfare state, and in no way can be compared to the situation in India, where the social insurance system is practically non-existent – and needs to be built from scratch.

In the Indian case, for unorganised workers poor relief or social assistance in the form of the national old age pension for rural elderly (NOAPs) began first in 1995. There has been very little other expansion of social insurance in the last decades. What exists will be described in the next section. The vast majority of unorganised sector workers have little by way of social insurance at all.

13.3 The Current Components of Social Insurance for Workers in Unorganised Sector

Social security consists of two categories of support to workers: first, social assistance, and second, social insurance. Social assistance (i.e., assistance in kind or cash) should be provided to those unable to work (for example, the old and indigent, disabled, poor widows) or those who are unable to earn enough from work to guarantee a basic income or consumption level, and social insurance to those able to work but who have little access to a safety net that is normally available in the organised sector: old age pension, maternity benefit, and death and disability benefit, as also health coverage. This is another key argument of this chapter: the central and state governments have historically traditionally provided social assistance in kind (for example, kerosene and grains under the Public Distribution System (already discussed in chapter 9), or a cash grant for rural housing through the Indira Awas Yojana for the BPL, but very little social assistance in the form of cash transfers, whether given conditionally or unconditionally. Social assistance is a subject we turn to in the next chapter, while we make the case for social insurance in this chapter, focusing to start with on the BPL population, and then incrementally moving towards universal coverage.

We must note here that the identification of those households which are below the poverty line has been justifiably an extremely vexed issue. It is discussed in

the previous chapter, hence suffice here to say that a census based on a superior method to identify the poor has been under way since 2011. No method is likely to be perfect, and identification of targeted beneficiaries has remained a contentious issue globally. However, a new list of such households should be available in 2015 (see chapter 12 for more discussion).

We begin by describing what kind of social insurance is currently available in India for those in the unorganised sector: old age pension, death and disability (or life) insurance, health insurance and maternity benefit in India.

13.3.1 Old age pension

Under the National Old Age Pension Scheme (NOAPS), old age pension of ₹ 75 per month was provided to persons of 65 years and above who are destitutes (since 1996) in rural areas. However the centre increased this pension to ₹ 200 a month for 2006–07 onwards and reduced the age of eligibility to 60 years (Table 13.1). Normally states supplement this amount with an equivalent amount (see Table 13.2). The objective of NOAPS is to extend financial assistance to old destitutes having little or no regular means of subsistence. In general, it has succeeded in giving them a sense of security in life and has definitely improved their quality of life. This old age pension is non-contributory in the sense that the beneficiary has not contributed any premium over his or her lifetime.

This pension was available only to BPL elderly destitutes (until November 2007). However, from April 2008 its coverage was increased to include the entire over 65-year old BPL population. Note that although this is called an old age pension scheme, it is not really connected to one's earlier work status as a worker in the unorganised sector. However, the presumption is that all these BPL elderly were in fact workers in the unorganised sector.

The coverage grew from 2.94 million persons in 1995–96 to 6.7 million in 2002–03, and 8.7 million in 2006–07. As criteria for inclusion changed from destitute BPL to all BPL (April 2008), the numbers increased to 21.4 million by 2011–12, but confined to rural areas.

Its coverage was also increased to include disabled persons, and also all widows above the age of 40 – an action that was triggered by the outbreak of the global economic crisis, and the fiscal stimulus put in place by the central government. The widow pension started in 2009 at ₹ 200 per month, for widows belonging to the BPL category in the age group 40 to 79 years. The number of beneficiaries was

3.4 million in 2010–11 and 3.6 million in 2011–12. The state governments were advised to provide a matching amount, and the total pension received by widows now varies by state (see Table 13.3), as state governments added different amounts.

Table–13.1a: Social assistance programmes of central government, 2011–12

Name of the scheme	Eligibility	Package of benefits
National Old Age Pension Scheme (NOAPS)	60 years	₹ 200 per month
National Family Benefit Scheme (NFBS)	BPL in the age group 18 to 64.	Lump sum family benefit of ₹ 10,000 to bereaved household in case of death (natural or accidental) of primary breadwinner (male or female).

Source: Ministry of Rural Development (2012).

Table 13.1b: Social assistance beneficiaries of central government, 2011–12
(as on March 2012) (in millions)

Name of pension scheme	Total estimated 1	Actual covered 2	3=2/1 (%)
National Old Age Pension	27.8	21.4	77
Indira Gandhi National Widow Pension Scheme (IGNWPS)	4.4	3.6	82
Indira Gandhi National Disability Pension Scheme (IGNDPS)	1.4	0.8	57

Table 13.2: Pension under National Old Age Pension Scheme, 2011–12

Name of state	Central government (in ₹)	State government (in ₹)
Andhra Pradesh	₹ 200	NIL
Bihar	₹ 200	NIL
Chhattisgarh	₹ 200	₹100
Goa	₹ 200	₹800
Gujarat	₹ 200	₹ 200
Haryana	₹ 200	₹ 300 (below 70 years) ₹ 500 (after 70 years)
Himachal Pradesh	₹ 200	₹ 130

Name of state	Central government (in ₹)	State government (in ₹)
Jammu and Kashmir	₹ 200	₹125
Jharkhand	₹ 200	₹ 200
Karnataka	₹ 200	₹ 200
Kerala	₹ 200	₹ 50
Madhya Pradesh	₹ 200	₹ 75
Maharashtra	₹ 200	₹ 400
Orissa	₹ 200	NIL
Punjab	₹ 200	₹ 250
Rajasthan	₹ 200	₹ 300 (below 75 years) ₹ 550 (after 75 years)
Tamil Nadu	₹ 200	₹ 800
Uttar Pradesh	₹ 200	₹ 100
Uttaranchal	₹ 200	₹ 200
West Bengal	₹ 200	₹ 200
Northeastern states		
Arunachal Pradesh	₹ 200	NIL
Assam	₹ 200	₹ 50
Manipur	₹ 200	NIL
Meghalaya	₹ 200	₹ 50
Mizoram	₹ 200	₹ 50
Nagaland	₹ 200	₹100
Sikkim	₹ 200	₹ 200
Tripura	₹ 200	₹ 200
Union territories		
Andaman and Nicobar Islands	₹ 200	₹ 800 (60–79 years) ₹ 500 (80 years and above)
Chandigarh	₹ 200	₹500
Dadra and Nagar Haveli	₹ 200	₹300
Daman and Diu	₹ 200	₹300
National Capital Territory Delhi	₹ 200	₹ 800
Lakshadweep	₹ 200	₹ 100
Pondicherry	₹ 200	₹ 400

Source: Annual Report, 2011–12, Ministry of Rural Development, Government of India

Table 13.3: Pension under National Widow Pension Scheme, 2011–12

Name of state	Central government (in ₹)	State government (in ₹)
Andhra Pradesh	₹ 200	NIL
Bihar	₹ 200	NIL
Chhattisgarh	₹ 200	NIL
Goa	₹ 200	₹ 800
Gujarat	₹ 200	
Haryana	₹ 200	₹ 550
Himachal Pradesh	₹ 200	₹ 130
Jammu and Kashmir	₹ 200	₹ 200
Jharkhand	₹ 200	₹ 200
Karnataka	₹ 200	₹ 200
Kerala	₹ 200	₹ 120
Madhya Pradesh	₹ 200	₹ 75
Maharashtra	₹ 200	₹ 400
Orissa	₹ 200	₹ NIL
Punjab	₹ 200	₹ 250
Rajasthan	₹ 200	₹ 300
Tamil Nadu	₹ 200	₹ 800
Uttar Pradesh	₹ 200	₹ 100
Uttaranchal	₹ 200	₹ 200
West Bengal	₹ 200	₹ 200
Northeastern states		
Arunachal Pradesh	₹ 200	NIL
Assam	₹ 200	
Manipur	₹ 200	NIL
Meghalaya	₹ 200	NIL
Mizoram	₹ 200	NIL
Nagaland	₹ 200	
Sikkim	₹ 200	₹ 300
Tripura	₹ 200	₹ 200
Union territories		

Name of state	Central government (in ₹)	State government (in ₹)
Andaman and Nicobar Islands	₹ 200	₹ 800
Chandigarh	₹ 200	₹ 500
Dadra and Nagar Haveli	₹ 200	
Daman and Diu	₹ 200	
National Capital Territory Delhi	₹ 200	₹ 800
Lakshadweep	₹ 200	
Pondicherry	₹ 200	₹ 400

Source: As in Table 13.2

Table 13.4: Pension under National Disability Pension Scheme, 2011–12

Name of state	Central government (in ₹)	State government (in ₹)
Andhra Pradesh	₹ 200	₹ 300
Bihar	₹ 200	NIL
Chhattisgarh	₹ 200	NIL
Goa	₹ 200	₹ 800
Gujarat	₹ 200	₹ 300
Haryana	₹ 200	₹ 350
Himachal Pradesh	₹ 200	₹ 130
Jammu and Kashmir	₹ 200	
Jharkhand	₹ 200	
Karnataka	₹ 200	₹ 800
Kerala	₹ 200	₹ 160
Madhya Pradesh	₹ 200	₹ 75
Maharashtra	₹ 200	₹ 400
Orissa	₹ 200	NIL

Name of state	Central government (in ₹)	State government (in ₹)
Punjab	₹ 200	₹ 250
Rajasthan	₹ 200	₹ 300
Tamil Nadu	₹ 200	₹ 800
Uttar Pradesh	₹ 200	₹ 100
Uttaranchal	₹ 200	₹ 400
West Bengal	₹ 200	₹ 200
Northeastern states		
Arunachal Pradesh	₹ 200	NIL
Assam	₹ 200	
Manipur	₹ 200	NIL
Meghalaya	₹ 200	NIL
Mizoram	₹ 200	₹ 50
Nagaland	₹ 200	₹ 100
Sikkim	₹ 200	₹ 300
Tripura	₹ 200	₹ 200
Union territories		
Andaman and Nicobar Islands	₹ 200	₹ 800
Chandigarh	₹ 200	₹ 500
Dadra and Nagar Haveli	₹ 200	
Daman and Diu	₹ 200	
National Capital Territory Delhi	₹ 200	₹ 800
Lakshadweep	₹ 200	
Pondicherry	₹ 200	₹ 400

Source: As in Table 13.2

At least 2.3 per cent of the total population of India is estimated to be disabled, according to National Sample Survey data. The India Human Development Report 2011 regarded this proportion to be an underestimate, but that puts the total official number of disabled in India at 18.5 million in 2002 (almost certainly an underestimate). All persons with disabilities of 80 per cent or above or multiple disabilities of 40 per cent each and higher belonging to the BPL category get ₹ 200 per month from 18 to 79 years (see Table 13.4).⁷

The pension covers about 26 million elderly, widowed and disabled, of which the elderly were 21.4 million. In India the total elderly population is about 100 million, and thus it seems that a majority of the elderly BPL are being covered though it is known that the 2002 BPL list has made exclusion errors (see chapter 11). Pensions are especially important for women, as their longevity is higher than that of men. The meager pension amounts are used for food and medicines. Many respondents in a survey in 10 states (Chopra and Rudussery, 2014) had to pay a bribe to get their pension released from the district administration – which underlines the point made in chapter 14 about the benefits of direct transfer into bank accounts.

13.3.2 Death and disability insurance

Death and disability insurance for workers in the unorganised sector remained limited until 2015, although there were three sets of programmes, targeting mainly the poor. These are governed by the National Social Security Board created by the central government, as provided by the Unorganised Workers' Social Security Act, 2008 (see the next section).⁸

A scheme of social insurance of the central government is the Janashree Bima Yojana (started 2000). The scheme covers groups of 25 members or more, belonging to 24 *approved occupation groups*.⁹ It provides insurance cover

7 The pension was introduced in February 2009 and covered 730,000 persons in 2010–11, and 794,000 in 2011–12.

8 A National Social Security Fund was created by the Central Finance Ministry with an initial allocation of ₹1,000 crore in 2010–11. This was a follow-up to the Act of 2008.

9 These are: beedi, brick-kiln, carpenters, cobblers, fishermen, hamals, handicraft artisans, handloom weavers, handloom and khadi weavers, lady tailors, leather and tannery workers, papad makers attached to SEWA, physically handicapped self-employed persons, primary milk producers, rickshaw pullers/auto drivers, safai karmcharis, salt growers, tendu leaf collectors, urban poor, forest workers, sericulture, toddy tappers, powerloom workers, women in remote rural hilly areas etc.

since 2006 of ₹ 20,000 in case of natural death, ₹ 50,000 in case of death or total disability due to accident and ₹ 25,000 in case of partial disability (see Table 13.5).¹⁰ Janashree was available to 18–60 year olds living below or marginally above the poverty line. The limited reach of the schemes' benefits to unorganised workers and the absence of direct link between a beneficiary and Life Insurance Corporation (the public sector insurer) have been major drawbacks of these schemes.

Second, the central government introduced the Aam Aadmi Bima Yojana in late 2007. The members of all *rural landless households*, in the age group 18–59 are eligible. The premium of ₹ 200 per member is borne by the central and state governments equally. A sum of ₹ 30,000 in case of natural death, and ₹ 75,000 in case of accidental death are payable.¹¹

A final development was introduction of a life insurance component in the two programmes of the central ministry of rural development: the rural self-employment programme¹² (through the SHGs that it promotes) and the rural wage employment guarantee programme (National Rural Employment Guarantee).¹³ It is clear that while the old age pension, widow pension and disabled pension have reached out to significant number of these categories of BPL persons the death/disability life insurance policy coverage is very limited indeed. Hence, the new government's move in June 2015 to initiate a voluntary pension on a contributory basis, plus accidental death and life insurance for all those with a bank account is a step in the right direction. Although voluntary, it has the potential for providing social insurance to most of the population (see section 13.4 for further discussion of these new developments).

10 The premium for these benefits is ₹ 200 per beneficiary, of which 50 per cent is contributed from the Social Security Fund of the central government, and 50 per cent by the beneficiary/state government.

11 A compensation of ₹ 75,000 are payable in case of total permanent disability and of ₹ 37,500 in case of partial permanent disability. The scheme also pays a scholarship of ₹ 300 per quarter per child for two children of the beneficiaries studying in 9th to 12th standards in case of the death of the rural landless workers.

12 Redesigned as the National Rural Livelihood Mission, and launched in 2010. See chapter 3 for a brief discussion on it.

13 Those who are members of SHGs (mostly BPL women) and those willing to undertake manual labour (normally only BPL adults) are entitled to get life insurance cover.

Table 13.5: Social insurance schemes for unorganised workers of central government

Name of the Scheme	Eligibility	Premium	Package of benefits	Implementation
Janashree Bima Yojana (JBY)	Persons in the age group of 18 to 60 years and living below or marginally above the poverty line	₹ 200 per beneficiary (50 per cent of premium i.e., ₹ 100 is contributed	₹ 20,000 for natural death, ₹ 50,000 for death or total permanent disability due	Through LIC (Life Insurance Corporation)
		From the Social Security Fund and 50 per cent contributed by the beneficiary/ state Government/ nodal agency)	to accident, ₹ 25,000 for partial disability.	
Aam Admi Bima Yojana (AABY)	Rural landless households, in the age-group of 18–59 years	₹ 200 per member will be borne by the centre and states equally	₹ 30,000 for natural death, ₹ 75,000 for accidental death and total permanent disability; ₹ 37,500 for partial permanent disability.	Through LIC

Source: Self generated from various sources, Ministry of Finance and Ministry of Rural Development, Government of India

Note: The benefit of ₹ 50,000 Janashree Bima Yojana on death/permanent disability due to accident increased to ₹ 75,000. On partial permanent disability due to accident, the benefit of ₹ 25,000 increased to ₹ 37,500 w.e.f. 15 August 2006.

13.3.3 Health insurance

While the central government had introduced a few years ago the Universal Health Insurance Plan, it barely took off. Although there are a number of micro– or community health insurance schemes in place in many states of India, their

coverage is extremely limited (Mehrotra, 2007).¹⁴ Several states launched government-supported insurance covering only hospitalisation (as opposed to covering out-patient expenditures as well).¹⁵ However, except the employees State Insurance Scheme and the Central Government Health Scheme (which are only available for formal organised sector workers) all the publicly funded models provide only limited hospitalisation cover to the patients. The biggest scheme is that of the central government (the Rashtriya Swastha Bima Yojana or the RSBY, or the National Health Insurance Programme).

It covers BPL households only (started in 2008). Thus, India, which had a low density of health insurance coverage of about 75 million people in 2007, witnessed 302 million covered by 2010, or roughly quarter of the population (Selvaraj and Karan, 2012). The coverage has grown further under RSBY since then.

We have already seen in chapter 10 that the public health system at all levels of care (primary/preventive, secondary/curative, and tertiary/specialised curative) has been quite inadequate since independence. As a result out-of-pocket expenditures (OOP) have been disproportionately high in a country, which still has 268 million people suffering from what can be only called extreme poverty. It is well-known that India is one of the most privatised healthcare markets in the world: 4.2 per cent of GDP is spent on healthcare, but 70 per cent of that expenditure is OOP, causing impoverishment.

Under the circumstances, it is appropriate for policymakers to ask themselves the question: is the way forward for inclusive provision of healthcare an expansion of health insurance (with a continuation of the dominance of private provision) or a straightforward expansion and deepening of public healthcare provision, at least at primary and secondary levels of care (while private provision will continue to dominate tertiary level care)? Unfortunately for the vast majority of the poor who suffer the most from impoverishment due to catastrophic health expenditures, including on medicines on a regular basis, India seemed to have adopted a mix of both paths. However, as we argue here, this path is not serving the mass of the population well. The current weaknesses of public healthcare has already been examined in chapter 10, and only the pitfalls of the current approach to health insurance will be discussed here.

14 Two of these are rather well known with a relatively larger coverage: Yeshasvini scheme in Karnataka (begun by the innovating Dr Devi Shetty of Narayana Hrudalaya, Bangalore, fame) in 2004/5, which had enrolled 2 million farmers after only one year of operation, and the SEWA health insurance scheme.

15 Andhra Pradesh pioneered the Rajiv Aarogyashri health insurance in 2007; Tamil Nadu launched its own in 2009, and Karnataka began its own in 2009.

From a mere coverage of 7.5 million persons under health insurance in 2007 (most in formal employment), the numbers covered went up sharply by 2010 to 302 million, or one-fourth of the population. Of this the highest share is that of the RSBY (Rashtriya Swastha Bima Yojana, or National Health Insurance Scheme), which started in 2007. The numbers of those covered by RSBY, which is targeting only those below the poverty level (BPL), is approximately 160 million persons (or 35.9 million households as of September 2013).

In terms of geographical coverage, RSBY operates in 24 of the 30 states, but covers all the districts in only 10 states. The coverage is highly concentrated in a few states, with over 55 per cent of the total in three large states (Bihar, UP and West Bengal).

As regards benefits the amount of insurance coverage is only ₹ 30,000 per annum for a family of five, which was fixed in 2007 (and still remains at that level). It covers only hospitalisation expenditure, and not outpatient care.

There are major problems with a health insurance that only covers the poor, while the majority of the non-poor remain uncovered. Even at 160 million persons covered by RSBY, that is still only 60 per cent of the poor. Given the inclusion/exclusion errors in BPL identification (discussed at length in chapter 12), it is highly likely that actual coverage of the real poor is much less than 60 per cent. In any case, communicable disease is not confined to the poor, and the poor are at risk when most non-poor remain uncovered.

Much more seriously, inpatient care accounts for only one-third of total OOP. The remaining two-thirds of OOP are accounted for by out-patient care (Selvaraj and Karan, 2012). In other words, RSBY does not even begin to affect two-thirds of the problem that it was supposed to address. Even for the one-third of OOP accounted for by in-patient care, the coverage of diseases is limited; for instance, it excludes cardiovascular disease, the incidence of which is rising rapidly in India. Both communicable (which are covered under RSBY) and non-communicable diseases (NCD) are affecting the poor, so that India is in that transitional phase in the disease burden where communicable disease is declining but has not disappeared, while the NCD burden is rising, and the economic burden of NCDs is rising (Mahal et al., 2013). Besides, ₹ 30,000 (kept constant between 2008 and 2013) for a family of five, even though it excludes cancer and cardiovascular disease, is also much too low even for hospitalisation costs.

Not surprising that the most serious evaluations of RSBY have been scathing in their criticism. Even after the introduction and rapid expansion of health insurance

in India after 2007¹⁶ the hospitalisation expenses as a share of overall household expenditure increased further during 2009–10 (based on NSS data) to 1.9 per cent, from 1.6 per cent in 2004–05 and 0.5 per cent in 1993–94. Household real per capita OOP expenditures increased significantly during the five years (i.e. 2004–05 to 2009–10) and the latest NSS data (for 2011–12) suggest that trend has been sustained (Selvaraj and Karan, 2012).¹⁷ The real rise in OOP expenses of households appears to be, say Selvaraj and Karan, largely due to hospitalisation expenditure, while outpatient and drug expenditure remained almost stable during the period.

Moreover, only 2.3 per cent and 3.1 per cent of rural and urban population on average are hospitalised at any given point of time, while 8.8 and 9.9 per cent of the population access outpatient coverage. Thus, evidence suggests that outpatient care matters a great deal in India (Selvaraj and Karan, 2012).

Finally, there is the issue of the alternative use of central government funds.¹⁸ Although 80 per cent of total health expenditure is accounted for by state governments, their funds go almost entirely to paying salaries of doctors, paramedics and administrative staff. Most investment funds come from the central government. As the author discussed in chapter 10 the central government's health allocations have been primarily through the flagship programme, the National Rural Health Mission since 2005–06 (the RSBY began two years later). In seven years, the central government released ₹ 66,560 crores (or approx. \$110.9 billion at late 2013 exchange rates). The RSBY, which is only a hospital-based health

16 The Andhra, Tamil Nadu and Karnataka state governments' health insurance scheme have been more ambitious than RSBY, covering high-end surgical procedures at tertiary level. The Andhra and Tamil Nadu coverage amount goes up to ₹ 2,00,000 per annum and ₹ 1,00,000 for four years on a family basis, and the Karnataka one covers both secondary and tertiary care hospitalisation with a maximum amount of ₹ 2,00,000. The total population coverage also, as Kerala extended the RSBY coverage to the above poverty line population.

17 See also the entire debate on the subject between Velakkal and Ebrahim (2013) and Selvaraj and Karan (2013).

18 The alternative use of health expenditure is an issue as there are huge gaps in health funding on both communicable and non-communicable diseases. Thus, all disease conditions for which national programmes provide universal coverage account for less than 10 per cent of all mortalities. Over 75 per cent of communicable diseases are not part of national programmes, although such diseases contribute 24.4 per cent of India's disease burden, and maternal and neo-natal ailments contribute another 13.8 per cent. Non-communicable diseases (39.19 per cent) and injuries (11.8 per cent) contribute the bulk of India's disease burden (Ministry of Health, 2015). All this requires massive increases in both preventive/primary as well as secondary/tertiary care through public funding, as both communicable and non-communicable diseases remain under-funded.

insurance system for only the BPL category, absorbed ₹ 2,727 crores for only a five year period.

Besides, leakage abounds in the health insurance system in India. Private providers find it worthwhile to turn simple ailments into hospitalisation cases in order to derive the full cost from the insurer for the ailment (there are caps per disease in RSBY). Such hospitalisations can be prevented if primary care was easily available. This is the reason the author is not convinced that at the current stage there is any case for an expansion of health insurance. Preventive, primary care must become universal, especially but not only in the poorest northern and eastern states where the health indicators are among the worst. Even during the first half of the 12th Plan there has been no increase in the share of government health expenditure as a proportion of GDP beyond 1.3 per cent. Given the experience so far, it may be best to ensure full RSBY coverage of the northern and eastern states, so that RSBY related public expenditure can be contained and perhaps the insurance cap be increased; at the same time, better regulatory mechanisms will have to be introduced to prevent gaming of the system by providers and insurance companies (in collusion with patients).

13.3.4 Social assistance: An array

We had noted earlier that India is characterised by narrowly-based and fragmented social insurance mechanisms that leave most workers in the unorganised segment of enterprises uncovered. In addition, such social assistance as exists is mostly in kind, and not in cash.¹⁹

In addition, central and state governments provide a variety of what are termed welfare funds, but those mostly *do not meet the criteria of social insurance* since they don't all cover old age pension, death/disability benefit, and maternity benefit, nor health insurance. There are essentially two types of welfare funds in India: tax-based ones and contributory ones. The central government has created tax-based funds for six types of mines (mica, iron, manganese, chrome, limestone and dolomite), *beedi* workers, cinema workers, dock workers and construction workers. All these funds are based on a tax levied on the products produced or services provided, and then earmarked for use of workers in that product/service group. These funds were created by acts of Parliament, and then separate legislation was passed to impose the tax.

¹⁹ The in-kind social assistance takes the form of the Public Distribution System for cereals, or mid-day meal for school children up to class 8 or for pre-schoolers.

However, the majority of these funds do not provide the key benefits that characterise social insurance – old age pension, death and disability benefits, and maternity benefits. Instead the funds defray the costs of: medical facilities and hospitals; water supply and facilities for washing; educational facilities and scholarships; housing and recreational facilities; family planning; and transportation to and from places of work. The legislation also provides that the central government can use the funds to grant a loan or subsidy to a state government for other welfare schemes for workers in that trade.²⁰

Similarly, several states in India have created funds that are contributory. Kerala has 20 such funds (for agricultural workers, autorickshaw drivers, cashew workers, coir workers, construction workers, transport workers and others). Similarly, Assam has one for plantation workers, as do states of Gujarat, Maharashtra, Karnataka and Punjab. The experience with contributory funds is not encouraging (Jhabvala and Subrahmanya, 2000). Their coverage has been limited, and there have been difficulties in collecting their contributions. Krishnamoorthy and Nair (2001) report that the Tamil Nadu construction workers fund does offer group personal accident insurance and natural death and maternity assistance, but also gives assistance for education and marriage of children, and for funeral expenses. Given the limited benefits offered, the fund has accumulated large reserves. Welfare funds have historically been most prevalent in the southern and western states, though they have spread in the 1990s to some extent to the north and east; nevertheless, their overall coverage still remains small.

The overwhelming impression that this description leaves is that social insurance has remained in its infancy in India, at least for unorganised sector workers, and social assistance is in the form of products or services (rarely as cash). O'Keefe (2005) estimates that in the unorganised sector, less than 1 per cent of workers have any formal pension coverage through *public* schemes (while in the organised sector that share is 95 per cent).²¹ However, with India now boasting

20 Recently a proposal was made that the underutilised money in these funds should be used to provide vocational training and skill upgradation for workers in those industries (for example, the construction sector).

21 Unorganised sector coverage through commercial schemes is only 1.2 per cent for personal accident insurance, 0.5 per cent for private health insurance, and 23 per cent for life insurance (O'Keefe, 2005). These numbers have changed significantly for health insurance, as we have noted. They have also been increasing for life insurance as well, as private insurers have entered the market since 2005, and public sector insurers have also expanded operations.

a \$1.9 trillion economy, and with per capita incomes putting India in low middle income status, absence of social insurance for the vast majority of workers in informal employment should no longer be perceived as inevitable.

One other form of social assistance is the central government's minimal programme of assistance at the time of death as a one-time lump sum payment on death (introduced in 1995) to BPL households. The NFBS provides a lump sum family benefit of ₹ 10,000 (increased to ₹ 20,000 from October 2012) to the bereaved household in case of the death (natural or accidental) of the primary breadwinner (male or female) whose earnings contribute substantially to the total household income. This scheme is applicable to all the eligible persons in the age group 18 to 64 (it was reduced to 60 years in October 2012). The bereaved household has to qualify as one *below the poverty line* according to the criteria prescribed by the Government of India (i.e., using the 2002 BPL Census, which is subjected to a comprehensive critique in chapter 12).

13.4 The Shape of Social Insurance to Come

We argue in this chapter for the three components of social insurance (SI): old age pension, death and disability benefit (or life insurance), and maternity benefit – the three internationally recognised (by the ILO) requirements of a minimum SI programme.

It could be reasoned that a social insurance system for unorganised workers should not be voluntary. Past experience from other countries suggests that major coverage expansions do not result usually from voluntary social insurance systems; a compulsory system would be required. It is true that formal labour markets, where mandated participation can be enforced display higher coverage rates, and hence expanding coverage for a largely unorganised sector workforce would be more difficult. However, India has for long run a system of ration cards for BPL families. As noted above, identifying the rural poor is about to be put on a firmer methodological basis, and 900 million persons who have biometric identity cards by 2014 have already been issued the cards. Hence, once BPL households are identified, what remains is to actually provide the services to them.

Historical experience of the rich countries does not suggest that the comprehensive system suggested by the NCEUS, put in place in one fell swoop, is a serious possibility. There is only a very limited political constituency behind it.

The likely future shape of the SI system in the country for unorganised workers – which should be put in place incrementally – should have the following components.

First, maternity benefit was put in place, as an extension of the current Janani Suraksha Yojana.²² Launched in 2005 the JSY provides a differential one-time cash incentive for institutionalised births through skilled assistance. However, JSY does not address the issues of a poor woman's economic compulsions to work right up to the last stage of pregnancy and resuming work soon after childbirth. Hence, there was need for a modest maternity benefit to partly compensate for her wage loss. Note that this does not cover all unorganised workers, but would cover only the 22 per cent of the population, which, by Planning Commission estimates, are BPL. Administered by the Ministry of Women and Child Development (and called the Indira Gandhi Matritva Sahyog Yojana), it came into effect in 52 of India's 641 districts in the financial year 2011–12, the last year of the Eleventh Plan. The benefit consists of ₹ 6,000 to women over 19 for the first two live births. It is paid in two installments starting in the second trimester before childbirth (to enable the poor mother to stop work and thus put on weight with a view to reducing the phenomenon of low birth weight), till six months after childbirth (to enable the poor mother to exclusively breastfeed and also let her own body fully recover). It is conditional upon the pregnant mother getting ante-natal care check-ups before birth and post-natal check-ups after births. It is also conditional upon her obtaining a tetanus toxoid vaccination, and full immunisation of the child. Such a maternity benefit thus would help to reduce child malnutrition, child mortality and improve the mother's health. During the 12th Plan this conditional cash transfer was to be scaled to 200 additional districts that have a high burden of malnutrition.

Third, old age pension has already made a massive advance in rural India, with NSAP to cover from 19 November 2007 all BPL elderly. NSAP was also extended to all BPL differently-abled persons, and all BPL 60-year olds, rather than only to over 65-year olds. Fourth, there is need for a death and disability insurance for all BPL workers, instead of a fragmentary system with limited coverage (as described in Table 13.5).

However, for APL workers in the unorganised sector, the situation should be

22 In the 11th Plan document, we in the Planning Commission had advocated strongly for, and provided for an extended Maternity Benefit to all BPL mothers over 18 for their first two children.

very different. Although APL families should contribute to their old age pension as well as death/disability benefit, beneficiaries' share will need to be negotiated as will the remaining share to be borne by the central and state governments. The governments' share should automatically fall, with the contributors' share correspondingly rising as income levels of households increase.

We would argue that in the first instance, the focus of social policy and financing to support that policy should be on ensuring that the BPL are covered by the remaining three essential components of social assistance (SA): old age pension, maternity benefit, and life/disability insurance. Once all BPL households are covered, the aim should be to widen the sweep in concentric circles of those above the poverty line, using possibly occupational groups as a criterion to bring them into the sweep.

The implementation of such a comprehensive social insurance for the BPL population would begin with the registration of all unorganised sector workers. For this purpose the Socio-economic and Caste Census completed in 2013 can help identify the potential share and segment of the population both rural and urban (see Chapter 11). But that listing needs to be converted into a system whereby they are registered. These registered workers would have their Aadhar identity cards (biometric card discussed in chapters 12 and 14) seeded with the registration number. The Unorganised Workers' Social Security Act, 2008, already provides for the issuance of an 'identity card' (a document or certificate) to an unorganised worker (i.e. in enterprises employing less than 10 workers) by the district administration. The Act also provides for the constitution of a National Social Security Board, chaired by the Labour Minister, with representation of both workers and employers in the unorganised sector. Similarly, the Act provides that every state government shall constitute a State Social Security Board. These Boards should be responsible for registration of unorganised workers, using the bio-metric identification Aadhar. In other words, the institutional structure for rolling out a social insurance system exists.

The new NDA central government initiated in June 2015 a programme to universalise life insurance, accident insurance and old age pension on a contributory basis; both beneficiary and government will contribute. Only those are eligible who open a new bank account, so it is intended to be tied to new bank accounts being opened in public sector banks; hence, it is intended to promote financial inclusion as well.

In the Pension programme, the central government will co-contribute 50 per

cent of the total contribution or ₹ 1,000 per annum, whichever is lower, to the eligible account holders. Eligibility is confined to those between age 18 to 40 years, and they will need to contribute until age 60 to begin receiving pension at 60. The minimum pension will be ₹ 1,000 and maximum will be ₹ 5,000 per month.

The accident insurance is available to those between ages 18 and 70. It involves contribution from the new bank account by the beneficiary of only ₹ 12 per annum, to avail of accident insurance worth ₹ 2,00,000. The life insurance (also worth ₹ 2,00,000 paid to nominee on the death of the insured) is available to those between ages 18 and 50. The assurance on the life of the member will terminate at age 55. The annual premium is only ₹ 330, borne by the beneficiary, and debited from the new bank account. All bank accounts and pension plan, accident and life insurance are to be based on the biometric identification of the beneficiary (i.e. the Aadhar card).

A number of points are clear about these three new schemes. First, its total cost to the central government is unclear, or at least it has not been made public. The insurance companies that will issue the accident or life insurance policies are also in the public sector, and their costs will be met by the central government alone. The pension plan also involves co-contribution by the central government; here again the costs to the government are unclear (or at least the fiscal costs are not made public). However, the government is only committing to meeting these costs for its five year term in office.

Second, each element in social insurance is voluntary; it is not mandatory for anyone to open such a new bank account. As we noted above, the international evidence is that voluntary programmes do not work, and are not successful.

Third, it is obviously targeting those employed in the unorganised enterprises, and are in informal employment, which is clearly a very welcome move. Fourth, it is intended to be tied to opening of new bank accounts, which is intended to promote the larger financial inclusion objective, again a very laudable one. However, whether these new bank accounts will actually remain open, or become dormant remains to be seen (an issue that was discussed in Chapter 10).

Given these three new programmes have not been tested, and are only just been rolled out, we go ahead in the next section to cost the programmes that we have discussed in this chapter. Unlike the new government's three new programmes, ours is not intended to cover all unorganised sector workers, but only the 22 per cent of the population who are poor.

13.5 The Cost of Social Insurance in India for the BPL

We present the cost of a plan that covers life and disability insurance, a pension and a maternity benefit, but only for 22 per cent of India's population who are poor (Tendulkar poverty line) in 2011-12.

13.5.1 Life and disability insurance

Table 13.6 presents the cost of a five year roll-out plan for a life and disability insurance for 22 per cent of the BPL households in the population. We are also assuming that the package of benefits available under such a life and disability insurance plan will be the same as the Aam Aadami Bima Yojana (see Table 13.5).

Table 13.6: Five year roll-out plan for life and disability insurance – one worker per BPL household

	Year 1	Year 2	Year 3	Year 4	Year 5
Additional BPL workers covered annually (crores)	1.08	1.08	1.08	1.08	1.08
Cumulative BPL workers covered (crores)	1.08	2.16	3.24	4.32	5.4
Matching financial contribution of ₹ 500 (min) or ₹ 1,000 (max) per worker ₹ crores per annum					
Centre (min-max)	540–1080	1080–2160	1620–3240	2160–4320	2700–5400
State (min-max)	540–1080	1080–2160	1620–3240	2160–4320	2700–5400
Total	1080–2160	2160–4320	3240–6480	4320–8640	5400–10800

Source: Author's estimates. This is a proposed plan.

In Table 13.6 we present the cumulative size of the funds that would be accumulated in a life and disability insurance fund (see last row). We suggest that this would be a contributory fund with poor workers contributing a minimum of ₹ 500 per annum to the insurance fund and a maximum of ₹ 1,000, depending upon their ability to pay. We also suggests that the central government will make a matching contribution to that made by the worker, and so will the state government. That is why the rows for the centre, the state and the total presents a range for the total funds that are likely to be accumulating.

We stated above that the benefits payable in the case of death of the member should be ₹ 30,000 and in the case of total permanent disability an amount of ₹ 75000 (as for the Aam Aadami Bima Yojana)²³. We have assumed that the death rate between the age group of 18–60 will be six per thousand.²⁴ We have also assumed that the disability rate per thousand is 2, given the current available statistics from Census 2011.

13.5.2 Pension

It should be noted that the existing non-contributory pension benefits to elders (NSAP), the disabled and widows already being given will continue. What is presented below builds upon existing work of the Government of India (MORD, 2012) ~~and the National Advisory Council (2013).~~

Old Age Pension: There is, as we noted in the previous section, a non-contributory old age pension, and widow and disabled pension (discussed in earlier sections).

The Government of India has been providing pension support only to those people suffering from severe disability, i.e., 80 per cent or multiple disability (more than one disability of 40 per cent, which is the benchmark for disability as certified by a medical authority). Restricting the pension to those with multiple or more than 80 per cent of disability is highly restrictive,²⁵ but we are assuming that at least this programme will continue.²⁶

23 A beginning is being made as part of the new central government's life insurance cover for anyone to subscribe to a new bank account for the first time during the period August 15, 2014 and 26 January, 2015. The life insurance cover will be for Rs. 30,000 on death of the life assured, due to any reason, to the deceased's family. The person should normally be the head of the family or an earning member of the family, and should be between 18 and 59 years of age. In case the head of family is 60 years or over, the second earning member in the age group will be covered. The person must have a Ru-pay Debit card linked to the new bank account. The life cover will be initially for five years. www.pmjdy.gov.in, accessed on 15 February 2015.

24 The assumption of the death rate of six per 1,000 is indirectly derived, based on the fact that the prevailing crude death rate per thousand in the population as a whole is eight per 1,000. If eight per 1,000 is the death rate for the entire population including the over 60 years old population, whose life expectancy is lower than that of those below the age of 60, and the life insurance obviously covers only those below the age of 60, then the assumption of a death rate of six per thousand is reasonable.

25 The seven disabilities listed are blindness, low, leprosy-cured, hearing impairment, locomotors disability, mental retardation and mental illness.

26 A Ministry of Rural Development (2012) report has suggested that those with over 40 per cent disability should be considered eligible for the NSAP. It has also proposed that

As regards Widows Pension Allowance, currently the minimum age for widow pension allowance is 40 years. However, since the minimum age for marriage is 18 years even young widows should be entitled to such social assistance since they have to look after young children.²⁷

Nevertheless, for the purposes of this costing exercise in this chapter to cover all BPL, we stick with the current prevailing expenditure levels for the National Widows Pension, National Disability Pension and National Old Age Pension. The central government's allocation in 2011–12 for the three types of pension was ₹ 6,658 crores.

However, as we have seen in section 13.2, the state governments contribute as much (or usually more) towards the three types of pensions. Hence, we have made an estimate of the state government's total allocation in 2011–12. Thus, the

currently disability pension is given only to persons above 18 years, which does not appear logical. The young disabled are even more dependent on others, and this age restriction should be abandoned. The number of current beneficiaries under the benchmark of severe or multiple disability is 1.11 million persons. If the disability allowance is extended to cover all disabled persons with 40 per cent disability in the BPL category, it would benefit another 1.98 million disabled in the age group of 20–59 years. The financial implication comes to ₹ 788 crores per annum, if given to the BPL category alone. In addition, the number of disabled in the age group of 0–19 years is 7.73 million. But the number of BPL beneficiaries in this category at a poverty ratio of 27.5 per cent in rural areas would be 2.12 million. Therefore, the financial implication for providing assistance at ₹ 300 per month (the current old age pension given by the central government is ₹ 200 per month) comes to ₹ 766 crores per annum.

- 27 Moreover, the allowance covers only women widows and not single women and abandoned or separated women. The latter group of women also face the same kind of discrimination as do widows. Hence a pension allowance must be extended to single and abandoned women between the ages of 18–39 years also. According to Census 2001, the number of widows in the age group of 20–39 years is 3.36 million and at a poverty ratio of 27.5 per cent of the rural population 9,25,000 women would receive pension at the rate of ₹ 300 per month. The total cost would be ₹ 333 crores per annum. Given that the present BPL list is based on the BPL census of 2002, the number of BPL eligible persons would increase under the currently on-going Socio-economic and Caste Census (please see discussion in chapter 12). The number of BPL is likely to increase on account of the automatic inclusion of certain categories of citizens, for example, Scheduled Castes and Scheduled Tribes. While the number of beneficiaries under the three pension allowances are 26 million, we can safely assume that on account of the absolute increase in population as well as change in criteria for inclusion into the BPL list the total number of beneficiaries is likely to reach 50 million. The financial implication at ₹ 300 per month per person comes to ₹ 1,800 crore per annum. However, the MORD (2012) committee reports recommendations were ignored by the Government of India in 2013, and have been kept in abeyance with a view to reduce further pressure on a large fiscal deficit.

total expenditure, in 2011–12, by central and state governments together comes to ₹ 6,658 for the central government and ₹ 5,700 crores for all state governments aggregated. In 2011–12, this amounted to 0.13 per cent of India's GDP.²⁸

13.5.3 The cost of maternity benefit

As noted in the previous section, a maternity benefit for the poor pregnant and lactating mothers has existed since 2011–12 in the form of a conditional cash transfer (Indira Gandhi Matritva Sahyog Yojana). However, it started as a pilot in 52 of the country's 641 districts. The annual budget allocation in 2012–13 for the 52 districts was ₹ 520 crores (Ministry of Women and Child Development, 2013), thus working out to a cost of ₹ 10 crores per district per annum. If this scheme is taken to scale across the whole country (it is to be only planned to be extended to 200 high incidence of malnutrition districts during the 12th Five Year Plan) then the annual cost will work out to approximately ₹ 12,000 crores per annum (at 2012 prices).

13.5.4 The total cost incurred by the central and state governments for a social insurance programme for BPL unorganised sector workers

Aggregating across the three sets of programmes – old age pension, widow pension, disability pension, death and disability insurance and maternity benefit – we come up with the total cost for a social insurance programme covering all BPL as follows.

- The total cost of all three types of pensions in 2011–12 is about ₹ 6,650 crores of the central government (at 2012 prices). Given that states are currently supplementing this amount with their own resources, their annual allocation comes to approximately ₹ 5,500 crores per annum. In other words, the total cost for central and state governments together amounts to just over ₹ 12,000 crores for the two levels of government. It should be noted that there is no contribution expected from the ultimate beneficiaries for this pension to be paid out.
- We have seen above that we proposed a five year roll-out plan for the death and disability insurance (on the basis of covering one worker for BPL household). In Table 13.6 one saw that in year one the cost to central and states governments together was a maximum of ₹ 2,160 crores (on the assumption that workers

²⁸ This amount would have to increase if the disabled and widows pension coverage was increased to cover those with 40 per cent plus disability and 18–39 year old widows as proposed by the MORD's expert group in 2012.

made a contribution of ₹ 1,000 per annum). However, one should use the five year estimate for total cost because by the end of five years all BPL workers would have been covered gradually over five years. In the 5th year, the maximum cost to the government comes to ₹ 10,800 crores (last column of Table 13.6).

- So the total cost of social insurance for the BPL, on an annual basis, comes to ₹ 13,300 crores for three pensions, ₹ 10,800 crores for the death and disability insurance and ₹ 12,000 crores for the maternity benefit, totaling ₹ 36,100 crores, or 0.38 per cent of GDP (based on the GDP estimate for 2012–13). For reference sake, this total is below the allocation to MGNREGA, the National Rural Employment Guarantee, in the same year.

The idea here is not to present a detailed design of each programme, but lay out the outlines.

13.6 Concluding Remarks

We showed in the first section that both social assistance is meager, and social insurance is limited and fragmentary; in both cases, it mainly covers BPL rather than all unorganised sector worker households. Therefore, the case is strong for both increasing social assistance for unorganised sector workers, and for social insurance. The case is particularly strong, since the labour market conditions do not exist for government intervention to improve work conditions (other than social protection).

The historical experience of the now industrialised countries suggests that there is a long struggle ahead. The important point is that the annual cost to both central and state governments taken together for the social insurance package proposed in this chapter would only be 0.38 per cent of GDP (at 2012–13) prices per annum to cover the entire population below the national poverty line.

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Introducing Cash Transfers

A Proposal for a Minimum Income Guarantee and Some CCTs

14.1 Introduction

There has been a growing chorus of opinion in India that redistributive programmes of the government have been relatively ineffective, that the benefits do not reach the poor, and that there is a case for introducing forms of social assistance that have so far not been tried extensively (Kapur and Mukhopadhyaya, 2007; Prahalad et al., 2009; Ministry of Finance, 2009; Nilekani Committee Report, 2011). The case has been made that like other emerging market economies India too should seriously consider this form of social assistance. Latin American countries were the first to introduce conditional cash transfers (CCTs), and in recent years, a few Asian countries have also been doing so (for example, Indonesia, the Philippines).

This chapter makes the case for an unconditional cash transfer, which would guarantee a minimum income to the poor (as determined by the Tendulkar poverty line). It also makes the case for six other CCTs that should be considered for introduction by the central government. However, it cautions that there are pre-requisites for introducing CCTs that are not yet present fully in the Indian governance system, though they are in the process of being put in place. Hence, a hurried introduction of cash transfers, conditional or unconditional, would be fraught with risks, and vulnerable to implementation problems as serious as those that beset the prevailing delivery system for redistributive programmes. It also argues that financing for the CCTs is not difficult, and it shows clearly where the finance can be found – by converting existing subsidies or programme funding into CCTs.

It is useful to clarify that the Direct Benefits Transfers (DBT) that the Government of India announced in late 2012 are not the subject of this chapter. The DBTs are only providing for the efficient transfer of money from existing cash transfers – social pensions (old age, widows, disabled) and scholarships for students – directly into bank accounts of beneficiaries, who were hitherto being

provided cheques that were then cashed at a bank, whether or not the beneficiary has a bank account. The cheque payment system is inconvenient for beneficiaries because it encourages ‘commission agents’ and bank/post office clerks to demand ‘rents’. The second difference is due to the unique identification numbers based bio-metric identity cards available since 2012 to such beneficiaries. These prevent fake beneficiaries from making withdrawals. The DBT may well be a precursor to what is being proposed in this chapter.

This chapter is organised as follows. Section 14.1 spells out the reasons why the Indian government might consider cash transfers (both unconditional and CCTs) as a serious policy option. Section 14.2 summarises the pros and cons on cash transfers as a form of social assistance, based on international experience. Section 14.3 lays out the three minimum requirements to ensure that CCTs are successfully implemented in a country like India, where the delivery system for basic services and redistributive programmes has been marked by widespread leakages. Section 14.4 spells out the minimum income guarantee in the form of a unconditional cash transfer that should be implemented as soon as possible at least for those below the poverty line. Sections 14.5 and 14.6 examines how it can be financed, and at the same time make the case for converting (as already begun for LPG late 2014 by the new government) into cash transfers the LPG and kerosene subsidies. The remaining sections lay out the blueprint for new CCTs for : fertiliser (section 14.7), supplementary nutrition (section 14.8), Public Distribution System grain (section 14.9) and skills (section 14.10).

14.2 Why India Needs Social Assistance as Cash Transfers?

There are several reasons why time may be ripe for the Indian state to seriously initiate cash transfers as a policy mechanism to benefit the poor.

- India has had a long history of redistributive poverty reduction programmes, but hardly any programmes that provide direct cash assistance to the needy. India has barely two cash social assistance programmes in place on a large scale, conditional or unconditional.¹

1 The Janani Suraksha Yojana, meant to encourage institutional delivery of babies, as opposed to home deliveries that are the commonest form of childbirth, is one of three exceptions. It is a one-time cash transfer, given to the pregnant mother when she delivers a baby at public or private health facility, by the central government. The second is the pilot in 52 districts of maternity benefit – the Indira Gandhi Matritva Sahayog Yojana (or Indira Gandhi Maternity Benefit Scheme). A few state governments also have a limited number of CCTs, especially to encourage girls’ education. These have already been discussed in chapter 13. The third, started in late 2014, is in respect of cooking gas (LPG) subsidy.

- The need for social assistance is underlined by the fact that the vast majority (93 per cent) of India's workforce is in the unorganised sector engaged in informal employment characterised by low income and also a high variance in that income (NCEUS, 2008; Mehrotra et al., 2012). This workforce receives almost no social insurance either (see chapter 13). This should be unacceptable in any civilised society on humanitarian grounds. This is especially the case since India is an outlier among developing countries in having such a high proportion of its workforce in informal employment. Only 7 per cent of total have social insurance, while the majority of the such a high proportion have almost none. Only a few in-between have old age pension but only those identified as poor (by the 2002 Census of the Ministry of Rural Development). Those below the (Tendulkar) poverty line in the unorganised sector, therefore, deserve some social assistance in cash, which goes beyond the other programmes (for example, public distribution of subsidised cereals; the national rural employment guarantee; and so on).
- India is today a more globally integrated economy, and social safety nets that are effective and less leakage-prone than current redistributive programmes are especially needed now. First, they are needed more than ever before because the Indian economy is more vulnerable to exogenous shocks, and India has already seen the adverse impacts on employment in a series of export-related sectors (for example, gems and jewelry, leather, textiles, garments, handicrafts) since the global financial crisis of late 2008 (Mehrotra, 2010). Second, there will continue to be structural change in both employment and output when economic growth takes place – this, of course, is not exogenous. Thus, millions are already leaving agriculture for non-agricultural employment (see Chapter 4). Such structural changes require that the vulnerable are protected against adverse changes.
- The international experience highlights the need for a social contract. Rodrik (2000, 2004) and Bourguignon et al. (2002) point out that after Second World War, Europe would probably not have experienced a rise in industrial productivity, which went hand in hand with economic growth and structural change, without an institutional environment that permitted a social contract to emerge. In fact, as we noted earlier in this book, the economic historian Lindert (2004), in a systematic analysis of the now industrialised countries spanning the 100-year period from 1880 to 1980, concluded that not only did the size of government and the share of government expenditure in GDP rise from 11 per cent on average to over 40 per cent of GDP, but this increase was accounted for almost entirely by the corresponding rise in social transfers (health,

education, social security). Most emerging market economies already have had a few decades of experience of running CCTs for the poor, and India can learn from their experience. Despite a large number of evidently ineffective and ad hoc poverty reduction programmes, India is very unusual in this respect (i.e., the absence of CCTs in its portfolio of social assistance programmes) among emerging market economies.

- There is also the fiscal argument for CCTs. India has had a long history of untargeted or poorly targeted subsidies, which are in need of modification in their design (as discussed in section 14.5 of this chapter), especially because the fiscal burden of these subsidies has become increasingly unbearable after the multiple fiscal stimuli post-2008 economic crisis. Official estimates of subsidies given for food, fertilisers, petroleum and other subsidies in 2006–07 amounted to ₹ 53,495 crore (Actual). The budgeted amount for subsidies in 2008–09 had risen to nearly ₹ 67,000 crore (\$14.6 bn at 2008–09 exchange rates), rising to ~~255,516~~ ^{255,516} crore in 2013–14 (2.6 per cent of GDP) (see Table 14.1). The most important of these subsidies are for food, fertiliser and fuel.

Table 14.1: Major Subsidies in India

		(In crore of rupees)	
	2009–10	2013–14	2014–15
Major subsidies – total	134658	247596	251397
i. Food	58443	92318	115000
ii. Fertilisers	61268	71280	72970
iii. Petroleum subsidy: LPG, kerosene, diesel	14951	83998	63427
Major subsidies as % of GDP	2.08	2.18	1.95

Source: Expenditure Budget Vol. I, 2009–10; 2013–14.

- Finally, the fiscal cost would still be bearable if several of the subsidies were actually reaching and benefitting the majority of those targeted. But the fertiliser subsidy is universal, and totally untargeted. Worse still, it is given to manufacturers of fertiliser, rather than the farmers who are supposed to be the real beneficiaries, since balanced consumption of fertilisers by farmers is the objective of the subsidy. The fact is that inappropriate pricing of the three types of fertiliser has caused distortions in the fertiliser market, and led to the

worsening of soil health. Similarly, subsidised kerosene causes ill health in rural households from indoor pollution caused by kerosene used for cooking and lighting, and the cheap kerosene is used to adulterate more expensive diesel thus causing damage to vehicles and worsening air pollution in addition. Thus, product-based subsidies are the cause of society-wide adverse externalities, and have to be reformed in any case.

Besides, there is the subsidy for all households on as many cylinders of LPG (used for cooking) cylinders as one consumes. There was no reason for middle class households not to pay the full cost of production of about ₹ 900 per cylinder, especially since they consume a much higher number than poor households who rarely consume more than six cylinders in a year (since the latter use them very efficiently).

For all these reasons, India needs to begin to substitute cash transfers conditional and unconditional – in lieu of the product-based subsidies that have prevailed for decades.

The benefits of cash transfers are many, especially in the Indian context where the extent of leakage of funds in government programmes (although difficult to estimate exactly) is large enough to generate a mafia around almost of each programme. The mafia arises precisely on account of the poor design of the programmes. Over time the mafia develops such serious vested interests in collaboration with the political executive and the lower echelons of the provincial civil service that it becomes next to impossible for a radical redesign of the government programme, even if the will might exist in the higher echelons of the national civil service. That is the reason reform of such programmes is repeatedly deferred.

There are many benefits that can flow from cash transfers. First, cash transfers give a beneficiary (a) access to products or services from more than one location, which is difficult to achieve if the beneficiary was given entitlement to a product or service itself; and (b) cash transfers give beneficiaries the choice to access the product or services from a private or a government provider, if one or the other cannot provide it.

Secondly, cash transfers facilitate delivery, in a number of ways: monitoring the list of beneficiaries; details of benefits drawn; the performance of vendors who are servicing beneficiaries can be published by government websites. Civil authority can use this information to focus on irregularities.

Thirdly, in situations where products are available at two different prices (one subsidised and the other at a market price) there is an incentive for pilferage. In other words, dual pricing encourages the practice of selling the product in the higher price market. On other hand a cash transfer introduces one price for the subsidised good (whether it is cereals, fertilisers, kerosene or liquefied petroleum gas).

Fourthly, grievance redressal is made easier by a cash transfer system. Cash transfer is normally based on an IT platform, and redressal is easier since it is possible to track goods flow as well as beneficiary use.

14.3 Cash Transfers: The International Experience

Interest in cash transfers has grown significantly since the beginning of the new millennium. At the end of the 90s, they had been practiced, for example, only in Mexico and Brazil. However, 10 years later all of Latin America had introduced CCTs, as had many other countries in Asia and Africa: Burkina Faso, Nigeria, Kenya and Yemen; and Turkey, Pakistan, India, Cambodia, Philippines and Indonesia. Evaluations showed them to be successful in achieving their objectives, hence their rapid spread. In these countries CCTs transfer cash, generally to poor households, on condition that those households make pre-specified investments in the human capital of their children. There are large programmes in Bangladesh, Indonesia, Turkey and South Africa, to smaller pilot scale programme in most other countries. In Brazil and Mexico, however, they are the largest social programme covering millions of households. In India too, we envisage large scale programmes.

The international evidence suggests clearly that CCTs have had beneficial impacts on consumption and even labour market participation (Fiszbein and Schady, 2009). Evidence from several Latin American countries shows, on the basis of a comparison of cumulative distribution of consumption per capita between those who receive the transfer and those who do not, that current welfare is improved by CCTs. Secondly, CCTs have not only improved the overall level of consumption, but also the composition of consumption. Thus households that received CCTs spend more on food, and within the food basket on 'higher quality' of nutrients than do households that do not receive the transfer but have comparable overall income levels. Thirdly, critics of CCTs allege that they would cause large reduction in labour force participation rate of adults, because

beneficiaries may consume more leisure at higher income levels or they would reduce work to appear to be poor and hence eligible for transfers. Research on Cambodia, Ecuador and Mexico shows that there is no reduction in work effort.

Fourthly, CCTs have led to substantial decreases in child labour, as was the intention of many programmes. Reduced child labour among CCT beneficiary households was found in Brazil, Cambodia, Ecuador, Mexico and Nicaragua. Fifth, CCTs have not had substantial local general equilibrium effects such as increases in prices or wages, which is very significant because a general criticism is that CCTs, especially for food, will cause food price increases. There is even some evidence that CCT beneficiaries invest part of the transfer, and the returns to these investments can result in higher consumption in the medium term (for example, Mexico). Finally, CCTs have led to significant increases in the use of education and health services. These impacts are found in middle-income countries where CCTs were first implemented (for example, Mexico); and in lower-income countries in Latin America and in Asia. CCTs have had a positive effect on the use of preventive health services, though evidence is less clear-cut than with school enrolment.

One of the biggest questions around cash transfers is whether they should be conditional or not. Fiszbein and Schady (2009) present three conceptual arguments for conditioning transfers. The first argument is that agents do not always behave as rational agents might behave. They argue that imperfect information and incomplete altruism (for example, parents pay for education and health services today but their children benefited tomorrow) may prevent a family to invest too little in the human capital of children. The second conceptual argument is that conditioning cash transfers on good behaviour by the poor may increase public support from the middle classes for them. Third, making the cash transfer programme conditional is a good idea, because even if the level of human capital investment by the poor might be privately optimal it might not be socially optimal because of the externalities.

The use of conditions in cash transfers suggests that there is a certain emphasis on the next generation (since most Latin American CCTs incentivised behaviour in favour of children), rather than the poverty of those in the current generation. Conditions can be rightly criticised as demeaning because they apply only to poor people receiving grants. Second, conditions also imply that people with little money do not know how to make good use of an unconditional cash transfer; conditions assume that poor people are incapable of acting in their own interests. We make the case for one unconditional transfer and several CCTs for India.

14.4 Three Minimum Requirements for Cash Transfers to Work

In most industrialised countries, social insurance is nearly universal, but social assistance is much more selective and targeted. India was a low-income country until 2007, the first year in which it moved into the low-middle income country category (after a period of sustained high economic growth over the past decade). However, it still has a very substantial population that is poor – 268 million, according to estimates in 2011–12. Therefore, even covering such a large poor population would have considerable fiscal costs; hence, CCTs should be confined in the initial years to the poor population.

If cash transfers are to succeed in India, there are at least three requirements that should be fulfilled: (a) correct identification of the poor; (b) biometric identification of the beneficiaries; and (c) bank accounts for beneficiaries.

First, the CCTs should target the BPL population, hence BPL households have to be correctly identified. In all the three censuses of the rural population (1992, 1997 and 2002) in the last two decades there is evidence of large scale exclusion and inclusion errors. The Government of India completed, with the state governments, a census of the rural population (in 2013) based on a totally new methodology (see chapter 12 for the methodology).

The new methodology to identify the rural areas relies on much more directly verifiable, simple, transparent and directly observable characteristics of the poor. Using transparent criteria, it would first exclude the non-poor; second, it would similarly use directly verifiable criteria to automatically include in the BPL list those who are extremely poor. For the rest of the population it will use multiple non-money-metric criteria to rank the population who are neither excluded nor automatically included. This leaves it up to the central and state governments to determine what cut off will be employed by them for determining the size of the beneficiaries in a given state, depending on the availability of fiscal resources, and the nature of the programme.

Second, a successful CCT would require the introduction of a biometric identification system to ensure that the correct beneficiaries are actually receiving the funds. Very rapid progress has already been made in this regard by the initiation in 2010 of a Unique Identification System (UID) for the entire population (and a National Population Register in states where the UID is not implemented). This would require that every adult gets their biometrics registered in a database and this

is used to identify the recipients of cash.² The process started in 2010, and within two years, 220 million had already been registered and the number reached 650 million by July 2014. By early 2016, the coverage will reach 900 million – in other words, the entire adult population could, in principle, be covered. The Aadhar card, given by the Unique ID Authority of India (UIDAI) will get linked to any government programme that the central or state government wishes to link it to.

A cash transfer system for poor beneficiaries in a country presupposes that bank or post office accounts are almost universally available for the un-banked population of the country. Given that the un-banked population of the country accounts for 45 per cent of the nation's population in urban areas and 55 per cent of the rural population (Ministry of Finance, 2013), a mechanism has to be developed whereby the bank/post office is not physically so far from the beneficiary that it creates opportunity costs for them in terms of travel time, the cost of which will be foregone wages. Hence, it is critical that a correspondent banking system expands rapidly before a functional cash transfer system can be put in place. That way the bank virtually comes to the beneficiary, rather than the latter going to the bank. The good news is that thanks to the National Rural Employment Guarantee Act, increasingly payment of rural wages for this nationwide publicly funded wage-employment programme is made directly through post office or bank accounts. In fact, some 110 million³ bank or post office accounts were opened, largely for the poorer sections of the population within the 2010–13 (MOHRD, 2013). This can provide a sound foundation for further expanding coverage of bank and post office accounts among potential beneficiaries of a cash transfer system. The shortage of banks/post offices is evident from Tables 14.2 and 14.3. Table 14.2 shows the very large area served by a post office, and also that the population served per post office is over 7,000. Table 14.3 shows that the population in India per bank branch is over 10,427. Similarly, a post office on average serves about four villages, while a bank branch serves about five villages. All this implies that without a system of bank correspondents (for example, small village shopkeepers, post offices) a system of cash transfers is unlikely to be successful. However, the

2 Andhra Pradesh state made major progress with biometric payment, more than any other state. Mukhopadhyaya et al. (2014) point out that surveys they conducted show that beneficiaries support carded payments. They suggest that even without calculating the benefits of lower leakage of benefits, simply monetising the time saved by beneficiaries in accessing payments under the smart card-based system would pay for the cost of implementing the same.

3 National Rural Employment Guarantee Act, Bank Post Office Report, 2009–10.

Reserve Bank of India (Mor Committee Report, 2014) noted that bank accounts will become nearly universal by early 2016.⁴

Table 14.2: Post offices: Population and area served per post office

States/UTs/regions	Population served by PO	Area served by a PO (Sq.km.)
Andhra Pradesh	4995	17.0
Assam	7156	19.6
Bihar	10023	11.1
Chhattisgarh	7232	43.3
Delhi	28107	2.5
Gujarat	6180	21.9
Haryana	8788	16.7
Himachal Pradesh	2323	20.0
Jammu and Kashmir	6470	131.4
Jharkhand	9479	23.9
Karnataka	5719	19.5
Kerala	6575	7.7
Madhya Pradesh	7971	37.0
Maharashtra	8280	24.3
Northeast	4236	60.2
Orissa	4765	19.1
Punjab	6873	12.8
Rajasthan	6009	33.0
Tamil Nadu	5438	10.7
Uttar Pradesh	10375	13.1
Uttarakhand	3394	23.4
West Bengal	9516	11.5
Total	7166	21.2

Source: Annual Report, 2007–08 of India Post.

- 4 As also recommended in the Raghuram Rajan Committee report on 2008. The previous central government had from 2011 onwards targeted unbanked villages of a population of 2000 and more. The new government (May 2014) is focusing on ensuring at least one account per household (not villages).

A third requirement for cash transfer to work is that the beneficiaries are biometrically identifiable. There is a very important link between the biometric identification (i.e., the Aadhar Card) of an individual, and her ability to open a bank account. Banks, being highly risk-averse organisations, especially in the case of poor households, have not been very welcoming of poor persons, who often don't have firm addresses and also do not have any proof of identity. Hence, the poor have always found it very difficult to open a bank account, precisely because there is a requirement on banks to ensure their customers furnish many documents, including proof of identity. The Aadhar card is increasingly facilitating the poor to open bank accounts, since it serves as a KYC (Know Your Customer) proof.

14.4.1 Financial inclusion⁵ and the link to cash transfers

In earlier sections, we have already made the case for cash transfers as means of social assistance. However, in this sub-section we want to clarify that the links between cash transfers and financial inclusion are many, which underline the need for every household in India to have a bank or post office account.

The benefits of financial inclusion have been estimated (Barclays, 2014). First, reduction in government spending related leakages could lead to savings amounting to 0.2–0.3 per cent of GDP annually. Second, opening bank/post office accounts could help shift savings away from gold to financial products – adding up to 0.2 per cent of GDP growth. Third, Aadhar biometric cards could be used to minimise tax evasion (see chapter 5) through tracking of high-value transactions (accounting for a potential 0.4 per cent of GDP).

A World Bank survey in 2012 (Demirguc-Kunt and Klapper, 2012) pointed out that (apart from lack of income) a main reason for not having a bank account is distance to bank branches, excessive documentation and high cost. BCs sharply lower both distance and cost – both on a per location as well as per account basis.⁶



5 Thus, Tawak et al. (2014) find that in the BC model the cost per location can be reduced by upto 93 per cent and the cost per account by upto 78 per cent as compared to the conventional branch model. They estimate that achieving 100 per cent financial inclusion would involve setting up 0.6 million customer service points to service 567 million additional accounts.

6 The new central government (May 2014) initiated a new effort to get the unbanked to open bank accounts (called the Jan Dhan Yojana). When these accounts are opened (between August 15, 2014 and August 15, 2015) an overdraft facility of ₹ 5,000 and a debit card is available (with in-built accident insurance cover). In the second phase (to be completed

Table 14.3: India: Villages per post office and bank

Number of commercial banks branches	15082
Number of post offices	155204
Total number of villages	600000
Villages per post office	3.87
Villages per bank branch	5.21
Persons per bank branch	10,427
per cent of rural bank branch	38.2
Persons per rural branch	18520

Source: As in tables 14.2

All three conditions for successful implementation of CCTs will be in place by early 2016 (provided the banking outreach does not take the form that households with accounts open yet another one, while unbanked households still do not have a single account). There is a clear case for the piloting of CTs before 2016, so that the design of programmes can be tweaked before they are rolled across the length and breadth of the country.

14.5 A Minimum Income Guarantee

India's poor need to borrow to meet even basic consumption needs. Relieving the cash constraints of the poor is a critical way forward in the light of the high dependence of the poor upon non-institutional sources to borrow money in

over 15 August 2015 to 15 August 2016) a life insurance will be available to such account holders.

However, surveys show (notes Kale, 2014) that more than half of the basic savings bank accounts opened for inclusion in the past lie dormant, and a large number of BCs are untraceable even though existing in bank records. Such bank accounts can only be viable for banks if the number of transactions in such accounts can be increased. Also, the BC agents also become dormant, because their commissions are too little with few transactions. Hence, the government proposes a monthly salary of ₹ 5,000 for BCs (\$94 at the 2014 market exchange rate). Government transfers seem to be the quickest way to increase transactions and ensure that the new bank accounts do not become dormant. That is one additional reason why we make the case for several unconditional and conditional transfers in the rest of this chapter. Pushing banks to simply open accounts, without even verifying whether a household already has an account is not the sustainable way of ensuring financial inclusion.

both rural and urban areas. This would be equivalent to a large scale programme of a universal minimum guarantee of income, which partly takes the form of an Unconditional Cash Transfer (UCT).

14.5.1 The problem

We have already noted that the number of absolute poor still remains very large (268 million in 2011–12). Of the 90 million farmer households in India in 2003, 43.4 million (48.6 per cent) were indebted according to the most recent survey available, the All-India Debt and Investment Survey, 2001-03 (Ministry of Finance, 2007). Of the remaining half who were not indebted, a large proportion of them were probably financially excluded.⁷ It had noted that landless labourers, share croppers and small/marginal farmers are among the poorest in rural areas, and they receive very little credit. What prevents them from accessing credit is the lack of land documents or other documents verifying their identity.⁸ Most of them were borrowing to meet consumption needs, rather than for productive purposes. Many borrow from money lenders. Thus, the share of non-institutional borrowing in total rural borrowing from all sources rose after 1991 (i.e., the beginning of structural economic reforms in the Indian economy) from 32 to 39 per cent by 2002. The contraction of commercial bank branches (most of which are in the public sector) in rural areas as well as the collapse of Primary Agricultural Cooperative Societies and Cooperative Credit Banks and of Regional Rural Banks after 1991 contributed to this process.

To make matters worse, 84 per cent of farmer households in India hold only up to two hectares of land; their incidence of indebtedness is as high as 46 per cent, and as much as 50 per cent of their debt is from non-institutional sources. Small and marginal farmer households, which accounted for 80 per cent of indebted farmer households, absorbed 51 per cent of the total outstanding credit from institutional agencies. For large farmers, one-third of their debt was from non-institutional agencies, but half of the debt of small and marginal farmers was from non-institutional agencies. In fact, 33 per cent of total farmer households held only between 0.01 hectares to 0.40 hectares of land ('ultra-marginal farmers'),

7 While the 2002 All-India Debt and Investment Survey cites the size of debt as ₹ 25,092 per indebted household the Ministry of Finance (2007) states that number is ₹10,259 for 2004–05 (Chandrashekhar, 2014).

8 We suggest that banks should give them credit based on certificates provided by Panchayati Raj institutions (i.e., local bodies), proving cultivation for a minimum of three years.

and 57 per cent of their loans were from non-institutional agencies. An additional 32 per cent of total households who hold 0.41 hectares to 1.00 hectares of land ('marginal farmers') also depended on non-institutional sources of debt for 47 per cent of their total debt (Ministry of Finance, 2007).

In the absence of sufficient credit giving institutions, informal money lenders thrive. Data over time suggests that the share of institutional sources in outstanding debt in rural areas is not rising; it was 35.1 per cent in 1993–94, 35.7 per cent in 1999–2000, 29 per cent in 2004–05, but again rose to 36.6 per cent in 2009–10.

The high interest rates moneylenders charge has been the source of rural distress. About 85 per cent of the outstanding debt on cultivator households from institutional sources was on interest rates of 12–20 per cent per annum. On the other hand, 36 per cent of cultivator households' outstanding debt from non-institutional agencies was at the interest rate of 20 to 25 per cent and another 38 per cent of outstanding debt at an even higher interest rate of 30 per cent and above (Ministry of Finance, 2007). All this strengthens our case for a basic income transfer.

Over the period between census 2001 and 2011, the occupation structure in rural India has been changing which underlines the need for financial inclusion in the form of institutional credit access.⁹ The share of cultivators in the rural workforce fell from 31.7 to 24.7 (6 per cent) and the share of agricultural labourers (who don't own cultivable land) rose from 26.5 to 30 per cent. In other words, landless labour exceeds the number of land-cultivators which shows the effects of shrinking farm size and rural distress. Of the 65.7 million rural households that are rural labour households (including agricultural and non-agricultural), 34 per cent were indebted and the remaining 66 per cent not indebted. The survey data does not enable us to determine if they are voluntarily or involuntarily excluded financially. Chandrashekhkar (2014) estimates that those in the bottom four deciles of the monthly per capita consumption expenditure distribution are involuntarily excluded, i.e., 40 per cent of the rural labour households that are involuntarily excluded. They are also likely to be the SCs or STs.

9 Thus true financial inclusion would mean both having a bank account but also access to credit. This need has been understood by the new government (May 2014) since one dimension of the new bank account is that, after opening a new bank account under the Jan Dhan Yojana, an overdraft facility upto Rs. 5000 will be permitted (though under what conditions is unclear). However, the case we are making is for a basic income transfer, not merely access to an overdraft facility.

Our case for a basic income guarantee is reinforced by the fact that there is a high degree of overlap between poverty, malnutrition and indebtedness, especially indebtedness to non-institutional sources of lending. In fact, 122 million persons in the marginal farmer households category, and an additional 29 million persons in small farmer households category are estimated to be undernourished (Government of India, 2007). Similarly, in 2009–10, 51 per cent of landless agricultural labour were poor, while the head count ratio of poverty for the self-employed in agriculture was lower at 26 per cent (and 29 per cent for self-employed in non-agriculture) (National Sample Survey, 2009–10). Clearly, a very important reason for rural distress is this vicious cycle of poverty, indebtedness (often for consumption loans, for example a daughter's wedding, a funeral, or drought/flood), and malnutrition.

14.5.2 Needed a minimum income guarantee

The Government of India's (2007) Expert Group on Agricultural Indebtedness had recommended a one-time measure where banks would provide long-term loans to farmers so that they can repay moneylenders. However, we do not believe that the poorest should be given another loan to enable them to merely repay moneylenders, while their debt to institutional lenders continues. There is an alternative way to manage this cycle of indebtedness and poverty.

There is a strong case for the introduction of a large scale programme to ensure a universal minimum guarantee of income, or an UCT. The low income levels of small and marginal farmers and agricultural labourers ensure that the poor rarely accumulate assets and if they happen to do so, those assets are lost to droughts, floods, displacement by projects, and so on. The small and marginal farmers and landless agricultural labourers need cash debts to meet their consumption as well as contingency needs. This implies that their wage income goes to servicing their debt, rather than building assets. This is an underlying reason why many micro-credit customers are able to maintain high repayment rates but are rarely able to climb out of poverty even after multiple cycles of loans.

As many as 110 million new bank and post office accounts opened under the National Employment Guarantee Act to facilitate wage payments and bank/post account numbers are constantly growing since the Aadhar card is becoming the basis of new no-frills bank accounts being opened. The new government's mandate to public sector banks reinforced the process with 100 million new bank accounts opened (after August 2014). The Direct Benefit Cash Transfer for elderly

persons and scholarships will lead to further accounts being opened.¹⁰ Money in these accounts need to be augmented for households by a cash transfer. This cash transfer should be for a period of two to five years depending on how poor they are. The Socio-economic and Caste census in 2014 will enable the government to come up with the rank of each household starting from the extremely poor to the less poor and those above the poverty line to enable the identification of potential beneficiaries.

14.5.3 The proposal

What we are proposing is a UCT which is directed at the rural SCs, STs and those households that are automatically included according to census of households (or SECC, see chapter 12).¹¹ It should be possible, using the ranking of the poor, to initiate the process of the UCT. Those automatically counted among the poorest landless labourers, primitive tribal groups, single women who have been deserted, households with disabled persons, and households in which any member is a bonded labourer – will need to receive cash transfer for a minimum of five years, to enable them not only to overcome their indebtedness

10 However, there is no information on whether these new accounts were for un-banked households, or merely an additional member of households where a member already had an account – as the latter cannot be taken as financial inclusion.

11 This scheme is only slightly similar to the proposal in a brief note by Prahalad, Banerjee and Rajan (March 2009). Prahalad et al. proposed a minimum income guarantee scheme that will be designed to compensate the poor their losses due to the abolition (if and when it happens) of fertiliser, fuel and food subsidies amounting to more than ₹ 1 lakh crore every year. For example, they estimate that if ₹ 33,000 crore out of ₹ 1,00,000 crore total annual subsidy reaches the poor defined as the bottom half of the population of India, then each poor person must get at least ₹ 600 per annum under the new scheme. They also proposed that the scheme should be universal in the sense that all adult Indians will be eligible to receive the same guaranteed amount. This avoids, according to them, 'often a insurmountable problem of identifying the truly poor, and has the additional advantage that when the money does not show up, the better connected sections of the poor and middle class will have an incentive to use their social clout to make sure it does'. They argued that the programme would be universal in principle, and an element of self-targeting could be required of able-bodied adults to go to the collection points at least once a month and record fingerprints to register their demand for the money. They suggest that this will probably discourage the top 25 per cent of the population from claiming the money under normal circumstances, though, since in a pinch they can always start collecting, it serves a useful insurance function. We believe that Prahalad et al. are overly sanguine about the possibility of ensuring self-targeting through this mechanism of demonstrating physical presence once a month.

but also to build up a minimum level of savings. Households just above those automatically included are the marginal farmers (with less than 1 acre of owned land) category, in terms of ranking, who may need to be given a cash transfer for a minimum of three years.

Poor households need consumption credit to tide over days without wage income or when there is a health or family contingency and there are no savings. That is when the poor go to the moneylender. We propose that each beneficiary family will get a monthly cash transfer of ₹ 250 electronically swept into their account.¹² Given the depth and scale of indebtedness among the poor that we have already established earlier in this section, the only conditionality proposed is that the BPL account holders can withdraw only up to 75 per cent of the cash transfer at any time. The reason for withholding 25 per cent in the bank account is that they must develop the habit of saving, so that they can build up some financial assets over time, enabling them to possibly leverage those funds for borrowing from micro-credit lenders.¹³ The 75 per cent funds that are withdrawable can be used, for example to repay old loans taken from moneylenders or to buy medicines for a sick family member or to pay school fees or to support any of the diversified portfolio of subsistence activities.¹⁴

Social insurance is a necessary complement to social assistance. This UCT will need to be part of a wider, comprehensive social insurance plus social assistance package (see chapter 13), of which many critical elements are already in place.¹⁵

12 As a reference, ₹ 200 is what the central government gives as old age pension to rural BPL citizens over 60 years of age, as part of the National Old Age Pension Scheme, administered by the Ministry of Rural Development (see chapter 13).

13 The overdraft facility upto ₹ 5,000 permitted by the new government's Jan Dhan Yojana (since late 2014) can also help the poor to tide over emergency situations, but the overdraft has to be returned to the bank.

14 This proposal is similar to the idea in Mahajan (2008).

15 In addition to the other cash transfers envisaged in this chapter, this bank account will receive further supplementation from the following government sources (as part of programmes already being implemented by the Ministry of Rural Development):

- MGNREGA wages for unskilled work, up to 100 days per household per year;
- National Old Age Pension remittance of ₹ 200 for each person over 60 years, supplemented in states by the state governments by ₹ 200 or more per month;
- a widow or disabled person pension;
- rural housing subsidy (under the Indira Awas Yojana) of ₹ 75,000 (although a one-off subsidy);
- micro credit for self help groups (under the National Rural Livelihoods Mission) to generate self-employment.

In addition, this cash transfer could be supplemented by the other CCTs as discussed in the later section and chapter 9.

14.5.4 Where will the resources come from for a new minimum income guarantee?

The cost of the minimum income guarantee could be estimated as follows. The current number of BPL population is roughly 300 million (rounding off the 268 million estimate for 2011–12 using the Tendulkar poverty line); in other words, there are 60 million BPL households in the country, on the reasonable assumption (based on fertility rates) that each household has five members.¹⁶ We propose that the BPL population should be divided into four quartiles, of 15 million households each. If each household is entitled to ₹ 250 per month, the annual cost for each quartile would come to ₹ 4,500 crore, adding up to a total of just ₹ 18,000 crore per annum in the first two years for the entire BPL population. This is on the assumption that the bottom quartile will receive cash entitlements for five years, the next quartile above it in income terms will receive it for four years, the third quartile for three years, and the topmost quartile, which is closest to the poverty line, which would receive it only for two years. In other words, by the fifth year, this amount of ₹ 18,000 crore would decline to only ₹ 4,500 crore (or roughly \$800 million, at current exchange rates).

As we argue below, if both the LPG and kerosene subsidy were rationalised, it would be possible to comfortably fund this CCT.¹⁷

14.6 Rationalising Fuel Subsidy for LPG

We noted at the beginning of this chapter that there are large fuel subsidies, for LPG and for kerosene, each of which is discussed below in turn, both of which could be turned into a cash transfer.¹⁸

16 The poorest tend to have more children than the non-poor. We know that the average household size is 4.67 in India, and so 5 for the poor households is a reasonable estimate.

17 Cash transfer for minimum income guarantee/Cash Transfer to BPL will remain constant for first two years. Thereafter, in the third year 25 per cent of that expenditure will be cut as the income guarantee for bottom quarters of the BPL category would be dropped from the beneficiaries. In the last two years, the same criteria will be followed. That means, in the first year the government incurs ₹ 18,000 crores, second year ₹18,000 crores, third year ₹13,500 crores, fourth year ₹ 9,000 crore and fifth year ₹ 4,500 crores. The total amount in five years = ₹ 63,000 crores.

18 This process began on a pilot basis in 2013 for LPG. Since mid-2014 the LPG subsidy (i.e.

Currently, all households regardless of whether they are BPL or APL can purchase LPG for cooking. LPG is highly subsidised and there is no real justification for APL families getting a subsidy.¹⁹ If the international oil price were \$60 per barrel the estimated subsidy burden for the central government would amount to ₹ 9,546 crore (on the basis of a total consumption of 740 million cylinders of 14.6 kg each in the year 2007–08).²⁰ With the mid-2014 price of oil (for India's crude import basket) at about \$100 per barrel and the rupee having depreciated from ₹ 40 (= \$1) to ₹ 60, the subsidy on the same consumption was much higher.

If the subsidy on LPG was restricted to BPL households alone, an average household consisting of five persons, will require six LPG cylinders per annum (of 14.6 kg. each).²¹ The Planning Commission (2013) estimated that there are 217 million BPL persons in rural areas in 2011–12 and 53 million BPL persons in urban areas.

On the assumption that there are five persons per BPL household, there are 43.3 million BPL households in rural areas, and 10.6 million BPL households in urban areas. NSS data reveal that 4.4 per cent of BPL households use LPG in rural areas (or 1.9 million households). It also reveals that 36.2 per cent of BPL households use LPG in urban areas (or 3.8 million households) – a total of 5.7 million households in India.

Assuming the subsidised cost of a LPG cylinder for BPL households is ₹ 410 (prevailing in 2013), and assuming that the poor consumes six cylinders per annum per household, the annual expenditure out-of-pocket by BPL households in India at the subsidised rate works out to ₹ 1,415 crore (or ₹ 14,150 million). The total subsidy to government in 2011–12 on LPG was ₹ 32,134 crores (Ministry

the 'Pahal' Scheme) is being given to all customers, BPL and APL, as a cash transfer into bank accounts. What we are proposing is very different in that the APL are totally denied the cash subsidy.

- 19 Consumers, both rural and urban, receive their gas cylinders from private dealers, who are themselves supplied by public sector oil companies. It is the latter that bear the financial brunt of their subsidy.
- 20 Had the oil price remained at the rate of \$140–150 per barrel, as it was in 2008, for the same level of consumption as in 2007–08, the estimated total subsidy for the central government would jump to ₹ 15,523 crore. Since 2013 price of oil was around \$ 110 a barrel, the subsidy would be much higher, especially since the rupee fell from ₹ 40 per \$ 1 in 2008 to ₹ 55 in 2013. The early 2015 oil price was around \$60 per barrel.
- 21 These estimates are based on data provided by Dr Surya Sethi, the former principal advisor for energy, Planning Commission.

of Petroleum and Natural Gas, 2013). Deducting the amount received by the government from the BPL (for their legitimate use of six cylinders per year) from total subsidy, the subsidy amount remaining of ₹ 30,718 crore is untargeted and being given to the undeserving non-poor, and can be either saved or redirected towards the minimum income guarantee as cash transfer to the poor.

This is the untargeted kind of energy subsidisation that developing country governments are often cautioned about (for example see chapter 2 where we had cited the Growth Commission's 'dents' based on fast-growing country experience). According to the International Energy Agency, India is among the highest non-OECD subsidisers of energy consumption, with subsidies of over \$10 billion per year, despite undertaking price reform of fossil fuels in the last decade. With the rise in crude oil prices since 2005, the cost of subsidies more than doubled (Shenoy, 2010).

Rationalising the LPG subsidy could save resources that could be redirected towards expanding access to LPG for cooking to poorer households, or towards a minimum income guarantee for the poor.

In other words, if all APL households were to pay a market price for LPG cylinders, without regard to whether it is for households or commercial use, and also if the BPL entitlement was restricted to six cylinders per annum at the subsidised price, a significant saving for the central exchequer would result annually.

If subsidised LPG cylinders could be tagged with radio frequency tags it would be possible to determine the end use of these cylinders intended for households, thereby preventing the diversion, taking place on a large scale currently on household cylinders (which are subsidised) for industrial and commercial use (which are not).²²

14.7 Reducing the Kerosene Subsidy

Kerosene is supplied to BPL households for cooking and lighting throughout the country as part of the PDS. Just as it is possible to eliminate the subsidy on LPG cylinders to APL households, it is similarly possible to systematically reduce the even more bloated subsidy bill encumbering the central government's treasury in regard to kerosene.

22 The same effect has been achieved by selling LPG cylinders at market price to all, with the subsidy transferred as cash.

It is the 11,400 million litres of kerosene consumed which is at issue. This so-called 'consumption' is often in fact not consumed by BPL households at all, even though it may be purportedly supplied to PDS fair price shops to meet the consumption needs of the poor. The consumption of kerosene is inflated as it is diverted illegally after it leaves the refinery gate in cylinders, since it is used to adulterate diesel and sell such diesel at petrol pumps throughout the length and breadth of India. On the other hand, if PDS kerosene were to be distributed only in two litre poly-packs that are packed before it reaches the refinery gate, the 'consumption' of kerosene would decline sharply, since it cannot be diverted easily (which it can be from the current cylinders). The kerosene subsidy cost could be further reduced by providing to rural BPL households solar lamps at a one-time cost of ₹ 1,800 per piece. The saving from confining the kerosene subsidy to the BPL households would release more resources than needed to supply all BPL households with solar lamps.²³

We can easily estimate the kerosene needs of the BPL population in respect of lighting and cooking.²⁴ In rural areas, kerosene is mostly used for lighting while in urban areas cooking is the predominant use. Rao (2012) had estimated using kerosene consumption data for 2004–05 (NSS), that considering all uses, the potential removal of kerosene subsidies could affect over 160 million Indian households. He admits that government reports state that kerosene's use as a primary fuel for lighting and cooking has been falling. Using 2011–12 NSS data, it was found that kerosene use has indeed fallen, partly because access to electricity has been growing.

23 Aiyar (2014) reasons that if the government buys the better quality solar lamps, their price can be reduced to ₹ 1,500. Hence, the one time cost of solar lamps for the entire BPL population (49 million households) will be only ₹ 7,350 crore.

24 For purposes of lighting, 17 grams of kerosene per hour is the required standard; if we assume a generous 20 gram per hour requirement, for four hours of lighting 80 grams per day per household would be needed. This is equivalent to 3 litres of kerosene per month per household for the purpose of lighting. For the purpose of cooking, 75 grams per hour of kerosene is taken as a standard for consumption. If we are generous and assume a requirement of 100 grams per hour, and also assume that cooking in BPL households would need two hours a day, we project a 200 gram per day requirement of kerosene for cooking i.e., it would be equivalent to 7.5 litres per month per household of kerosene for cooking. Hence, total consumption were household would be 10.5 litres at most. We had estimated in Mehrotra (2010) that overall, the total kerosene demand for BPL households for lighting and cooking would amount to only 7,585 million litres as opposed to consumption in 2007–08 of 11,400 million litres for both APL and BPL households. This would keep the kerosene subsidy down to ₹ 10315 cr (instead of the current subsidy of ₹ 15595 cr), depending upon the fuel mix for cooking actually provided.

The new central government (elected May 2014) plans to scrap the supply of subsidised kerosene through the Public Distribution System (PDS). Thankfully, in 2015 the centre plans to ask states to provide subsidised kerosene only to un-electrified households. States with near 100 per cent electrification will be incentivised to become kerosene-free. In the remaining states, un-electrified households will have the choice between cash subsidy in lieu of kerosene allocation and upfront subsidy for greener solar lighting systems.

Reforms to the kerosene subsidy have been attempted before, but never succeeded. Why has reform never materialised?

First, PDS kerosene, being cheaper, is used to adulterate diesel and petrol. PDS kerosene leakages are estimated to be 40 per cent of total allocations. The diversion is lucrative for fuel distributors who, in turn, bribe government officials to get licenses to distribute the fuel. Kerosene and petrol station dealerships are much in demand as they fetch huge rents through fuel diversion.

The government has quotas for awarding such dealerships. In 2004, when corruption was discovered in awarding service-station concessions, the Supreme Court cancelled all contracts and ordered the government to award them more transparently. Ending the subsidy would put an end to adulteration that causes a loss to the government treasury.

There will be several other benefits of eliminating the kerosene subsidy, other than ending the corruption associated with adulteration of diesel. First, kerosene blended with petrol and diesel causes engine damage, affecting vehicle life. A second benefit of ending the subsidy would be that the air pollution from adulterated fuel (due to inefficient combustion) would end. Third, the substitution of solar lamps for kerosene can help reduce the oil import bill.

Fourth, due to fuel diversion India's poor are sometimes without lighting or unable to cook because they cannot access their quota of kerosene even though the kerosene is abundant at higher prices on the parallel market.

The government is aware that if rural households below the poverty line were given one solar lantern, it would only cost roughly two thirds of the total annual subsidy on PDS kerosene. Yet the mafia associated with adulteration is strong that this policy was not implemented.

Reform has been tried before. In 2005, global positioning systems were fitted to kerosene distributor trucks aiming to prevent diversion of fuel (but the programme was wound up in 2008). In 2006, the government introduced marking

of subsidised kerosene with a dye to prevent diversion of fuel (the programme closed in 2008). Those who benefit from the corruption proved too powerful to allow reform.

In 2007, the Petroleum Ministry wanted to implement a foolproof smart card system as an experiment in three states (Bihar, Maharashtra and Uttaranchal). However, all three declined the offer and the plans fell through.

A realistic plan of action for reform should be as follows. Solar lamps will only be given out slowly. Until then access to kerosene, for at least the poor, would need to continue. We can easily estimate the kerosene needs of the BPL population.

Like for LPG, we suggest that only BPL households should ideally be eligible for kerosene. We estimate, based on NSS 2011–12, that 94.5 per cent of rural BPL households use kerosene (or nearly 41 million households) mostly though not entirely for lighting. In urban areas, 77 per cent of BPL households (or nearly 8 million households) use kerosene (presumably mostly for cooking, and only for lighting at time of power outages). In other words, a total of 49 million BPL households use kerosene in India. Presumably, many households above the poverty line continue to use kerosene too (for back-up lighting and cooking needs) – but we are assuming that they should not be eligible for the subsidy on kerosene in any case.

Assuming 10 litres of kerosene is used by each BPL household monthly, and the PDS retail selling price is ₹ 14.96 (as in 2014), the annual out-of-pocket expenditure of all BPL households is ₹ 8,817 crore. The subsidy cost to the government was ₹ 28,215 crore in 2011–12. By confining the kerosene subsidy to BPL households, ₹ 19,397 cr. could be saved by the government (₹ 28,215–₹ 8,817 crore) annually.

14.8 Fertiliser Subsidy – A CCT Can Replace It

Other than kerosene, liquefied petroleum gas and kerosene, fertiliser subsidy is a major source of the rising subsidy burden on the Indian state. The fertiliser subsidy is paid to manufacturers; the objective of a cash transfer would be that the subsidy be paid to the beneficiary instead (in this case the farmer).

The fertiliser subsidy should be understood in a broader context. The consumption of fertilisers rose sharply after the spread of the Green Revolution technology in the 1970s in India. However, domestic production of fertilisers has been stagnant for the last 10 years. The result is that 90 per cent of phosphatic and potassic fertilisers are imported. The third type of chemical fertiliser, urea, is

also imported though India does produce it in significant quantities (in the public and private sector). Natural gas, which is the main input into urea production, is imported. It is notable that of total chemical fertiliser consumption, 50 per cent consists of urea. The high cost and lack of available gas is a problem for urea production expansion.

There are two strong economic arguments for a direct cash transfer to be used in place of the current system of subsidising manufacturers of fertiliser. First, while fertiliser subsidy was a reason for India's expansion of consumption of fertiliser (which was an important reason for increasing agricultural, especially cereals, production), the elasticity of output to fertiliser application has fallen. The average crop response to fertilisers was 25 kg of grain per kilo of fertiliser during the 1960s. This fell to 8 kg by the 1990s (Kapur, 2011). In the 2000s fertiliser consumption rose by 50 per cent but the increase in food grain output was only 11 per cent (Kishore et al., 2013). The second economic argument for rationalising fertiliser consumption is the high and rising fiscal burden of fertiliser subsidy. The subsidy of ₹ 60 crores in 1976–77 skyrocketed to more than ₹ 65000 crores in 2010–11 and ₹ 130,000 crores in 2013–14 (Table 14.1). As fiscal costs of fertiliser subsidies rose so did the long term soil damage from excessive fertiliser use and a strain upon water resources (which higher fertiliser use requires), and yet yields have plateaued.

However, there is much greater complexity attached to cash transfers in respect of fertilisers than in the case of cereals, kerosene and LPG, although the scale – national in all cases – is the same. The government subsidises manufacturers of fertilisers to ensure that the end product is affordable for farmers; it is farmers who will be the ultimate beneficiary. The quantum of subsidy manufacturers received is the difference between their normative cost of production and the subsidised maximum retail price that fertilisers are sold at.

The subsidy is given to manufacturers only when the fertiliser reaches the beneficiary (farmer). That means that wholesalers and retailers of fertiliser have to supply documents to the government and they have to be matched with the manufacturer's claims for the subsidy. It is only then that the subsidy is transmitted to the manufacturers, and because of delays in this transmission, manufacturers often have to borrow working capital. The inefficiency of the mechanism has been an important reason for sustained stagnation in fertiliser production. On account of stagnant production the import of fertiliser and hence drain of foreign exchange on account of such imports, is often larger than necessary.

Quite apart from the implications for fertiliser production on account of the inefficient subsidy delivery mechanism the subsidy results in subsidised fertiliser being diverted to other markets. First, urea has other industrial uses, and gets diverted to those alternative uses. Secondly, urea is also smuggled out to neighbours because fertiliser market prices in neighbouring countries are higher than those prevailing in India. One additional problem with the fertiliser subsidy system currently prevailing is that the subsidy is untargeted, in that all farmers can access it, as it is universal. A cash transfer to farmers, in lieu of this universal fertiliser subsidy can allow for targeting to the more deserving farmers. The current subsidy system for fertilisers thus cries out for reforms as it is both inefficient and inequitable, quite apart from causing damage to soil health and thus reducing yields.

There is, therefore, a strong case for rationalising fertiliser subsidy through a cash transfer mechanism. However, how could it be implemented?

Currently the first stage in the fertiliser supply chain involves the transfers from domestic manufacturers and import sources to dealers and wholesalers. The dealers sell the fertiliser stock to retailers from whom farmers buy the product. Cooperative societies have their own network for fertiliser distribution consisting of state, district, block and village level societies. The fertiliser market consists of two major product types – urea and NPK (complex) – which is sold in 23 different grades. Urea accounts for half of the total market and other complex fertilisers for the remainder. Of the total urea consumed, nearly 80 per cent is indigenous. The current mechanism for subsidy distribution has many weaknesses: limited visibility of entire supply chain, untimely disbursement of subsidy claims, leakage and inefficiency in production. The Nilekani Committee (2011) had suggested an approach to reforming the subsidy disbursement mechanism. Currently the fertiliser subsidy is given to government manufacturers and importers directly. The Committee recommended that instead the subsidy should be provided to the retailers in the first phase of reform, and eventually to the beneficiaries.

However, there may be an alternative way of ensuring subsidies reach the farmers directly through a conditional cash transfer. Given that imbalanced use of chemical fertilisers has resulted in significant soil damage and a fall in the elasticity of output to fertiliser use, at the same time increasing water consumption, the way forward is that the fertiliser subsidy delivery mechanism is rapidly transformed: it should be not only given directly to farmers but

fertilisers are supplied to farmers in the optimal mix for direct use. Such optimal fertiliser mixes should be supplied in packs adequate for perhaps one acre of land. Such packs will suffice the needs of over 80 per cent of the country's farmers. The subsidy would be provided to farmers in the form of a voucher. The subsidy could also be supplied as an optional extra as part of an optimal mix of a fertiliser (Kishore et al., 2013). The voucher could be in the form of an electronic bar coded card, which could be used only for purchasing fertilisers. The cash transfer would be directly into the bank/post office account and the farmer and the bank or its business correspondent would be required to load the subsidy equivalent to the card to enable the farmer in turn to purchase fertiliser from whichever retailer he wishes to. This mechanism would also generate competition among retailers.

14.9 Converting the Supplementary Nutrition Component of ICDS to Cash Transfer

We now turn to the potential for conversion of another product-based subsidy to a cash transfer – but in the area of child benefits. The Integrated Child Development Scheme (ICDS), in existence since 1975 (and discussed earlier in chapter 10), universally available in 1.2 million ICDS centres for the 16 million children of 0–6 years age and poor pregnant/lactating mothers, has two kinds of components: the services component (immunisation, health checkup, pre-school education, child growth monitoring by weighing) and the supplementary nutrition programme (SNP). The SNP, in turn, has two sub-components: (a) hot cooked meal provided to 3–6 year old school children; and (b) take home rations given to pregnant and lactating mothers and to 6–36 month old children. The 11th Five Year Plan document proposed that the ICDS programme, including both its service and SNP components, are in dire need of reforms, the most important of which is its decentralisation and implementation by the Panchayati Raj System (or system of local government), especially by the gram panchayats (village local government).

The most infamous characteristic of ICDS remains to this day that the 0–3 year old children are not its focus, although malnutrition sets in irreversibly before age two, with the result that the one programme intended to address the most serious problem of malnutrition in the world remains ineffective (see discussion in chapter 10). We suggest that the ICDS should take the following form (after restructuring):

- Four of the six services provided under ICDS, which are related to the health sector (immunisation, health checkup and referral, etc.) should be the primary responsibility, not of the ICDS workers (who report to the Ministry of Women and Child Development), but of the functionaries of the public health system, i.e., the ANM and the ASHA (see chapter 10 for further discussion).
- The pre-school component, on the other hand, must receive high priority within the universalised ICDS. This would require that the anganwadi worker is retrained effectively to provide these services in a manner in which pre-schoolers are prepared to enter class I in primary school.
- SNP: Given that the PSE component of ICDS should acquire salience within the ICDS centre, the centre should continue to focus on 3–6 year old children as it has always done. It is a requirement of the Supreme Court judgment (2006) that 3–6 year old children should receive a hot cooked meal in the ICDS centre. Hence, this component must continue as a part of ICDS. However, the other sub-components of SNP – provision at the ICDS Centre of Take Home Ration for pregnant and lactating mothers and 6–36 months of old children who need nutritional support so that they gain weight (as noted in chapter 8) – could be converted into a cash transfer.

The rationale is that, provided that the mothers of infants are appropriately counseled, they will use the cash to purchase food that can be fed to the infant as complementary food, especially after the six month period of exclusive breastfeeding is over. Illiterate rural mothers are often not aware of the importance of solid, mushy food being introduced for six month old infants, the result of which is that child malnutrition skyrockets from about 16 per cent at six months to affect half of all children by the time they are two years old. In fact only 56 per cent of Indian mothers according to the National Family Health Survey 3 (2005–06) introduce solid, complementary feeding between 6 and 9 months – which is an important cause of 0–3 year olds getting malnourished.

Financing the cash transfer: The total financial allocation for SNP from all sources (central and state governments) was about ₹ 8,000 crore (\$1.9 billion at then prevailing exchange rate) in the financial year 2009–10. We know that roughly one-third of all funds allocated to SNP are spent on hot cooked meal of 3–6 year old children in ICDS centres. In other words, the remaining two-third is allocated to procuring take home ration for pregnant and lactating mothers and 6–36 month old children.

We propose that this latter sub-component, the two-third of the total SNP allocations of ₹ 8,000 crore, i.e., ₹ 5,376 crore, would be available for direct cash transfer. We propose that the pregnant mothers will be counseled by health services providers (ASHA, ANM, and also ICDS centre) to use the cash transfer to consume an appropriate diet that is rich in protein-energy content, and also purchase/prepare appropriate weaning foods for their 0–36 month old children.

There is an important reason why the take-home ration component of the SNP must be turned into a cash transfer. Despite a Supreme Court judgment, many state governments (UP, Karnataka) have in violation of the Supreme Court verdict, placed even the hot cooked meal into a take-home ration equivalent, which is the basis of corruption on a vast scale.²⁵ There is a strong case, therefore, if corruption is to be at least curbed in the take-home-ration component of ICDS, that this CCT is implemented.

The ICDS centres that will emerge as a result of this restructuring exercise will look as follows. The ICDS worker will have been retrained to perform her PSE and early childhood development functions far better than she will have ever been able to perform so far. Second, most of the health-related services, currently being performed by the ICDS worker, will have been diverted to the health sector to be performed by a combination of the primary health centres, sub-centres, and ANM and the ASHA, all of whom would have to be strengthened in their capacity to perform these functions of counseling pregnant and lactating mothers about breast-feeding and the introduction of weaning foods after six months of exclusive breast-feeding. Instead of providing a second anganwadi worker in 220 districts (of India's 641 districts) with high malnutrition, additional workers should be added to the health system's sub-centre. In other words, if the supply side of services does not improve, there is not much purpose in introducing CCTs, which raise the demand for services. For instance, the maternity benefit (already implemented as a CCT to encourage use of pre- and post-natal cares services by pregnant and lactating mothers) should raise the demand for services, and the public health and ICDS systems will have to respond to this increased demand (see earlier discussion of the maternity benefit in chapter 13). Third, the ICDS worker's functions would also have been reduced by the fact that she would no more have to distribute take home rations for pregnant and lactating mothers and

25 The infamous Ponty Chadha, a Delhi-based businessman, had convinced the Uttar Pradesh Government in power (2007–12) to switch from hot cooked meals to the equivalent to take-home rations (which were supplied by this businessman's firms).

for children 6–36 months old; she could perform her other tasks better. Finally, just as a mid day meal is provided in the elementary schools, the ICDS centre would continue to provide a hot cooked meal for 3–6 years old children, who would hopefully receive more attention of the ICDS worker and her helper than the hitherto overburdened worker has been able to provide.

14.10 CCT in cities to replace Food Subsidy under PDS

We noted earlier that the food subsidy under PDS amounts to ₹ 92,000 crores in 2013–14 (or about 1 per cent of GDP), and likely to rise in later years with rising coverage of the eligible population (see chapter 10). The reason for replacing the food subsidy into a CCT has been discussed in chapter 10. The subsidy is calculated after deducting the sales realisation of cereals sold to consumers from their economic costs to the Government. The economic cost has two main components: (a) the acquisition cost; and the (b) distribution cost (the latter consisting of freight, handling expenses, storage charges, interest charges, transit shortages, storage shortages and establishment charges). Clearly, the subsidy is a very significant component (around 50 per cent of the total economic cost).²⁶

Instead of allocating cereals under PDS to BPL and Antyodaya Anna Yojana (AAY) households, it should be possible to convert the food subsidy in cash to the same households. The subsidy would remain the same, and the change is that the subsidy would be delivered not in kind (grains) but in cash. In other words, the food subsidy in cash would be equivalent to the difference between the acquisition cost of the cereals on the one hand and the Central Issue Price (CIP) of the foodgrains (note that the sales realisation is equal to the CIP times the amount of grains sold to BPL/AAY households). As in the case of other CCTs proposed in this chapter, the cash subsidy for purchasing food would require the transfer of money directly to bank/post office accounts of the BPL/AAY households.

Such a scheme of cash (rather than food) subsidy could work in the 11 states (MP, UP, Chhattisgarh, West Bengal, Uttarakhand, Tamil Nadu, Orissa, Gujarat, Karnataka and Kerala, and also Andaman and Nicobar Islands) that have been undertaking decentralised procurement of foodgrains from within the states and then distributing them to the BPL population. As part of decentralised procurement, state specific economic cost is determined by the central

26 For instance, in 2003 the acquisition cost for the FCI was ₹ 1,073 crores and the total distribution cost amounted to ₹ 134 crores, making a total economic cost equal to ₹ 1,206 crores. The realisation from the sales of the cereals in that year amounted to ₹ 593 crores making the subsidy equal to ₹ 613 crores.

government and the difference between the economic cost and the CIP can be passed on to the state as food subsidy.

However, even in these states the total requirement of TPDS of even these state cannot be met from within state procurement (except in Orissa and Chhattisgarh, which are now even supplying neighbouring states with grains).

Therefore, the system of MSP-based procurement from Punjab and Haryana, will continue and those procured grains will have to be transported to the food-deficit states.

The question then that remains is: where does the cash subsidy in lieu of the grain subsidy fit into this complicated scenario? We propose that it would be appropriate to initiate a cash subsidy only in cities, to begin with in Delhi.²⁷ This is because the availability of private sector shops, which could supply the grains is not a problem in cities, which it may well be in the rural areas in the northern and eastern states of India. The CCT will need to be piloted in a few cities before lessons can be learnt about the appropriate method of ensuring grains supply to the BPL cardholders, which will be the recipient of the cash equivalent of the food subsidy. In the rural areas, in many parts of northern and eastern India, and even in certain parts of southern and western India, there are not enough private shops that may be able to meet the purchased grain requirements of BPL families. The system of FCI procuring grains from either Punjab/ Haryana or the decentralised procurement states, and then the transportation of those grains to the food-deficit areas of the country and their storage by the state food corporations – this entire system may need to survive in any case. What may be new in this scenario is that within states, FCI may be permitted to auction the grains to private shopkeepers, at least in cities, in order for these CCTs to work.

However, starting such a cash subsidy does not mean that the reform of TPDS can be avoided. In fact, here is a brief list of reforms to PDS that will be required, regardless of whether one converts the food subsidy into a cash subsidy or not. This is primarily because for a considerable period of time, it is difficult to substitute for the supply emanating from cereal-surplus states of Punjab and Haryana. These two states account for roughly 60 per cent of the total rice and

27 Gangopadhyaya and Seva Bharat (2014) conducted a randomised intervention in Delhi that provided unconditional cash transfers to a group of households as a replacement for the cereals security offered by the BPL card for PDS grains. The unconditional cash transfer does not induce a fall in food security. Rather, it provides opportunities for households to shift to other nutritious options in non-cereal product categories.

wheat procured on the Minimum Support Price in India as a whole. It is these two states that meet the needs of grain-deficit states of the country that are mostly located in the south and west of the country.

The reform of PDS would still remain a necessity, whether or not a cash subsidy is introduced or not. Some of the reforms required (in rural areas in particular) are as follows:

- In rural areas, the entire network of PDS shops could be de-privatised. Private Fair Price Shops (FPS) dealers retailing the grain should be removed (as the Chhattisgarh Government has done) and all the FPSs could be handed over to self help groups, panchayats, cooperative societies or other public bodies.
- To be financially viable, the public bodies, which take over the shops, should get a working capital grant as well as increased commission amounts.
- FPSs should be allowed to sell other commodities like in Kerala so that they become financially viable (which they are not currently).
- Government of India should revise the norms for storage transportation, costs and make them more realistic so that state government do not bear an extra financial burden on account of PDS, which is a central scheme.
- The central government should encourage further the Decentralised Procurement Scheme so that most states are able to increase local procurement.
- Transportation and storage records of grain should be digitised.

14.11 Cash Transfer for Youth for Skill Development

The Skill Development Mission has provided for a shift away from the long standing tradition of supply driven strategies for skill development towards a more demand oriented strategy, to encourage young people to take up courses that might be in demand in the region in which they reside. This is, in fact, one of the strategies of the skill development mission, to move from a system of funding training institutes to funding the candidates. The Eleventh Five Year Plan Document (chapter 5, Vol. I) states that institutional funding could be limited to an upfront capital grant. Recurring funding requirement could be met by an appropriate disbursement to the institute at the end of successful certification of students trained.

Meanwhile, there can be an interesting intervention, using CCT, to fund candidates from SC/ST/OBC/minorities/BPL, who could be funded in two parts:

- a monthly stipend to be paid to each trainee; and
- fee subsidisation at the end of the programme to be given to the institute after placement.

Once such a CCT is offered to youth on the completion of eight years of elementary education at the age of 15, it can increase the demand for skill development. Capacity is only 5 million, which needs to be taken to 20 million at least (see chapter 6). This will be sufficient to meet the annual workforce accretion and the backlog of workers needing training already in the workforce. With such a large need for building up the skill base of India's relatively young population, both central and state governments would need to expand existing public sector vocational education and training (VET) infrastructure, with the aim of shifting to this infrastructure to private management over the next 2–3 years. In fact, CCTs to encourage the growth of demand for skill acquisition can perhaps trigger the providers to rapidly expand supply of VET facilities, which is proposed for implementation in the Twelfth Five Year Plan, and is an area of focus of the new government (elected in May 2014).

14.12 Concluding Remarks

This chapter has proposed six CCTs, which could be initiated simultaneously to benefit BPL households, BPL mothers, BPL children and BPL youth and farmers. It has also argued that CCTs should not be introduced without three minimum requirements being put in place. First, a new methodology for identifying the poor, for both rural and urban areas, needs to be implemented rapidly. Second, a successful CCT would require the introduction of a biometric identification system for all BPL. Therefore, there is an urgency to focus on the BPL segment of the country's population so that they have the unique identification card. Third, in view of the requirement of transferring funds to the beneficiaries electronically, all BPL households should have at least one post-office or bank account.

We have also noted that funding is available right now for four of the five CCTs proposed. Even the minimum income guarantee whose objective is to address the mass indebtedness prevailing among the BPL households can be easily funded, given that its total cost even in first year, is not more than ₹ 18,000 crore (0.2 per cent of GDP in 2013), which rapidly declines over the next four years.

Even though the three requirements for implementing CCTs are not in place

(at the time of writing in early 2015), it would be appropriate to initiate some pilots on these CCTs, so that when the conditions are met (as they will be in the next year), the policy lessons have already been learnt.

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Part 4
Governance

Two Pre-requisites for Optimum Governance

Deep Fiscal Decentralisation and the Bureaucracy's Ability to Learn

The 1990s saw the spread of democracy in the developing world, especially, in Latin America, Africa and the formerly communist Eastern Europe. It was also the decade of the spread of decentralisation.¹ By the beginning of the 1990s, there was growing recognition in developing countries that since hierarchical control was not successful in ensuring delivery of basic services, greater decentralisation of governance was needed. In other words this spread of decentralisation in the developing world, following upon the heels of the rapid spread of democracy, seemed like a call to governments for democracy and decentralisation to reduce the gap between the government and the people.

Unfortunately, often this effort of decentralisation in many countries coincided with an international effort by powerful donors to promote decentralisation. The international financial institution launched their 'roll-back the state' campaign after the fiscal deficits of overly stretched developmental states grew to unmanageable levels.² In other words, international pressure for decentralisation was driven by the desire for reducing fiscal pressure on central government and macro-economic equilibrium rather than for human development or participation in the form of promoting the voice of local communities.

However, decentralisation recommended by international financial institutions (IFIs) in a context of unresponsive centralised states inherited from colonial

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- 1 The most rapid spread of decentralisation happened in Latin America, with 13,000 new municipalities being created over the 1990s. Similarly, India, Indonesia and the Philippines saw new efforts at reviving local governments, as did China (as we discuss at length in this chapter).
 - 2 Sub-Saharan Africa saw a sudden and rapid spread of local governments, mainly under the influence of the World Bank, which was encouraging governments to not only downsize, but especially reduce the size of the central government.

times, continues to face problems. While decentralisation spread rapidly during the 1990s, the experience with it has not been as notable for success as one might have expected. Like other developing countries, India initiated a wave of decentralisation dating from 1993, with Parliament passing constitutional amendments to introduce a three-tier system of local governance (the Panchayati Raj system) in rural areas and also to directly elect municipal government for urban areas. While the Indian decentralisation effort was not triggered by pressure from IFIs, it is true that it came only two years after the structural economic reforms were initiated in 1991. The experience of India with decentralisation has not led to massive changes in effectiveness of service delivery or levels of human development.

There are conceptual and empirical reasons why decentralisation provides a good enabling environment for enhancement of human capabilities. This chapter begins by exploring the conceptual reasons for this phenomenon. But it also examines the empirical foundations of this argument. In addition, it examines the conceptual basis and internationally available empirical evidence for the relationship between fiscal decentralisation and economic growth.

This chapter addresses, both at a conceptual level as well as the more empirical dimensions of the question: what is the link between decentralisation and human capability development and the state's ability to learn? Section 15.1 spells out why the voice of the people enabled by decentralisation is critical to the realisation of human capabilities. Section 15.2 spells out the components of a model of decentralisation that works in ensuring improved human development. The chapter then moves into empirical mode. Section 15.3 tries to demonstrate, on the basis of historical experience of OECD countries and of China that fiscal decentralisation tends to go hand-in-hand with economic growth – and even human development when decentralisation is accompanied by bottom up processes; and contrarily, when decentralisation is stymied, so is human development (as in India). Section 15.4 goes on to demonstrate that although India is one of the fastest growing large economies in the world, its system of governance has shown very little predisposition towards increasing the level of fiscal decentralisation over the last two decades that the economy has grown fast. It also demonstrates that the model described in section 15.2 has been shown to work in other parts of the world (even to some extent in India), but suggests it has been ignored for reasons of political economy in India and elsewhere. Section 15.5, while suggesting how important is the ability to learn within the state, argues that its institutional structures in India (including its centralisation) have prevented the

administrators to learn (generate, transmit and implement new information). A comparison between India and China in this respect illustrates the point. In other words, the chapter argues that the structure of Indian governance has failed to respond to the needs of a large, growing, and highly diverse and complex society, and thereby failed also in meeting the human development needs of its people.

15.1 Voice Through Decentralisation³

A person's 'capability' refers to the alternative combinations of functionings that are feasible for her to achieve. 'Capability is thus a freedom' (Sen, 1999, 75). Functionings are things, which a person may value doing or being – *simple* ones like being able to read and write, being well-nourished and being free from avoidable disease, or *complex* ones like being able to take part in the life of the community and having self-respect.

Our suggestion is that a group of simple functionings – being adequately nourished, being able to read and write, being free of avoidable disease – are synergistically linked to the more complex functionings in real life. For instance, the functionings (being educated up to elementary level) are very difficult to achieve without being able to participate in society.⁴ In the abstract, they are possible to realise separately, but in practice, it is often impossible for the poor to realise even simple functionings without the complex one of participation.⁵

Unless democracy permeates to the lowest level of the powerless poor, and is made effective by their collective action, even elementary functionings will be difficult to realise.⁶ Democracy at the macro-level is what has always concerned

3 See Mehrotra (2008) and Mehrotra (2015) for a critique of Sen's approach to participation /decentralisation.

4 This is reminiscent of Bernard William's (1987) discussion of 'co-realizable capabilities' in Sen's (1987) book *The Living Standard*.

5 The relationship holds in the opposite direction as well, i.e., with the functionings of literacy and good health, individuals tend to become more effective 'participants' in society. That, however, is not the subject of this chapter.

6 After the Russian Revolution (1917) and the Chinese Revolution (1949) simple functionings improved for the vast majority of the peasant and working classes even in the absence of formal democracy in the Western sense. However, two points are fundamental here. First, even though formal democracy did not exist in either the Soviet Union or China, the needs of the poor were being articulated by the Bolsheviks (in whatever distorted form after the first decade) and by the Chinese Communist Party. Second, in the twenty-first century, with the collapse of central planning and 'democratic centralism' of the Soviet variety, the way forward to articulate the voices of the poor has to be different from the

Sen; the India versus China contrast is always referred to. Without democracy at the national level, micro-level democracy is inconceivable.⁷ However, without the demand for effective services at the community level coming from 'collective voice and collective action', the supply of services will remain of poor quality and thus ineffective.

We suggested above that simple functionings such as literacy and numeracy might be difficult to achieve without the complex one of being able to take part in the life of the community. The capability set must include the freedom, and in fact, the *realised* functioning of participation. However, participation by who? The Capability Approach – as currently formulated – is so focused on the *individual's* capabilities and functionings that it tends to ignore the powerlessness of the poor individual to realise those functionings, even if a distant government was willing and able to finance/provide services, which are the basis of key functionings. The approach is weaker on the process aspect of freedom including the power to realise capabilities than the assessment or evaluation of actual opportunities. In fact, an individual's functioning of participation rarely amounts to more than voting in elections once in five years. A poor individual's ability to participate more than once in five years is limited by her powerlessness.

Meanwhile, intermediaries (usually bureaucrats acting individually) exploit the distance between central government (and in federal countries of state governments) and the village where the school (or health centre) is located, to foil the objectives of the centre, no matter how well-intentioned the centre. In fact, without the state 'enabling' collective voice and action, which emerges as a counterweight to the intermediaries, the delivery of services, and hence functionings, cannot be realised. Yet, only hierarchical control of functionaries is rarely effective under such circumstances. Since the poor have little choice of 'exit' (in the Hirschman [1970] sense), 'voice' alone works.

However, Sen's discourse around the complex functioning of participation has been largely concerned with democracy at the national level (or state level in large federal states), multiparty politics and the role of the opposition in such

Soviet/Chinese authoritarian method. It has to be through deep democracy, which goes beyond multi-party elections in a Western democratic sense.

7 For instance, it is unlikely that under a military regime (for example Pakistan 1999–2002) democratic decentralisation is going to make much headway, even though efforts at devolution (in Pakistan the efforts have been similar to those in India in the 1990s) are made.

democracy.⁸ Democracy at the macro level (and in federal countries at state level) rarely translates into power for the poor. If it did, we would have more evidence of pro-poor economic growth and dramatic improvements in human development indicators in those Latin American, African and East European countries, which became democratic in the 1980s and 1990s, or for that matter India. After all, over a hundred countries at the turn of the millennium had democratically elected governments, almost twice as many as at the end of the 1980s (Azfar, Kahkonen and Meagher, 2001). The capability approach is essentially an evaluative one, and thus can be and has been used for normative purposes. However, an essential element in making the approach operational – in the sense of being helpful to the policymaker – is to define the conditions that would lead to the realisation of the functionings. We suggest that the complex functioning of participation has to be contextualised *at the level of the community* or panchayat, in India's case to have operational use – for optimal governance. Unless thus extended, none of the simple functionings are likely to be realised, even in democratic states. Nor will such functioning be realised even if a model of 'cooperative federalism' (as promoted by the Indian Constitution) between India's centre and states is realised.

The state delivers development services in most developing countries in a top-down, bureaucratic manner through sectoral line ministries working in silos down to the local level. But this manner of service delivery defeats one of the greatest sources of technical efficiency in the utilisation of resources – the synergy of interventions in various social sectors. Without the state making conscious effort to ensure synergy between interventions in the spheres of health, education, water and sanitation, reproductive health, and nutrition within a geographic location, these latent synergies will not be realised (as we noted in chapter 1). But the state is incapable of delivering these services effectively as long as it operates vertically. Inter-sectoral action is best triggered through 'voice' at the local level, with village level planning. This synergy between interventions across sectors is likely to be an added benefit to the effective delivery of individual public services – if collective voice at the local level puts pressure on local level functionaries to respond to local needs and demands, instead of delivering services merely based on resource allocation determined at a higher, bureaucratic level of decision-making.⁹

8 See, for instance, Sen (2000). However, it is true that he has much to say about reason and deliberative democracy too, which are the foundations of local as well as national and global discussion. See Sen (2002).

9 The way that centrally sponsored schemes (CSS) of India's central line ministries – financed

15.2 Model of Decentralisation that Delivers Basic Services

We noted in the beginning that decentralisation did not have the desired effects in terms of improved governance or more effective delivery of basic services. That does not mean that democratic decentralisation cannot work to improve governance or basic social service delivery. In fact, when designed appropriately, it has demonstrably succeeded.

There is increasing evidence now that *where the centre acts to enable the articulation of voice by the local community, the functionaries of the state tend to respond positively to such local level pressure*. Successful decentralisation is characterised by a three way dynamic between the government (central, or provincial government in a federal country), the local authority, and civil society, that has been empirically demonstrated to ensure effective service delivery. We call this three way dynamic a model of deep democratic decentralisation.

Basic social services closest to the needs of the poorest people – primary health centres, schools, water and sanitation services – are usually managed by bureaucrats and government employees who report to their superiors within vertical line ministries.¹⁰ Such government employees rarely feel a strong sense of accountability to the neighbourhoods they administer, or are supposed to service.

Hence, making states accountable in respect of delivery of basic services, one would argue, requires:

- a functioning state (not a weak, and certainly not a ‘failed’ one), and effective state capacity, both at central provincial and local levels;
- empowered local authority to which functions, functionaries and finance have been devolved by the central authorities; and
- ‘voice’ articulated on a collective basis by civil society, through institutions enabled by the state.

through Plan funds from the erstwhile Planning Commission – were designed and implemented is typical of this verticality in service delivery. This promoted a one-size-fits-all design of CSSs that has been heavily criticised by state governments. This kind of centralisation is intended to be dismantled by the new government (after May 2014). However, what will replace the CSSs under the Planning Commission successor body, the NITI Aayog, remains to be seen (See Mehrotra, 2014 on this issue). Flexibility of fund-use at provincial level newly advocated will not make the vertical line department-based service delivery model disappear, even though it may reduce some dysfunctionality.

10 Basic service delivery can become more dysfunctional where programme designs are determined centrally, and then implemented in an inflexible manner by vertically-driven departments, as has happened in India with the Centrally Sponsored Schemes (CSS).

However, the mere existence of the three does not amount to an effective instrument for service delivery. The relationships between these three levels are crucial: local authorities must experience pressure from both above (for accountability to provincial national governments) and below (for service delivery to local citizens). Hence successful decentralisation requires establishing a three way dynamic among local governments, civil society and an effective central provincial government (see Tendler, 1997; Mehrotra, 2005 and Mehrotra and Delamonica, 2007 for a more detailed discussion of this model, and empirical examples where it has worked in diverse environments). The combination of these three elements – a functioning central provincial government, empowered local authority, and voice – will ensure effective delivery of services.

Without *effective state authority* the central provincial government cannot devolve power to local authority. Decentralisation assumes coordination between levels of government and requires more regulation – not less – to guarantee basic transparency, accountability and representation. The state has to oversee, regulate and if necessary sanction local authorities so that poor people really benefit from political reform. The state also has to mobilise sufficient resources to devolve to the local authorities. When a weak state decentralises, problems arise. In Ukraine, for example, a weak central government (after the collapse of the Soviet Union) found it difficult to keep local governments functioning with limited resources and little or no civil society engagement at the local level (Blair, 2000).

Effective decentralisation also needs *local authorities to which finance, functions and functionaries have been devolved*. Responsibilities for delivering social services have to be devolved to local authorities through legislative or constitutional means that transfer control over functions as well as functionaries. But functionaries cannot perform their functions without adequate finance. It remains a question as to whether local authorities should only receive grants from the centre, or also have local tax raising authority (an issue we discuss at length later), but in either case, the adequacy of finance will determine their success. Also, the historical experience of the now industrialised countries and that of China (discussed in section 15.2) clearly suggests that local governments should have adequate tax-raising authority, with ability to retain a portion of the revenues so collected.

Finally, when creating the local authorities, the central government should also create *institutional mechanisms to ensure that the voice of the citizenry can be heard* through formal mechanisms by the local authorities. Of course, the level of organisation of the citizenry will be a crucial determinant of how those mechanisms are actually used, but the mechanisms have to be created.

We have provided empirical evidence elsewhere that such deep democratic decentralisation has improved effectiveness of service delivery and also outcomes in terms of human development (Mehrotra and Delamonica, 2007, see chapter 7). However, as we will argue in the next section, while in India the first condition exists the second condition has not been met, and the third condition is met in only a distorted manner (based on a patron-client relationship) rather than institutional mechanisms of citizens' voices to be heard.

15.3 The Case for Greater Fiscal Decentralisation to Increase Revenues and Improve Effectiveness of Spending

In this section, we discuss the case for a much greater level of decentralisation in India, which remains a fiscally centralised state. We will attempt to show that in the international experience (a) as per capita income rises the share of revenues and expenditure accounted for by local governments in total government spending and revenues tends to increase; and (b) such fiscal decentralisation (FD) is consistent with economic growth as well as improved indicators of human well being. Despite this evidence, India remains a highly fiscally centralised democracy – much more so than China, which is more decentralised, despite having a unitary constitution (unlike India's federal constitution) and a one-party state.

Sub-national governments are likely to be more efficient in production and delivery of public goods yielding nationwide externalities (Oates, 1972). This happens to be the case because decision-making power over resources resting with local governments leads to allocative efficiency, since they are more responsive to local needs and demands.

Decentralising revenue collection to sub-national governments to match expenditures at local level may also enhance accountability (Oates, 1972). In fact, by empowering local governments and moving closer to the local people fiscal decentralisation is shown to have significant negative relation with the incidence of corruption (Ivanyina and Shah, 2010).

The implications of fiscal decentralisation in the context of developing countries are subject to various qualifications due to divergence between assumptions of orthodox theory on the one hand, and institutional as well as economic realities on the other (Jin and Zou, 2002). If the normal assumptions of standard decentralisation theory do not hold, the outcome of fiscal decentralisation may not be conducive to economic growth and efficiency (Prud'homme, 1995; Oates,

1972; Tanzi, 1996). Thus the abuse of public power cannot be controlled if the government does not have the capacity and commitment to monitor local level activity regularly. But local budgets, if made public, can be better understood by ordinary citizens, and output/outcomes expected from the expenditure can be better monitored (Paul, 2014). Thus, the effects of fiscal decentralisation in any given case depend critically on the nature of the fiscal institutions and the political system in place, as discussed later. Whether there is any significant efficiency gain deriving from FD cannot be settled on theoretical grounds. The matter must be subjected to empirical tests. We review the empirical evidence below.

15.3.1 Historical evidence from now-industrialised countries: Lessons for India

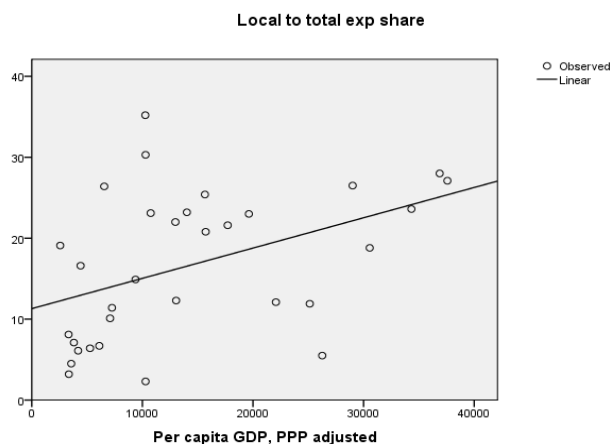
As per capita income rises, the share of total development expenditure accounted for by local government in total public expenditure tends to increase. The same holds for the share of revenue as well (see Figures 15.1 and 15.2). The cross-section data presented in the figures (for 2011) is actually supported by the country-level historical evidence as well.

Figure 15.1: Cross-country share of local revenue in total revenue – relationship to per capita income



Source: IMF, Government Finance Statistics, various issues.

Figure.15.2: Cross-country share of local expenditure in total government expenditure – relationship to per capita income



Source: IMF, Government Finance Statistics, various issues.

The historical evidence over 100 years (1880–1980) in regard to public expenditure is that the size of the state (as measured by the share of public expenditure in GDP) in Europe grew almost monotonically over the hundred year period. In 1880, the share of public expenditure in GDP in the now industrialised countries was 11 per cent. Over time it grew to somewhere between 40 to 50 per cent of GDP in most OECD countries. Lindert (2004) has demonstrated through his seminal work that the growing size of the state was entirely accounted for by social expenditure (i.e., health, education, social insurance, and social assistance). What is equally remarkable is that an increasing proportion of this growing social expenditure was accounted for by local government. In fact, Lindert also argues that countries (Prussia, Northeast USA) that encouraged local government-based tax-funded education, were able to universalise schooling much faster than countries that did not (for example England).

In other words, historical evidence from the now-industrialised countries suggests that fiscal decentralisation is conducive to early universalisation of mass schooling. Lindert (2004) notes a curious pattern in the rise of tax-based mass public schooling. In the first half of the nineteenth century mass schooling started in some of the German states most notably in Prussia. After 1816 the leadership shifted to North America and Australia. England and Wales, the so

called workshop of the world, fell behind, before catching up quickly in the period from 1891 to 1914. Lindert identifies two systematic causal forces from the comparative political economy of mass schooling before 1914. The first causal force he finds is that, other things being equal, countries where a majority of adults voted had much more children in school than either non-democracies or elite democracies where only a well-off minority could vote. Thus, North America, Australia and even France were ahead in schooling and enrollment between 1850 and 1900 in part because they were more democratic. Within North America broad democracy had the same effect, in that the educationally backward areas were those regions still controlled by a landowning elite or by a single religion. The backward regions were the US south, Quebec, and Canada's maritime provinces, while upper Canada and the US non-south were world leaders in schooling.

The second causal force he finds was decentralisation, especially fiscal. Germany and North America, unlike Britain, left it up to the local governments as to how much tax to pay for schools. In Germany local governments raised most of the taxes for schools, and locally elected and appointed officials ran the schools.

Of the two causal forces operating historically in the now-industrialised countries – stronger democracy and decentralisation – democracy in India is in many ways reasonably strong (even though seriously undermined by money and muscle power, see chapter 16). A decentralised structure of governance at sub-state level was established from 1993–94 onwards.¹¹ It was required in the constitutional amendment that state governments will transfer 29 functions, functionaries and funds to the local bodies. However, in reality, almost two decades later very few states have transferred most subjects, let alone the officials or the funds.

In addition, and on top of this centralisation within each state, there is the continuing vertical imbalance in favour of the centre, in respect of centre-state fiscal relations. Structural (vertical and horizontal) imbalances in India's fiscal system ever since 1950 account for the low quality of state expenditures. The concurrent list (where responsibility lies with more than one level of government

11 The constitutional amendments (73rd amendment of 1992 for rural local bodies or Panchayati Raj institutions and 74th amendment of 1993 for urban local bodies) created locally-elected bodies. Three were created at the sub-state level: district (zila panchayat), block (block panchayat) and village (gram panchayat) for rural governance.

expenditure) undermines accountability and results in poor service delivery. Moreover, it is not just that there are problems in the vertical relationship between the union and the state governments, but decentralisation is left to the discretion of individual states. Therefore, the taxing powers of local bodies are both limited and not uniform across the states.

In this context, the 13th Finance Commission (2010) notes that in India finance commissions¹² have had to face three important challenges. First, there has been a historically high degree of vertical imbalance between the centre and the states. Further, there has been a recent increase in the size of the non-shareable portion of central revenue receipts. Second, there is spatial inequality in the fiscal capacity and fiscal needs of different states. Third and most importantly for our argument, it notes that decentralisation initiatives and the increased pace of urbanisation have considerably increased the fiscal obligations of the third tier of government, 'but not the devolution of human and financial resources to discharge these obligations' (2010, 24). This imbalance between the third tier's fiscal obligations and its own resources has been met by increased resource flows from the centre to the states, and from the centre directly to local bodies (the latter through the instrument of the centrally sponsored schemes (CSS), financed by the Government of India), rather than generation of own revenues locally (the scope for which remains limited, but how it can be increased is discussed later).

Table 15.1 in particular demonstrates that the share of the centre in total expenditure has hardly changed at all over the entire period since independence until 2010. Further, Table 15.2 shows the degree of centralisation in terms of revenue, which too has not changed much. India remains a highly fiscally centralised economy.

12 The Indian Constitution provides for the creation every five years of a temporary commission at the central level, to make recommendations to the union government on centre-state fiscal relations over the following five years. There have been 13 Finance Commissions since independence in 1947 and the 14th was created in late 2013 to make recommendations to cover the period 2015–16 to 2019–20. The 13th Finance Commission's recommendations were implemented over the period 2010–11 to 2014–15.

Table 15.1: Relative shares of centre and states in total expenditure (per cent)

Average for FC periods	Centre	State
FC-I 1951–57	43.83	56.17
FC-II 1957–62	49.47	50.53
FC-III 1962–66	50.51	49.49
FC-IV 1966–69	47.69	52.31
FC-V 1969–74	43.14	56.86
FC-VI 1974–79	47.35	52.65
FC-VII 1979–84	44.79	55.21
FC-VIII 1984–89	47.86	52.14
FC-IX 1989–95	45.58	54.42
FC -X 1995–2000	43.35	46.65
FC-XI 2000–05	43.77	56.23
FC-XII 2005–10	43.74	56.26

Source: Ministry of Finance, 2010

Notes:

1. China: 70 per cent share of province + sub-province (province, 19 per cent, sub-province, 51 per cent.

2. FC = Finance Commission

Table 15.2: Centralisation in terms of revenue (per cent)

Commission	Centre's share in total revenue
FC-VIII	65.4
FC-IX	62.8
FC-X	60.8
FC-XI	58.5
FC-XII	62.6

Source: Ministry of Finance, 2010

Note: In China this share had fallen to 22 per cent up to 1993, but rose thereafter.

Table 15.3: India: Share of local governments in total government expenditure and revenue (per cent)

Tiers	Expenditure		Revenue	
	1997–98	2002–03	1997–98	2002–03
Local	2.9	4.39	0.54	0.37
(i) Rural	1.7	2.8	0.04	0.07
(ii) Urban	1.1	1.6	0.5	0.3

Source: Rao (2012)

Note: Revenue refers to local governments' own revenue share in total government revenue of all levels of government.

Table 15.3 shows how fiscally centralised a state India is despite being a federation. The share of total revenue (tax and non-tax) collected by rural and urban local bodies in India is under 1 per cent of total revenue collection of all three levels of government (central, state, local). By contrast, in China the share of revenues collected by sub-provincial governments was 23.3 per cent (2003), while the central share was 71 per cent and that of the provinces only 5.7 per cent (Shah and Shen, 2006).

The contrast in respect of expenditures between China and India is equally stark. The centre's share in China's total expenditure is only 30.1 per cent (2003), that of the province was even less at 18.5 per cent, while that of the sub-provincial governments was one half (51.4 per cent). By contrast, in India the centre's share, after rising to 50 per cent in the first 15 years after independence (Table 15.1), went down to its 1950 level of 43 per cent with the states accounting for the rest. The centre's share in India is likely to fall below this level (43.7 per cent over 2005–10 and similar till 2015), as the 14th Financial Commission raised the state's share in centrally-collected taxes (from 32 to 42 per cent), which would bring the overall central share in total all-India public expenditure down to 38 per cent. Combined with virtual ending (by the new government from April 2015 on) of the 66 centrally-sponsored Plan schemes (reduced to 36), this increased devolution of tax revenues to states will improve the flexibility for states to tweak programmes designed to suit their condition. However, this is simply greater transfer of resources from the centre to the states. If it leads to greater populist use of these devolved funds, the centre has no way of disciplining state behaviour. Greater devolution to states does assume greater responsible behaviour by states, but the ultimate outcome is uncertain.

15.3.2 Fiscal decentralisation and economic growth: The China experience

We turn now to the international evidence on FD. In this section we will examine the relationship between FD and economic growth, including the case of China, which is a similarly large developing economy like India.

In the theoretical literature, FD is seen as part of a reform package to improve efficiency in the public sector, to increase competition among sub-national governments in delivering public services, and to stimulate economic growth (Bahl and Linn, 1992; Bird, 1996). Davoodi and Zou (1998) used a cross-country panel data set over the period 1970–89 to investigate whether FD has any growth impact. The measure of FD they use is the sub-national (provincial+local) share of total government spending. Given other determinants of growth, they find a negative relationship for developing countries between FD and economic growth. However, Davoodi and Zou's measure of FD is flawed. It takes no account of revenues collected by sub-national governments, i.e., to what extent are revenues collected by them accounting for their sub-national expenditure. Second, they don't take into account the proportion of revenues collected by sub-national governments that are permitted to be retained by them at sub-national level, as opposed to being transferred to the higher level of government. Both these dimensions are central to our argument in this chapter.

Rigorous empirical work has been done in China that examines the effect of FD on economic growth by using a production-function based regression analysis framework (that has been widely adopted in the empirical literature on economic growth) (Lin and Liu, 2000). Their estimation results, based on a province-level panel data set from 1970 to 1993, suggest that fiscal decentralisation has made a positive contribution to the growth process. Their model specification is such that they find that rural reform, the non-state sector and capital accumulation along with fiscal reform are the key driving forces of China's fast growth in the two decades preceding 2000.

The pre-reform and post-reform Chinese fiscal systems are studies in contrast.¹³ Pre-reform the fiscal system was highly centralised: there was a unified revenue collection, and no sub-national government had a separate budget. The central government collected all the revenues and prepared one budget for all administrative levels. Similarly, all state-owned enterprises (SOEs) remitted all profits to the state, and SOEs received allocations from the state.

13 Total government revenue as a per cent of GDP fell from 47 per cent in 1978 to 27 per cent in 1984 (Jin and Zou, 2005) and further to 23 per cent in 1985, when the major change occurred in centre-state fiscal relations.

In 1980, the first major change came in the fiscal arrangements between the centre and the provinces. In 1980, the centralised fiscal system was replaced by a fiscal contract system whereby each level of government contracted with the next level up to meet certain revenue and expenditure targets. Central and sub-national governments shared the revenue. At the same time sub-national governments were required to finance their own expenditures through self-generated and shared revenues – a step that Jin and Zou (2005) suggest was intended to harden the budget constraint on local governments. Importantly, unlike where taxes are collected by the central government and then allocated to sub-national governments, in China local authorities collected all tax revenues until 1994 and remitted a portion to higher levels.¹⁴ In 1980, the central government introduced, as in India, revenue-sharing arrangements, with revenues and expenditures divided. But unlike in Indian budgets, each level of government was made responsible for balancing its own budget. As in India, revenues were classified in China by source and divided into central fixed revenues,¹⁵ local fixed revenues,¹⁶ and central-local shared revenues.¹⁷

The most important change in China came in 1985, which remained stable till 1993 (after which some recentralisation was introduced). Policy stability was important, since it assured sub-national governments that the benefits that they would derive from tax arrangements would not be suddenly taken away. The most important dimension of the 1985 change was that central and local revenues were to be a relatively small part of the total government budget, and the main portion was to be shared revenue. This implied that the central government now relied on local governments to increase total revenues and to provide resources to the central government. Moreover, for 15 out of 28 provinces the marginal retention rate was 100 per cent from 1985–93. The effect was stunning – total revenues rose sharply although Beijing's share fell, which is why a degree of recentralisation of fiscal relations ensued.¹⁸

14 Total revenue share in total revenue was 44 per cent in 1978, while sub-national (provincial + local) revenue in total revenue was 56 per cent. When the major reform came in 1985, the share of central revenue in total revenue fell to 39.7 per cent, with sub-national share rising correspondingly.

15 Customs duties, revenues remitted by central SOEs.

16 Agricultural taxes, revenues remitted by province SOEs, other taxes of a local nature.

17 Profits of large SOEs, industrial and commercial taxes.

18 The recentralisation in 1994 meant that, unlike between 1980 and 1993, the central and provincial tax collection bureaus were separated, and the two levels of government were

Lin and Liu's FD measure is determined by how much of the revenue increments were kept by provincial governments. They estimate that FD has a positive and significant effect on the growth rate of GDP per capita of the province. The estimate 0.0362 implies that, all other things remaining the same, the growth rate of per capita GDP should rise by 3.62 percentage points in response to a fiscal reform that raises the marginal rate of budget revenue retention from 0 to 100 per cent. In fact, they show that growth rate of GDP is higher in the provinces facing a higher marginal retention rate than in the ones with a lower rate.

The growth rate may be raised in two ways, one by raising the investment rate, and the other by improving the efficiency of resource allocation. They show that FD and investment are positively correlated, but the correlation is not statistically significant. However, they show that a province can increase its total output by allocating more resources, or reallocating resources from low-productivity to high productivity areas. Such efficiency gains as a result of FD, similar to technological changes, can have long-lasting effects on the GDP growth rate – and they show these effects for Chinese provincial growth rates to be significant.

What is important is that FD was not restricted to central-provincial fiscal relations, and similar relations of revenue retention were introduced between provincial and county governments. Hence, the county governments (the equivalent of India's local bodies) had a stronger incentive to not only invest more (for example, in local infrastructure) but also to invest more in the high productivity rural industry by building township and village enterprises.

Equally important is the observation that 'as the country moved towards economic federalism with a fiscal decentralisation.... The unitary political system was also transformed and decentralised' (Jin and Zou, 2005, 4, chapter 5). The bureaucrats were now driven by common economic interests and the pressure to seek GDP growth – and this was the most significant measure of their political performance. In fact, the heads of faster growing provinces now tended to be promoted more quickly than otherwise would be.

to collect their own exclusive taxes. In order to increase the central-to-total revenue ratios, the centre began using its tax collection power, and to reduce regional disparity that was emerging, started to use a tax assignment (to provinces) together with the fiscal contract system (Jin and Zou, 2005).

15.4 The Need for Fiscal Decentralisation in India

There are two fundamental reasons why India has remained a centralised polity as we see it today. First, the British colonial raj was a centralised state, which it needed to be as it was extractive in nature. The country was large and diverse, and for the Raj's extractive objectives to be achieved, centralisation was necessary. The administrative service they established (the Indian Civil Service, which metamorphosed into the Indian Administrative Service) was designed as a centralised administrative service. A second reason for the Indian Constitution acquiring centralised features was that when the British left India in 1947, India consisted of 600 principalities which had to be folded into a new nation-state. The creation of a federation provided for the continuation of provinces, but the Constitution provided for strong unitary features in the governance structure for fear of fissiparous tendencies gathering strength (given that the partition had already occurred and Pakistan had already disputed Kashmir's accession to India).

That India today remains more centralised fiscally today than China is the paradox. China has a unitary constitution, though with several tiers of government. Second, it is characterised by centralised one party rule. Third, provincial top-level officials are appointed by the central government. And yet, there is strong local fiscal autonomy, as has been argued above. In contrast to China's unitary government, India is a federation. Second, again in contrast to China, India is a constitutional democracy, and often coalition governments consisting of several parties are in place. Thirdly, India's political governance is characterised by competitive elections at local level (in addition to the appointed administrative functionaries). However, decentralisation at local levels is at the discretion of India's state governments, and as pointed out above there is a high degree of central and state control of expenditures and revenues.

The 7th Schedule of India's Constitution demarcates tax and expenditure responsibilities for the central and state governments, as well as concurrent responsibilities. Any residual functions not listed in the Schedule reside with central government. Moreover, India's inter-governmental fiscal system has in-built imbalances between revenue-raising power and expenditure responsibilities of states, due to which the latter are dependent on fiscal transfers and loans from central government (Vazquez and Rider, 2005). The states derive approximately 65 per cent of resources from own sources (tax and non-tax revenues) and the remaining 35 per cent consists of transfers from the centre.

We would like to suggest that if India were to fiscally decentralise India could replicate the benefits of China's fiscal decentralisation. Given India's federal constitution, in principle it should be easier to fiscally decentralise than in China. In reality, it has been more difficult. It is very difficult for Delhi to override state opposition to devolve functions, functionaries and funds to sub-state levels of government. State governments see fiscal resources as a means of state patronage, and fiscal resources are the source of distribution of patronage. Hence, very few state governments have actually transferred all the 29 subjects to PRIs and ULBs, although they are required to do so by the constitutional amendments of 1992–93.

The Finance Commission, a constitutionally mandated body created every five years (and then dissolved within 18 months as soon as it submits its report to the Government of India), makes recommendations on: (a) the extent and scope of vertical and horizontal devolution; (b) grants-in-aid of revenues to be provided to the states; and (c) increase in the consolidated fund of the states to supplement the resources of the rural panchayats and the urban local bodies. The 14th Finance Commission's recommendations will cover the five year period 2015–20.

It is possible for the Finance Commission to develop incentives to improve the states' fiscal behaviour in relation to the PRIs and ULBs. The 14th Finance Commission should have put in place conditionalities to ensure that the local bodies at least draw down the grant meant for them (which many states have not managed to do since 2010). Even more importantly, the local bodies should be incentivised to generate own revenues and as in China, be permitted to retain those revenues – all 100 per cent. The experience from China also demonstrates that rules should be set for a reasonable period of time, and not changed frequently.

Moreover, presently in India fiscal performance of states is judged based on past actions and historical data. What is needed is that the Finance Commission sets rules announced in advance to reward future performance on generating revenues and improving the cost-effectiveness of expenditures.

Finally, it will be difficult for states to devolve more revenue/expenditure powers unless the following conditions are satisfied: (a) states are incentivised fiscally to accept politically difficult reform conditionalities; (b) such reform conditionalities are applied uniformly to all states; and (c) such conditionalities can be attributed to the central government by the state (Bhaskar, 2013).

One can well ask the question: which is the right level to which to decentralise in India, to the state governments or the PRIs? Given the very limited successes so far in sub-state decentralisation in India, it looks politically infeasible to hope for

greater FD to PRIs or ULBs, certainly not on a scale comparable to China. Hence, the case we make in this chapter is for FD to states, with the conditionality that they must incrementally increase FD to PRIs, with a focus on revenue collected being retained at local level (which was a defining characteristic of the revenue side of decentralisation in China). The question should no more be, should we or should we not decentralise.

15.4.1 Revenue mobilisation

A number of scholars have pointed out ways to enhance the revenue base of Indian local bodies. The first problem is that although in terms of number of taxes and fees there are many,¹⁹ almost none of them can generate much revenue other than property tax (which is a significant source of income in OECD countries). But due to proximity of local bodies to the people, there has been absence of political will to collect taxes locally (Isaac and Shaheena, 2007). This problem can be addressed perhaps by consolidating all tax raising authority at the district panchayat level. However, the problem goes well beyond this political economic constraint. Many states have not even given powers to local bodies to levy property tax. Most states do not link property tax rate to inflation and so in real terms the collection is effectively falling. Half the states reported to the 14th Finance Commission nil collection from property tax (Ministry of Finance, 2014). The 14th Finance Commission has, therefore, had to make several recommendations to ensure that local bodies raise more revenue (discussed below). However, the Commission noted that the local bodies do not even get their accounts audited regularly on an annual basis (a fact also noted by earlier Commissions) without which it is impossible to get a clear picture about revenues being generated or expenditures.

The 14th Finance Commission maintains the tradition of providing 90 per cent of its grants to rural local bodies (for the period 2015–20) as a basic grant (without conditions), and only 10 per cent involves some performance guarantees (the ratio is 80:20 for urban bodies). However, even with respect of

19 The village council (from panchayat) can levy tax on a house, vehicle, water, lighting, drainage on works of public utility, a market, a fee on registration of cattle, on commercial crops and professions. The block (one level above the village in the administrative hierarchy) panchayat can levy a tax on theatrical performances, use of agricultural land, on professions. The district (one level above the block) panchayat can levy licence fee for fairs, water rates and surcharge on stamp duty on property transactions (Rao and Rao, 2012).

these performance grants there are only two conditions: (a) making available reliable data on local bodies' receipts and expenditures through audited accounts; and (b) improvement in own revenues.

On the improvement of revenues, the 14th Finance Commission recommends that to enhance property tax revenue an assessment of properties must be done every four years. Second, since India is a land scarce country and urbanisation requires the conversion of agricultural to non-agricultural uses thus raising its value; land based instruments of revenue generation should be developed. Urban vacant land often goes untaxed and a vacant land tax is demanded by urban local bodies only when owners approach authorities for approval of building plans. Third, the Commission recommended enhancing revenue from advertisement tax (on hoardings, buses, cars), from entertainment tax (using new forms of entertainment like cable television, internet cafes), taxes on professions (currently capped at ₹ 2500 in most states). Fourth, it suggests raising service charges so that at least operation and maintenance costs of basic utilities are covered.

Finally, the Commission recommends for urban areas (for the larger city municipal corporations, though not for tier 2 and 3 city municipalities, and not for small towns) much greater scope for public borrowing. Only 10 states reported that municipal corporations were borrowing. State governments should remove restrictions on the borrowing powers of urban local bodies. Municipal bonds have been issued by cities like Ahmedabad, Nagpur, Nashik, Ludhiana and Madurai, but their role in funding urban infrastructure has been limited. States should allow municipal corporations to borrow directly, while for smaller municipalities an intermediary set up by the state should experiment with pooled financing. An intermediary, set up by the state, should borrow to on-lend to small municipalities (as Tamil Nadu and Karnataka have done).

A larger problem is that local governments lack the staff and hence the capacity to collect the taxes. That is why building capacity at district level will be more feasible and cost-effective than doing so at all three levels in rural/urban areas.

Finally, to broaden the revenue envelope, there is need to build up an information system at district level. This requires collaboration between the state governments (especially its Department of Planning and Statistics) with the central (and state) Ministries of Finance and also Statistics and Programme implementation so that the better database becomes a basis for revenue generation and planning.

15.4.2 Risks of decentralisation

The opponents of FD in India could use the China example to suggest that it might lead to neglect of social sectors in state expenditure. It is true that the centrally sponsored schemes (CSS) of the union government, financed by the Planning Commission, have tended to focus on health, education and rural development (and the CSSs are in areas perceived by the centre as national priorities). The implicit argument is that left to the states, the latter may adopt populist policies rather than what could be called national priorities. It is true that FD in China in the post-reform period led to provincial governments increasing focus on investment that was growth-oriented (since incentives for cadres were biased in favour of growth, as noted later) and tended to neglect education and health expenditures.²⁰ It is also true that FD led to local governments borrowing heavily from government banks. Real fears are expressed about banks being over-extended, so that a financial crisis will result (Sharma, 2014). This development was in complete contrast to the pre-reform 1979 period. However, our counter-argument would be that the current fiscal centralisation in India has not particularly helped health or educational outcomes. The states consistently blame the centre for not providing sufficient resources (for example to enable them to fulfill the requirements of the Right to Education Act in 2009), and also have a straight jacket guideline for the programme countrywide, regardless of differences between state conditions. The Planning Commission's plan funding for these centrally sponsored schemes did not give room for flexibility. Also the Finance Commission's gap-filling approach does not incentivise revenue mobilisation by states.

A second argument sometimes offered by the opponents of FD is that there is allegedly a positive relationship between corruption and decentralisation. For instance, Bardhan and Mookherjee (2005) suggest that the risks of local elite capture in conditions of decentralised governance are greater than capture by the national elite. Tanzi (1995) similarly argues that FD leads to weakening of monitoring, controls and audits by central agencies. However, there is a large body of evidence, which strongly suggests that there is a negative relationship between corruption and decentralisation. Crook and Manor (1998) reason that decentralisation reduces grand theft and increases petty corruption in the short run, but both may go down in the long run. They make this argument on the

20 See the debate on this subject between Amartya Sen and Peter Nolan (World Development, 1992).

basis of a study in four countries, including Karnataka state in India. Wade (1997) argues that in canal irrigation in India over-centralised management along with weak monitoring system leads to corruption and poor service delivery. Similarly, Fisman and Gatti (2002) and Huther and Shah (1998) used international pooled cross-section and time series data to show that FD was associated with better governance.

15.5 The Administration's²¹ Ability to 'Learn'

The political executive's accountability at state level could be enhanced through greater administrative decentralisation and the local government's financial incentives may be improved by greater fiscal decentralisation. But the effectiveness of the administration in either implementing physical/social infrastructure, or delivery of services, is dependent upon the competence, subject knowledge and ability of senior bureaucrats to acquire, transmit and implement information, viz. the ability to 'learn'. It is equally dependent on the bureaucrats' incentives and pressures to perform. Without these two institutional features, decentralisation alone may not be enough – it is a necessary but not a sufficient condition. Poor implementation will continue to plague India, even with the best policies in place in the absence of these two conditions.

The contrast between the Indian and Chinese State in its ability to generate, transmit and implement new learning and to ensure performance from bureaucrats is remarkable.

15.5.1 Learning through experimentation in China – a comparison with India

Despite being a one-party state, China is characterised by a high degree of fiscal decentralisation as noted earlier; on the contrary, although India is a democratic, federal republic, it has a highly fiscally centralised system of governance. Despite its centralisation (which should ideally encourage easier flow of information between units of government) India has not succeeded in building institutions that might encourage cross-state learning from each other's good practices. The

21 There are other kinds of administrative defecits that could be discussed in the context of governance failures, such as the weaknesses in the rule of law, but these have been examined by others (Debroy, 2014; Kapur and Vaishnav, 2014). We focus here on dimensions of governance failures that are less discussed.

Planning Commission of India could have, and certainly should have, played this institutional role of enabling greater learning between states, but in this regard it signally failed. So much was the dissatisfaction with the Planning Commission in this regard, among other things, that the new government replaced it with a new institution, the National Institute for Transforming India (NITI Aayog). However, replacing one institution with another does not solve systemic problems (especially if it is made powerless and has very little specialist expertise in-house).

Unlike China, India has no tradition of experimentation with policy or programmes before they are implemented. On the contrary, the experimentalist mindset was deeply ingrained in China's approach to reform. A process of experimentation in China always precedes the engagement of many national policies, which serves as a powerful filtering mechanism (Rodrik, 2008).

In fact, in 1978 the Communist Party of China broke with its ideology-based approach to policymaking, in favour of one which Deng Xiaoping called the process of 'feeling our way across the river'. Thus, for example, local experiments were carried out as alternatives to collectivised form of land ownership, which eventually led even the old guard of the party to realise that rural reforms to create a household responsibility system could deliver higher food output. Local experiments facilitated the de-collectivisation of farms using contracts with individual farmers, and then the same rural reforms were implemented nationally, resulting in the most dramatic increase in agricultural output and reduction in poverty in world history. In India, there is no such culture of local experimentation before policies or programmes go national. If anything, India has had a tradition of designing nation-wide programmes in the central government (between the Planning Commission and central line ministry) and implementing them across the country, without a pilot. Worse still, these programmes are designed by generalist senior bureaucrats since independence in 1947.

There are many ways in which institutions can shape experimentation. India has limited means to translate state level success to the national level. Very rarely in India have prime ministers previously been successful chief ministers in India's states. Though cabinet ministers include some who have prior provincial ministerial experience, they rarely have a distinguished record. In contrast in China a full five year-term leading a province with a successful record is almost a pre-condition for elevation in Beijing (Jordan, Turban and Wilse Samson, 2013).

Another reason for better learning in China comes from the fact that the Chinese state is able, at senior level, to move heads of provinces to other provinces,

at regular 5–10 year intervals. This is an important way in which information about provincial success are transferred directly to other provinces. By contrast in India an IAS officer never serves in a state other than the one of their initial assignment. The overall result of these mechanisms and institutions is that information flows had much greater speed in China than in India. Thus, it is critical for the Indian state to be able to innovate institutions that will enable learning to take place on a much greater scale at a much faster speed. The new NITI Aayog (the successor to Planning Commission) could be one such institution.

15.5.2 The pressure to perform in China – a comparison with India

Fiscal decentralisation in China is combined with an incentive structure for local cadres that puts pressure on them to perform. The target responsibility system is a set of performance criteria that induce local cadres to allocate their fiscal resources in ways commensurate with the preferences of the state (Tsui and Wang, 2004). The incentive mechanism works through a compensation of carrot-and-stick method, with the centre and upper level governments allocating tasks to their subordinates, which guides the provision of public goods and hence the structure of local expenditure. Local bureaucracy is evaluated based on their sets of tasks – economic construction, social development and party construction.²² Responsibility contracts detail quantitative targets to be reached within a given period of time with rewards and penalties depending on over- or under-fulfilment. This practice has been adopted since the mid-1990s from the county down to township governments and village organisations. The tasks under the three heads originate in five year plans, based on which sectoral plans with detailed quantitative targets are formulated. There is nothing comparable in India.²³

22 Economic construction consists of economic growth rates and per capita levels; taxes; urban and rural living standards; agricultural production; state and management; enterprise operation in infrastructure. Social development consists of fertility control; social stability; education; science and technology; culture; sports and environmental protection. Party construction consists of ideological and political construction; building of team leadership and building of party grassroots organisation.

23 In fact, under the new government five year planning itself may be at stake. If yes, they should remember that there is no Asian country that has abandoned planning in the casual manner India is about to do. When Latin American countries did, they have paid the price for casually abandoning strategic planning since the early 1980s.

Moreover, for local politicians and bureaucrats in China promotion is strongly influenced by performance, as determined by the Organisation Department of the Communist Party (not merely by the opinions of superior bureaucrats as reflected in annual confidential reports, and by seniority in India). Bureaucrat tenures in China need to be coincident with all-government personnel changes, roughly five years or so. By contrast, in India it is a miracle if a bureaucrat's tenure lasts even two years at a time. Eventually, outcomes of policies and programmes matter much more in China for purposes of promotion, while the weight of superiors in evaluation is much greater in India, and 'not making a mistake' is very important. In fact, in India frequent transfers, generalist careers and pure seniority in promotions make for poor learning. Lack of experimentation can cause problems which exacerbate the risks of programme failure on a monumental scale in a vast country like India. With frequent transfers it is impossible to attribute success if a bureaucrat undertakes a risky project in India (Planning Commission, 2002). Longer tenures ensure that it is easy to attribute success to individual leaders in China.

The way bureaucrats are promoted in India leads to a situation where very few officials will be able to translate outside ideas into effective policies.²⁴ In fact a dense network of official think-tanks with lower level local chapters operate under the Chinese Academy of Social Sciences. These are directly affiliated to the State Council (i.e. Cabinet of China). In India, there are research institutions funded by the Indian Council for Social Sciences Research in states, but they enjoy nowhere close to the same clout at either state or centre level as generalist senior bureaucrats have – a near monopoly of policy-design and policy-advice to ministers.

15.6 Concluding Remarks

We argued early in the chapter that there are conceptual reasons why there is consistency between the phenomenon of decentralisation and human capability expansion. We have also suggested in this chapter the post-reform history of governance system in China as well as the historical experience of the now-industrialised countries have shown that if economic growth is to be equitably shared and human capabilities are to grow hand-in-hand with a rise in per capita income, then local communities have to be given a greater role in determining who

24 Jordan et al. (2013) note that conferences and studies by the World Bank in China in the 1980s and 1990s had a breadth and depth of impact on mid-level bureaucrats and policy formulation that would be unheard of in India (Bottelier, 2007).

taxes them and how those taxes are spent. In modern times, large complex societies have been governed successfully only when they are not over-centralised.²⁵

It should be feasible in India to initiate FD to states, with the condition that they be required to further transfer funds, functions and functionaries to PRIs and ULBs. This conditionality would be essential to ensure revenue collection with revenue retention rights to PRIs and ULBs, since state governments have so far been loath to follow the requirements of constitutional amendments of 1992–93. However, Nirvikar Singh (2007) suggests:

China's example of political centralisation and economic decentralisation may not be generally applicable; since it relies on structures that they may not be transferable to other contexts... Implementation of economic decentralisation in China required the existence of a party hierarchy that stretched down effectively to the local level. This is not a condition that is satisfied in India.'

We find this argument facile, since India has had a very long history of decentralised governance going back to pre-colonial times. A centralised form of governance came to India only with colonial rule, which was a surplus-extractive state; centralisation was called for by the demands of surplus extraction to serve imperial purposes. India is a uniquely diverse country (unlike China) but a large, populous country (like China), hence the logic of decentralisation is even stronger in India. By introducing much greater FD, India's system of governance would be going back to its roots, in the sense that governance in India was always extremely decentralised.

However, we have also argued that deep democratic decentralisation, including fiscal decentralisation, is a necessary condition for triggering the synergy between economic growth, poverty reduction and enhancement of basic human functionings. Optimal governance also presupposes that the Indian state (especially its bureaucracy) becomes a more agile learning state, which requires the senior bureaucracy to undertake much greater introspection about its own weaknesses.²⁶ It would be overly facile, if the learning through experimentation and performance based promotion system in China are dismissed as possible only in a one-party state where the party is always watching over the bureaucratic cadres.

25 Over-centralised states like the former Soviet Union imploded at the end of the 1980s into their constituent 15 republics under pressure from their constituents.

26 The weaknesses of senior administration in India were also addressed in the last section of chapters 2 and 10.

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Addressing Left-wing Extremism¹

Encourage Peace to Secure Development – or the Way Round?

A left-wing insurgency that began in 1967 in a corner of the country (Naxalbari, West Bengal), and which effectively ceased to be a force to reckon with by the mid 1970s, has gathered momentum since the late 80s, and continued to fester for well over two decades. Of the 641 districts of the country as many as 83 are affected with left-wing extremism (LWE). It should be a matter of great concern to all citizens of India that an insurgency that started in a small village in the corner of the country, and which had all but died a few years later, not only gathered momentum but continued to grow in scale and the number of districts that are affected by it. The state (as represented by the central and state governments), and its central paramilitary forces and the state police on the one hand, and the left-wing extremists on the other are locked into a bitter, long-drawn out violent military engagement, with the former determined to crush the insurgency, and the latter aiming to capture state power.²

Central to arriving at an understanding of the problem of LWE-affected districts is the following set of facts. First, although the problem is confined to only nine of the 28 states of India, the fact is that these nine states constitute two-thirds of what are called the major states (which amount to 15).³ It is also

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- 1 This chapter draws heavily upon (the author's) chapter 1 in *Countering Naxalism with Development*, edited by Mehrotra (2014). The author was a member of the expert group that resulted in what became an influential report to the Planning Commission in 2008. See Expert Group Report (2008).
 - 2 LWEs began with much political mass mobilisation, but as state action against them increased, they are seen increasingly mainly as an armed movement aimed at capturing power. The scope for mass mobilisation has shrunk, though journalist scholars like Navlakha (2010) point out that the Naxalites engage in organising the people whenever it is possible for the party to do so.
 - 3 They are major in the sense that they are larger in territory and together account for 90 per cent of the total population of India.

noticeable that of the 106 districts that are recognised by the Ministry of Home Affairs, Government of India, as LWE-affected, the majority are in five states: 16 are in Andhra Pradesh, 22 in Bihar, 16 in Chhattisgarh, 21 in Jharkhand and 19 in Odisha. In other words, these five states account for 90 per cent of the total number of affected districts. The remaining states only have about 12 districts between them, which are LWE affected (Madhya Pradesh 1, Maharashtra 4, Uttar Pradesh 3 and West Bengal 4 districts). The important point about this geographic concentration is that the five high concentration states form a contiguous territory in an arc running from the India border near Nepal in north Bihar to the far south of Andhra Pradesh. The implication from a security perspective is that without a very high degree of inter-state, combined with intergovernmental collaboration (between centre and state and between states), there is precious little likelihood of any success in the long run against the Maoists. This is because they can escape across state borders easily.

A second fact of enormous importance is that these states have a high concentration of SCs and STs within their borders, much higher than found in any other state. The nine states most affected by LWEs account for 61 per cent of India's SCs, and 62 per cent of the country's STs. These are the poorer states of India, and SCs and STs have much worse social indicators. It is the SCs and STs, which constitute the backbone of left wing extremism in these high concentration states.

A third fact of importance is that the STs in these states usually live in highly forested, relatively hilly, rugged terrain. The adivasi tribal population of these states have traditionally lived in the forests, and for centuries lived in harmony with nature and helped to sustain it (Guha, 2007). They have traditionally held rights over forest produce, which they have used in an ecologically sustainable way to sustain themselves. However, that often brought them into conflict with government officials of the forest department. Maoists found favour with the tribals because the former usually supported the latter in the struggles of the tribals vis-a-vis the forest department.

A fourth and final fact of enormous salience, which has become especially important in the past decade in particular with an increase in investment in mining, is that these very same forested districts with high concentrations of STs living in them, also had major reserves of minerals. Since by customary law the land and forests were seen as belonging to the tribals, in the sense that they had usufructuary rights over the resources on land occupied, mining by

private and public enterprises in these areas became another source of conflict with the adivasis. Herein lay the roots of a conflict that has continued to simmer across a large swathe of territory of India, which is the subject of this chapter.

While these are the root causes of the conflict, over the last decade or so, the Maoist insurgency has become extortionary, and survives upon such extortion. Thus, Sen (2010) notes that Maoist extremism now runs, and can only run, on the strength of guns and a vast network of extortion economics. A huge levy is regularly collected from contractors and brick kiln owners, tendu leaf merchants, other industrialists and businessmen, illegal forest produce collectors, coal and iron miners, corporate houses and bureaucrats.

This chapter is organised as follows. Section 16.1 discusses the chicken-and-egg situation that without addressing the development challenges in the LWE districts, there is little likelihood of the armed conflict subsiding, and yet without peace, how is the state to invest in development infrastructure that will not be destroyed or persuade government officials to locate in remote rural areas, where basic services are most needed. Section 16.2 discusses the problem of how to address the adivasi forest dwellers' rights. Section 16.3 takes up the challenge of land issues, which is another important source of social injustice and hence a determinant of conflict. Section 16.4 deals with the injustices resulting from infrastructure, industrial development and mining projects, which displaced millions of SCs and STs and small farmers, with inadequate compensation, or no systematic effort at their rehabilitation and resettlement even decades after their displacement. Section 16.5 takes up the issue that although the tribal population, who constitute 8 per cent of 1.2 billion citizens of India, have customary rights of self-governance (as recognised in the Panchayat Raj Extension to the Scheduled Areas Act, 1996) these rights have rarely been implemented by state governments. Section 16.6 discusses the recent efforts by the central government to introduce an integrated action plan of development since 2010. The chapter concludes by raising the hope that the ambivalence of the STs, SCs and other rural poor towards the Maoists is the basis for creating peace and hence, development, and the need for the central and state governments to take serious cognizance of this ambivalence.

16.1 Peace or Development: Which Comes First?

The development challenges can clearly not be addressed in the prevailing conditions of armed conflict. The number of violent incidents as well as the number of deaths has risen over the past decade. When violence prevails,

especially in rural areas, it is difficult for schools to function, or for doctors and nurses to attend to their duties in primary health centres or sub-centres run by the government. If basic services cannot be provided to large swathes of territories in rural areas, with high concentration of SCs and STs (who have worse health and education indicators than the rest of the population) living there, life for the ordinary citizens in such areas easily returns to a fairly primitive form of existence. As we saw in chapter 1, these states are among the poorest in the country, with some of the worst human development indicators. If the absence of basic services is combined with a long period of social injustice arising from the erosion of forest dwellers' rights, the displacement of rural populations by irrigation, mining and industrial projects, and the depletion of common property resources then the sense of social injustice among adivasis and the rural population can be easily exploited by Maoist groups from within or outside the local community.

However, the dilemma before the state is profound: peace is necessary for development, but if the meaning of 'development' is interpreted differently by the state and the citizenry, then the prospect for peace is undermined. We are then in a chicken-and-egg situation: which comes first, peace or development?

What is clear is that peace can only be established if talks were to be initiated between those indulging in armed violence on the one hand and the state on the other. In fact if peace is not established the sustainability of development programmes (regardless who interprets 'development' in what manner) will be called into question sooner rather than later. Hence, it is critical if the interests of the most marginal are to be protected and the desire of the state to initiate industrial or mining projects is to be realised, that peace talks are initiated soon between the state on the one hand and the extremists on the other. In fact, the argument has been that if peace talks can be held between the Naga insurgents of Nagaland (as they have been for well over a decade), even though Naga rebels have not surrendered arms, in fact, established a parallel government, then there is a case for peace talks to be held with the Maoist insurgents as well (who too will not lay down arms before peace talks). In fact the argument has been similarly made that peace talks have been held with militants of Jammu and Kashmir as well as with other insurgents (for example United Liberation Front of Assam) without any precondition that the latter surrender their weapons (Singh and Doval, 2014). Hence, there is a case for engaging in talks with the LWEs as well⁴.

4 In 2004, the two main Maoist groups in the country came together to form the Communist Party of India (Marxist-Leninist), giving the movement new momentum.

The successful negotiations between the Nepali state and the Nepal Maoists is a good reminder of the possibilities in India, that in the Indian subcontinent it is feasible for left-wing extremists to join the mainstream and engage in a democratic electoral process through means of prolonged negotiation. Encouraging a peace process would indeed create the basis for sustainably addressing the development challenges in extremist-affected areas. As we argue in the final section, there is some ambivalence among the SCs and STs population in the LWE-affected states towards the Maoists, which suggests that these rural poor are hungry for peace, but also justice.

Andhra Pradesh was able to contain the problem by negotiating with the Maoists. Surrounding Maoists were offered rehabilitation. The latter meant that they were given a plot of land, along with a stipend. In addition, they were offered training so that they could obtain a job.

Security experts also believe that the LWEs can also be contained if the central and the state governments were to coordinate their efforts. However, this coordination has been very difficult to achieve, as state governments have rather different perspectives on the security dimensions of addressing the LWEs. Under the circumstances, Central Reserve Police Force members continue to die in so-called counter-insurgency operations, almost like sacrificial lambs (Pandita, 2011).

16.2 Addressing Conflicts Arising from Forest Dwellers' Rights

A major source of support for LWE is the dispossession suffered by the forest dwelling Scheduled Tribes (or Adivasis). Forest dwelling adivasis were dispossessed by the state declaring forests to be 'reserved forests', without recognising the rights of pre-existing communities who lived in the forests. The main problem here is the Forest Conservation Act, 1980. Those who were dispossessed prior to 1980 (when the Forest Conservation Act came into existence) were regularised. However, after the Forest Conservation Act, 1980 came into existence this regularisation was stopped, which led to much injustice against STs. Since 1980 'forest conservation' became a strange companion to industrial forestry: conservation came to mean restrictions upon the rights of the adivasis, but at the same time industrial needs were accommodated. The Joint Forest Management (JFM) (was called 'Joint' since the Forest Department was meant to engage the adivasis in management of the forest resources) that was introduced after 1980 merely institutionalised this state of affairs. Hence arose the need for The Scheduled Tribes and the Other Forest Dwellers (Recognition of Forest Rights) Act, 2006.

Although the Forest Rights Act was a progressive move, the implementation of it left much to be desired. The Council for Social Development (2010), in its report on the implementation of the Act, reported that all key features of this legislation were undermined in the process of implementation, and the purpose of the legislation was being defeated. It concluded that all states largely failed to respect the Act's historical vision on the role of gram sabhas (i.e., village assemblies). Gram sabhas were often bypassed and officials, the Forest Department and JFM committees were empowered in violation of the law. Such violations include the constitution of Forest Rights Committees, and deliberate efforts to use JFM to divide villages and substitute Forest Department-controlled JFM Committees for community bodies.

The report also notes that there has been large scale interference by the Forest Department in the rights recognition process. This takes various forms. First, demands could be made by the Forest Department officials that claimants produce receipts or primary offence reports from prior to 1980 (or from prior to the Act's cutoff date of 2005). Second, demands are made that claimants should be on 'encroacher lists' of the Forest Department. Third, forest officials have taken over the implementation of the Act by the state and central Tribal Welfare Departments and are imposing Forest Department's perspective on the process. Fourth, there have been cases of imposition of conditions upon the adivasis not required by law on both claims and on exercise of rights. Finally, there has been continued eviction of adivasis and forest-dwellers in total violation of the law.

In addition, there have been other problems in the way in which the Forest Rights Act has been implemented. All non-land rights in the Act – most of which are community rights – have largely been ignored in implementation. The central and state governments have treated the Act as if it is a land title distribution scheme. The Council for Social Development's Report notes that district level committees have committed a number of serious violations: rejections without any intimation to the claimants; abdication of responsibility by other departments in favour of the Forest Department, which has been given eviction veto powers in most areas; reduction in the size of land granted to the claimants without any reason; and abuse of GPS technology to manipulate maps and areas of land for which titles are being given. In the light of this experience, the central Ministry of Tribal Affairs issued a comprehensive set of revised rules (on 13 September 2012) under the Forest Rights Act. The state governments will have to be actively supported in the light of the revised rules – without which the Forest Rights Act will remain on paper.

16.3 Land: Another Major Source of Support for LWE

The focus of LWEs has been on the slogan 'Land to the Tiller'. LWEs have tried to provide land that is surplus of ceiling (established by state law) to the landless, in situations where the state government has failed to distribute ceiling surplus or Bhoodan land⁵. The LWEs tend to target landlords who have large holdings or are oppressive in their conduct (even if they are not big land owners); the state police in such situations intervenes often on behalf of the landlords. Several such cases can be cited. In respect of private land in Andhra Pradesh, landlords were to assign the land to the poor identified by the LWEs, but the state government resisted this effort by the LWEs as it would appear to 'sanctify' what was seen as illegal action. The result was that thousands of acres were lying fallow in such districts as Warangal, Karimnagar and Adilabad in Andhra Pradesh, while the number of landless poor grows. In Bihar, on the other hand, LWE-evicted landlords were prepared to reoccupy the private land from which extremists evicted them, so the efforts of the latter to redistribute land failed. This invited police violence, giving further impetus to LWEs in Bihar. In regard to government land, the LWEs assisted landless *Musahars* to take possession of government land in Bihar; however, the state government felt that giving the landless conditional access would sanctify the law breaking, which exacerbated a conflictual situation. In respect of forest land, there was occupation of such land by adivasis on an extensive scale in Andhra Pradesh, Chhattisgarh, Vidarbha region in Maharashtra, Orissa, and Jharkhand. This was not fresh occupation by the adivasis of forest land, but just represented reassertion of customary usufruct with LWE support; this brought the adivasis (and LWEs) into conflict with the Forest Department of each state government (Expert Group Report, 2008).

The situations described above could be easily addressed through a number of land related actions (as the Expert Group Report, 2008, advised). First, land tribunals or fast-track courts (Article 323 B of the Indian Constitution) could be set up for quick disposal of land ceiling cases. Since land owners have had decades to create false documents no cut-off date should be adopted for reopening old cases. Second, land tenancy was increasing among the poorer rural population in LWE-affected states, and tenants usually do not have access to institutional

5 In certain states, especially Bihar (including what is now Jharkhand), landlords gave up surplus rural land, as a response to the movement in the 1960s and 1991 by influential Gandhian, Vinoba Bhave. The state government was then supposed to redistribute this Bhoodan land among the landless.

credit. Tenancy laws have usually failed to protect tenant interests except where state governments have been proactive (for example, Kerala, West Bengal). Therefore, it is necessary that all tenancies should be recorded, which would enable tenants to access institutional credit rather than relying upon moneylenders. Third, in many states ceiling, *bhoodan*, and government land assigned to the landless was not delivered to them. It is possible to file criminal cases against those who have not delivered the land. In addition, all eligible occupants of government land should be regularised by the state governments. Fourth, laws prohibiting the transfer of adivasi land to non-adivasis suffer from many loopholes besides poor implementation. The loopholes are documented, but the laws survive unimplemented. This situation needs to be rectified if justice is to be served. Fifth, states with adivasi population, which are not included in the Fifth Schedule of the Indian Constitution (which lists adivasi groups), should enact laws for the protection of adivasis in the same manner as in the Fifth Schedule of the Indian Constitution. Finally, fisher folk, graziers, honey-gatherers had extensive rights over common property resources. Such rights have been eroded over time, and should be statutorily protected and recorded, and user 'pattas' should be issued jointly for husband and wife.

16.4 Displacement by Irrigation, Mining and Industrial Projects

It is estimated that in the development process 60 million persons were displaced between 1947 and 2004 due to development projects: irrigation, mining and industrial projects. Or, nearly 10 million every decade or so with the increase in growth rate, the numbers in the last decade could only be larger than 10 million. This is an unofficial estimate (Fernandez, 2014), and it is unfortunate that no official estimates exist of the number of persons that were displaced by development projects who were denied rehabilitation and resettlement (R&R). It is well-known that adivasis and the landless are most affected by such displacement. This is because, of the 25 million hectares of land acquired over this period for projects, some 7 million ha (28 per cent) is forest land and 6 million ha. (24 per cent) consists of common property resources. In three states – Orissa, Jharkhand and Chhattisgarh – which are rich in minerals, mining projects have threatened the livelihoods of adivasis since they live in forests under which are buried these minerals. There has been no serious effort at rehabilitation and resettlement for nearly six decades and since the administration provided little succour when projects threatened the existence of the adivasis, the LWEs stepped into the

vacuum. Internally displaced forest-dwellers tend to settle down again in other forest regions, which is prohibited by law. In such situations the LWEs assisted them, thus inviting the wrath of the state.

There is an additional issue, which arises in this context on account of a presidential order under Article 342 in Constitution of India, which declares the list of STs for each state. A problem arises when a Scheduled Tribe that migrates involuntarily (i.e., due to displacement by projects or mining) from one state to another is not recognised as ST in the new state. Since it is not so recognised, it receives no protection from the state but does receive protection from the LWEs. Many such instances have arisen. For example, Orissa STs moved to forests near Vizag in Andhra Pradesh, they were targeted for eviction and would have been evicted but for LWE intervention. As a result, both the LWEs and the adivasis were harassed. Similarly, the landless Gothi Koya tribes of Chhattisgarh crossed over to Khammam district in Andhra Pradesh with LWE support; hence the Andhra Pradesh Forest and Police Departments cracked down upon them. Similarly, Bihar-based upper caste private armies (for example, Ranveer Sena) periodically attacked Dalits, who received LWE support but had to face batons from the state police (Expert Group Report, 2008).

The good news is that the central government introduced in 2003 a R&R policy, which was modified and came into force in 2007. Although the policy was notified, more effective than a policy would be an Act of Parliament making R&R mandatory for all projects that lead to this displacement. The new Land Acquisition Act 2013 (to replace the 1896 colonial era Act), which authorises the state to acquire land under the principle of eminent domain does incorporate R&R into the Act, thus the making land acquisition, either by private or public bodies, go hand in hand with rehabilitation and resettlement.

16.5 Need to Extend Panchayati Raj to the Scheduled Areas Where Adivasis Live

Tribals have been historically self-governing in India, which has brought them into conflict with the formal state system of governance. The regulatory and developmental role of the state post-1947 led to the erosion of the authority of the traditional system of governance.⁶ Tribal self-governance means the management

6 A traditional system is now strongest among Ho tribe (Jharkhand); weak among the Santhals and Mundas; and very weak among Oraon tribe (Expert Group Report, 2008).

of natural resources, general economic matters and the use of intoxicants, but these matters were appropriated by the formal state system over 1947 to 1995. The provision for extending Panchayati Raj system to the scheduled areas (PESA or Panchayats (Extension to Scheduled Areas Act), was enacted in 1996 to change this erosion of the right to self-governance by the tribals.⁷ A distinctive feature of governance at village level in PESA is creation of space in the legal frame for a functioning system of self-governance of tribal people. This implies that all laws relating to panchayats that are inconsistent with PESA are deemed to have lapsed on 23 December 1997.

However, PESA remains unimplemented in most states. While the implementation of PESA has to be a collaborative effort of almost all central government line ministries, in fact only two central ministries issued guidelines to states in 1997. One was the Ministry of Rural Development on the role of the gram sabha (i.e., the village assembly) in land acquisition, and the other was the role of the gram sabha before granting of leases for mining minerals for which Ministry of Mines issued guidelines. However, unfortunately there was relative neglect in the rest of government in respect of the holistic frame of PESA. PESA casts direct responsibility on the state legislature for implementation, but since it is a central legislation and constitutes a logical extension of the 5th Schedule in the Indian Constitution, the duty is of the central government to see it implemented. For example, many central laws need to be harmonised with the PESA: Land Acquisition Act; the Mines and Minerals (Development and Regulation) Act 1957; the Forest Act 1927, and the Forest Conservation Act 1980. Also there is need for national policies, which could be examined for ensuring compliance with PESA provisions, for example the National Water Policy 2007, National Minerals Policy 2008, and National Forest Policy 2004, all of which need such reexamination (Expert Group Report, 2008).

If any state government is not implementing PESA the central government could use its powers to issue directions to the state government (as indicated in Part [a] of the 5th Schedule of the Constitution). Proper implementation of PESA requires giving the rightful role of government to gram sabhas and through it to gram panchayats (the village council, elected by the village assembly). It is expected that this action would douse the embers of discontent and disaffection among the tribals in the Scheduled Areas (Expert Group Report 2008). PESA

7 The PESA was an elaboration of the 73rd amendment (1992) to the Indian Constitution which created the system of local self-government at three levels in rural India – the Panchayati Raj system.

gives to gram panchayats in 5th Schedule areas (where tribals are concentrated) the right to prepare a tribal local plan and receive resources for such plans, including the central government's Tribal Sub-Plan (which is a part of any Five Year Plan). However, district planning committees (as required under ~~Article under 243Zd~~) have not been created in line with PESA.

16.6 Recent Developments

This chapter has argued that there is much the state can do to eliminate the basis for the sense of social injustice that prevails among marginalised communities in districts of the nine states where LWE violence is concentrated. This can be done by the state addressing the development challenges in these states (as identified earlier in the ~~the~~ chapter). The central government has attempted to do this partially since 2010 by means of what is called an Integrated Action Plan (IAP) conceived by the Planning Commission and implemented under the leadership of each district collector in over 84 districts in nine states.⁸ The new government transferred the funding responsibility for this scheme to state governments.⁹ However, the difficulty remains that the sustainability of any such efforts undertaken in the 84 districts could be undermined by the continued active presence of left-wing extremists and their continuing violence.

8 In the IAP, the funds were placed at the disposal of the Committee headed by the District Collector and consisting of the Superintendent of Police and the District Forest Officer. This Committee has flexibility to spend the ₹ 25 crore (or nearly \$ 5 million) for tribal districts according to need, as assessed by its concrete proposals. These included social infrastructure and services: school buildings, pre-school anganwadi centres, primary health centres, drinking water supply, village roads, electric lights in public places such as health centres and schools and so on. The expenditure on these should be over and above the expenditure incurred for the regular state centrally sponsored schemes. The IAP is applicable in districts if the district meets four of the following five criteria: (a) whether the district is in the list of security-related expenditure districts; (b) whether the share of tribals in the total district population exceeds 25 per cent; (c) whether the forest area exceeds 30 per cent; (d) whether the poverty ratio in the district exceeds 50 per cent; and (e) whether the district is covered under the Backward Region Grant Fund (of the Planning Commission) (<http://pib.nic.in>).

9 How the scheme will fare under state governments (from mid-2015 onwards) remains to be seen. Almost all programmes (except 36 out of the erstwhile 66) of the Planning Commission, and the corresponding financing responsibility, was handed over by the new government to state governments. This leaves the successor of the Planning Commission, the NITI Aayog, with no financial powers whatsoever, thus dismantling its Planning ministry function.

Meanwhile, there remain complexities in the situation prevailing in the LWE districts. There is a clear window of opportunity for the state in reaching out to the most affected – adivasis, the landless, and the SC – who remain reluctant supporters of LWE. These poorest sections of rural society have a rather ambivalent relationship with their so called protectors, the extremists. Thus, Kunnath (2006) shows how support among SCs for LWE in central Bihar weakened considerably, as the Maoists attempted to bring in to leadership positions in Maoist squads middle and upper castes in pursuit of their goal of capturing state power, and rewarded the higher caste members of their squads more than the dalits.

Similarly, Bhatia (2005) suggests that the poor rural people understood the objective of the movement as 'change', not 'revolution'. They supported it because they believed that the extremists shared their sense of injustice, not for any ideological reasons (of capturing state power). Bhatia points out that for the poor their struggle was for securing higher wages, land redistribution and freedom from harassment, from any side. She points out that people petitioned the Maoists for exactly the same things for which they also petitioned government.

Similarly, Balagopal (2006) argues that in Andhra Pradesh the gap between the vision of the ideologically motivated leadership (and their goal of acquiring state power through mass mobilisation and violent action) and the masses has weakened the LWE. The Maoist leadership has a commitment to armed struggle, and as a result both sides have become locked into armed conflict. However, armed conflict does nothing to advance the practical interests of the rural poor. For example, in the Bastar region of Chhattisgarh (a centre of Maoist activity), Sundar (2006) points out that some positive actions by the Maoists are compromised by their other activities when they have resisted even genuine government initiatives. For example, while recognising that traders cheat adivasis in buying minor forest produce from them, most villagers are unhappy at the extremist opposition to government programmes and efforts to block participatory elections. In fact one could say that Nandini Sundar's conclusion about Chhattisgarh is similar to those of Bela Bhatia for Bihar or Balagopal for Andhra Pradesh.

There are some who have argued that finding a solution to the security problem is problematised by the fact that the existence of mineral resources in these states is a major factor behind the continued conflict (Miklian, 2009). Thus, in Chhattisgarh there are publicly-owned iron ore processing plants and large companies like ESSAR and TATA steel are active. Mine officials, both public

and private, pay both the Maoists and their tribal opponents (Salwa Judum, who were disbanded after a court order, but may be regrouping after the new central government took power in 2014). Similarly, Padel and Das (2006) pointed out that the valuable high quality bauxite gives both sides material interests in the continuation of conflict. Suykens (2010) finds a joint extraction regime operates in the trade in tendu leaves (for making 'bidis') in the tribal areas of Telangana of Andhra Pradesh. This is similar to the argument presented by Collier and Hoeffler (1999) based on international evidence mainly from Africa that suggests that there is a significant relationship between civil war and the existence of natural resources in a region.¹⁰

This continuing conflict, with extraction of resources at its base, has formed the backdrop to the effort of the state to end the LWE insurgency through military action. In November, 2009, the Ministry of Home Affairs announced 'Operation Green Hunt', which is supposed to be a comprehensive operational strategy that would first attempt to clear an area of Maoists, occupy it militarily and follow up with socio-economic 'development activities'. However, this strategy does not seem to have worked so far.

16.7 Concluding Remarks

Clearly, under the circumstances a continuing reliance upon a security-centric approach may continue to encounter limited success in winning over the hearts

10 Collier and Hoeffler (1999) show that empirically many rebellions in poor countries are linked to the capture of resources (such as diamonds in Angola and Sierra Leone, drugs in Colombia, and timber in Cambodia). They set up a simple rational choice model of greed-rebellion and contrast its predictions with those of a simple grievance model. The results contrast with conventional belief about the causes of conflict. They present a stylised version of conventional beliefs that grievance begets conflict, which begets grievance, which begets further conflict. Collier and Hoeffler's model, however, suggests that what actually happens is that opportunities for predation (controlling primary commodity exports) cause conflict and the grievances this generates induces diasporas to finance further conflict. So they conclude that the point of policy intervention here is to reduce the absolute and relative attraction of primary commodity predation and to reduce the ability of diaspora to finance further conflict. We don't believe that the Collier-Hoeffler model applies in the Indian LWE context, since primary commodity control is one among many causes and there is no diaspora funding the rebellion. The conventional model much better fits the Indian LWE situation, with deep-rooted long-standing injustices and grievance, which has sought to be suppressed by force by the state, and the resulting conflict has compounded the grievance, and now funding for rebels is sustained by partial control of resources (and the latter remains an additional source of conflict).

and minds of the marginalised poor who feel a sense of historic injustice, which has prevailed for decades on account of the reasons discussed in this chapter. Given the ambivalence of the marginalised poor in these nine states towards the Left Wing Extremists there still remains an opportunity for the state to reach out to the poorest rural citizens by means of an offer for peace talks, since the tribals feel that they are trapped between the violence of the state on the one hand and the Maoists on the other. Though some have suggested that there might be gain from continued conflict rather than from peace, an ambivalence of the poor towards the extremists gives ground for hope that determined effort by the state to hold out an olive branch might elicit a positive response. (The Nepali Maoists did give up armed conflict and are part of the Nepal Government). Sustained talks with the objective of establishing peace, combined with an equally determined effort by the state to implement many of the actions discussed earlier in this chapter may well under cut the support that the LWE may enjoy among some of the poor. Furthermore the overall security-centric approach that has so far prevailed has proved to be less than successful. Very little options now remain before the state if this decades-old conflict is to subside, and the hopes of rural citizens of extremist-affected districts in nine states for improving their livelihoods are to be rekindled.

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