

REVIVING JOBS

RETHINKING INDIA

Series editors: Aakash Singh Rathore, Mridula Mukherjee, Pushparaj Deshpande
and Syeda Hameed

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RETHINKING INDIA 3

REVIVING JOBS:
AN AGENDA
FOR GROWTH



EDITED BY
SANTOSH MEHROTRA

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An imprint of Penguin Random House

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USA | Canada | UK | Ireland | Australia
New Zealand | India | South Africa | China

Vintage is part of the Penguin Random House group of companies
whose addresses can be found at global.penguinrandomhouse.com

Published by Penguin Random House India Pvt. Ltd
7th Floor, Infinity Tower C, DLF Cyber City,
Gurgaon 122 002, Haryana, India



Penguin
Random House
India

First published in Vintage by Penguin Random House India 2020

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10 9 8 7 6 5 4 3 2 1

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ISBN 9780670092963

Typeset in Bembo Std by Manipal Technologies Limited, Manipal
Printed at Replika Press Pvt. Ltd, India

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Series Editors' Note

Psychologists tell us that the only *true* enemies we have are the faces looking back at us in the mirror. Today, we in India need to take a long, hard look at ourselves in the mirror. With either actual or looming crises in every branch of government, at every level, be it centre, state or local; with nearly every institution failing; with unemployment at historically high rates; with an ecosystem ready to implode; with a healthcare system in shambles; with an education system on the brink of collapse; with gender, caste and class inequities unabating; with civil society increasingly characterized by exclusion, intolerance and violence; with our own minorities living in fear; our hundreds of millions of fellow citizens in penury; and with few prospects for the innumerable youth of this nation in the face of all these increasingly intractable problems, the reflection is not sightly. Our true enemies are not external to us, not Pakistani terrorists or Bangladeshi migrants, but our own selves: our own lack of imagination, communication, cooperation and dedication towards achieving the India of our destiny and dreams.

Our Constitution, as the preamble so eloquently attests, was founded upon the fundamental values of the dignity of the individual and the unity of the nation, envisioned in relation to a radically egalitarian justice. These bedrock ideas, though perhaps especially pioneered by the likes of Jawaharlal Nehru, B.R. Ambedkar, M.K. Gandhi, Maulana Azad, Sardar Patel, Sarojini Naidu, Jaggivan Ram, R. Amrit Kaur, Rammanohar Lohia and others, had emerged as a broad consensus among the many founders of this nation, cutting across divergent social and political ideologies. Giving shape to that vision, the architects of modern India strived to ensure that each one of us is accorded equal opportunities to live with dignity and security, has equitable access to a better life, and is an equal partner in this nation's growth.

Yet, today we find these most basic constitutional principles under attack. Nearly all the public institutions that were originally created in order to fight against dominance and subservience are in the process of subversion, creating new hierarchies instead of dismantling them, generating inequities instead of ameliorating them. Government policy merely pays lip service to egalitarian considerations, while the actual administration of 'justice' and implementation of laws are in fact perpetuating precisely the opposite: illegality, criminality, corruption, bias, nepotism and injustice of every conceivable stripe. And the rapid rise of social intolerance and manifold exclusions (along the lines of gender, caste, religion, etc.) effectively whittle down and even sabotage an inclusive conception of citizenship, polity and nation.

In spite of these and all the other unmentioned but equally serious challenges posed at this moment, there are in fact new sites for sociopolitical assertion re-emerging. There are new calls arising for the reinstatement of the letter and spirit of our Constitution, not just *normatively* (where we battle things out ideologically) but also *practically* (the battle at the level

of policy articulation and implementation). These calls are not simply partisan, nor are they exclusionary or zero-sum. They witness the wide participation of youth, women, the historically disadvantaged in the process of finding a new voice, minorities, members of majority communities, and progressive individuals all joining hands in solidarity.

We at the Samruddha Bharat Foundation proudly count ourselves among them. The Foundation's very *raison d'être* has been to take serious cognizance of India's present and future challenges, and to rise to them. Over the past two years, we have constituted numerous working groups to critically rethink social, economic and political paradigms to encourage a transformative spirit in India's polity. Over 400 of India's foremost academics, activists, professionals and policymakers across party lines have constructively engaged in this process. We have organized and assembled inputs from *jan sunwais* (public hearings) and *jan manchs* (public platforms) that we conducted across several states, and discussed and debated these ideas with leaders of fourteen progressive political parties, in an effort to set benchmarks for a future common minimum programme. The overarching idea has been to try to breathe new life and spirit into the cold and self-serving logic of political and administrative processes, linking them to and informing them by grass-roots realities, fact-based research and social experience, and actionable social-scientific knowledge. And to do all of this with harmony and heart, with sincere emotion and national feeling.

In order to further disseminate these ideas, both to kick-start a national dialogue and to further build a consensus on them, we are bringing out this set of fourteen volumes highlighting innovative ideas that seek to deepen and further the promise of India. This is not an academic exercise; we do not merely spotlight structural problems, but also propose disruptive solutions to each of the pressing challenges that we collectively face. All the

essays, though authored by top academics, technocrats, activists, intellectuals and so on, have been written purposively to be accessible to a general audience, whose creative imagination we aim to spark and whose critical feedback we intend to harness, leveraging it to further our common goals.

The inaugural volume has been specifically dedicated to our norms, to serve as a fresh reminder of our shared and shareable overlapping values and principles, collective heritage and resources. Titled *Vision for a Nation: Paths and Perspectives*, it champions a plural, inclusive, just, equitable and prosperous India, and is committed to individual dignity, which is the foundation of the unity and vibrancy of the nation.

The thirteen volumes that follow turn from the normative to the concrete. From addressing the problems faced by diverse communities—Adivasis, Dalit-Bahujans, Other Backward Classes (OBCs)—as well as women and minorities, to articulating the challenges that we face with respect to jobs and unemployment, urbanization, healthcare and a rigged economy, to scrutinizing our higher education system or institutions more broadly, each volume details some ten specific policy solutions promising to systemically treat the issue(s), transforming the problem at a lasting *structural* level, not just a superficial one. These innovative and disruptive policy solutions flow from the authors' research, knowledge and experience, but they are especially characterized by their unflinching commitment to our collective normative understanding of who we can and ought to be.

What the individual volumes aim to offer, then, are navigable road maps for how we may begin to overcome the many specific challenges that we face, guiding us towards new ways of working cooperatively to rise above our differences, heal the wounds in our communities, recalibrate our modes of governance, and revitalize our institutions. Cumulatively,

however, they achieve something of even greater synergy, greater import: they reconstruct that India of our imagination, of our aspirations, the India reflected in the constitutional preamble that we all surely want to be a part of.

Let us put aside that depiction of a mirror with an enemy staring back at us. Instead, together, we help to construct a whole new set of images. One where you may look at your nation and see your individual identity and dignity reflected in it, and when you look within your individual self, you may find the pride of your nation residing there.

*Aakash Singh Rathore, Mridula Mukherjee, Pushparaj Deshpande
and Syeda Hameed*







Introduction

Human Development: An Analytical Framework and the Agenda for Jobs

Santosh Mehrotra



India has a jobs crisis. More young people in absolute numbers are joining the labour force looking for work, but the proportion of those finding work is lesser than before. The working-age population is increasing, as a share of the total population—the so-called demographic dividend—but less people are looking for work. As a result, the labour force participation rate (LFPR) is falling, both for men and women. This suggests an increasing number of youth are turning into discouraged workers, in the sense that an unsuccessful search for work is leading to many more ‘dropping out’ of the search. This situation prevails on top of a historically unprecedented open unemployment rate, which rose from 2.2 per cent to 6.1 per cent over six years (2012–18). The open unemployment rate of youth (fifteen- to twenty-nine-year-olds) went from 6.1 per cent to 17.8 per cent in the same period. This is nothing

short of a crisis for India's current and future GDP growth, which seriously risks its demographic dividend. This, and what to do about it, is the subject of this book.

The demographic dividend is called such for the following reason. As young people reach working age, agriculture—which is already suffering from 'unlimited supplies of labour'—sheds workers to be absorbed in industry and services. These latter economic sectors have higher productivity and income than agriculture.¹ These higher incomes generate growing savings across the economy, which are then available for investment. At the macroeconomic level, this process has profound long-run implications. As the share of both savings and investments in total income rises, a virtuous cycle of growth is triggered, which will last—all other things remaining equal—till there are no new youth entering the labour force. In fact, this period of the demographic dividend ends as the number of young entrants starts falling because the fertility rate among women of reproductive age is falling at the same time that incomes are rising with growth. Some years after the fertility rate falls below the replacement rate of 2.1 children per couple, the total population and the working-age share of the population will begin to fall, and the society will become an ageing society, with the share of dependants in the total population rising. As a result, India risks becoming old without becoming rich (the opposite of what happened in Europe and other rich countries).

There are two observations that are critical to understanding the conjuncture that India has reached. The demographic dividend comes but once in the life of a nation, and it is finite in its duration. It started for India in the early 1980s; it will end by 2040. If we do not realize all the advantages that come with a demographic dividend during the sixty years it is there, the opportunity will be lost forever. Only twenty years remain. Most policymakers in India, especially political leaders,

are oblivious to this fact. Their time horizon is five years, the period for which they are elected, after which they face political oblivion unless re-elected.

The second point of immense importance is that China has managed to ride the wave of its thirty-year demographic dividend period through adroit and strategic planning, thereby sustaining GDP growth of 9–10 per cent per annum over its duration. By 2015, its demographic dividend period had ended, and China is already being regarded, like Japan and all other Organisation for Economic Cooperation and Development (OECD) countries, as an ageing society. In fact, Chinese leaders have been complaining since 2015 that ‘Europe became old after they became rich; we have become old without becoming rich’. This complaint might seem surprising given that while China began at the same level of per capita income as India in 1979 (the year its economic reforms began), its per capita income is now over four times that of India’s. The country’s sustained growth, while riding the wave of its demographic dividend, has reduced poverty in the country to a level and at a speed that is unprecedented in human history.

Given that India will eventually have a larger population than China, and the fact that it accounts for the largest number of income-poor as well as capability-deprived people in the world, there is a warning here for policymakers: if India is unable to achieve an almost similar feat as China over the next twenty years, it should expect to be living with hundreds of millions of poor and undernourished citizens (35 per cent of children under the age of five and 20 per cent of adults in 2016) and illiterate persons (311 million as per Census 2011) for decades to come, perhaps even centuries. After 2040, India too will become an ageing society (defined as one in which the share of those above working age exceeds 10 per cent) while remaining quite poor.

That prospect is quite frightening. According to World Health Organization (WHO) data published in 2018, life expectancy in India is 67.4 years for males and 70.3 years for females, while the total life expectancy is 68.8 years. This gives India a World Life Expectancy ranking of 125. In twenty years, life expectancy will rise further. So India will have an ageing society that is living longer, which will require far greater spending on health services for the elderly than there is at the moment. But India's governments (central and state) spend barely 1.15 per cent of GDP on health, way too little even by the standards of countries at our level of income. To make matters worse, only 10 per cent of India's total workforce and 15 per cent of its non-agricultural workforce has social insurance (old-age pension, death/disability insurance and maternity benefits). In other words, if India fails to ensure social security for the 90 per cent of the workforce that is without social insurance, this 90 per cent will be consigned to a life of deprivation, perhaps even poverty, in terms of sheer physical needs. Their emotional dependence on their children will be more demeaning, as the nuclearization of Indian households even in rural areas has put many poor elderly at risk of pauperization and destitution. They will forever be deprived of a life of dignity and decency. Having worked through their lives in the informal sector, without what the International Labour Organization (ILO) would describe as 'decent work', they would henceforth be condemned to lifelong penury and dependence upon offspring; in other words, a life of indecent retirement. They might even have to work well beyond what their ageing bodies allow for mere survival.

That is why this essay will try to draw upon a conceptual model (about which we have written elsewhere)² to analyse why India is failing both its young as well as its elderly—what we have called a 'dual synergies' model. The first part of this introduction spells out the analytical framework of dual synergies, and then

uses it to understand the state of the Indian economy and its level of human development. In the second part, the prerequisites for sustained job creation in India are summarized: the policies needed to revive GDP growth in an economy which has seen a 'great slowdown' from being the fastest-growing large economy in the world. Also summarized are the measures needed to rapidly upgrade the human capabilities of a country that is destined shortly to have the largest population in the world. In the final part of this essay, I sum up the specific actions that the contributors to this volume recommend to revive jobs in a strategy for growth revival.

1. Dual Synergies Model

The conceptual foundation of the book is based on a dual synergies model. This model is meant to be both an analytical tool for understanding a country's development, but also its failures, and hence identifying the policy instruments to focus on. Turning to the first synergy, it has long been known that separate interventions in health, nutrition, water and sanitation, fertility control and education complement each other, and thus increase the impact of any one from interventions in any other (or feedback loops) (see Figure 1). But we identified another set of synergies (of which the first set is a subset). This was between health and education status, income poverty reduction and economic growth (see Figure 2). In recent years, there has been a spate of literature showing the links from lower inequality to higher growth. We focused on income poverty reduction rather than income inequality reduction since the latter may or may not always lead to the former. In fact, it is striking that two of the largest economies in the world, China and India (the second and third largest in purchasing power parity terms), have seen a sharp decline in the numbers of their poor (not just

the incidence of poverty) even while inequality (of wealth and income) has increased over the past decade.³

This synergy (between poverty reduction, economic growth and enhanced human capital) can be succinctly expressed as the enhanced impact the rate of change of an independent variable has on the rate of change of a dependent variable, given the presence of a third variable. This leads to two interrelated implications. First, the impact of one policy (for instance, to promote economic growth) on another policy (say income poverty reduction) crucially depends on the level of a third variable (like expansion of functionings or human capital). In other words, economic growth will be more successful in reducing income poverty, that is, the elasticity of poverty reduction will be higher if human capital is more equitably distributed. Second, the standard tools of marginal analysis, rates of return and linear regressions are inadequate to establish the importance, relative weight or priority of these interventions because the presence of these synergies (or feedback loops) creates non-linearities. For instance, trade liberalization in the context of low levels of human capital will have a very different impact than the same policy (other elements being equal) in a situation where citizens are healthy and highly trained (Figure 1).

Dual Synergies Model: An Application to India

The Growth–Poverty Reduction Synergy: Why So Weak in India?

We suggest five answers to this question.

First, India's GDP growth has been volatile ever since 1950, which makes it similar to Latin America as opposed to most East Asian economies. In addition to its volatility, India's GDP growth experience until at least 1980 (the Hindu rate of growth

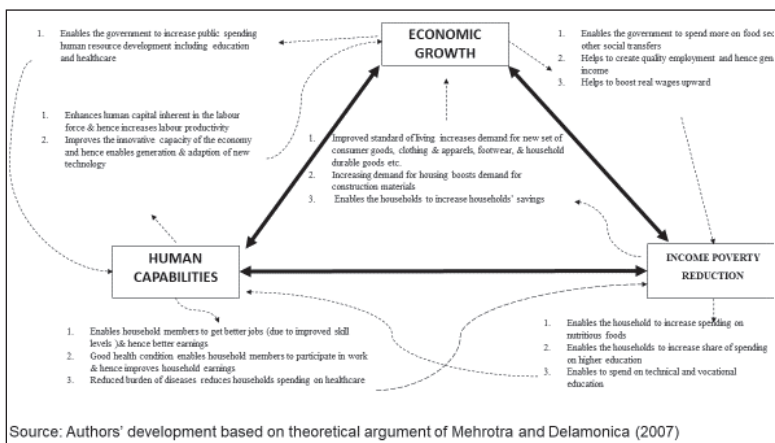
Figure 1: The First Synergy: Social Inputs and Human Development Outcomes

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					

Source: Mehrotra and Delamonica (2007)

- Example: Knowledge about importance of balanced diet helps to enhance nutritional status;
- Small family, particularly in poor household, enable them to consume better quality food and consequently can achieve better nutrition
- Control of diarrhoea is very important to improve the capacity to absorb and retain caloric intake

Figure 2: Synergy 2—Growth, Human Capabilities and Poverty



of 3.5 per cent per annum) can only be regarded as anaemic, given its population growth rate (approx. 2.5 per cent per annum).

The combination of slow and volatile growth over half a century in the postcolonial epoch kept the poverty elasticity of India's growth very low up until the 1980s, and quite low, though better, in the 1990s until 2003. In strong contrast to East Asia, growth was so slow relative to the population growth rate, keeping per capita income increases crawling, that the absolute number of poor in India remained stagnant all the way between 1973 and 1994. Although the incidence of poverty was falling over this period (India has had consistent estimates of poverty based on the Lakdawala poverty line since 1973), the absolute numbers of poor remained stagnant at 300 million poor people over this entire period (Planning Commission, 2013).

Second, the pattern of this (slow and volatile) growth has been such that it did not generate non-agricultural jobs at the rate required for structural transformation to have occurred. In particular, this growth pattern was not characterized by the labour-intensive manufacturing strategy that in East Asia had generated not only sustained rapid growth but also jobs for those who wanted to leave agriculture as well as for young entrants into the labour force. Even in 2018, the share of agriculture in total employment was 44 per cent (or 15 percentage points higher than in China). In India, such manufacturing that emerged in the first fifteen years of planned import-substituting industrialization was highly capital-intensive, mainly confined to heavy industry. Industrial share of output and employment stagnated thereafter for a quarter century. The pick-up in manufacturing sector output after the economic reforms of 1991 became increasingly more capital-intensive as it was import-intensive. It was also led by relatively larger corporate manufacturers while most manufacturing jobs (as opposed to output) were being

generated by low-productivity, low-technology and small-scale unorganized sector enterprises.⁴

What could have supported manufacturing was greater investment in hard infrastructure. However, the limited investment in this regard raised the logistics cost of manufacturing in India, keeping both foreign and domestic private investment in manufacturing low. The low levels of human capital of the workforce did not help (a subject we will return to shortly). By contrast, East Asian countries invested in human capital early in their development process. They also adopted an industrial strategy (and policies to back it) which enabled them to absorb labour at a far greater pace than India. In this regard, the Latin American experience of relying upon extractive industries rather than manufacturing, which led to similar results, is not dissimilar to India's.⁵

One labour-intensive non-agricultural sector that can absorb poorly skilled labour is construction, which has proved very successful in absorbing surplus labour in China and East Asia. In India, till 1999, only 17 million of India's 389 million workforce⁶ (or merely 5 per cent) was employed in construction, which consists of low-skilled jobs. Slow construction growth meant the potential for poorly educated landless labour in agriculture to make the transition to non-agricultural livelihoods was closed off. However, as infrastructure investment grew from the early 2000s, construction jobs grew to 26 million in 2004–05 before shooting up to 51 million by 2011–12, constituting 12 per cent of the workforce in infrastructure-starved India. Limited growth in construction jobs up until 2004 had the effect of reducing the poverty elasticity of growth. However, after 2004–05, till 2011–12, as construction job growth shot up, the poverty elasticity of growth improved so sharply that for the first time in India's post-Independence history, the absolute number of poor (by the Tendulkar poverty line, which is at a higher level of income

than the Lakdawala one) fell very sharply: from 406 million to 268 million between 2004–05 and 2011–12. Construction job growth collapsed again after 2012. Thus, the pattern of growth has diminished the poverty elasticity of growth (just as the pace of growth has kept this elasticity low).

The third reason the poverty elasticity of India's growth has been compromised is that India has historically been a highly closed economy (not taking advantage of trade opportunities); exports were barely 11 per cent of GDP in 1991. So, in contrast to East Asian economies, which had over this period captured global manufacturing markets, leading to Asia emerging as the 'Factory of the World', India found itself excluded from these opportunities. However, India became a much more open economy from 1991 as tariffs were rapidly reduced, and it also joined free trade agreements after 2002 (see Chapter 1). Its exports rose as a result. But the rising exports occurred on the back of rising import intensity of production, with the result that the post-2008 collapse of the global economy exposed the vulnerabilities of India's exports. Nevertheless, its exports picked up, rising both for merchandise goods as well as services. However, a renewed global slowdown along with policy errors after 2014 led to a sharp fall in merchandise exports, while services exports were unable to offset the fall. The result was that the exports to GDP ratio fell from 25 per cent in 2013–14 to 17 per cent in 2017–18. This reduced both growth as well as jobs. Jobs in manufacturing actually fell in absolute terms between 2012 and 2018, something that had never happened before. Exports were sustaining job growth, especially in the unorganized sector, and the uneven exports growth of merchandise constrained the poverty elasticity of India's growth. About one-third of India's total exports are probably services, but services (especially high-tech services like IT) are not particularly labour-intensive.

Fourth, the poverty elasticity of growth has continued to be compromised severely by very high informality among enterprises as well as the workforce. Of all non-agricultural enterprises in India, 99.3 per cent are in the unorganized sector (those employing less than ten workers). Of all workers outside agriculture, 84 per cent are informal, in the sense of lacking any social insurance. While the share of regular wage work in non-agriculture employment has grown slowly (to 40 per cent), even in 2018, 60 per cent of non-agriculture workers were either self-employed (35.5 per cent) or casual wage workers (24.5 per cent). Formal workers as a share of all workers in the economy (both agricultural and non-agricultural) grew between 2012 and 2018 from 7 to 10 per cent, but this increase seems clearly like a drop in the ocean of informality. Informal enterprises in non-agriculture sectors are caught in small-scale production, using low technology, and hence have low productivity. This form of enterprise is rarely able to grow up the value-chain ladder or create decent work.

Finally, the poverty elasticity of growth in India has been compromised by the continued high dependence of employment upon agriculture. The absolute number of workers in agriculture was actually still rising till 2004, although the share of the total and rural workforce still dependent upon agriculture was falling. With 44 per cent of the workforce in 2018 producing 14 per cent of India's GDP, productivity is extremely low, and rural distress high. To make matters worse, rarely in India's post-Independence history has the growth rate of agricultural income ever exceeded 3.2 per cent in any decade. Over 2009 to 2014, the agricultural growth rate had broken that barrier, rising above 4 per cent per annum. It declined again thereafter.

All in all, if poverty remains so entrenched even seventy years after Independence, one can see why: the elasticity of poverty reduction to growth has remained low despite the sudden improvement between 2004–05 and 2011–12.

Growth and Its Interaction with Human Capability Formation

GDP growth in India picked up after 1947. In the colonial period, it was practically zero. India inherited an 18.3 per cent literacy rate from the British colonizers; at the same time, there was no public health system worth its name. Not surprisingly, life expectancy at birth was thirty-two years. The GDP growth rate rose after 1947, and maintained an average of 3.5 per cent per annum over 1950 to 1980. However, over the same three decades, the population growth rate increased from under 1 per cent per annum over 1901–51 to 1.96 per cent per annum (1951–61), 2.0 per cent per annum (1961–71) and 2.2 per cent per annum (1971–81). The high population growth rate had the effect of keeping the per capita income at a low level, and it remained tepid. With poor initial conditions in health and education (and low savings in a closed economy), it was not so surprising that GDP growth was slow, even if it was better than what had prevailed over the colonial period.

One of the biggest roadblocks in reducing the population growth rate (despite it being a goal of government policy since 1952, when the first family planning programme was launched) was the limited investment in basic health and elementary education by the government for nearly forty years. This was an outcome (only) partly of the slow GDP growth over the first three decades of planned development. The limited investment in school education left millions of children of a rapidly growing population out of school, especially girls, who could only work in agriculture or low-quality service sector positions. It also left millions without adequate healthcare, so that there emerged a reliance upon limited traditional medical providers and led to the growth of local quacks in both rural and urban India—all in the private sector, thus raising out-of-pocket costs. This undermined the health and nutritional

status of the labour force—which had negative consequences for growth.

It was not just that slow growth reduced the capacity of the state to spend on health and education. There were negative consequences of the relative policy neglect of basic social services on growth. The neglect of school education showed itself in the slow climb of the literacy rate to barely 43.6 per cent in 1981 (according to Census 1981)—just over 10 percentage points over three decades of development; in other words, three-fifths of the country consisted of illiterates when India's demographic dividend began. The infant mortality rate barely fell from 185 per 1000 live births in 1951 to 115 in 1981 (according to Census 1981) over the same three decades. The result in terms of investment and growth was twofold: one, India could not attract much foreign direct investment (not that India's policymakers were making much effort in that direction either) since foreign investors did not find the educated youth that could be employed in manufacturing for the world; and two, India's own investment since the second Plan remained in the capital-intensive spheres of economic activity. Both affected the pace and pattern of GDP growth and job growth adversely.

However, the southern states of India, particularly Kerala, Tamil Nadu and Karnataka, and then Andhra Pradesh, invested early in their development process in health infrastructure as well as schooling—with the result that they raced ahead of north Indian states in terms of social indicators. They were also able to attract much greater private domestic investment in industry and modern services (especially the IT infrastructure that made Bangalore, Chennai and Hyderabad its hubs in India). They grew faster than the rest of India, which improved social outcome indicators, which in turn attracted greater investment. Post-1980, the southern and northern divergence tended to widen further as India entered the sweet period of its demographic dividend. The

southern states managed to reduce population growth rates early; the total fertility rate (TFR) in 1992 in Kerala was 2, in Karnataka 2.8, Andhra Pradesh 2.6 and Tamil Nadu 2.5. The synergy from human capital formation to growth worked reasonably well in the southern states. The opposite seemed to be true in the northern and eastern states.

Negative Feedback Loop between High Poverty and Poor Human Capital

There were three mechanisms through which this negative feedback loop worked in India. First, poor public investments in health and school education (as opposed to higher education) for at least four decades after Independence, combined with a pattern of growth that did not absorb unskilled labour into construction or labour-intensive manufacturing, led to a mass of illiterate people who were too poor to buy health or school education. But the privileged status of higher education (especially engineering, management and law) led to a labour force that could be pulled into modern services. It is remarkable that engineers from India's best institutions gravitated towards financial services and then increasingly information-and-communication-technologies-based employment. Such employment growth in modern services has a low elasticity of poverty reduction. However, the majority of the population—with low levels of education—could not possibly be employed in such activities and hence was confined to either agriculture or traditional services (like domestic personal services, trade or transport in the form of casual employment or just self-employment as own-account workers); thus, they continued to be entrenched in poverty—a classic low-level equilibrium trap between high poverty and low human capital.

Meanwhile, modern services required limited hard infrastructure investments, and hence created few formal sector

jobs, keeping the rest of the population trapped in agriculture. This was the pattern of growth that had been sustained for nearly half a century after Independence.

However, starting from the 1990s, investment increased in both school education and basic health (in the noughties of the new century) through the National Rural Health Mission. However, by the time this public health investment picked up pace, the private sector, especially the corporate private sector, had entrenched itself in the provision of curative health services. Three-fourths of all health expenditure in India remained out-of-pocket, with a similar proportion of outpatient and inpatient treatments occurring in the private sector. The result was that after dowry expenses on a daughter's marriage, catastrophic health expenditures were a prominent reason for families being pushed into poverty.

Meanwhile, the massification of school education, which began roughly a quarter century ago and gathered momentum with the massification of tertiary education in the last fifteen years, created a new paradox. After 2012, the economy's growth rate slowed, and the employment elasticity of growth, which had been declining, fell even further. Just as the number of educated youth entering the labour force began to increase, after 2012, non-agricultural job growth fell sharply. Open unemployment increased (a subject we return to in Chapter 1 and also in the remaining essays of this volume), which resulted in poverty actually increasing (as suggested by the National Sample Survey Organization's consumption expenditure survey of 2017–18). The poverty-reducing potential of GDP growth for this better educated and somewhat healthier workforce was reduced by massification of education without quality. With learning levels low and vocational education still limited in access, the relevance of education has been compromised; the education system is producing unemployable persons. Youth

unemployment rose sharply, from 6 to 17.8 per cent between 2012 and 2018.⁷

Thus, what we have seen above is that there are deep structural issues in the Indian economy that need to be resolved if India is to sustain growth and reduce poverty while improving human capabilities. The challenge for any government is to achieve these goals simultaneously within the span of the next two decades because by 2040 the demographic dividend—the once-in-a-lifetime opportunity in the life of a nation—will be over. Every political party’s leadership, whether dominant in only one state, multiple states or the Union level, should keep this fact in mind.

2. The Policy Conundrums Requiring Resolution

The analytical framework in the first part of this introduction enabled us to identify the structural weaknesses in India’s economy that disallow it from sustaining GDP growth, which is a prerequisite to poverty reduction. In the second part, we briefly summarize the best proposals that are already in place for reviving growth. We then turn, again briefly, to the specific proposals that offer the potential for putting human capability formation on a sustained path of synergetic improvement.

We will now turn to the conjunctural policy issues that must be resolved if economic growth, which has slowed since 2012, but taken a sharp slide since 2017, is to revive. Without the revival of the growth momentum in the economy in the short to medium term, the twenty-year agenda that we have spelt out for jobs in this book cannot be realized. There is no better summary of the nature of the crisis of the Indian economy in 2020 than the following one by former chief economic adviser Arvind Subramanian and Josh Felman, former head of the International Monetary Fund’s India office:

In the immediate aftermath of the Global Financial Crisis (GFC), two key drivers of growth decelerated. Export growth slowed sharply as world trade stagnated, while investment fell victim to a homegrown Balance Sheet crisis, which came in two waves. The first wave—the Twin Balance Sheet crisis, encompassing banks and infrastructure companies—arrived when the infrastructure projects started during India’s investment boom of the mid-2000s began to go sour. The economy nonetheless continued to grow, despite temporary, adverse demonetization and GST [goods and services tax] shocks, propelled first by income gains from the large fall in international oil prices, then by government spending and a non-bank financial company (NBFC)-led credit boom. This credit boom financed unsustainable real estate inventory accumulation, inflating a bubble that finally burst in 2019. Consequently, consumption too has now sputtered, causing growth to collapse. As a result, India is now facing a Four Balance Sheet challenge—the original two sectors, plus NBFCs and real estate companies—and is trapped in an adverse interest growth dynamic, in which risk aversion is leading to high interest rates, depressing growth, and generating more risk aversion.

Subramanian and Felman add:

The traditional structural reform agenda—land and labour market measures—are important for the medium run but will not address the current problems. Addressing the Four Balance Sheet problem decisively will be critical to durably reviving growth. Raising agricultural productivity is also high priority. And even before that a Data Big Bang is needed to restore trust and enable better policy design.⁸

Subramanian and Felman go on to spell out the actions needed to revive the growth momentum. They propose several strategies to halt the current vicious economic spiral, the most critical one being to address the Four Balance Sheet challenge.

Policies need to act on the 5 Rs:

- Conducting a new Asset Quality Review to cover banks and NBFCs (Recognition)
- Making changes to the IBC to ensure that participants actually have incentives to solve the problem (Resolution)
- Create two executive-led public sector asset restructuring companies ('bad banks'), one each for the real estate and power sectors (Resolution)
- Strengthening oversight, especially of NBFCs (Regulation)
- Linking recapitalization to resolution (Recapitalization)
- Shrinking public sector banking (Reform) There is, of course, a reason why these policies have not been implemented before. They are politically difficult, and other, easier alternatives have seemed more attractive. But the government currently has a tremendous amount of political capital.

Having addressed the challenges as well as actions to revive growth, let us turn to the actions needed to improve the state of human capital—so that our workers can take advantage of the opportunities created by economic growth. We noted above that the most significant impact on human capability formation is that of education (see Figure 1, the first synergy). However, in India the quality of school education, and correspondingly higher education, has been very poor. Most students complete primary education, in which net enrolment reached 97 per cent in 2007, but they are less than fully numerate or literate. Worse still, vocational education is still not accessible, nor is it

of high quality. Hence, the majority of youth enters the labour market with poor education and even poorer skills, and ends up with informal work. Research has shown that within a school class, students are usually at very different levels of learning achievement, and this inequality increases as they move up the grades (in a system where promotion is automatic).⁹ This problem must be addressed.

If we want human capabilities of the youth population to improve so they can obtain formal jobs—assuming these are available and growing—our government will need to recruit part-time primary school teachers, who can even be trainees or high-school students, to focus on those children who are not learning.¹⁰ Secondly, we need to universalize quality pre-school by giving a second anganwadi worker to anganwadi centres. This will ensure that children coming from first-time learner households (with functionally illiterate parents) do not start with a disadvantage. This disadvantage is compounded if they are from poor households, since they are likely to have a history of malnutrition which compromises their learning ability (35 per cent of under-fives are under-nourished, according to the National Family Health Survey 2016).¹¹ Finally, it is critical that teacher training, both pre- and in-service, incorporates significant elements of practical teaching, which is guided. This is currently not the normal practice, which undermines the ability of teachers to handle students of varying abilities and impairs the learning process for children.

In the first part, we identified serious problems in public health outcomes, and by that logic the public health system in India—this has undermined the first as well as second synergy in India's development process. There are many good reports by central and state governments to address the problems of the public health system.¹² There are stark differences in the state of public health between the southern states of India and most northern ones. This is the result of three differences. First, while

India's governments together spend only 1.15 per cent of GDP on health services, the per capita expenditures are much higher in the southern states. Second, there are serious shortages of infrastructure relative to needs and norms in India, but they are much worse in the northern than the southern states. Third, there are worse shortages of human resources in the northern states, which are compounded by the fact that doctors and nurses tend to be concentrated in urban areas. To fill these gaps, there is no alternative to increasing public spending, especially at the state level.

However, action in the public health system will not suffice in the absence of a stronger frontal attack on malnutrition and poor sanitation. India still has worse child malnutrition rates (with 35 per cent of under-fives undernourished,¹³ and children who are stunted at 38 per cent of all under-fives) than sub-Saharan Africa (SSA), and much worse sanitation than SSA, despite significant improvements in the last five years.

Finally, as a direct attack on poverty (and to trigger the synergy between poverty reduction and human capital formation), it is critical that social insurance for 90 per cent of the workforce that is without any social insurance is progressively provided old-age pension, death and disability insurance and maternity benefits. We discuss this subject briefly in Chapter 1 of this volume. It is not merely a question of sufficient non-agriculture jobs being created for new entrants to the labour force; there is little prospect of 'decent work' being achieved and the synergy between poverty reduction and economic growth being triggered in full force without the scale of such informality being reduced.

To sum up, the revival of jobs in India as we step into the third decade of the century will be dependent upon triggering these multiple mutually reinforcing effects between a jobs-intensive pattern of economic growth, greater recognition of human capital constraints upon growth, and direct attacks on

poverty. We now turn specifically to what our authors say is the way to ensure a more employment-intensive pattern of growth.

3. Summarizing the Employment Policy Agenda

This volume of the Rethinking India series has three parts. In Part I, the contributors discuss a broader macro-level policy agenda that could contribute economy-wide to job growth: industrial strategy; government trade policy successes and failures; and the labour market challenges facing organized sector firms posed by a legacy of overly complicated and numerous labour laws which hardly provide any coverage to unorganized sector workers who dominate the workforce. In Part II, the authors spell out a more meso-level agenda: promoting formal small and medium enterprises (SMEs), without ignoring small-scale employment in micro enterprises that are mostly informal and unregistered; promoting new forms of mass entrepreneurship; encouraging rural industrialization; and finally, supporting artisanal clusters that are spread across the economy. Finally, in Part III, we focus on jobs in two neglected sectors: in the growing renewable energy sector and in urban areas through an urban employment guarantee. In addition, we focus on policies that can create work for two of the most vulnerable groups in our labour market: women and Scheduled Castes and Tribes.

In ‘Industrial Strategy with Employment Policy for Job Creation’, Mehrotra explains the nature of the jobs crisis in India and argues that economic slowdown is structural. But in the main, the essay notes that India has not increased the share of manufacturing in either output or employment in nearly three decades since economic reforms began in 1991, and argues that if the pace of job creation in the non-agricultural sector is to be hastened, the country needs an industrial strategy. It spells out the five components of a manufacturing strategy that will

generate new jobs: (a) an explicit horizontal (or cross-sectoral) manufacturing strategy (rather than a vertical or sectoral one that the present government seems to be following implicitly) which is aligned to trade policy rather than at cross-purposes with it (as has been the case since 1991); (b) policy packages for the five labour-intensive manufacturing sectors that generate most jobs in manufacturing; (c) cluster development programmes covering India's 5500 clusters across the country; (d) urban infrastructure development focused on mid-sized towns, especially those where manufacturing clusters are located; (e) skill development programmes that are focused on clusters where jobs are located. For all this to happen, the industrial policy should be supplemented with an explicit employment policy so that the employment implications of the industrial strategy are kept in mind.

In 'A Strategy for Job Creation', Mahajan et al. present a scenario where India can generate 70 million new jobs between 2019 and 2024. They argue that with enhanced economic stress among the lower economic strata, more women and NEET (not in education, employment or training) youth will be compelled to enter the workforce to supplement household incomes. Thus, the declining trend in the LFPR may be reversed. Therefore, to be conservative, they have assumed a compound annual growth rate (CAGR) of 1.67 per cent annual rate of growth for labour force for the 2019–24 period, about 15 per cent higher than the 2012–18 CAGR. Thus, the labour force of 482 million will grow by another 42 million persons in 2019–24. Taking stock of 29 million unemployed persons in 2018, a total of 71 million persons will need work between 2019 and 2024. In other words, Mahajan et al. estimate that India needs seven crore new jobs in the next five years.

Some sectors create much more employment with a given level of investment than others. Hence, they argue

that the sectors of employment opportunity are: regeneration of degraded natural resources like land, water and forests; construction, particularly lower-income housing and lower-end infrastructure; manufacturing in micro and small enterprises in clusters and small towns; services, which are labour-intensive. Mehrotra, in Chapter 1, had identified the same sub-sectors; Mahajan et al. go further and present estimates of how many jobs can be created in each of these sectors, and how.

In 'Facilitating Job Creation', Ajay Shankar examines the situation in the pre-economic reform period prior to 1991 and the policy framework. He then looks at the post-reform period and highlights the policy error in not doing away with small-scale reservation in manufacturing before trade liberalization. He demonstrates the state's policy success in IT, pharmaceuticals and autos, and argues that India needs similar sector-specific industrial policies for job creation. In addition to smart sectoral policies, he identifies other policies that are needed: (a) depreciating the exchange rate; (b) reform in labour laws; and (c) infrastructure to meet industry needs.

In 'Tackling Jobless Growth: Labour Policy and the Labour Code', S.C. Srivastava examines steps taken by the government to tackle the jobs crisis through reforms in labour law (including rules and regulations) and other administrative measures. The essay argues that the Code on Wages, 2019; Proposed Code on Occupational Safety, Health and Working Conditions Bill, 2019; and draft Code on Industrial Relations, Bill, 2015; and draft Code on Social Security with suitable amendments could potentially meet the demands and criticism of Indian employers as also foreign investors that labour law is a stumbling block in setting up industry and providing employment. Alterations are suggested in each code. The essay notes that a hasty merger of multiple legislation would not result in employment generation. Labour law should be

market-oriented and market-friendly to allow ease of doing business in India. It makes suggestions at a granular level for all four codes (one of which has already been passed by Parliament at the time of writing in December 2019).

In Part II, 'Self-Employment and SMEs', Anil Bhardwaj primarily focuses on two important economic actors in the Indian economy: the informal sector, comprising largely of self-employed people, and the formal segment of micro and small and medium enterprises (MSMEs). This essay delves into three sets of issues: governance and policies, access to credit and access to markets. The paper accordingly offers a set of pragmatic policy recommendations for each.

For the informal sector, the paper proposes three eminently doable reforms that could unburden self-employed persons and their establishments in urban areas immensely. Firstly, dual use of residential areas should be allowed to facilitate self-employed people to work from home for most activities (except perhaps a small negative list). Secondly, the electricity tariff should be uniform irrespective of its use, at least in residential areas (rather than being differentiated by whether a neighbourhood is residential or commercial). Thirdly, house tax for residential properties should not be charged at the rate of commercial properties merely because it is being used by a self-employed person to carry out legal economic activity.

For the more formal segment of enterprises, MSMEs, which are subjected to global competition, the challenges are graver. The government has to shed its role of being a 'conglomerate' and stop influencing markets directly and indirectly. Many steps that the government needs to take are likely to be unpopular, perhaps that is why past regimes have dithered so far. But the paper still reiterates them. Changing the course, like in 1991, could indeed unleash a new wave of entrepreneurship and create jobs in the formal and organized sector.

In 'Mass Entrepreneurship as a Solution to the Jobs Problem', Sandhya Thukaram and Madan Pataki make the case for facilitating mass entrepreneurship. They point out that China may be an economy dominated by government-run enterprises and tech firms like Tencent and Alibaba, but their true success is their ability to harness the power of mass entrepreneurship. More than 13 million enterprises were set up in China between 2014 and 2017, 95 per cent of which are in the private sector. In 2018, they have scaled greater heights, with over 18,000 businesses being set up every single day. The paper presents a model whereby mass entrepreneurship can be replicated, especially in three sectors: construction, hospitality and food processing.

Construction accounts for 11 per cent of India's GDP, and this proportion is growing rapidly. The industry is highly fragmented, with the largest companies accounting for only 20 per cent of the total market and half the firms being in the unorganized sector. This means there are lots of small firms. Moreover, a large number of youth are trained in construction programmes, which shows a lot of interest in them.

Hospitality is a sector with a lot of opportunities. Hotels and restaurants employed 7.8 million people in 2011–12 and 8.7 million people in 2017–18 (according to NSSO). It is highly fragmented as well, with the largest firms accounting for only 22 per cent of the industry. Crucially, demand outstrips supply in this industry by a factor of two. India needs 1.4 million hotel beds a night, but it has only 0.24 million. International tourist arrivals alone are expected to increase to 30.5 million by 2028. This vast and unmet demand in the hospitality industry presents a sustainable opportunity for mass entrepreneurs.

The last sector is food processing, which is expected to grow at 11 per cent and employs 6.4 million people (in 2011–12). The average number of workers per establishment is 4.2. This sector is conducive to high growth. Domestic and international

demand is set to rise much faster than the rest of the economy, and processed foods are fast becoming an important part of an Indian household's expenditure, currently comprising 31 per cent of the total.

Hence, India must focus on these mass entrepreneurs or MSMEs to provide jobs to the population.

In 'Rural Industrialization in India: Some Policy Perspectives', Sarthi Acharya puts forward policy proposals for job creation through rural industrialization. The growth in the number of rural non-farm enterprises (RNFEs) over 2005–14 has been estimated at about 39.9 per cent or about 4.3 per cent annually by a simple average. However, the growth in employment in these enterprises was only 34.4 per cent through 2005–14, which is less than the growth in enterprises. There are several possible reasons for this phenomenon:

- The size of these enterprises is falling.
- The enterprises are using lesser labour.
- Many enterprises are seasonal (like expelling oilseeds or sugarcane), and employment in these is undercounted.

All these could be simultaneously true.

The district industry centres (DICs) were earlier set up to provide services and support facilities to entrepreneurs for setting up MSMEs, including identification of suitable schemes, preparation of feasibility reports, arrangements for credit facilities, etc. Today, their activities do not go beyond registration and some regulation. The National Productivity Council (with centres in most states), the National Research and Development Corporation and the Small Industry Service Institutes too provide little real support. Moreover, there are presently no product development/R&D facilities for the kind

of activities that the rural non-farm sector (RNFS) undertakes or could undertake. Support to rural industrialization will require the revival of these institutions on a demand-led basis. The demand would have to come from industry associations.

New business service centres, armed with technical and business information, can be junctions for the transfer of technology. This is a new concept for rural Indian conditions, and the modus operandi would have to be devised according to the extant local conditions.

There is a lot to learn from other countries as well. Rural enterprises in Vietnam, Cambodia and Thailand employ well over a few thousand workers compared to the millions of household enterprises so common in India. In East and South East Asia, efforts have been made to improve rural infrastructure and human capital, which integrated rural industries with the overall industrialization processes, larger markets and exports. Systematic examination is needed by Indian researchers to glean lessons for policy in India.

In 'Promoting Artisanal Clusters', Tamal Sarkar et al. identify challenges and formulate policy suggestions for promoting artisanal enterprises in clusters, covering mostly own-account enterprises (working with family labour only). Their proposals are as follows:

1. In order to strengthen the entrepreneurial status of nano enterprises, they should be identified as a special category of enterprises apart from the current definition of MSMEs. Special support must be provided to create 4000 joint enterprises of such nano artisanal enterprises for market promotion (and not necessarily for the creation of common facility centres [CFCs]) across the country. While the categorization should come through an amendment in the Micro, Small and Medium Enterprises Development

- (MSMED) Act, the creation of such joint enterprises may be promoted by the Ministry of MSME, Ministry of Textiles¹⁴ and Ministry of Rural Development.
2. Create degree and diploma courses in design by schools/ colleges/universities situated near clusters for cluster-based products. This issue needs to be addressed by the Ministry of Human Resource Development.
 3. Several schemes of creating CFCs are in operation. The current model is one cluster, one CFC. However, cluster firms are mostly spread out across geographies which are often not close enough for easy access to artisans. Hence, the schemes should allow the creation of one special purpose vehicle (SPV—a joint enterprise) and many CFCs under the ownership of the SPV in a cluster.
 4. Apart from provision of tools, there should be scope for training in the usage of new tools through scheme-based support.
 5. All schemes should be summarized and translated in all regional languages and be made available through mobile application-based software. The respective ministries can do it for their schemes.
 6. Banks should be allowed to give priority-sector lending to approved vendors for onward loaning to intermediary organizations, machinery and raw material suppliers. Banks should also be encouraged to go for bill discounting for small-value invoices.

In Part III, we focus on specific sectors and particular social groups that need special attention in terms of job creation.

In 'Boosting Women's Work Participation in India', Jeemol Unni provides suggestions for actionable ideas and recommendations to boost women's work participation, which has been falling consistently, especially after 2012. The double

burden of women's work has to be eased and safety assured in order for women to enter the workforce and remain in it. Some positive actions undertaken recently in this regard are highlighted in the chapter.

Further, the national minimum wage (NMW), if reasonably implemented, can be used as a method to force sharing with workers some of the benefits of productivity gains in a growing economy. This will help boost incomes and purchasing power among workers. Another concern of gender activists has been that the wages of jobs where women workers are predominant are either not included in the Schedule of Minimum Wages or are considered unskilled workers and hence have a lower minimum wage. While this is rather difficult to prove, the National Commission for Enterprises in the Unorganised Sector (NCEUS) adopted an approach of studying certain industry groups where women were employed in large proportions, such as the textiles, garments and medical industry. The minimum wages, if fixed, would either ignore the preparatory work of women or give a lower value to the manual skills of sewing and embroidery, even though the skill is gained through long years of experience. This is true of other trades such as agriculture where there would be no minimum wage fixed for weeding, which is predominantly done by women. The uniqueness of this recommendation is that it explicitly takes into consideration the gender dimension of the sexual division of labour and its implications for remuneration to women. This, together with the inclusion of homeworkers, again predominantly women, in the NMW are recommended.

In 'Missing Social Equity and Dalit Entrepreneurship', Arun Khobragade discusses the problems of Dalit entrepreneurship. The three Cs of community, credit and capital are key to creating businesses. For Dalit entrepreneurs, the community aspect transcends region, language and caste/sub-caste when it takes on

the mantle of Ambedkarism. Credit and capital are the critical components of financial inclusion and the key issue in regard to making financial inclusion a success is obtaining reliable data on the lending done till date to Dalits through the priority sector lending (PSL) tool of the Reserve Bank of India (RBI). PSL was started in 2012 to enable socio-economic inclusion. Banks have been mandated by the RBI to review PSL at the board level on a half-yearly basis, which captures the consolidated amount of lending to weaker sections. However, it does not capture data at the granular level for lending done to Dalits. Hence, we do not have any reliable data to know the extent of credit access for Dalits. The PSL policy doesn't specify any measures for the means and mechanism of credit flow to weaker sections.

The essay highlights four major issues in extending PSL to weaker sections of society, especially in commerce and industry: annual monitoring on the last Friday of March; last-mile connectivity; biases in lending; and standard procedures for assessing project capability.

When data can be captured for women as a category of weaker sections, the same can also be done for Dalits. Hence, the time has come to create a regulatory authority to oversee the programmes of financial inclusion in particular for the SC/ST category.

In 'Building the Workforce for India's Emerging Clean Energy Sector', Ghosh et al., drawing on primary surveys, outline the total employment generation potential of India's renewable energy targets and offer estimates for an emerging electric mobility sector. The chapter also explores the potential to add to this workforce via local manufacturing and greater synergies between clean energy and electric mobility.

The jobs potential is further segmented across the sectoral value chains, between jobs in utility-scale projects and in the distributed renewable energy (DRE) sector, as well as along gender dimensions. Then the chapter turns to challenges in

building this workforce. It also spells out practical solutions: commitment to energy transition in terms of a clear pipeline of projects; promoting distributed renewables; creating more local entrepreneurs and new business models, especially in rural areas; designing skills programmes that ensure more flexibility and transferability of skills; and investing in mobile training centres and IT to train the workforce in remote areas.

In ‘Strengthening Towns through Sustainable Employment’, Amit Basole et al. discuss strengthening towns through an urban employment guarantee. They note that centrally funded programmes like the Smart Cities Mission and the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) have disproportionately focused on the development of bigger cities. This chapter makes the case for re-focusing on urban areas beyond major cities. It proposes promoting sustainable urban employment thorough the passage of a National Urban Employment Guarantee Act, like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). It also proposes the creation of a Ministry of Employment which will be responsible for all matters related to employment generation, including the administration of MGNREGA.

An ambitious urban employment guarantee programme has the potential to transform the structure of the economy as well as contribute significantly to an improved quality of life for millions of people. Specifically, the following effects can be envisaged for the economy at large:

1. A multiplier effect resulting from reduced unemployment and underemployment, and increased incomes. This will boost demand in small towns and create conditions for successful entrepreneurship in a distributed fashion.
2. Increased productivity as well as improved quality of life due to better-functioning public goods and services

3. Increased employability and productivity in the private sector due to skilling
4. Rising informal sector incomes due to an effective wage floor
5. Reversal of ecological degradation.

I

MACRO STRATEGY



Industrial Strategy with Employment Policy for Job Creation

Santosh Mehrotra

Analyses of the Indian labour market have been characterized by the lack of recognition of one major fallacy or myth, two looming crises, and a silent tragedy resulting from unrealized expectations. The fallacy is that 12 million persons join the Indian labour force every year, looking for work. The number of entrants has fallen after 2004–05 to 2 million per annum until 2011–12 as more and more youth entered and remained in education. However, the number has increased to at least 5 million per annum since then, and is expected to only rise until 2030 at an increasing pace. Hence, the pace of non-agricultural job creation, which was a robust 7.5 million per annum over 1999–2000 to 2011–12, and fell to 2.9 million per annum over 2012–2018,¹ will simply not suffice. At this rate, not only will the new entrants not be absorbed in non-agricultural work but even those who wish to exit agriculture will not get non-agricultural jobs. That is exactly what has been happening, which is why the open unemployment rate has increased sharply (from 2.2 per cent to 6.1 per cent between 2012 and 2018).

The first of the two looming crises is that millions of people (especially poorly educated older adults) who constitute landless labour or small/marginal farmers who wish to leave agriculture behind in search of non-agricultural work are not finding enough work since 2011–12, as construction jobs have declined. This will deepen the rural distress. The second looming crisis is that youth are joining the age group of fourteen and above in growing numbers each year, with higher and higher levels of education, and are not finding non-agricultural work despite their aspiration being only for such work.

In addition to these two crises, the final concern, which is simmering and has not yet reached the ‘ready-to-boil-over’ stage, is the sub-group of youth which is getting better educated, that is, girls who have reached gender parity in secondary education, and hence aspire for non-agricultural work. All three categories (those leaving agriculture, youth, girls) have plenty of disheartened workers, which is the reason the LFPR has been falling overall.²

Nature of the Jobs Crisis Explained

Although growth is relatively high (though slowing for the last several quarters), it is the pattern of growth that is the problem. In the quarter century since economic reforms began, it is not manufacturing that has been the leading sector driving growth. The share of manufacturing in the GDP has remained the same since 1991 at 16 per cent; the share of manufacturing in employment has barely changed at all, from 10.5 per cent (1993) to 12.1 per cent (2017–18). Manufacturing should drive productivity in the whole economy. Services alone cannot generate either jobs or productivity growth in the economy, as by definition ‘service’ is the grease that enables distribution of produced goods (in either agriculture or industry).³ Modern services are indeed creating

regular jobs, but these require higher levels of education and skills, and poorly educated youth and adults (in agriculture) cannot be absorbed there. The latter can only be absorbed in construction jobs (which require sustained public investment in infrastructure and private investment in real estate) or they will end up in traditional services in low-quality jobs.

But as we note in Figure 1, non-agricultural job growth fell sharply to 2.9 million per annum post-2012, after growing rapidly at the rate of 7.5 million per annum, both between 1999–2000 and 2004–05, as well as 2004–05 and 2011–12. The high growth of non-agricultural jobs for twelve years over the period of India's fastest growth rate in history is reassuring; it suggests that India has done it before and can do it again. There is ground for optimism, provided we now adopt an employment policy that accompanies an industrial strategy.

Manufacturing jobs actually fell in absolute terms by 0.6 million per annum between 2012 and 2018, after growing in the preceding twelve years of this century (Figure 2). We discuss the reasons later in the essay. Similarly, construction job growth, on which depends the unskilled labour in rural areas that wants to exit agriculture, fell sharply to 0.6 million per annum, after growing at a robust 4 million per annum rate between 2004–05 and 2011–12 (Figure 3). It is only the services sector job growth that drove overall employment in India after 2012 (Figure 4). But, as we discuss later, only modern services requiring higher levels of education and skills have seen job growth. However, even the job growth in services was not sufficient to absorb those entering the labour force.

The result was that as the number of entrants to the labour force increased beyond 2 million per annum over 2004–05 to 2011–12 to at least 5 million per annum, there was a sharp spike in open unemployment rates: from 2.2 per cent in 2011–12 to 6.1 per cent in 2017–18—the highest in the forty-five years

since India started conducting national labour force surveys (Figure 5).

This rise in open unemployment, on top of a rate of informal employment of 90 per cent in 2017–18, shows that the situation has become more serious. Note that this open unemployment is happening at a time when the number and share in working age is increasing (the so-called demographic dividend) in the total population. The implication should be that those reaching working age should be looking for work, but the LFPR has been actually consistently falling. This fall implies that some youth, after reaching the working age of fifteen, are continuing in education (a good thing); this includes boys but especially girls (again a good thing). But educational enrolment alone cannot explain the full extent of the LFPR fall. It is the lack of non-agriculture jobs, as noted above, that underlies the fall in LFPR; these are discouraged potential workers who are not even looking for work.

However, millions of newly educated youth are also looking for work, but not finding it (Figure 6). The open unemployment rate of the educated has risen sharply between 2011–12 and 2017–18. They have either doubled or tripled in a matter of six years: for those with middle education from 4.5 per cent to 13.7 per cent; for those with secondary education from 5.9 per cent to 14.4 per cent; for those with higher secondary education from 10.8 per cent to 23.8 per cent. It is not as though tertiary education improves prospects: for graduates, the open unemployment rate rose from 19.2 per cent to 35.8 per cent; for postgraduates and above from 21.3 per cent to 36.2 per cent; and those with a technical degree from 18.5 per cent to 33 per cent. Notwithstanding the Skill India programme, those with formal vocational education found their unemployment rate rising from 18.5 per cent to 33 per cent. Overall, the youth (fifteen- to twenty-nine-year-olds) unemployment rate rose from 6.1 per cent to 17.8 per cent, almost triple.

Figure 1: Growth of non-farm jobs fell drastically recently after 2012. For twelve years, India demonstrated robust non-agriculture job growth. Ground for optimism: We have done it before!

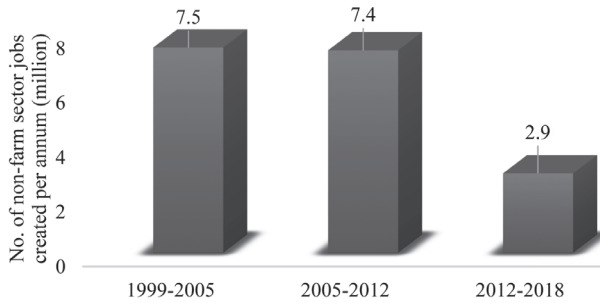


Figure 2: Manufacturing employment fell in absolute terms

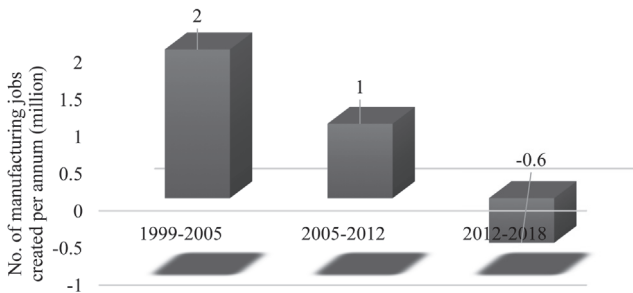
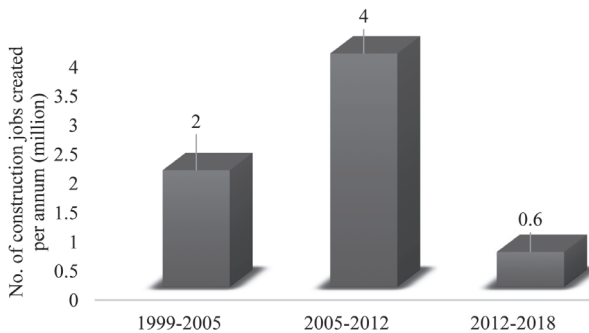


Figure 3: Growth of construction sector jobs slowed down after 2012 (annual). Investment in infrastructure is crucial, but investment/GDP fell from 38% (2008) to 29% (2017)



**Figure 4: Decelerating pace of structural transformation:
As fewer workers are leaving agriculture since 2012**

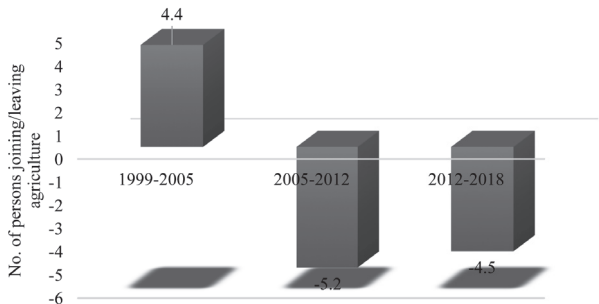
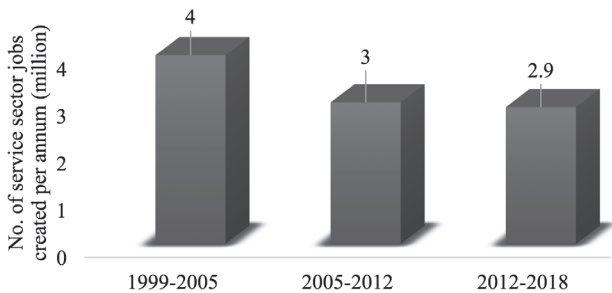


Figure 5: Growth of jobs in the service sectors (modern services) drives overall employment growth in India, though the share of unorganized sector and informal jobs (casual/contractual) is very high



**Figure 6: The educated unemployment rate (15+ years) is rising at a rapid rate and needs serious corrective measures.
Youth (15–29 years) Open Unemployment Rate (UPSS)**

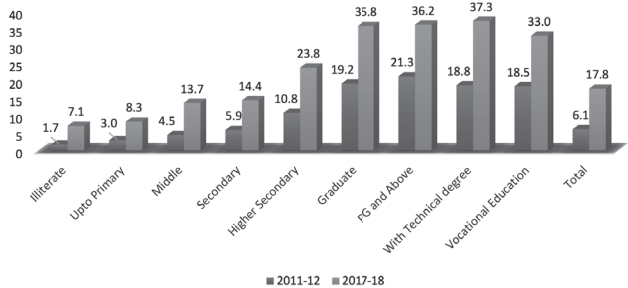
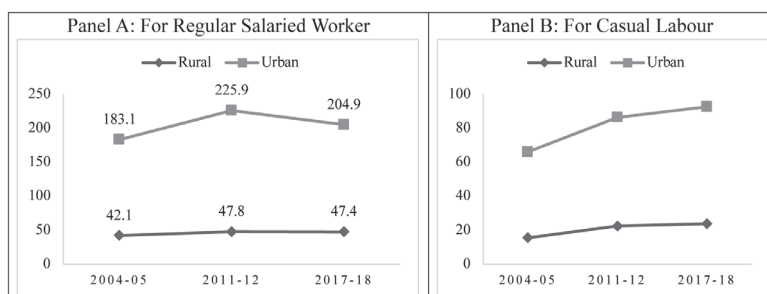


Figure 7: Although the nominal wage increased, real wage remained flat during 2012–18



Source: National Sample Survey Organisation surveys (various rounds)

Under the circumstances, if open unemployment was rising sharply, the real wages were stagnating between 2011–12 and 2017–18 (see Figure 7). This was the exact opposite of the situation prevailing between 2004–05 and 2011–12, when non-agricultural jobs were growing and real wage rates rising sharply for both casual workers as well as regular workers, in both rural and urban areas.

Economic Slowdown Is Mainly Structural in Nature

India's economy, after growing at 7.9 per cent per annum over 2004–14, saw a slight decline in growth rate thereafter. Since 2017, the slowdown has deepened, with official GDP projections for 2019–20 at 5 per cent, which will fall further in 2020–21, thanks to COVID-19. Is the economic slowdown a structural one or a cyclical one? Not many like to believe that this slowdown is structural.

To understand India's recent slowdown, let us start with the global growth trends before and after the global economic crisis (GEC) of 2008. Following a decade of high growth before GEC and a swift rebound after it, many emerging markets (EM) saw stubbornly slower growth since 2011, despite favourable terms

of trade as oil prices fell. India is no exception. We should have achieved faster growth as the favourable movement in oil prices and resulting burden of lower subsidies for the government could have been used effectively. On the domestic front, the fiscal stimulus put in place right after the Lehman collapse was withdrawn, which slowed growth. But the problems in India since the stimulus withdrawal have demonstrated structural issues—as we now show.

The real drivers of the GDP are private consumption, private investment, exports and government expenditure. Let us start with private consumption.

The surest indicator that this crisis is mainly structural is that real wages, both rural and urban, have been flat between 2012 and 2018 (the exact opposite of what was happening between 2004–05 and 2011–12)—primarily because non-agricultural job growth has been very low compared to the earlier period. Consequently, real wages for regular urban workers, which had risen from Rs 183 per day in 2004–05 to Rs 226 in 2011–12 (a 24 per cent increase), have actually fallen to Rs 205 (an 8.9 per cent decline) between 2012 and 2018. Rural regular wages, which had risen by 13 per cent, fell slightly. Urban casual wages in real terms, which had risen by 31 per cent earlier, rose only 7.1 per cent between 2012 and 2018. Rural casual wages had risen 44.5 per cent before 2012 but barely rose 6 per cent over 2012–18.

In other words, the slowdown in growth is a crisis of incomes, driven by non-agriculture jobs barely growing. While manufacturing jobs had risen by 11 per cent between 2004–05 and 2011–12, they fell by 5.7 per cent between 2012 and 2018. Similarly, construction jobs, which account for most of the jobs that rural migrants would take, rose by 96.5 per cent earlier compared to 8 per cent recently, while services jobs grew by 18.6 per cent versus 13.4 per cent.

With wages and income stagnant, people can maintain consumption only by cutting savings. So household savings

fell from 23.6 per cent (2011–12) to 17 per cent of the GDP (2011–12 series), that is, to levels prevailing in the early 1990s, a quarter century ago. Of this, financial savings as a share of GDP were 7.2 per cent, or at levels prevailing between 1990–97. Naturally, gross fixed capital formation, a second driver of GDP growth, is down to levels before 2004–05, when the dream run began; at 28 per cent, they are nearly 6 per cent below that in 2011–12. As income growth is lower, consumption is compressed or only maintained at the expense of savings. Despite private corporate savings having risen from 9.5 per cent in 2011–12 to 11.6 per cent of GDP (2017–18), there is no appetite (animal spirits) for investment growing faster.

Exports, a third driver of GDP, have failed to underpin growth. Merchandise exports were lower over 2014–18 than in 2013–14 in USD terms; as a share of GDP they fell from 17.2 per cent in 2013–14 to 11.6 per cent in 2017–18.

Can the fourth driver of aggregate demand—government expenditure—be expanded? There is a ‘silent fiscal crisis’, and the non-discretionary revenue spending and off-budget expenditures leave little elbow room for capital expenditure, certainly by the Centre (budgeted 2019–20 capital expenditure to GDP is 1.3 per cent as against 1.4 per cent in 2018–19). The Comptroller and Auditor General of India in 2019 found that the actual fiscal deficit is 5.76 per cent of the GDP for the Union government alone, not the 3.4 per cent claimed in the Budget for 2019–20. The fiscal consolidation will be abandoned, rightly, to pump prime the economy as post-COVID-19 the economic/jobs crisis will deepen. Thus, the public sector’s draft on financial savings will further crowd out private investment (if there was appetite for it in the first place).

India’s fiscal stance in the run-up to the GEC was procyclical, with large increases in appropriate compensatory

(for instance, MGNREGA, minimum support prices) and infrastructure expenditure, but tragically, even very large one-off farmer loan waivers in 2008 (announced before the GEC broke). But growth pre-GEC had been robust, so that fiscal space still existed to pump-prime the economy from late-2008 onwards. India's fiscal stimulus was large, its quality poor as it focused on revenue expenditure (the exact opposite of China); in 2013–14 the declared gross fiscal deficit was still 4.5 per cent of the GDP. In 2014, the government went into a fiscal consolidation overdrive to bring the deficit down to 3.4 per cent in 2018–19. Much government expenditure has been kept off-budget, so the 3.4 per cent deficit is misleading. Hence, there is still no fiscal space to use public investment to stimulate the economy now. This is one cyclical element in the current downturn.

The second cyclical element is the outcome of monetary policy. In the aftermath of the GEC, a former RBI deputy governor argued rightly that 'Indian monetary policy could have tilted unduly towards the "easy" side and could have prolonged the expansionary monetary policy cycle for a longer period than what would have warranted'.⁴ Together with the fiscal stimulus it brought inflation in its wake, and the RBI's inflation-targeting stance.

However, since November 2014, post the US Fed's 'taper tantrum', the real repo rate rose to plus 4 per cent from negative territory, and has remained at plus 2 per cent to 3 per cent in real terms since then. This is an important reason why inflation targeting is recognized to have had a negative impact on GDP growth rates (made worse by banks' refusal to transmit RBI's rate reductions to borrowers). However, overborrowing when the real interest was in negative territory post-2008 underlies the non-performing asset (NPA) crisis we live with. NPA overhang is the foundational reason for the continuation of low

borrowing; the non-banking financial companies (NBFCs) crisis (which had begun funding the real estate sector) exacerbated it, especially for MSMEs and real estate.

Actions: Short and Medium Run

To revive the flagging economy, some short-run actions are necessary. But these will be palliative, and ineffective on their own. On monetary policy, action is needed to reduce the repo rate. A real rate of borrowing of 2.5 per cent cannot be conducive to borrowing when animal spirits are weak and capacity utilization is running at 70 per cent to 75 per cent depending upon the industry. There is some recent increase in credit offtake, and hence sharp rate reductions are necessary. Second, banks will have to transmit rate reductions, requiring an institutional mechanism. Third, the rupee has to be allowed to depreciate slowly, since the rising real effective exchange rate has hurt exports.

On fiscal policy, given the limited fiscal space, the only possibilities of raising revenues are of the non-tax type: monetize government and public sector undertaking (PSU) land as rapidly as possible. Railways holds 10 million hectares surplus that can be either sold or leased out, generating revenues over a long time. Second, the goal of divesting government equity in public enterprises and in public sector banks (PSBs) will also generate resources for public infrastructure investment, which should crowd in private investment. It could also be partly used to recapitalize PSBs, to enable them to increase lending.

But monetary and fiscal policy measures alone cannot do the trick. A sustained growth path requires measures that fall within a medium-term strategy, including an industrial policy and other structural reforms, especially financial sector reform. India is

nowhere close to the middle-income trap that some economists have argued we are in.⁵ Post-COVID-19 recovery, India has the potential to grow at 7–8 per cent per annum, by ‘Making for India’, given latent unmet demand for manufactures, but this requires structural reforms.

So what can policymakers do to revive job growth (other than invest more in infrastructure)?⁶ The policies that are theoretically sound and empirically tried and tested (especially in East and South East Asia, but only partially in India) are the following. We discuss them in three parts: agrarian non-farm strategy; industrial policy; and new focus on modern service-sector jobs.⁷

1. Agrarian Strategy for Non-Farm Jobs in Rural Areas

India’s agrarian crisis is foundationally due to the fact that 44 per cent of India’s workforce produces only 15 per cent of India’s GDP (2017–18) which demonstrates very low productivity. What is required of the government is an agrarian strategy for non-farm jobs in rural areas. But India needs much faster productivity growth in agriculture if incomes are to grow, with poverty reduction to follow, and if demand for industrial products is to multiply.

We must note that in China agriculture proved to be four times more effective in reducing poverty than industry or services. But China ensured labour absorption by non-farm sectors: similarly, the solution to India’s agriculture problems lie outside agriculture. Workers should move out of agriculture because productivity and wages are higher in non-farm work; this will raise wages in rural areas, thus raising demand for non-agriculture goods and services, which is exactly what was happening between 2004–05 and 2011–12.

Agricultural growth will generate non-farm rural jobs: in construction; services for new non-crops (dairy, vegetables, fruits, eggs, poultry, fish); processing/storage of produce; supply chain (transport, logistics). That means the government has to have a well-defined agrarian strategy for farm and non-farm growth, which will generate off-farm jobs, but in rural areas.

2. Industrial Strategy

In addition, there is a crying need for an industrial strategy which has the following components. For twenty years after economic reforms began in 1991 there was no national manufacturing policy until 2011. And the policy, when it came in 2011, was not implemented. By the time the Twelfth Plan (with the first mention of industrial policy since 1991) became public, the United Progressive Alliance (UPA) government was unable to implement it.

Of course, an industrial strategy will need (a) much better infrastructure; (b) land acquisition by the government (on generous terms to landowners for agricultural land), rather than leaving it to private corporates; (c) labour law reform.⁸ However, other than these correlates, which will to some extent determine the success of the outcome, the first prerequisite is simply a set of policies that impact the productive capacity in industry directly. That is what we turn to in the following six points.

Industrial Policy Needed, with Trade Policy Aligned to It

After 1991, not only did tariffs come down too fast in the 1990s,⁹ but what damaged manufacturing were the inverted duty structures (IDS) since the early 2000s, when a number of free trade agreements were signed. Hence, it is essential that trade

policy is consistent with such an industrial policy. Otherwise the two may work at cross purposes and undermine each other's objectives; this is precisely what has happened over many years. Excessive imports have been decimating Indian manufacturing. An inverted duty structure has the following features: higher duty on intermediate goods compared to final finished goods with the latter often enjoying concessional customs duty. As a result, domestic manufacturers face high tariffs, leading to higher raw material cost at home, emanating from the unfavourable inverted duty structure. This has been pointed out by the Federation of Indian Chambers of Commerce & Industry (FICCI) way back twelve to fifteen years ago. IDS exists in aluminium, steel, chemicals, capital goods and electronics, which prevented many manufacturing sectors from growing since the economic reforms began. It resulted in Chinese imports submerging Indian manufacturing production. This must be corrected.

This means (a) reducing tariffs on inputs, intermediates and raw materials on products facing an inverted duty structure; (b) only slightly raising tariffs, not beyond World Trade Organization (WTO) upper bounds, on finished products whose imports are excessive; and (c) using anti-dumping measures against China, to which India exports \$13 billion, but from where imports are \$50 billion. It also means allowing the real effective exchange rate to weaken, as its strengthening (by over 20 per cent over 2014-18) has worsened exports and encouraged imports. Raising tariffs without offering complementary support for domestic manufacturers is tantamount to protectionism.

The automobiles sector in India faced no inverted duty structure, and has thrived: India is one of the largest producers of vehicles of several kinds in the world now. Electronics faced an inverted duty structure, but the finance minister has made changes, and slowly electronics manufacturing has grown. But

unfortunately, the share of Indian manufacturers in the Indian market for mobiles, after having risen sharply in the last five years, in 2019 again stands at less than 10 per cent. Component imports of even Indian-assembled mobiles account for a very high share of the total value of imports.

While our import policy has not encouraged Indian manufacturing, our exports of manufactures are mainly in relatively capital-intensive products, while labour-intensive manufacturing has been *losing* jobs (over 2012–18). So jobs are suffering on both counts.

Without an import tariff policy and an export strategy (that is, a trade policy) that is aligned to an industrial strategy, both capital-intensive and labour-intensive exports will not grow. China has been vacating many labour-intensive sectors in export-oriented manufacturing, but Vietnam, Bangladesh and Cambodia are capturing those spaces, not India. This requires a coherent industrial policy, aligned to trade policy, with a view to job creation. The Twelfth Five-Year Plan chapter on industry had attempted to do precisely that. The government should define and quickly implement such an industrial and trade policy.

The demographic group that will benefit from these policies will be mainly the increasingly better educated youth (both boys and girls).

Special Packages for Labour-Intensive Industries to Create Jobs

Manufacturing employment has remained stuck at levels well below that in Thailand, Malaysia, Vietnam and even Bangladesh. The fall in manufacturing employment between 2012 and 2018 was accounted for by five labour-intensive manufacturing sectors in India: food processing, leather and footwear, wood manufacturers and furniture, textiles and apparel and garments. These sectors contribute 50 per cent of total manufacturing employment.

The apparel and garments sector received a package from the Government of India in 2016; leather received a special policy package in 2018. The other labour-intensive sectors have been ignored. The nature of the package will need to be individually designed for each sector as quickly as possible.

The garments policy package effects were undermined by demonetization, so it did not result in the jobs that might have been hoped for. The leather sector jobs were destroyed (affecting not just Dalits and Muslims) by the zealous bans on cow trade (quite apart from adversely impacting our meat exports and hence jobs¹⁰). Therefore, each new job-generating manufacturing sector needs special new packages of policies aimed at sector revival if they are to generate jobs to meet both the growing domestic and export demand.

Nearly half of India's exports come from the unorganized sector, which were damaged by demonetization. So there has to be a concerted effort to reverse the effects of demonetization. An All India Manufacturers' Organisation survey over October–December 2018 found that MSMEs had lost jobs massively over the last four years. In 2014–15 if we assume that traders had 100 employees, by 2018–19 they were down to fifty-seven workers in 4.5 years; from 100 to sixty-eight among micro enterprises; from 100 to sixty-five in small enterprises; and from 100 to seventy-six in the medium segment. That is how severely they were impacted by demonetization and hurriedly implemented GST.

A 2017 ease of doing business study conducted jointly by NITI Aayog and IDFC Institute highlighted that labour-intensive firms, which are mostly small in scale and size, tended to feel constrained by labour-related regulations.

Most labour-intensive manufacturing is done by MSMEs, and the revival of these sectors is critical not only for jobs, but also exports. The unorganized sector accounts for between 30 per cent and 40 per cent of exports. The demographic groups

that will benefit from jobs by these policy packages for labour-intensive manufacture are youth and girls, and Scheduled Castes and minorities in particular.

Cluster Development to Support Job Creation in MSMEs

Three-fourths of non-agricultural employment in India is in the unorganized sector (defined as units that employ less than ten workers). Most unorganized sector employment is in MSMEs, which are concentrated in specific geographic locations. There are 1450 modern industry clusters in India and an additional 4500 traditional product clusters such as handloom, handicraft and other traditional single-product group clusters.¹¹ There are cluster development programmes (CDPs) of the Ministry of MSMEs and the textiles ministry, which are poorly funded and could be better designed as well.

But the total MSME annual budget for cluster development is less than Rs 1000 crore. Spread over 5500 clusters, that is quite inadequate for the successful transformation of MSMEs located in clusters.

Therefore, the following actions are needed: (a) converge the various CDPs of different ministries at the Union government level, and ensure the same happens at the state level, with reforms at the state level incentivized through financial resources; (b) increase the financial allocation to CDPs through a new holistically designed centrally sponsored scheme which focuses on (i) technology development; (ii) actual utilization of priority sector lending through industry associations at cluster level; (iii) market development and design support. This requires that the government's district industrial centres¹² become professional bodies, which must work in collaboration with cluster industry associations. These actions will enable clusters to grow and attract investments, and thus create jobs.

An improvement in cluster development policies will help youth and girls to get jobs.

Aligning Urban Development with Manufacturing Clusters to Create Jobs

Between 1973 and 2012, the share of manufacturing that is carried out in rural areas has grown from 25 per cent to 51 per cent of total manufacturing; accordingly, the number of jobs that are accounted for by rural areas in manufacturing has grown, and with it unorganized sector manufacturing has also risen.¹³ This means that these centres of manufacturing jobs need support in terms of infrastructure development.

The Ministry of Urban Development (MoUD) has a programme called AMRUT (Atal Mission for Rejuvenation and Urban Transformation), aimed at improving the infrastructure of small towns. Public infrastructure investment always creates many jobs, by inducing new job creation in new firms and existing firms that are enabled to grow. But the MoUD does not take into account whether the infrastructure investment under this programme is taking place in towns which have clusters of unorganized-sector economic activities. Hence, engagement between the MoUD and the MSME ministry is necessary to ensure that this is happening. It will attract more investment to industrial clusters, which is where most non-agricultural jobs are located. Better infrastructure in small towns will create jobs and also prevent youth, all better educated than before, from migrating to larger cities and metros.

This will help youth generally, and especially the girls within that group.

Infrastructure for Jobs

The International Monetary Fund (IMF) states that infrastructure investment of approximately 1 per cent of GDP

in advanced economies produces on average an increase of 1.5 per cent in GDP over four years. For India, K.N. Murty and A. Sowmya estimate that increasing infrastructure investment by 0.5 per cent of GDP will boost growth by 1.8 per cent in the medium to long run.¹⁴ Investment in infrastructure gives rise to three types of jobs—direct, indirect and induced jobs. Direct jobs refer to those created for the purpose of building infrastructure. During the process of infrastructure provision, industries with linkages to this activity (such as industries supplying raw material) see a rise in demand, and therefore, an increase in the number of jobs. This is the indirect effect of infrastructure on job creation. Ultimately, growth in these industries leads to an increase in the incomes and consumption of those employed there, which boosts other industries and services, or induced jobs. Induced job creation is over a long term, unlike direct and indirect job creation which is temporary, that is, for the time that the infrastructure is being created.

Therefore, by providing infrastructure in areas that have the potential for rapid urbanization, policymakers can leverage agglomeration economies to boost net employment. (The Central Statistics Office or CSO categorizes each infrastructure into transport, energy/power, communication, irrigation, drinking water supply, sanitation and storage.) Based on the economic activity, in a study,¹⁵ IDFC Institute identified three types of regions viz. services region, industrial region and agro-allied region. After a survey of 2500 firms, they found that 61 per cent of the firms in the agro-allied region stated that roads were a problem. The second most common problem (for 33 per cent of firms) was electricity. Around 28 per cent of agro-allied firms stated that water supply was an issue. The most important infrastructure issue for industrial firms was roads (for 84 per cent of the firms). The second most cited problem was waste water and effluent treatment (33 per cent), followed closely by water

supply (32 per cent). The most cited infrastructure problem for services firms was roads (64.5 per cent), then electricity (33 per cent) and water supply (23 per cent).

The IDFC Institute also estimated the employment elasticity, that is, the effect of a 1 per cent increase in cost savings associated with infrastructure provision/improvement on the percentage change in employment. They found that for firms in the agro-allied region, roads have the greatest effect on job creation. A 10 per cent increase in cost saving for firms due to improvement/provision of roads resulted in 1.9 per cent more jobs. For firms in the industrial region, the employment effect from cost savings due to the provision of water supply was the highest. A 10 per cent increase in cost savings led to 4.3 per cent more jobs being created. Like the agro-allied region, for firms in the services region too, the employment elasticity associated with roads was the highest. For a 10 per cent increase in cost savings due to improvement/provision of roads, 5.6 per cent more jobs could be created. They found that employment elasticities were highest in the services region, followed by the industrial region. They also found that variation among firms across different sizes in terms of the infrastructure problems they face did not vary much. For example, roads are a dominant issue across size classes, and electricity is the second most important problem for firms in all size classes.

What needs to be kept in mind is that Indian firms tend to be very small. As we noted elsewhere,¹⁶ more than 99 per cent of Indian units are micro; worse, they tend not to grow. A key factor behind lack of growth is poor hard infrastructure. If units were growing, they would employ more workers as their scale of production grows. There are constraints other than infrastructure upon growth (credit, skilled manpower), but what distinguishes infrastructure is that it has direct and indirect jobs growth effects, apart from induced jobs growth on firms that

benefit later from the creation of infrastructure, long after the assets have been constructed.

The 2017–18 Economic Survey stated that India will require \$4.5 trillion worth of investments until 2040 to meet its growing infrastructure needs. It noted that current trends suggest it will fall short by 0.6 trillion. During the Eleventh Plan, private sector infrastructure finance over 2007–12 contributed 36.6 per cent of overall infrastructure investment. Infrastructure investment rose from an average of 5 per cent of GDP during 2002–07 to 7 per cent of GDP during 2007–12. As we noted earlier, construction jobs rose sharply over that period, but they have slowed since then, partly as real estate investments fell off, and infrastructure investments also did not increase as much as until 2012. Public funding for rural housing did grow, but construction jobs only grew by 0.6 million per annum between 2012 and 2018 (compared to 4 million per annum between 2005 and 2012).

Human Resources for Jobs

We noted earlier that millions of youth have gotten better education and are looking for work. However, better educated workers are not willing to work at the wages that smaller entrepreneurs are willing to offer. Besides, workers with an educational qualification may still lack the necessary skills. This is another reason for growing unemployment. Girls especially lack vocational skills, hence face an especially difficult labour market.

The female LFPR has been declining. Government policies must differentiate between two sets of women in this regard: older, poorly educated women who are leaving agriculture; and younger better educated girls, especially but not only in rural areas. As noted above, non-agriculture jobs are not growing fast enough overall, so girls are not benefiting from the few jobs

that arise. Girls with increasing education cannot find non-agriculture jobs, despite having got higher levels of education in the last ten years. Secondary enrolment rose in India from 58 per cent to 90 per cent in a matter of five years (2010–16), with gender parity. But girls, like youth generally, have rarely been a priority for skills programmes, which remains an additional constraint.

Skilling for girls: Skilling close to clusters, which is where the jobs are (rather than supporting standalone National Skill Development Corporation–financed vocational training providers in the private sector), is likely to be more successful. Rural girls or even girls in small towns will not be encouraged by parents to move to bigger cities for jobs. However, jobs are often in clusters of manufacturing activity. The problem with skilling programmes is that there are few vocational opportunities at or near clusters. The advantage of conducting training where clusters are located is that industry engagement in skilling is easier.

If we want Skill India to succeed then it cannot be done without greater employer engagement in the process. But most skills programmes are government-driven, and managed and financed by the government. This leads to mismatches between industry needs and skill priorities, in turn leading to low placement after skilling. The availability of jobs in clusters close to where the skilling is conducted will also enhance demand for skilling.

Skilling for girls and boys at tourism centres will lead to absorption of such youth in tourism (such as in Hampi, Belur, Halebidu, Agra, Jaipur, Khajuraho, etc.).

Enrolment of girls in industrial training institutes (ITIs) is very low, and a classification of graduates from ITIs show that males comprise 85 per cent and females only 15 per cent of the total. There are, no doubt, gendered lags in ITIs with very few courses in services or upcoming trades; gender-stereotyped

courses (which practically do not have any demand in the economy); lack of girls' hostels, and few female teachers. They are mainly urban-located, and there are few women-only ITIs, which discourage women from pursuing technical education. Apprenticeship is also very limited among women.¹⁷ Given the inequity in access and utilization of the skills obtained, skill development initiatives can effectively be an agent for change.

Opportunities in agriculture for older women: Whenever agriculture gets mechanized (as is happening rapidly in the last decade),¹⁸ it is the men who replace the women, especially poorly educated women who are in agriculture. But there is no reason why women cannot run a tractor or use a mechanized weeder. They need skills to run them. They also need a say on the land they cultivate, as decisions about changes in farming contracts, experimentation and cash crop production are mainly taken by men.

Employment in dairying has fallen sharply in the last decades (as NSSO data will show). It is women who are most affected by this; small and marginal farms have increasingly stopped keeping cattle as common property resources have been captured by the powerful elite in the village, leaving little land for cattle to graze on. Marginal farmers cannot afford to purchase fodder. This requires action by state governments and panchayats to penalize such local capture. The transformation of agriculture into a productive and profitable occupation, the promotion of allied activities such as dairy, animal husbandry and agro-based processing along with the removal of gender-based labour market imperfections can help to transform agricultural employment from low-end to high-end and thus accelerate and redistribute growth. At the same time, older, poorly educated women can be engaged in dairying again.

Self-help groups (SHGs) for older women: The Pradhan Mantri Jan Dhan Yojana (PMJDY) has enabled financial inclusion

to take place, with nearly all households now having a bank account. The National Rural Livelihoods Mission, started in 2011 with a focus on self-help group creation, is growing. As more and more girls are getting educated, the scheme can be linked to microfinance groups, which have experience in dealing with financial services and have a wider and accepted reach. Women can be trained to help in loan processing at extension counters, monitoring the scheme, data management, and awareness generation. Further, including women SHGs as banking correspondents can also break through the notion that women can only take up activities related to health, education, care, domestic duties and so on. And to accomplish this we need a coordinated, focused and targeted intervention by the government and banks. At this nascent stage of the programme, there is a dearth of skilled human resources. Going to the ground level, the 'bank mitras' needed to execute the scheme are neither adequate, nor do they possess sufficient skills. The government can take initiatives to train women, bring SHGs on board, reskill the members, who were to date only borrowing as individuals from micro-credit institutions, and encourage them to form SHGs.

3. Jobs Strategy in the Services Sector

Modern Services Jobs in the Private Sector

Modern service sector jobs have grown the fastest since 2004–05 all the way to 2017–18. These are in telecom, IT, banking, insurance, pension, airlines, railways, tourism and auto services (plus health and education). These sectors accounted for 37.5 million workers in 2004–05, rising to 48.25 million in 2011–12, and reaching 76 million by 2017–18. Accordingly, their share in total services employment rose from 34.8 per cent to 38 per

cent to nearly 50 per cent. Thus, these are the sub-sectors that the government needs to focus on.

Although hotels and restaurants have also seen a sharp upswing, here it is very difficult to distinguish between the unorganized sector (dhabas, small guest houses, etc.) and the organized sector. Nevertheless, this upswing suggests that tourism is the driver of such employment. India has a well-known unrealized potential for job creation in tourism, given its rich history and diverse geography (mountains, deserts and the sea). Unfortunately, survey data does not capture tourism as a separate category for us to make an assessment of its significance. The tourism sector deserves a separate NSSO survey focusing on tourism potential (which is underway in 2020).

Public Investment in Health, Education, Police and Judiciary Can Create Many Government Jobs

The health sector accounted for 5.6 million jobs in 2017–18 (or 3.8 per cent of services jobs); education creates many more jobs at 17.6 million (or 12.2 per cent of all service jobs). However, the private sector is a larger creator of such employment than the public sector.

Traditionally, women have been absorbed in the health and education sectors. Expenditure on basic services such as education and health do not just impact educational and health outcomes, it has implications for employment as well, particularly for women—both rural and urban—as a considerable share of women are employed in these sectors. As these two sectors expand, employment opportunities will grow, especially for women.

Public investment in the health sector has remained even in the last three years at 1.15 per cent of the GDP, despite the creation of a national health policy (2017). The policy indicates

that expenditure on health will rise to 2.5 per cent of the GDP only by 2025. Given the state of health and nutrition of the population, and with COVID-19 due to become endemic, public health expenditure must rise to 2.5 per cent of GDP well before 2025. In the absence of greater public expenditure the private sector in health keeps expanding, which only raises household costs on health without necessarily improving health outcomes, because the private sector does not spend on preventive and public health measures. It prefers to set up hospitals to cure people after they have become sick rather than prevent them from becoming unhealthy in the first place. In rich countries, such preventive measures and public health have always been the responsibility of the government. More government expenditure in health means more jobs in the government and better health outcomes.

Government schools have such poor quality that parents are voting with their feet by spending money on private schools whether or not they can afford it. Hence, more public expenditure is needed to improve the quality of public schooling. A second reason why more public spending is needed is that not only has primary enrolment risen overall but secondary enrolments have risen very sharply between 2010 and 2015 from 58 per cent to 90 per cent. The number of teachers required at the secondary and higher secondary levels is very high, especially in science and maths. Many new government jobs can be provided if more young people could be trained to become teachers, especially for science and maths at secondary and higher secondary levels.

The same applies to the police and the judiciary. While the number of paramilitary forces continues to grow, state governments are not filling even sanctioned police posts; there are vacancies at all levels. More police and a larger judiciary can

both reduce crime as well as speed up the process of justice for the ordinary citizen.

Increasing public expenditure in health, education, the police and the judiciary will benefit potential workers of all kinds, since these are labour-intensive social services.

Conclusion

In the introduction of this book, we had argued that the economy needs a revival to 8 per cent per annum trend growth rate for jobs to grow on a sustained basis, to absorb a labour force which will now grow at least till 2030 at an accelerating pace.

What we have argued in this chapter is that for the pace of job creation in the non-agricultural sector to be hastened the country needs an industrial strategy. The pace of structural transformation in terms of employment structure stalled after 2012, and must gather momentum. For this to happen, an industrial policy should be supplemented with an explicit employment policy (with components as proposed in this chapter), so that the employment implications of the industrial strategy are kept in mind. Otherwise, India runs the risk of running out of its demographic dividend, which is due to terminate about 2040.

A Strategy for Job Creation

Vijay Mahajan, Prasanth Regy and Jagmeet Singh

Compared to the high growth in the first decade of this century, during the second decade starting 2011, India experienced a moderate GDP growth rate. There is widespread belief that due to decline in growth, employment had stagnated or even declined since 2017. But due to various contending sources of data, not comparable to the past established data series, it had become difficult to make authoritative statements on unemployment. Many contradictory claims were made and refuted.¹² Using data from the Annual Report of the Periodic Labour Force Survey (PLFS, June 2017–June 2018), officially released in June 2019,³ we have been able to update this study, whose earlier version⁴ was published in November 2018.

Using PLFS data and applying it to the population totals, the authors inferred that in 2018, India had a little over 453 million employed workers (workforce), and the unemployment rate was 6.1 per cent of the labour force (workforce plus unemployed persons) or another 29 million workers needing employment, making a labour force of 482 million. This number was 442 million in 2012, thereby yielding

a compounded annual growth rate (CAGR) of 1.45 per cent per annum. The growth rate of the labour force has declined. How much employment needs to be generated in the Indian economy in the five-year period from 2019 to 2024 depends a lot on what number is assumed for the LFPR growth rate. As per PLFS data,⁵ the overall LFPR of India in 2018 was 36 per cent. The working age (15 years and above) LFPR was 49.8 per cent. Only 18.2 per cent of rural females and 15.9 per cent of urban females were in the labour force. The youth LFPR was 38.2 per cent, much lower than the working-age population LFPR, which indicates that many youth are 'not in education, employment or training' (NEET).

Evidence suggests that female labour force participation is high in low-income countries as well as in upper-middle and high-income economies, but relatively low in lower-middle-income countries, creating a U-shaped relationship between national income and female labour force participation.^{6 7 8} The sharp decline in the already low rate of female LFPR in India since the mid-2000s, particularly when the economy was experiencing unprecedented economic growth, resembles the same U-pattern with female LFPR declining over the period of high economic growth, probably to reach its minimum.^{9 10 11}

We believe, however, that with the enhanced economic stress among the lower economic strata, more women and NEET youth will be compelled to enter the workforce to supplement household incomes. Thus, the declining trend in LFPR may be reversed. Therefore, to be conservative, we have assumed a CAGR of 1.67 per cent annual rate of growth for labour force for the period 2019–24, about 15 per cent higher than the 2012–18 CAGR. Thus, the labour force of 482 million will grow by another 42 million persons in 2019–24. Taking stock of 29 million unemployed persons in 2018, a total of 71

million persons will need work between 2019 and 2024. To make it easy to remember, consider this: India needs 7 crore new jobs in the next five years.

Sectors with Major Employment Potential over 2018–2024

If we are aiming at a policy breakthrough in employment of all the new entrants to the labour force, plus the backlog of the unemployed, 71 million jobs will have to be created in 2018–24. This represents a CAGR of 2.4 per cent per annum for employment, as against an estimated 0.8–1.2 per cent in the past eight years. Though there is widespread agreement that employment needs to be created, the challenge is to create employment with reasonable-quality jobs, offering adequate wages and dignified and secure working conditions.

The question is whether such a large amount of decent employment can be created, given the dismal history of this decade so far. It is not enough to merely say a resolute yes. We need to answer in what sectors of the economy these jobs can be created. And with what level of investment? Where will all that capital come from? Recognizing that capital is not enough, policies and institutions will also have to be reshaped to ensure that the investments yield the desired number of jobs and with decent wages.

Generating near-full employment in any economy with a high annual increment to the labour force is a proposition that will require massive political will to redirect public and private investments towards sectors that generate employment. All this requires deep thinking, and this paper merely makes a beginning.

All sectors are not the same as far as employment creation is concerned. Some sectors create much more employment with a given level of investment than others. The sectors of employment opportunity are:

- Regeneration of degraded natural resources—land, water, forests
- The construction sector, particularly lower-income housing and lower-end infrastructure
- Manufacturing in micro and small enterprises in clusters and small towns
- Services that are labour-intensive.

We argue that these sectors should be prioritized for overall investment—both public and private. Private investment will follow the logic of maximizing expected returns, and can only be nudged by incentives to sectors that generate high employment. Public investment can, however, be prioritized in those sectors that generate high employment and also create public goods or positive externalities. This needs to be supplemented by private investment, which can be channelized into these areas by suitable incentives and creation of institutional frameworks which provide an assurance of returns to the investment. This was done five decades earlier for attracting private investment in the industrial sector and two decades ago for attracting private investment in the infrastructure sector. That process will now have to be repeated for the natural resources sector and the social services sector as well. Some beginnings have already been made in this direction, and the process needs to be accelerated, with safeguards of public interest.

Regeneration of Degraded Natural Resources

Let us look at the various economic sectors first. Agriculture is the biggest employer, but millions of workers and farmers are getting out of it due to low and uncertain earnings. They are instead seeking non-farm work, locally as well as through migration to big cities. Yet, it is possible to stem this tide if investments are made in regenerating the degraded natural resource base for agriculture—water, forests and land, or *jal, jangal, jameen*.

Degraded natural resources include streams, rivers, water bodies and groundwater aquifers; forests that have been thinned due to felling and grazing; and cultivated lands whose soils have deteriorated due to excessive chemical fertilizers, over-irrigation or soil erosion. With over 55 million hectares of wasteland requiring regeneration, another 60 million hectares needing extensive soil and water conservation, 7.5 million hectares of lakes, ponds and reservoirs/tanks needing repairs, groundwater awaiting urgent measures to recharge in almost two-thirds of the districts, and 10 million hectares of so-called forest land needing adequate reforestation, there are millions of jobs possible in the regeneration of degraded natural resources. Though many schemes, such as the Integrated Watershed Development Programme, the National Afforestation Programme and the National Wasteland Development Programme, are there for the above-mentioned purpose, these need to be given a fresh impetus to regenerate degraded natural resources, thereby creating the potential for long-term employment through their sustainable use.

What is notable is that a large number of these jobs are in rural and forested tribal areas, and on the peripheries of urban areas, precisely the locations where jobs are needed. Moreover, 90 per cent of these jobs are unskilled or semi-skilled, which enables the large number of persons in the

labour force in those skill categories to get some work in the next few years.

Construction Sector for Lower-end Housing and Infrastructure

In the construction sector, there are a large number of jobs possible in housing as well as infrastructure. With a significant shortage of over 20 million dwelling units and the need to upgrade existing housing stock, coupled with the availability of housing finance from banks and housing finance companies, this sector needs a policy and not a fiscal boost. Further, with a need to create and improve the infrastructure in the next 1000 cities, after the current top 100 cities, there will be heavy demand for labour for the creation of infrastructure, such as roads and bridges, and public buildings, such as schools, healthcare centres, police stations and hospitals.

Nearly 90 per cent of the workforce employed in the real estate and construction sector is engaged in the construction of buildings, while the remaining 10 per cent of the workforce is involved in building completion, finishing, electrical, plumbing, other installation services, demolition and site preparation. Over 80 per cent of the employment in real estate and construction constitutes minimally skilled workforce, while the skilled workforce accounts for 10 per cent. This matches well with the low skill levels available in the labour force till they develop skills over the next few years.

Manufacturing in Micro and Small Enterprises (MSEs) in Small Towns

In the non-agricultural sectors, employment has not grown anywhere in proportion to the demand for jobs. Employment

growth in the manufacturing sector has remained low, and indeed there are prospects of further slowdown as automation takes off even more broadly. Still, in manufacturing, new jobs will get created in agro-processing around agriculturally productive regions (such as the Doab region of Punjab, the Malwa region of Madhya Pradesh and the coastal belt of Andhra Pradesh) and in niche micro enterprises in rural areas (such as handloom and handicrafts). As per Cluster Observatory, a project of the Foundation for MSME Clusters, more than 5600 clusters are operating in India across different product/service categories ranging from automobiles to rural tourism.

Table 1: Clusters in India¹²

Category of Cluster	Number
Industrial	1416
Handicrafts	3403
Handloom	608
Micro enterprises	154

Manufacturing jobs can grow in these cluster towns (like Moradabad for brass work and Tirupur for hosiery) if the SMEs here are made more productive and export-oriented. New jobs can also be created by establishing new medium and even large industry clusters based on the localization of imported products (such as has already happened for mobile phone manufacturing around Chennai and Noida).

Small-Scale Services

In services, much of the high-end employment growth was driven in the previous decade by the information technology (IT) and IT-enabled services sector, which is again experiencing a slowdown due to the enhanced use of software automation, and also a reversion to insourcing in the United States. Thus, once again, in services, we will have to look for job growth in other services sectors such as retail and wholesale trade, storage and warehousing, transport and communication.

There are many jobs possible in tourism, which is a composite services sector. New jobs can be created by developing newer destinations for rural and small-town tourism to religious places such as Baijnath Deoghar in Jharkhand, Ganga Sagar Island in West Bengal, historical places like Mandu in Madhya Pradesh and wildlife tourism in remote places like the Simlipal Tiger Reserve in Odisha. Business and personal services are also major employment growth sectors in services such as real estate sales and management, call centres, data centres, and personal grooming, entertainment and recreation. Most of these services are offered in the private sector and the state only has to make facilitative policies under the rubric of ‘ease of doing business’, but ensure that these benefit the large number of MSEs too.

To protect jobs in the informal sector, legislation such as the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, need to be enforced in spirit. The application of GST, including the requirement of filing returns online, is onerous to millions of micro enterprises, and should be rationalized so that only large GST payers need to be computerized, while smaller ones can manage by summary registration and annual returns, and micro enterprises are left alone altogether.

Social services like health and education, public administration and financial services can be major employers in both the private and public sectors. We have put together data from various government websites, which shows that nearly 2 million vacancies exist in public jobs, all the way from teachers to police personnel.

Methodology and Model

The GDP in 2018 was around Rs 190 trillion.¹³ At the current investment rate of 30 per cent, this yields an investment level of Rs 57 trillion per annum, and that will grow every year as the economy grows. In addition, there could be a second policy variable, to promote an overall increase in the investment rate by enhancing domestic savings as well as attracting foreign investment. Domestic investment would have to be from both the public and private investment sources, indeed, largely the latter.

We have made the conservative assumption that the Indian economy will invest only 30 per cent of the GDP year on year. This number has swung between 24 and 40 per cent. We have further assumed that half of this, that is, 15 per cent of the GDP, will be invested every year in the job growth generating sectors, consistently over the next five years.

The main exception where the major share of investment will have to be public is in the regeneration of degraded natural resources, where a lot of the investments will have to be made in common property resources. The main policy decision is how to direct investment across sectors so that the target number of jobs gets created, while ensuring good wage rates and adequate growth in output.

This is a powerful argument for policy-directed reallocation of investment across sectors, with more public investments directed to the four employment-generating sectors (as above). Public funding will largely be needed for regenerating common property resources. But a bigger policy intervention will be to innovate new contractual frameworks to enable private investment in small-farmer-owned lands and in community, panchayat or state-owned natural resources. The second major part of public funding will be for lower-end infrastructure, like rural and district roads, bridges, market yards and public service provision, including health, sanitation, education, vocational training, law and order and the administration of justice.

Private investment is assumed to flow largely to construction, particularly lower-income housing, in micro and small manufacturing; and handicrafts and handlooms, power loom textiles and apparel, wood and metal products, cement, ceramic, glass and plastic products, electrical and electronics, hand tools and machinery in the small-scale services sector. Incentives can also be given for private investments to flow into these sectors.

To assess the impact on employment of policy-directed investment in different sectors, we have used a simple economic model which we describe below, starting with a description of the main variables. The model indicates the different levels of employment generated by modifying the share of investment across sectors. As the jobs generated per unit of investment in each sector are different for the same level of investment, we optimized the inter-sectoral allocation of investment to increase the level of employment. This is the main policy variable.

Sectoral–Spatial Growth Model Optimizing for Both GDP and Employment Growth Rate

S indicates sector of economy (agriculture, natural resource regeneration, construction, manufacturing, services and all other sectors).

R indicates Region (rural villages, district towns and large cities)

Current GDP for sector S and region R = $G_{S,R}$

Share of sector S, region R, in GDP (%) = $g_{S,R}$

Total current employment = n

Share of sector S, region R in employment (%) = $e_{S,R}$

Current employment in sector R, region R = $n_{S,R}$

New jobs in sector S, region R by 2024 = $\Delta n_{S,R}$

New investment (private + public) in five years (Rs crore) in sector S, region R = $I_{S,R}$

Jobs generated per crore of investment in sector S = J_S
ICOR for sector S = R_S

We compute the GDP in year 2024 by using the ICOR for each sector $S = R_S$, and thus compute the GDP growth rate for 2019–24. If this turns out to be too low, the overall level of investment has to be increased, which is subject to the overall savings rate in the economy. We enforce that, for GDP share, $\sum_S g_{S,R} = g_R$, $\sum_R g_{S,R} = g_S$, $\sum_R g_{R,R} = 1$, $\sum_S g_{S,S} = 1$

Similarly, for employment share, $\sum_S e_{S,R} = e_R$, $\sum_R e_{S,R} = e_S$, $\sum_R e_{R,R} = 1$ and $\sum_S e_{S,S} = 1$

Calculations: Increase in GDP by 2024, sector S, region R, $\Delta G_{SR} = I_{SR}/R_S$

GDP in 2024, for sector S, region R = $G_{SR} + \Delta G_{SR} = G_{SR} + I_{SR}/R_S$

New jobs created by 2024 $\Delta n_{SR} = I_{SR} * J_S$

Total jobs by 2024, sector S, region R = $n_{SR} + \Delta n_{SR} = n_{SR} + I_{SR} * J_S$

Results of the Model

Optimizing Investment Across Sectors to Ensure Higher Employment

The Job Yantra enables us to see the effect of different sectoral allocations on employment as well as growth, thus enabling manual optimization. Table 2 shows the investment needed to create these allocations in each of the sectors. The model is internally consistent in the sense that with assumptions of incremental capital output ratios, the same investments also lead to an average GDP growth rate of 6.02 per cent per annum over five years.

Table 2: Jobs Created in Each Sector and Investment Required

Sector	Total investment during 2018–24 (Rs trillion)	Public share as % of total investment	Public investment during 2018–24 (Rs trillion)
Agriculture, livestock, fishery, forestry	14	10	1.4
Regeneration of degraded natural resources	14	90	12.6
Construction: housing and smaller infrastructure	43	30	12.9
Manufacturing: MSE	29	10	2.9
Small-scale services	43	60	25.8
All other sectors	143	10	14.3
Total	285	25	70

Table 3 shows new jobs in millions created in each of sector over the 2018–2024 period, along with change in sectoral employment in millions and sectoral shares of employment

**Table 3: Change in Employment over the
Years across Sectors**

	Employment in millions	Sector-wise employment as % of total	Employment in millions	Sector-wise employment as % of total
Sector	2018		2024	
Agriculture, livestock, fishery, forestry	194.3	195.8	42.9	37.4
Regeneration of degraded natural resources	5.4	16.8	1.2	3.2
Construction: housing and smaller infrastructure	40.3	61.7	8.9	11.8
Manufacturing: MSE	34.4	45.8	7.6	8.8
Small-scale services	97.4	110.2	21.5	21.1
All other sectors	81.1	93.2	17.9	17.8
Total	453	524	100	100

As per our model projections, with policy-redirected inter-sectoral allocation of investments, additional employment can be created over the 2018–24 period for as many as 70.6 million persons. Of these, employment can be generated for 11.4 million persons in regeneration of degraded natural resources, for 21.4 million persons in housing and smaller infrastructure

construction, another 11.4 million in MSME manufacturing and 12.8 million in small-scale trade, transport, tourism, health, education, public, financial and personal services. This accounts for 57 million of the 70.6 million persons or 80 per cent of the additional employment opportunities, with just 50 per cent of the overall investment in the economy.

Optimizing Spatial Spread of Employment

The choice of sectors is by itself not adequate as we also need to ensure as much employment as possible where the population lives to minimize involuntary migration. Instead of merely the rural–urban distribution, we used a three-way spatial distribution of employment.

Rural (villages with population less than 5000 people): Nearly 6 lakh, where natural resource regeneration work will be focused.

District headquarters and smaller towns including manufacturing clusters: There are expected to be about 5,000 of these by 2018, and we recommend focus on the top 1000.

Large cities and metros: These are the metropolitan and 1 million-plus population cities, and some others, adding up to nearly 100. To stem rural to large city migration, the model works in two ways: making rural jobs more numerous and more attractive.

The more numerous ones are in the regeneration of degraded natural resources, and these in turn will result in current incomes for those employed now in regeneration, while enhancing longer-term productivity and incomes in agriculture, livestock, fishery and forestry.

As no significant increase in employment in agriculture and allied activities is projected, a major part of the productivity gains would accrue to labour in terms of higher wages. This will make agricultural jobs more attractive and stem the tide of labour exiting agriculture. Still, the proportion of workers in agriculture will continue to reduce.

Table 4 below shows the optimal projected increase in employment by sub-sector in each of the three spatial categories. These numbers stem from the same Job Yantra, so they are consistent with sectoral investment choices and the resultant growth. As can be seen, the largest increase in employment of 37.1 million is in district headquarters and small towns, as compared to 12.1 million in rural areas and 21.4 in large cities and metros. Creating a large number of job opportunities in the construction, MSE manufacturing and small-scale services sectors is possible only if we start investing in district headquarters and clusters, the next 1000 growth centres, as a counter-point to the 100 so-called Smart Cities (see also ‘Industrial Strategy with Employment Policy for Job Creation’ in this volume).

Table 4: Change in Employment by Location

Sector	Increase in employment by location in millions (2018–24)			
	Rural areas	District HQs and small towns	Large cities and metros	Total
Agriculture, livestock, fishery, forestry	1.3	0.1	0.0	1.4
Regeneration of degraded natural resources	6.8	3.0	1.5	11.4
Construction: housing and smaller infrastructure	1.6	13.2	6.6	21.4
Manufacturing: MSEs	1.1	6.8	3.4	11.4
Small-scale services	0.6	8.1	4.1	12.8
All other sectors	0.6	5.8	5.8	12.1
Total	12.1	37.1	21.4	70.6

Optimizing Employment Distribution by Skill Levels

Having projected sectoral enhancement in employment in the next five years from 2019 to 2024, we looked at the demand for skill composition under each sector by consulting experts in various sectors. The regeneration of degraded natural resources will primarily require unskilled and semi-skilled labour, though skilled workers are needed at the supervisory level. The proportion of demand for skilled and semi-skilled workers increases in the construction and manufacturing sectors, and reaches the highest in the public service jobs that we have proposed.

Table 5: Change in Employment by Skill across Sectors over the Years

Sector	Increase in employment by skill in millions (2018–24)			
	Unskilled and low-skilled	Semi-skilled and skilled	High-skilled and professional	Total
Agriculture, livestock, fishery, forestry	1.1	0.2	0.1	1.4
Regeneration of degraded natural resources	9.1	1.4	0.9	11.4
Construction: housing and smaller infrastructure	12.8	6.8	1.7	21.4

Sector	Increase in employment by skill in millions (2018–24)			
	Unskilled and low-skilled	Semi-skilled and skilled	High-skilled and professional	Total
Manufacturing: MSEs	5.7	5.1	0.6	11.4
Small-scale services	6.4	5.1	1.3	12.8
All other sectors	3.6	5.5	3.0	12.1
Total	38.9	24.1	7.6	70.6

In summary, to generate 70 million new jobs for India in 2019–24, we are proposing significant investment in four major employment-generating sectors:

- Regeneration of degraded natural resources, like silted-up water bodies, dying streams, polluted rivers, spent soil, degraded grazing lands and denuded forests, all of which will create a large number of jobs in the short run. This regeneration then acts as a precursor to revival in the agriculture, livestock, fishery and forestry sectors.
- Construction of low-income housing as well as lower-end infrastructure (rural and district roads, bridges, schools and health centre buildings, as against expressways, fast railways, metro rails, big airports).
- Manufacturing through micro enterprises, such as handlooms and handicrafts, more clustered, export-oriented

small enterprises, and even some import-localization-based medium and large enterprises.

- Small-scale services, such as retail trade in the informal sector, while more jobs arise in organized retail, e-commerce and wholesale trade, warehousing and transport, delivery logistics, offbeat tourism, business, financial and personal services.

For the inter-sectoral investment allocation to be directed on the lines suggested, we have assumed that investment will be largely from the public sector in the regeneration of degraded natural resources, with some participation by the private sector, based on incentives and new institutional frameworks to attract private investments and assure returns.

In terms of spatial allocation, we are suggesting significant investment in building the infrastructure and economic attractiveness of about 1000 district and cluster small towns, as the next rung of growth magnets, as a counter-magnet to the 100 so-called Smart Cities.

As can be seen, the largest number of jobs is for the unskilled, but the growth of semi-skilled and skilled jobs has been significantly enhanced, which will also improve wages for workers. For investments in growth to fructify into a large number of jobs with decent wages and working conditions, however, policies will have to be made more favourable to labour while ensuring institutions work effectively.

Higher wages cannot be just legislated—they are a combination of higher productivity as well as adequate bargaining power among workers (through labour laws and trade unions) so that they can get their fair share of higher productivity. Though employment discussions almost totally focus on the numbers of workers and those unemployed, it is time we began to factor in

the issues of occupation safety, working conditions and social security in employment discussions if we want higher labour productivity in the long run.

It is not 7 crore jobs we are looking for, but 7 crore decent livelihoods.

Facilitating Job Creation

Ajay Shankar

In the first decade of this century, the phrase ‘demographic dividend’ gained currency in India. India’s population was growing and was expected to overtake China’s to make India the most populous country in the world. By the time this happened, the Chinese population was also expected to begin ageing rapidly as a result of its one-child policy. With its huge young population, India, it was presumed, would be at a great advantage in the global economy. There were, however, voices of realism that felt that the very large young population could, instead of being a demographic dividend, become a curse if India did not create jobs fast enough. This foreboding seems to be on the verge of becoming a reality. The agitations across states over the past few years on job reservations in the government are a telling indicator of the brewing crisis. Proud dominant and successful castes like Jats in Haryana, Patels in Gujarat and Marathas in Maharashtra—all seen as rapidly developing, successful states—have been mobilizing for such reservations. If the economy had been creating sufficient well-paying productive jobs to meet the rising aspirations of the young as it should have been doing, then the few openings for

government jobs would have been marginal to the expectations and calculus of young people and their communities. The ground realities and the recently reported disappointing numbers on employment are causing so much concern in the political system that the government has constituted a cabinet committee to suggest measures for job creation.

India has been unique in not having been able to take full advantage of its young, low-wage, talented population to industrialize rapidly, eliminate poverty and move to being a developed economy. The contrast with China is really stark. Starting with similar per capita incomes in 1991,¹ the year of India's economic reforms involving trade and investment liberalization and pursuit of globalization, China went on to become the factory of the world and get rid of poverty. Its per capita income is now five times that of India, and it is becoming an economic superpower and challenging America's supremacy. So, the key question is: what was it that India did or did not do to have underperformed so much.

The essay examines the situation in the pre-economic-reform period prior to 1991 and the policy framework. It then looks at the post-reform period and highlights the policy error in not doing away with small-scale reservation in manufacturing before trade liberalization. The role of state policy success in the IT, pharmaceuticals and automobile sectors is analysed, and it is argued that India needs sector-specific smart industrial policies for job creation. The critical importance of the real exchange rate and the adverse effects of its appreciation in reducing competitiveness and employment generation is explained.

Pre-1991 Reform Period: Paradigm for Job Creation

One view that has had considerable merit as well as appeal has been that India did not pay enough attention to primary education and is

yet to achieve full literacy.² This has held India back in comparison to the East Asian and South East Asian economies, which achieved a breakthrough in literacy much earlier. To add to this is the fact that the skills of those who have had formal education are not adequate in relation to the needs of the workplace. A National Skill Mission was the response. The mission has been there since 2012 and has been trying to overcome this weakness. Without undermining the need and importance of full literacy and improved skills, this supply-side weakness alone does not adequately account for India's lack of success in creating jobs.

The real problem has been on the demand side. Where there is demand, training and 'learning by doing' works. The young Indian has consistently shown the potential of becoming world-class with the right training and leadership. The monument in Delhi's central vista, India Gate, is a tribute to how good the illiterate soldier, recruited from villages and trained for a few months, became in battle against German soldiers in World War I. The Indian textile industry was globally competitive in the first few decades of the twentieth century. More recently, the workers in Maruti (now Suzuki), Hyundai and other car companies and their auto component supply chains are showing that they are world-class. But given the size of India's young population, the pace of creation of such productive and better-paying jobs has been far too low since the economic reforms of 1991. It was even lower earlier, at a time (1951–81) when India's population growth rate was accelerating; it began to decelerate only post 1981. What are the major factors that have been coming in the way of demand for labour not rising the way it should have risen? It did rise very rapidly in some other similarly placed economies during the same period.

It is useful to go back in time and try and understand the evolution of the Indian economy from this perspective of job creation over the last few decades. A somewhat forgotten

classic, *Asian Drama: An Inquiry into the Poverty of Nations*³ by the Swedish Nobel Prize-winning economist Gunnar Myrdal, had examined the Indian economy in depth in the 1950s. He had been struck by the extraordinarily widespread prevalence of underemployment, or disguised unemployment, in the Indian economy. When India began its journey of 'planned development' and 'self-reliance', it chose to develop a capital goods and high-technology industrial base. By closing its economy to imported consumer goods, it tried to preserve employment in the traditional artisanal economy.

Adverse Effect of Product Reservation on Manufacturing (post-1956)

The legacy of the freedom struggle led to state efforts to promote and protect khadi and village industries. This culminated in a policy of reserving items for manufacture only in the small-scale sector. The small-scale sector was presumed to be more labour-intensive. As domestic demand grew with economic growth, this sector would create more jobs. It was also expected to lead to more geographically spread industrialization as states tried to promote small industries. By the time of the change in the economic paradigm in 1991, there were over 800 items that were reserved for small-scale production.⁴ This meant that a firm producing a particular item could not grow beyond the prescribed scale limit. By implication, it could not acquire economies of scale in production. Nor could it usually modernize its technology of production as that would have led to crossing the ceiling of capital investment.

In any case, the import of technology and related capital goods required a case-by-case, tedious processing in the Ministry of Industry, with such huge transaction costs and time that this was beyond the reach of a typical small-scale unit. All labour-

intensive industries, such as garments, shoes, toys, electronics, among others, were reserved for the small-scale sector.

The reforms of 1991 involved a paradigm shift. India began to seek integration into the global economy and lowered restrictions to trade and investment. The state gave up its intrusive role in trying to micro-manage the economy. In the early WTO negotiations, the Indian government did recognize the need for headroom for a gradual transition, and, as a result, the bound rates for lowering import duties in the WTO were high enough. The rational course would have been to do away with small-scale reservation at one go just as industrial licensing was done away with. This would have given time to smaller firms to modernize and acquire economies of scale and at the same time given larger firms the time to diversify into labour-intensive industries. In a few years, there would have been the possibility of globally competitive manufacturing emerging in India in labour-intensive industries. With the opening up to foreign direct investment (FDI), established global players in labour-intensive sectors could have also looked at India as an additional investment destination. The space of a few years was essential as movement across supply curves is never instantaneous. It is usually far slower in the real world than movement along the demand curve. Market players need time to assess the business case for fresh investment, take a decision to invest, and then for that investment to result in actual production.

What India did was to drastically reduce import duties in the mid-1990s to a fraction of the bound rates in the WTO. The removal of items out of the list reserved for the small-scale sector was a leisurely process that went on for fifteen years thereafter. The consequences were not appreciated, and this did not get any priority. Imports rose, and India began to vacate space in labour-intensive manufacturing. Consumers naturally prefer the better quality, value for money, state-of-the-art design and technology

of globally competitive manufactured products. The process of de-industrialization in these segments continues, with no signs of any reversal yet. This was probably the most serious error in the sequencing of the reform process whose consequences for job creation have been so grave. There is still inadequate understanding of the process that has been underway. A focused policy response alone can try to reverse the tide.

However, the basic problem coming in the way of a policy response has been part of the paradigm of the reforms of 1991, which were based on the popularly characterized ‘Washington Consensus’ of that time. A key premise of this was that market-driven outcomes are optimal, and that the state should not be in the business of picking ‘winners and losers’ as it is incapable of doing so. This proposition appeared in the context of mature advanced industrial economies when state-supported efforts such as the supersonic Concorde passenger plane of the UK failed in the market. Nevertheless, these economies continue to provide state support selectively for maintaining/gaining technological leadership. But this proposition loses its validity for an emerging economy which is just trying to catch up, especially in labour-intensive sectors of manufacturing. Here, creating competitive advantage has a different meaning to ‘picking winners and losers’ in a mature economy. The successful East Asian economies have all used state policy effectively to create a competitive advantage. India will need to craft policy instruments that are effective in creating jobs in the globalized economy of today and which are not in breach of WTO or other legal commitments.

India’s Three Success Stories: One in Services, Two in Manufacturing

The one remarkable success story after the economic reforms has been the IT sector. The export of IT and related services was

\$136 billion in FY 2019, contributing to more than 8 per cent of GDP⁵ and employing more than 4 million persons.⁶ There is a fashionable myth, comforting to those who have great faith in the free market and in the minimalist role of the state, that the success occurred as the sector was not on the radar of the government, which left it alone. What actually happened was the exact opposite. The government made the decisive smart interventions early on which made success possible. Well ahead of the modernization of telecom in the country, space was carved out for software parks. The state invested in the facilities for real-time, high-speed internet connectivity of sufficient capacity to allow firms in the software parks to operate in the US market without any locational disadvantage; they could well have been operating from a location in the US as far as their customers or business partners were concerned. Then these firms were given a duty-free regime for imports of both hardware and software as well as the benefits and incentives that were being given to exporters of goods. With these critical interventions, the sector took off and has never looked back. A foundational building block was the earlier investment by the state in nearly free higher education and in the IITs, which over a generation created the specialized human capital that gave India a competitive edge in this sunrise sector.

The other sector that has seen global success has been pharmaceuticals; again, to the surprise of most. With the benefit of hindsight, it was clearly the result of smart state policy, though not conceived then as industrial policy to create a globally competitive pharmaceutical industry. The objective was to provide more affordable drugs to the people of India. The Indian patent law put in place in the 1970s provided for process rather than product patent protection. This enabled Indian firms to create their own processes to get the same final drug. Competition led to remarkably low prices and India gradually

became the most cost-effective manufacturer of generic drugs in the world. During the WTO negotiations, this was a sticking point till the end when, given the realities of power, India had to give in and agree to provide for product protection after a transition period of ten years. The nascent pharmaceutical industry was again helped by the ample availability of chemists who understood molecules; again, a result of the earlier public investment in practically free higher education.

The foundations for the success of the auto industry were laid by Maruti in the early 1980s. Indira Gandhi, in the second half of 1980, wanted to fulfil the dream of her deceased son, Sanjay Gandhi, to produce an affordable small car in India. She chose V. Krishnamurthy, the most outstanding technocrat of his generation in the state system, and gave him a free hand with full state backing to produce a small, affordable car in India. After going to all the major small car manufacturers in the world, he chose Suzuki, one of the smaller and weaker players, as he could drive a much harder bargain for India—a 50:50 joint venture, full technology transfer and very rapid indigenization.⁷

Suzuki worked with Maruti to create the supply chain of auto components, with technology transfer from their suppliers in Japan to their Indian partners, which were usually start-ups. The state arranged land and financing for these auto component enterprises. Technology transfer was comprehensive and included Japanese quality control practices and culture. Within a decade, India had a globally competitive small car and auto component industry. After economic liberalization, all the auto majors have come to India and have been relying on the domestic auto component industry. It is a different matter that for no good reason Suzuki was allowed to take over the company after the economic reforms, and India lost its globally competitive car company. It is ironic that at the same time Bill Clinton became the president of the United States and chose as his chief

economic adviser Laura Tyson after reading her popular book arguing that ownership matters for nations.

Some Smart Sectoral Policies Needed

Other than these, India is yet to achieve a breakthrough in globally competitive manufacturing and become a part of global supply chains. In each of these cases, state action was the key to success. State action was quite different in each of these sectors. The implication is that for a particular sector a specific strategy would need to be crafted. Further, it would need to be suitable for the present national and global juncture. A simplistic approach of copying something which may have worked somewhere at some time might not work. Further, flexibility and nimbleness would be required in adjusting and fine-tuning policy instruments to achieve the desired outcomes. It also has to be accepted that patience and persistence would be needed as there are no immediate quick fixes. There has been a suggestion⁸ to use public procurement of solar panels with the stipulation that the full value addition be in India and that procurement for a few years from a prospective date be assured so as to create a competitive domestic industry. Land and infrastructure along with environment and other clearances and a special dispensation for duty-free imports of capital goods and materials may be put in place before inviting bids so as to get better prices by reducing risk. If imports at the time of supply are significantly cheaper, then safeguard duty can be legitimately imposed under WTO for four years.

A chip-manufacturing facility could be put up with public investment in a joint venture with a global leader, like Intel or Samsung, which may be required to put in token partnership and take responsibility for putting up a good state-of-the-art plant and putting in place the professional team to run it well.

Since all the risk would be borne by the Indian state, firms like Intel or Samsung may be willing to respond positively.

For toys, government could reach out to major global players and provide them plug 'n' play manufacturing facilities with public investment on token rent to begin with. Once the plant succeeds, the investor could move towards paying market rent or buying it. Evolving specific industrial policies in a few key labour-intensive sectors is now unavoidable.

The Key to Manufacturing Growth and Job Creation

In addition to sector-specific policies to create competitive advantage, there are still a few critical impediments that need to be recognized and addressed. That the real exchange rate makes such a difference is not adequately appreciated even in informed decision-making circles. There is the popular and widespread myth that a strong currency is the sign of a strong economy.⁹ This has been doing grave damage to India's growth performance. To amplify, if the exchange rate remains the same over a year and inflation in India has been, say, 8 per cent, and in its trading partners 2 per cent, then the real exchange rate has appreciated 6 per cent that year. What this means is that in real terms, all imports become cheaper by 6 per cent and all exports become more expensive by 6 per cent. The effect is the same as that of a change in tariffs, which in this example means an across-the-board 6 per cent reduction in tariffs. When this is compounded over years, it acts as a very powerful instrument for reducing the business case for substantial value addition in the country. It does not make much of a difference where value addition is very little, around 10 per cent, as in gems and jewellery, or oil refining. But it makes a huge difference when value addition starts rising.

The successful East Asian economies—Japan, followed by Korea and more recently China—have all followed a policy of artificially depreciating their currency to gain competitive advantage.¹⁰ They did this by having their central banks buy dollars and build up reserves; the Chinese reserves are around \$4 trillion. While artificially depreciating the exchange rate is not ‘fair’ and now attracts a strong response from the US, preventing real exchange rate appreciation is essential and legitimate. The Reserve Bank of India (RBI) has been acting on the principle that the exchange rate should be market-determined, and intervention should, at best, be restricted to smoothing volatility. This does not take into account the peculiar distortion in the market caused by growing remittances by expatriate Indian workers, especially in the Middle East, as a result of which the currency appreciates in spite of near-stagnant exports and a current account deficit. This is accentuated by foreign institutional investors (FIIs) bringing volatile money into the stock market. The RBI has therefore been remiss in not clearly enunciating the objective of preventing real exchange appreciation. The RBI would then have been buying dollars and building up reserves as a result. The appreciation has been over 19 per cent from 2009 to 2017. If this had been prevented, reserves would have been reaching a trillion dollars, and GDP, exports and investment growth rates would have been much higher.

The appreciation of the real exchange rate has a political economy dimension—who gains and who loses. Understanding this is essential. Large corporates which have substantial ECBs (external commercial borrowings) gain with the appreciation of the real exchange rate as their repayment liabilities decline in real terms. The FIIs gain as the considerably higher capital appreciation in the stock market can be taken out without any exchange rate adjustment. As a result, there is the cycle of share prices rising steadily and a stable nominal exchange rate, followed by a sudden

withdrawal of FIIs as they seek to avoid the reduction in gains from what they see as an overdue market correction downwards in the exchange rate. There is a sudden sharp depreciation and Indian investors lose substantially in the stock market as prices fall. Then the rate stabilizes and again the inflows of FIIs rise, share prices rise and the real exchange rate appreciates with the nominal exchange rate being stable.

Wealthy Indians as consumers gain with the appreciation of the real exchange rate as holidays overseas are cheaper, children's education overseas costs less, luxury consumer goods ranging from high-end brands of cars to single malts are relatively cheaper. Who loses? The Indian producer who loses market share to imports. The exporter who sees a downward pressure on margins and volumes. The biggest loser is the Indian worker as fewer jobs are created and many are lost as imports take over the market across an increasing range of goods. The gainers seem to have had more traction in the polity than the losers till the time of writing.

Regulatory Regime and Labour Laws

Then, there exists in India a regulatory regime and a business environment which is not benign for businesses in general and is skewed against the employment of workers. The organized sector workers in India have the benefit of a large body of labour legislation for their benefit. Rent-seeking in varying degrees remains regrettably intrinsic to India's enforcement agencies. There are over forty central laws and 100 state laws, which have been¹¹ enacted over a long period of time, each with its compliance, attendant record-keeping and reporting requirements. All these impose costs. While large enterprises may be able to absorb these costs through dedicated staff hired for this purpose, owner-managed small enterprises would find

these too onerous a burden. There is therefore the perverse incentive in favour of staying small enough so as not to come under the ambit of labour legislation and its compliance burden. Setting up a number of small enough units or outsourcing job work to other small and micro enterprises are options used to grow business. But job work outsourced to micro enterprises operating from the homes of workers who are usually living in slums is surely not the way to remaining competitive in a globalized economy with declining trade barriers. The contrast with the IT sector which is regulated by the Shops and Factories Act is stark. Start-ups from garages have gone on to become global enterprises. There are hardly any comparable success stories of start-ups in the manufacturing sector.

There has been some belated discussion on reforming labour laws. Drafts for simplifying and consolidating these into four codes were made in the first term of the National Democratic Alliance (NDA) government, which came into office in 2014. Though stakeholder consultations were undertaken, no serious effort was made to enact these codes. This was not a priority. A modest reform by way of a notification providing for fixed-term employment for all sectors was all that the government could manage in the latter part of its tenure. These codes need refinement and further simplification. In view of the nature of work undergoing transformation globally, the contributory social safety framework which emerged in the industrializing economies of the early twentieth century needs some creative re-engineering, with the state assuming greater responsibility for all citizens, thereby facilitating the transition from the informal to the formal and from the small to the large without the owners or the workers finding the burden of contributions for social safety a disincentive to growth. This would require a change of mindset. In its second term, the NDA government has again announced its intention to proceed on these four codes.¹² Of

these, the Code on Wages Bill, 2019, has been enacted.¹³ This is an essential prerequisite for easing job creation by start-ups and micro and medium enterprises in manufacturing.

Infrastructure That Responds to Industry Needs

One key feature that enabled the success of the IT industry was the real-time connectivity with the US market of the Software Parks provided by the state. Within the parks, as the industry grew and prospered, the internal infrastructure became comparable to the best, so much so that these campuses could well have been in the US. Housing on campus for the staff started becoming an integral feature of new campuses. The comparable feature for manufacturing would be the achievement of near equivalence in the time taken from a factory to the ship in India to the time in comparable locations in East and South East Asia. This has not been a priority as yet. Only recently is the importance of logistics being recognized.

The Delhi–Mumbai Freight Corridor is yet to become operational, though the Japanese had suggested the project and indicated their willingness to finance it fully as early as 2005. In the National Highway Programme, spurs to provide traffic-light-free, elevated, expressway-like connectivity to major industrial parks and clusters have not been intrinsic to the programme. Railway spurs to automobile plants are not there while they were normal to the globally competitive textile mills in the early part of the last century.

Infrastructure development has been pursued in general, but without the focus on industrial competitiveness in identified locations. If such a focus were there, the central government would have been investing in providing rail connectivity to automobile plants, the freight corridors could have been made functional earlier, the share of goods transport by rail, which

is cheaper, would have become higher, the national highways would have been toll-free to lower costs of movement of goods, and electricity tariffs for industry would be reflecting the actual cost of supply rather than carrying a heavy burden of cross subsidy.

A misplaced faith in the market and the private sector led to the retreat of the state from the development of new industrial areas. The special economic zones and textile and leather parks were all to be developed by the private sector. This did not recognize that scale is critical to success, as in such industrial developments there are positive externalities, agglomeration benefits and increasing returns of scale. The Chinese have been demonstrating this for decades. The Indian private sector has not had the capacity to put together more than a few hundred acres of land at one location, whereas the minimum lot size for a manufacturing cluster should be 1000 acres.

This mindset has delayed the implementation of the ambitious Delhi–Mumbai Industrial Corridor by many years as the initial view was that this would be developed through private investment. Only on reaching a dead end did the central government decide to fund trunk infrastructure. The good idea of developing large economic areas around ports along the coast will not take off unless the state takes responsibility for land assembly and infrastructure development. The private sector can be partners in developing smaller manageable areas within and take the lead in marketing and responsibility for maintenance.

Due to the absence of a holistic strategy for industrial competitiveness, the need for workers' housing has been lost sight of. They were a normal part of the textile mills set up a hundred years ago. All industrializing societies chose to provide workers housing in one form or the other—council housing in London in an earlier era, or dormitories in China more recently.

On the same machine, the productivity of a worker who has access to a decent bed and toilet and does not have to commute for long periods is bound to be significantly higher than that of a worker who does not have such access.

Industrial competitiveness without adequate provision of workers' housing is not possible. The market historically on its own does not provide workers housing when it is really needed at the early stages of industrialization, and the state has stepped in to address this market failure. Industrial parks without rental dormitory/housing accommodation are suboptimal. If India is to succeed in achieving competitiveness, it cannot do so without the provision of decent workers' accommodations in and around industrial clusters.

All of this would need, first of all, a change in mindset to recognize that market forces need to be supplemented and steered by smart selective state action and intervention to get the desired outcomes in job creation. A critical macro prerequisite would be to give up the fallacy of a strong currency reflecting a strong economy, and for the RBI to intervene in the market to stop real exchange rate appreciation. Another would be to get the proposed consolidation of labour laws in four codes enacted, with the existing drafts being improved. The central government would need to assume leadership to drive the process. It would also need to provide funds to the extent required. There is no point in suboptimal funding and spreading resources too thin. Also, only a few key sectors should be chosen initially for decisive state policy. There needs to be acceptance of the necessity of public investment in creating islands of globally competitive infrastructure, provision of land and even plug 'n' play selectively to attract private investment to create jobs. The flexibility available to India within its WTO commitments should be used to improve the business case for investments that create jobs.

India needs to get its act together on job creation at the earliest. Employment generation rather than GDP growth rates should be the primary development goal as this alone would lead to the elimination of poverty.

Tackling Jobless Growth: Labour Policy and the Labour Codes

S.C. Srivastava

It is often contended by employers that labour laws place unreasonable restrictions on them in hiring and firing workmen and inhibit them in handling global competition. They also claim that this hinders them in opening new businesses and discourages employment intensity. On the other hand, workers' organizations have opposed the dilution of job security provisions in labour laws since they feel that it would encourage exploitation and deterioration in the quality of employment.

Indeed, most of the labour legislation in India is more than seven decades old. Further, there are more than thirty-eight labour legislations at the central level and more than 100 at state levels. But most of them are not applicable to unorganized labour, which constitutes about 93 per cent of the labour force. Moreover, the existing labour legislations do not fully address the problems of enforcement.

This essay seeks to examine the steps taken by the government to tackle the issues of the jobs crisis through reforms in labour

laws (including rules and regulations) and other administrative measures.

Legislative Initiatives

In order to give effect to the recommendations of the Second National Commission on Labour, the Ministry of Labour and Employment, Government of India, has drafted four labour codes to deal with industrial relations, wages, social security and occupational safety, health and working conditions in lieu of the existing thirty-eight central labour legislations. Further, these draft codes seek to simplify, rationalize and consolidate labour laws. Let us examine the draft codes and evaluate their impact on employment generation.

Industrial Relations Code, 2019¹

This code seeks to consolidate three existing industrial relations legislations, namely the Industrial Disputes Act, 1947; the Trade Unions Act, 1926; and the Industrial Employment (Standing Orders) Act, 1946. The key provisions of the code are as follows:

Abolition of Board of Conciliation, Labour Court and Court of Inquiry

The code proposes to abolish the three authorities—the Board of Conciliation, Labour Court and Court of Inquiry—provided under the Industrial Disputes Act, 1947. The Labour Court is proposed to be merged into industrial tribunals because in several states there are labour courts-cum-industrial tribunals and thereby a merger would avoid duplication and cut costs. Further, the abolition of the Board of Conciliation and Court of Inquiry has been proposed because they have rarely been constituted and remain on the statute book.

Composition of the Tribunals

The code provides for two-member labour tribunals, with the second member being from the administrative side, in place of the single-member Labour Court and Industrial Tribunal under the Industrial Disputes Act. It is felt that a provision for a second member from the administrative side is not necessary in labour matters because unlike the Central Administrative Tribunal, which primarily deals with disputes relating to government servants, labour tribunals are required to deal with disputes relating to the private and public sectors. Moreover, the possibility of a conflict of opinion between judicial members from the administrative side may further delay the disposal of cases and thereby affect industrial peace.

Power to Execute the Award

The code empowers the labour tribunals to execute the award as a decree of a civil court. This will facilitate the speedy disposal of disputes.

Strikes and Lockouts

The code requires workmen and employers of every establishment, whether public utility service or not, to give notices of strikes and lockouts before resorting to the use of such action. This insertion became necessary because under the Industrial Disputes Act, 1947, notice is required to be given for declaring a strike or lockout only in the public utility service. But the trade unions oppose this provision because they feel that it amounts to a virtual ban on strikes. This view, however, ignores the basic requirement of giving notice before resorting to a strike.

Section 2 defines strike, inter alia, as including the concerted casual leave on a given day by 50 per cent or more workers employed in an industry. This provision was very much needed because the definition of strike under the Industrial Disputes Act, 1947, does not include concerted casual leave. In the absence of such a provision, workers not being present led to the stoppage of work which ultimately affected industrial production and work schedules.

Another issue relates to the prevention of irresponsible action by the union through strikes. In order to meet this situation the Second National Commission on Labour recommended that strikes should be permissible only if called by a recognized negotiating agent, and that too only after a strike ballot was conducted among all workers, of which at least 51 per cent should support the strike. This provision did not find a place in the code. It is felt that such a provision should be inserted to prevent irresponsible coercive acts of some unions which may be because of political rivalry.

The stay-in strike is yet another aspect which did not find a place in the code. Even though the Supreme Court in *Punjab National Bank v. Its Workmen*² held that stay-in strikes were covered under the definition of strike under the Industrial Disputes Act, it is a misconduct particularly when workers occupy the place and do not vacate it after being asked to do so. It also amounts to criminal trespass.

Work-to-rule is yet another aspect which did not find a place in the code. It is felt that this act should also amount to misconduct and be inserted. These provisions would bring industrial peace and encourage investors to run businesses.

Time Limit for Completing Disciplinary Proceedings and Liability to Pay Subsistence Allowance

The Industrial Disputes Act does not prescribe any time limit for the completion of disciplinary proceedings. This has caused not

only harassment of workmen but even employers. In order to meet this situation, Section 38 of the code provides that where any worker is suspended by the employer pending investigation or inquiry into complaints or charges of misconduct against him, such investigation or inquiry, or where there is an investigation followed by an inquiry, both the investigation and inquiry shall be completed ordinarily within a period of ninety days from the date of suspension. Such a provision would help both the employer and workmen in maintaining a conducive atmosphere and peace in the industry.

Issues Relating to the Requirement of Prior Permission in Case of Lay-offs, Retrenchment and Closure

Prior to 1976, there was no provision under the Industrial Disputes Act, 1947, to seek prior approval of the appropriate government before laying off, retrenching or closing an establishment. But in 1976, due to the sudden rise in the instances of lay-offs, retrenchment and closure the said Act was amended and a new chapter (VB) inserted which was made applicable to establishments employing 300 or more workmen.

This chapter, inter alia, made prior approval of the appropriate government a condition precedent in cases of lay-offs, retrenchment and closure. In 1982, the scope of this provision was extended to establishments employing 100 or more workmen. This provision unduly curtailed the management's powers related to lay-offs, retrenchment and closure. Indeed, this has 'a negative effect on both the growth of output and employment', according to Timothy Besley and Robin Burgess (2004),³ and created a psychological blockade in businesses against establishing new enterprises with a larger workforce, according to the Planning Commission of India (2008). However, such a fear was unfounded while dealing with the impact of the provision, said T.S. Papola.⁴ He pointed out

that as per a survey conducted in 2004, in 60 per cent of the cases, permissions applied for lay-offs, retrenchment and closure were granted, in 30 per cent of the cases additional information was sought, and only in 10 per cent cases such permission was refused. Be that as it may, the Second National Commission on Labour, in its report in 2002, as discussed by the author in his book,⁵ examined the impact of the aforesaid amendment and recommended that prior permission should not be necessary with respect to lay-offs and retrenchment in an establishment of any employment size. Further, the commission made a series of other recommendations including the payment of compensation at the rate of forty-five days instead of the existing fifteen days for each year of service in aforesaid cases. But the report was gathering dust until 2014, when the present government came into power.

Section 77 of the code makes special provisions relating to lay-offs, retrenchment and closure in certain establishments. Thus, it has retained the existing provisions in Chapter VB of the Industrial Disputes Act, which applies to an industrial establishment in which not less than 100 workers are employed, that no permission is required to be taken by the employer from the government before laying-off, retrenching, or closing an establishment. However, it added a proviso where a threshold of more than 100 workers is in force in a state under the law for the time being in force in such a state immediately before the commencement of this code, then such a threshold shall prevail for the purposes of sub-section (1) of Section 77 till it is amended by the competent legislature. The net effect of this proviso would be that in states such as Rajasthan, Madhya Pradesh, Haryana, Andhra Pradesh and Uttar Pradesh, establishments employing up to 300 workers will be allowed to retrench workers or close the establishment without the government's approval.

Recognition of Negotiating Union or Negotiating Council

A crucial issue in labour laws relates to the recognition of trade unions. This is because there is no provision in any central labour legislation for the recognition of trade unions by employers. The basic issue is the mode of determining the bargaining agent. In order to meet the situation, Section 14 of the code provides that there shall be a negotiating union or negotiating council, as the case may be, in an industrial establishment for negotiating with the employer of the industrial establishment on such matters as may be prescribed. Thus, the code provides that where only one trade union of workers registered under this code is functioning in an industrial establishment, then the employer of such industrial establishment shall recognize such trade unions as the sole negotiating union of the workers. But where more than one trade union of workers registered under this code is functioning in an industrial establishment, then the trade union having 75 per cent or more workers on the roll of that industrial establishment, verified in such manner as may be prescribed, supporting that trade union shall be recognized by the appropriate government or any officer authorized by such government as the sole negotiating union of workers.

Adjudication of Disputes between Trade Unions

Another issue relates to adjudication of disputes between trade unions. In the absence of any provision in the existing Trade Unions Act, 1926, a number of disputes were raised before the Supreme Court and high courts. In order to meet this situation, Section 22 of the code provides that where a dispute arises between one trade union and another, one or more workers,

or where a dispute is in respect of a trade union which is a federation of trade unions and office-bearer authorized in this regard by the trade union, the tribunal having jurisdiction would adjudicate such disputes.

Code on Wages, 2019

Like the proposed code on industrial relations the Code on Wages⁶ amalgamates four existing wage legislations: the Payment of Wages Act, 1936; Minimum Wages Act, 1948; Payment of Bonus Act, 1965; and Equal Remuneration Act, 1976, into a single code. The key provisions of the code are as follows:

Employees/Workers Covered

The Code on Wages, 2019, defines ‘employee’ as well as ‘worker’. The question therefore arises as to whether there is a need to define employee as well as worker separately. This issue was raised before the Parliamentary Standing Committee on Labour (2018–19) while considering the Code on Wages Bill, 2017. There were disagreements between industry bodies and the unions with regard to the definition of ‘worker’ and ‘employee’. While the unions were of the view that ‘employee’ is a much more widely used term and allows a larger number of persons to access statutory benefits, industry bodies such as the PHD Chamber of Commerce and Industry were of the view that the definition should specifically exclude persons engaged in managerial, administrative and supervisory jobs. The Standing Committee after considering the views of labour unions, employers’ associations and the Ministry of Labour felt that the code lacked consistency in its use of both ‘worker’ and ‘employee’, which could lead to confusion. However, the

Code on Wages retains the definitions of both ‘worker’ and ‘employee’. Be that as it may, it has failed to avoid a multiplicity of definitions. It is felt that there should be a single definition for worker/employee in order to avoid multiplicities. Moreover, Section 2(k) which defines the term ‘employee’ authorizes the appropriate government to declare any person to be an employee. This power, it is felt, is unlimited and unqualified and may be abused.

Issues Regarding Substitution of the Term ‘National Minimum Wage’ by ‘Floor Wage’

Section 9(1) empowers the central government to fix the floor wage keeping in view the minimum living standards of a worker. Prior to 2019, the Code on Wages Bill, 2017, under Clause 9 sub-clause (1) provided: ‘Central Government shall by notification, fix the National Minimum Wage: Provided that different National Minimum Wage may be fixed for different States or different geographical areas.’

The aforesaid bill was placed before the Parliamentary Standing Committee. The committee, inter alia, recommended that Clause 9(1) of the 2017 bill be substituted with the following: ‘The Code on Wages Bill, 2019, has ignored the provisions contained in the Code on Wages Bill, 2017, that the Central Government shall by notification fix the National Minimum Wage in the manner as may be prescribed from time to time and also the recommendation of the Parliamentary Standing Committee to this effect.’ But the code replaced the expression ‘national minimum wage’ with ‘floor wage’ and not even national floor wage. Whatever may be the reasons for this shift in statutory policy, an impression has been created that the existing voluntary ‘floor wage’ which is at present Rs 178 is being given statutory status.

Criteria for Fixing Floor Wages

The code does not lay down any criteria for fixing floor wages. It only provides that the central government shall fix the floor wage taking into account the minimum living standards of a worker in such a manner as may be prescribed. It, therefore, raises the question of how to determine the minimum living standards of workers. There are two limitations on the fixing of floor wages: (i) It will be fixed as per the rules prescribed by the central government; (ii) The central government must seek the advice of the Central Advisory Board. But it is doubtful whether the central government would be bound to follow its recommendation. Thus, the possibility of 'arbitrarily' fixing floor wages cannot be ruled out. In view of this, it is necessary that the code and more particularly the rules framed by the central government should specifically lay down the criteria for the fixation of floor wages and minimum living standards of a worker, taking into account the recommendations of the Economic Survey 2019 that a better national wage ceiling will alleviate disparity and poverty in India.

Consequences of Concerted Absence by Ten or More Persons Without Notice and Without Reasonable Cause

The proviso to Section 20(2) provides that if ten or more employed persons acting in concert absent themselves without due notice (that is, without giving the notice that is required under the terms of their contracts of employment) and without reasonable cause, the employer may make deductions from the wages of any such person up to eight days in lieu of the due notice.

The Explanation to Section 20(2) provides that an employee shall be deemed to be absent from the place where he is required

to work if, although present in such a place, he refuses, in pursuance of a stay-in strike or for any other cause which is not reasonable in the circumstances, to carry out his work. Thus, if an employee/employees who resort(s) to a stay-in strike, which the Supreme Court in *Punjab National Bank v. Its Workmen*⁷ held to be a form of strike like any other kind of strike, he/she/they shall under the code be deemed to be absent from the place of work. The code consequently authorizes the employer to make deductions from the wages of any such person up to eight days in lieu of due notice.

Bonus

Section 26 of the Code on Wages, unlike the Payment of Bonus Act, 1965, which regulated bonus prior to the commencement of the code, does not specifically prescribe the wage ceiling for getting a bonus. However, the code, which should have specified the wage limit, has left it open for the appropriate government to prescribe the wages not exceeding such amount per mensem for the payment of the bonus. Likewise, where the wages of the employee exceed such amount per mensem, as determined by notification by the appropriate government, the bonus payable to such employee shall be calculated as if the wages of the employee were such amount so determined by the appropriate government or the minimum wages fixed by the appropriate government, whichever is higher. It is felt that such a wage limit for the eligibility of bonus should have been provided by the legislature in the code.

Limitations on the Fixation of Floor Wage

Under Section 9(2) the appropriate government cannot fix the minimum wages as less than the floor wage under Section 6. Further, if the minimum wage fixed by the appropriate

government earlier is already more than the floor wage, then the appropriate government cannot reduce such minimum wage fixed by it earlier. The Standing Committee while reviewing the Code on Wages Bill, 2017, opined that the code must convey the message that the workers, who (are) were getting minimum wages as per the Minimum Wages Act shall not get less than what they (are) were getting under the Code of Wages Bill, 2017 (now Code on Wages, 2019), and the same shall continue to be revised as per past practice. It is hoped that the central government will take into account the recommendation of the Standing Committee while fixing floor wages.

Simplification/Reduction of Number of Registers to be Maintained Under Various Central Labour Laws

In order to simplify labour laws and ease compliance in maintaining separate records and registers under different wage legislations by employers, the Code on Wages requires that a single register must be maintained for the record of employees' wages, bonus, muster roll, etc.

Code on Social Security, 2019⁸

Unlike previous drafts, the Code on Social Security, 2019, seeks to amalgamate nine existing social security legislations (the Employees' Compensation Act, 1923; Employees' State Insurance Act, 1948; Employees' Provident Funds and Miscellaneous Provisions Act, 1952; Employment Exchange [Compulsory Notification of Vacancies] Act, 1959, Maternity Benefit Act, 1961; Payment of Gratuity Act, 1972; Cine Workers Welfare Fund Act, 1981; Building and Other Construction Workers Cess Act, 1996; and Unorganized Workers' Social Security Act, 2008).

Definition of Social Security

The code for the first time defines social security, which was so far not done under any existing social security legislation in India. It is defined as the measures of protection afforded to employees to ensure their access to healthcare and to provide income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity or loss of a breadwinner by means of rights enshrined and schemes framed under the code. This definition appears to be in conformity with the ILO Social Security (Minimum Standards) Convention, 1952.

Applicability of the Code

The code applies to (a) a place where any industry, trade, business, manufacture or occupation is carried on; (b) a factory, motor transport undertaking, newspaper establishment, audio/video production, building and other construction work or plantation; (c) a mine or dock.

The code has retained the provisions contained in the existing central social security legislation in India with respect to its application. Thus:

- Employees' Provident Fund is applicable to establishments in which twenty or more employees are or were employed.
- Employees' State Insurance (ESI) provisions would apply in establishments in which ten or more employees are employed or were employed, other than a seasonal factory.
- Gratuity would be payable in (i) any factory, mine, oilfield, plantation, port and railway company; and (ii) every shop and establishment in which ten or more persons are employed.
- Maternity benefit provisions would be applicable in (i) establishments such as a factory, mine or plantation including

any such establishment belonging to the government; and
(ii) to every shop and establishment in which ten or more persons are employed.

- Employees' compensation would be payable to employers and employees to whom chapter ESI does not apply.
- Building and Other Construction Workers Welfare Cess would apply to those who employ building workers in any building or other construction work.
- Social Security for the Unorganized Sector covers those who are employed in the unorganized sector.

Employees Covered under the Code

The code aims at the universalization of social security, and as such the term 'employee' means:

1. A person (other than an apprentice engaged under the Apprentices Act, 1961) employed on wages by an establishment to do any skilled or unskilled manual, operational, managerial, administrative, technical or clerical work for hire or reward, whether the terms of employment be express or implied;
2. It includes a person declared to be an employee by the appropriate government;
3. But it does not include any member of the armed forces of the Union.

For the purposes of Chapter III of Employees' Provident Fund and Chapter IV of Employees' State Insurance, 'employee' shall mean only such employees drawing wages less than or equal to the wage ceiling notified by the central government.

For the purposes of Chapter VII, Employees' Compensation, employee shall mean persons specified in the

Second Schedule and such other persons or class of persons added by the central or the state government in the said Schedule, by notification.

Registration of Factories and Establishments

Every establishment to which this code applies shall be registered within such time and in such manner as may be prescribed by the central government.

Social Security Organizations

In order to administer social security schemes and fund them, the central government shall constitute the following organizations:

1. Central Board of Trustees
2. Employees' State Insurance Corporation
3. National Social Security Board for unorganized workers
4. State Building Workers Welfare Boards
5. State Boards/Regional Boards
6. Local Committees

Like the central government, state governments are also required to constitute State Unorganized Workers' Boards or the Building Workers' Welfare Boards and advisory boards.

Social Security and Cess in Respect of Building and Other Construction Workers

The draft code retains the provisions of the Building and Other Construction Workers' Welfare Cess Act, 1996. Thus, it provides that there shall be levied and collected a cess for the purposes of social security and welfare of building workers at

such rate not exceeding 2 per cent, but not less than 1 per cent of the cost of construction incurred by an employer.

Social Security for Unorganized Workers

Section 109 of the code has adopted the provisions contained in the Unorganized Social Security Act, 2008. Thus, the code imposes an obligation upon the central government to formulate and notify, from time to time, suitable welfare schemes for unorganized workers on matters relating to:

1. Life and disability cover
2. Health and maternity benefits
3. Old-age protection
4. Education
5. Housing
6. Any other benefit determined by the central government.

Like the central government, the state governments may also formulate and notify, from time to time, suitable welfare schemes for unorganized workers, including schemes relating to:

1. Provident Fund
2. Employment injury benefit
3. Housing
4. Educational schemes for children
5. Skill upgradation of workers
6. Funeral assistance
7. Old-age homes.

Funding for Unorganized Workers

The key issue relating to the social security of unorganized workers is the availability of funds. This is all the more so because unorganized

labour constitutes 93 per cent of the total labour force. However, the new feature of the code is that in addition to existing sources provided in the existing Unorganized Social Security Act, 2008, it has added a corporate social responsibility fund within the meaning of the Companies Act, 2013, or any other such source as may be specified in the scheme as a new source of funding.

Registration for the Unorganized Sector

Another problem area of the code relates to the registration of unorganized workers. The code provides that every unorganized worker shall be eligible for registration, provided:

- He or she has completed sixteen years of age or such age as may be prescribed by the central government;
- He or she meets such socio-economic criteria as may be prescribed by the central government;
- He or she has submitted a self-declaration electronically or otherwise in such form as may be prescribed by the central government.

Social Security for Persons Employed on Fixed-Term Employment

The code recognizes and provides social security to employees on fixed-term employment.⁹ Thus, Section 55 relaxes the minimum qualifying period for eligibility for gratuity by providing that the completion of continuous service of five years shall not be necessary where expiration of a fixed-term contract or any such event as may be notified by the central government.

Social Security for Gig and Platform Workers

Keeping in view the future of work and new types of employment, the code seeks to provide social security to gig

workers and platform workers. Thus, the code authorizes the central government to formulate and notify, from time to time, suitable social security schemes for gig workers and platform workers.

Inspector-cum-Facilitators and Their Powers

The code empowers the central government and the appropriate government (falling within their jurisdiction) to lay down an inspection scheme which may also provide for the generation of web-based inspection. This would certainly prevent malpractices and the misuse of power, but undue interference would make the inspection machinery ineffective.

Occupational Safety, Health and Working Conditions, 2019

The Code on Occupational Safety, Health and Working Conditions Bill, 2019, was the second one after the Code on Wages, 2019, to be introduced in the Lok Sabha in July 2019. This bill has been prepared in pursuance of the recommendations of the Second National Commission on Labour which submitted its report in June 2002, that is, after seventeen years. The bill seeks to amalgamate thirteen labour laws.¹⁰ Accordingly, the code proposes to repeal all the aforesaid Acts except the Cine Workers and Cinema Theatre Workers' Act, 1981.

Applicability of the Code

The code applies to all establishments employing ten or more workers, except mines and docks where the code would be applicable even with one worker. In order to ensure wider

coverage, the definitions of working journalists and cine workers have also been modified to include workers employed in electronic media and all forms of audiovisual production. Similarly, the definition of interstate migrant worker has also been proposed to be modified to include those migrant workers who are being employed directly by the employer from other states without contractors or agents.

However, the Centre of Indian Trade Unions (CITU), Indian National Trade Union Congress (INTUC) and the All India Trade Union Congress (AITUC) and others in their joint statement said that by making the code applicable only to establishments with ten or more workers, it was keeping 90 per cent of the workforce, from the unorganized sector, outsourced on contract and home-based, out of its purview. They felt that the threshold limit specified with respect to the number of employees for the coverage of 'establishment be removed because under Article 39(e) of the Constitution, state is committed' to secure the health and strength of workers.

Administration of the Code

The code empowers the central government to constitute a National Occupational Safety and Health Advisory Board (with similar bodies at the state level) to advise it on matters relating to (a) standards, rules and regulations to be framed under this code; (b) implementation of the provisions of this code and the rules and regulations relating thereto; (c) the issues of policy and programme relating to occupational safety and health referred to it, from time to time; and (d) any other matter relating to this code referred to from time to time. Moreover, the code empowers the government to constitute safety committee(s) in an establishment or a class of establishments.

Declaration of Standards on Occupational Safety and Health for Workplaces

Section 18 empowers the central government to declare, by notification, the standards on occupational safety and health for workplaces relating to factories, mines, dock work, building and other construction work and other establishments.

Review of the Code

An analysis and examination of the provisions of the code requires the following to be considered:

- Even though the labour code seeks to simplify, rationalize and consolidate existing legislations, it has not included the Shops and Commercial Establishments Act; Dangerous Machine Regulation Act, 1983; and Boilers Act, 1923. It is felt that the code should be self-contained since it is the only code which is devoted to occupational safety, health and working conditions.
- It is felt that the proposed code should be confined to only occupational health and safety and working conditions, and welfare should be dealt with in a separate code. Both in the United Kingdom and the USA, from where some of the provisions have been borrowed, there is separate legislation for occupational safety and health.
- The code has failed to avoid multiplicity of definitions when it defined worker (Section 2 [zze]) as well as employee (Section 2[s]). It is felt that there should be a single definition for worker/employee in order to avoid multiplicities.
- Conferment of power upon the appropriate government under Clause (ii) of Section 2(s) to declare a person to be

an employee without laying down any norm is not only arbitrary but amounts to excessive delegation.

- Section 2(zb) of the code has discarded the existing definition of industry given in Section 2(j) of the Industrial Disputes Act, 1947, and instead incorporated the interpretation of the said section given by the Supreme Court in *Bangalore Water Supply and Sewerage Board v. Rajappa*.¹¹ But it may be noted that this decision is under review before a nine-judge bench of the Supreme Court.
- The code has not followed the recommendation of the Second National Commission that supervisors should be kept out of the purview of 'workers' as defined in Section 2(zze) of the code, maybe because it tried to give universal coverage.
- The code has excluded apprentices under the Apprentices Act, 1961, from the purview of 'worker' and 'employee'. It is felt that Section 2(s) which defines the term 'employee' should specifically provide that provisions relating to health, safety and welfare in the code shall be extended to the apprentice undergoing training in a factory, mine or other establishment. The said section should be accordingly amended.
- The code proposes one registration for an establishment instead of multiple registrations. At present, six labour acts out of thirteen provide for separate registration of establishments. This would prevent malpractice and ultimately help the management in setting up new establishments and create jobs.
- Unlike the Factories Act, 1948, which prescribes hours of work, Section 25 of the code delegates the power of fixing hours of work upon the appropriate government. It is felt that the fixation of hours of work should be done legislatively and not through a delegated legislation. This is

so because Convention 1 of the ILO, which is 100 years old, prescribes eight hours of work. India is a founding member of the ILO and must not be seen to be at variance with this international standard. Further, it is necessary to maintain uniformity at the national level in respect of working hours and spreadover. Moreover, providing for extensive delegated legislation in this regard amounts to 'abdication of legislative power' as held by the apex court.

- Part VI of the code which is devoted to factories (particularly Section 75, which deals with the liability of owners of premises in certain circumstances) is not only vague but incomplete and scattered. Many relevant provisions of the Factories Act have not been incorporated but even those which have been provided are either repeated or mixed with others, thereby creating confusion. Provisions with respect to health have been mixed with safety and vice versa. It is felt that these need to be rewritten and drafted properly.
- In order to prevent malpractices in the payment of wages to contract labour, Section 55 provides that every contractor shall make the disbursement of wages referred to in subsection(1) through bank transfers or via electronic modes and inform the principal employer electronically the amount so paid by it.

Inspection Machinery: Inspector-cum-Facilitators

Labour inspection is the key component of a labour administration system. Indeed, the ILO Labour Inspection Convention (no. 81) requires (i) frequent and thorough inspections, (ii) free entry of inspectors to workplaces, (iii) no prior approval of inspections by the government and (iv) an independent inspectorate. India has ratified this convention.

However, employers are against labour inspection, calling it ‘inspector raj’, and are even asking for its abolition because of malpractices and undue harassment involved therein. In order to ease the compliance of labour laws and to generate employment, several steps have been taken by the government to prevent malpractices involved therein and to bring transparency. But before taking up these issues, it is necessary to examine the structure of the labour inspection machinery in India.

At the central level, there are four main enforcement agencies, namely the Chief Labour Commissioner (CLC), Employees’ Provident Funds Organization (EPFO), Employees’ State Insurance Corporation (ESIC), and Director General of Mines Safety (DGMS). Even though there are no official statistics available about the number of inspectors and their workload, as per the study/research work carried out by the author the CLC office has nearly 140 inspectors for twenty regions, 11,630 units and nearly 1,50,000 establishments. Further, they are required to enforce thirteen labour legislations including the Minimum Wages Act, Payment of Wages Act and the Contract Labour (Regulation and Abolition) Act. In ports and docks, there are nearly twenty inspectors for twelve major seaports. Under DGMS, there are sixty-three inspectors to oversee twenty-nine regions, 9178 units and more than 10,000 licensed mines. In EPFO, there are 896 inspectors for 120 regions and 2,55,276 units covering about 3,50,000 active establishments. Under ESIC, there are 609 inspectors to deal with twenty-one regions and nearly 2,50,000 units. From this, it appears that in the central sphere, the ratio of inspector and establishments/units under them and the law which they are required to enforce is extremely low. Further, in many cases, vacancies have not been filled. Moreover, the number of inspecting staff has declined over the decades in almost all states. Be that as it may, in recent

years in the central sphere, the central government has, inter alia, issued the following directions for conducting inspections:

1. A computerized list of inspections is generated randomly based on risk-based objective criteria.
2. Serious matters are to be covered under the mandatory list.
3. Complaints-based inspections are to be determined centrally after examinations based on data and evidence.
4. Inspection findings are to be mandatorily uploaded within seventy-two hours.

Like the centre, several states have also taken the help of information technology in inspection. Thus, the government of Andhra Pradesh issued a revised online inspection procedure in the labour department with a view to ensure ease of doing business. The government of Rajasthan also published on the department's website a well-defined inspection procedure and checklist. It identified establishments that need to be inspected based on computerized risk assessment and also provided for high-risk joint inspections once a year, medium-risk third-party certifications once in two years, and low-risk self-certification for five years. Self-certification schemes have also been introduced in Rajasthan, Haryana, Punjab and Uttar Pradesh with the objective of inculcating and promoting self-compliance of the provisions of labour laws amongst employers and entrepreneurs, and to implement a more responsible, document-oriented system of labour inspections where such inspection visits are found necessary. However, studies reveal that the aforesaid relaxation in inspection procedures has not made any dent or succeeded in bringing any significant growth in employment generation.

The aforesaid policy in liberalizing inspection procedures and the reduction of the number of inspections formed the subject matter of debate in the 104th International Labour Conference in Geneva. Justifying the lesser number of inspectors as compared

to the workload, the then secretary, labour and employment, Government of India, said that the emphasis of the government was on quality and effectiveness of the labour inspection system rather than mere numbers. He added that the government 'wants to bring in an efficient system of compliance for labour legislation with the help of information technology'. Responding to the observations of the Committee of Experts on Application of Conventions and Recommendations, he said that the Government of India had taken a major good governance initiative to avoid malpractices in labour inspections. He reiterated that the rights of the inspection authority had not been curtailed at all. The phrase 'end of inspector raj' did not mean the 'end of the inspection system' but the end of malpractices and arbitrariness.¹²

The Labour Code on Wages, 2019, provides for the appointment of an inspector-cum-facilitator in lieu of inspectors occurring under the existing four wage legislations mentioned above. The code confers upon him/her a new role of supplying information and advice to employers and workers in addition to the power to conduct the inquiry and investigation of an employer to ensure compliance. However, it is felt particularly by the federation of trade unions and even by the government of Karnataka that this is not an effective means of complying with the provisions of the code. In view of this, the Standing Committee on Labour (2017–18) has also recommended that 'facilitator' be substituted by 'inspector' in accordance with ILO norms, since India has ratified the ILO Convention.

Administrative Initiatives Taken by the Government of India

The Ministry of Labour and Employment has taken several administrative measures to provide employment generation and simplification of labour laws for the ease of doing business.

Simplification/Reduction of Number of Registers to be Maintained

The Ministry of Labour and Employment, Government of India, as published in the Annual Report 2017–18, issued a notification on the ease of compliance to maintain registers under various labour laws rules on 21 February 2017 which has in effect been brought down to five common registers/forms. These measures, it is claimed, will save efforts and costs, and lessen the compliance burden upon employers under various labour legislations.

A notification of the Government of India (March 2017) reduced the number of forms provided under various Acts/rules from the existing thirty-six to twelve.

In addition, the Ministry of Labour and Employment has developed a unified web portal (Shram Suvidha Portal) to bring transparency and accountability in the enforcement of labour laws and ease the complexity of compliance. The main features of the portal are as follows:

- Filing of self-certified and simplified single online returns by establishments. Units will only file a single consolidated return online instead of filing separate returns.
- Allotment of a unique labour identification number (LIN) to units to facilitate online registration. This was started on the portal with its launch on 16 October 2014 (issued to 2,27,75,391 units as on 16 November 2017).

Contract Labour and Fixed-Term Employment

Contract Labour (Regulation and Abolition) Act, 1970¹³

In order to meet the challenges faced by the management due to globalization and the accompanying intensification of

competition, the system of outsourcing (contracting) has emerged as an indispensable plank. Whatever may be the ill effects of the contract labour system, it has now come to stay. In order to prevent the exploitation of contract labour, the Contract Labour (Regulation and Abolition) Act, 1970, was enacted to regulate the employment of contract labour. The Act applies to (a) every establishment in which twenty or more workmen are employed or were employed on any day of the preceding twelve months as contract labour; (b) to every contractor who employs or who employed on any day of the preceding twelve months twenty or more. But the states of Rajasthan and Andhra Pradesh have amended sub-section(4) of Section 1 of the Contract Labour (R&A) Act, 1970, whereby the applicability of the Act with respect to the contractor as well as establishment has been raised from twenty to fifty.

A survey of decided cases reveals that contract labour are allowed to work in factories, mines and other establishments even where there is a perennial nature of work until it is prohibited by the appropriate government under Section 10 of the Act. But howsoever exploitative the contract labour system may be, a mere abolition of it would leave contract labourers high and dry, leading to a situation in which the remedy is worse than the disease. The National Commission on Rural Labour also observed that the abolition of contract labour, instead of proving to be a remedy for contract workers, was functionally a malady as he/she was deprived of whatever little he/she was getting. To this effect, the Supreme Court in *Steel Authority of India v. National Union Water Front Workers*¹⁴ held that upon the abolition of the contract labour system the contract labourer became the employee of the contractor. Two issues arise, namely (i) what would happen if the contractor, on the abolition of the contract labour system, did not have any work in any other establishment; (ii) what would happen if on

the termination of the contract, the contractor was unable to pay a retrenchment compensation. In such a situation, the law is silent as to whether the principal employer would be liable to pay a retrenchment compensation. There is a need to review the law on the subject.

It is true that the contract labour system has generated employment to a considerable extent but it is felt that we cannot altogether ignore and overlook the fate of those contract labourers who have been working for several years, and are still not only denied pay parity with regular employees, social security and other benefits despite statutory provisions, but their services have not been regularized or even terminated by the contractor after putting in several years of service. The management, particularly in the public sector, should evolve a policy to employ in a phased manner by fixing some percentage to employ contract labour on a regular basis and also to give preference while employing a new recruit.

Fixed-Term Employment

The exploitation of contract labour by the contractor, the denial of statutory benefits and the increasing demand to promote direct employment by the employer led to the emergence of the concept of fixed-term employment. Thus, in order to encourage enterprises to employ more workers, be competitive in a global market, eliminate the third party, that is, the contractor in the scheme of labour, and also to provide statutory protection in respect to wages and social security, the Industrial Employment (Standing Orders) Central (Amendment) Rules, 2018, hereafter referred to as Fixed-Term Employment Rules, was framed. The rules, unlike the contract labour system, removes the middleman. This means there will be no fear among employers to carry on with an extra labour force during the lean season.

The category of fixed-term employees is an addition to the previous categories in the classification of workmen, namely, classification of workers, periods and hours of work, holidays, paydays, wage rates and other conditions of employment under the Industrial Employment (Standing Order) Act, 1946. Such fixed-term employment workers are eligible for all statutory benefits available to regular workmen proportionately according to the length of service rendered by them, with an exception that they have no lien on the job upon the completion of the terms of employment.

Under the rules, 'fixed-term employee' means a person who is employed on a contractual basis for a fixed term. As per the rules, a fixed-term worker is entitled to all benefits such as wages, hours of work, allowances and others statutory benefits, just like a permanent workman. Further, the rule also provides that the fixed-term employee shall be entitled to social security benefits available to permanent workmen, proportionate to period of service rendered by him/her even if he/she has not fulfilled the qualifying period.

However, no workman employed on fixed-term employment shall be entitled to any compensation if his/her services are terminated upon the expiry of the period of contract employment. Moreover, no employer can convert the posts of permanent workmen to fixed-term employment.

The aforesaid rule permits the employer to directly hire the worker without any intermediary or contractor. Further, workers would get better social security benefits. This would thus encourage investors, particularly foreign investors, to invest in India. However, the Federation of Trade Unions (other than the Bharatiya Mazdoor Sangh) has opposed the amendment in the Industrial Employment Standing Order Rules providing for fixed-term employment on the grounds that they have not been consulted.

There is no doubt that labour law reform is the need of the hour and the Code on Wages, 2019; Proposed Code on Occupational Safety, Health and Working Conditions Bill, 2019; Draft Industrial Relations Code, 2019; and Draft Code on Social Security, 2019, with suitable amendments would meet the demands of Indian employers, as also foreign investors and their criticism that labour law is a stumbling block in the setting up of industry and providing employment. But it is felt that a mere change in the labour law and hasty legislation would not result in employment generation. The labour law must change to give greater flexibility. It should be market-oriented and market-friendly to allow ease of doing business in India. Apart from this, the feasibility of encouraging employment in existing establishments and more so in small industrial establishments through a system of tax incentives should be explored.

II

MESO-LEVEL STRATEGY



Self-Employment and SMEs

Anil Bhardwaj

It is certain that India is soon going to top the global charts for at least one parameter: population. Accompanying this status would be another fact: India will have the highest number of people in the working age group. There is a potential of the unprecedented demographic dividend that could catapult India into a high growth trajectory lasting a couple of decades. The second proposition is less certain, though, for it depends on several factors, the foremost being how meaningfully the population is engaged. If the economy fails to create enough opportunities to work and create jobs, it could lead to an economic disaster.

Against this backdrop, the job creation situation has been challenging for the past several years. It is now an open secret that India's formal economy is not adding jobs (and is rather shedding them), and the bulk of employment created during the past decade has been in the informal sector. Rising imports and sluggish exports point towards competitive weaknesses in tradable sectors.

This paper begins with a brief discussion of jobs and the informal sector, and then moves on to explore the issue and focus

on two important economic actors in the Indian economy: (i) the informal sector comprising largely of self-employed people, and (ii) the formal segment of MSMEs. The paper offers a set of pragmatic policy recommendations for each.

India’s Job Scenario and the Informal Sector

The contribution of different sectors of the economy to India’s GDP is as follows—agriculture: 15.4 per cent, industry: 23 per cent and services: 61.5 per cent (2017).¹ Their corresponding role in employment is 44 per cent, 25 per cent and 31 per cent respectively.² Which means almost half of Indians are engaged in the agriculture sector, which contributes barely 15 per cent to the economy.

Secondly, since liberalization in 1991, there has been a secular trend of migration of people from farm jobs to non-farm jobs in the industry or services sectors. Around 2010, in fact, the number of non-farm jobs even overtook the number of farm jobs.

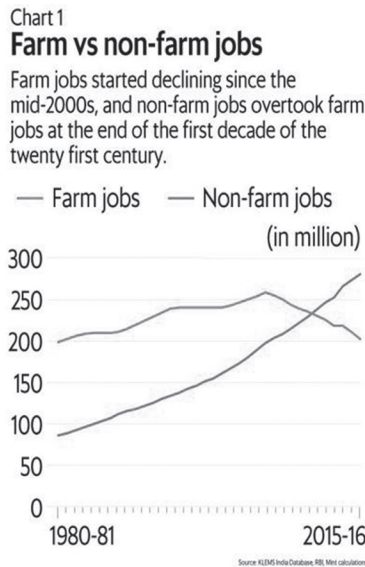













Chart 2

Top 10 job-generators

The construction sector has accounted for more than a third of new jobs in post-liberalization India

Sectors	Share of new non-farm jobs created between		Share in total workforce in 2015-16 (in %)	Productivity per worker (Rs1,000/worker, in 2015-16)
	1980-81 and 1990-91 (in %)	1990-1991 and 2015-16 (in %)		
 Construction	20.13	35.74	14.40	126.56
 Trade	24.84	14.56	10.04	235.78
 Miscellaneous services (includes real estate brokerage)	7.38	8.43	5.02	415.53
 Transport and storage	9.78	7.44	4.29	255.39
 Education	3.13	6.26	3.22	222.13
 Business services	1.47	5.99	2.18	811.68
 Hotels and restaurants	2.49	3.75	1.89	123.53
 Gems, jewellery and misc. manufacturing	3.02	2.46	1.43	87.19
 Food products, beverages and tobacco	4.92	2.28	2.42	158.72
 Financial services	2.42	2.26	1.11	1259.52
 Health and social work	0.81	2.07	1.08	290.04

Note: only sectors which account for at least 1% of the total workforce have been considered here.

Source: KLEMS India Database, RBI, Mint calculations

One noteworthy feature of this migration has been that almost one-third of jobs were accounted for by the construction sector alone. Perhaps the people or surplus labour who migrated from agriculture to other sectors without any specific skill were absorbed by the booming construction sector in towns and cities. The second- and third-biggest contributors, unsurprisingly, have been trade and transport. Trade and retail are default livelihood options for a large section of society in India. While construction requires hard physical labour, the other two are relatively less onerous. What is also notable is that only an insignificant number of people are absorbed in manufacturing.

Thirdly, another peculiar feature of the Indian economy is the presence of a vast informal sector. 'The formal sector accounts for over 80% of India's manufacturing output, while

the informal sector accounts for over 80% and 99% of Indian manufacturing employment and establishments, respectively,³ according to Ejaz Ghani, William Kerr and Alex Segura.

A trend that Ghani et al. identified is the development of one-person enterprises or ‘self-employed manufacturers’. ‘Tradables establishments with one employee grew from 6 per cent of the informal sector workforce in 1989 to 21 per cent by 2010.’ This alludes to ‘the rapid urbanization of the informal sector’. ‘Essentially, all of the net employment growth in Indian manufacturing over the past two decades occurred in urban areas. From 1989 to 2010, employment in informal tradables increased by a little over 10 million jobs, and almost 8 million of these jobs were developed in urban establishments.’

The paper posits a few additional important insights:

- A key role for urban areas: the urban share of informal tradeable employment rose from under 30 per cent in 1989 to over 60 per cent by 2010
- Rapid expansion of female business ownership
- ‘Push’ entrepreneurship—entrepreneurship not as a choice but out of compulsion.

Finally, let’s quickly scan the most comprehensive exercise in India undertaken to know where people are engaged in any non-agriculture economic activity: the economic census.⁴ The last census was conducted in 2013, and its key findings were as follows:

- There were 58.5 million establishments⁵ employing 131.29 million persons.
- 59.48 per cent of these establishments were in rural areas and 40.52 per cent in urban areas.
- Further, about 77.6 per cent establishments were engaged in non-agricultural activities (excluding public administration,

defence and compulsory social security activities), while the remaining 22.4 per cent were found to be engaged in agricultural activities (excluding crop production and plantation).

- Agricultural establishments provided employment to 17.42 per cent and non-agricultural establishments to around 82.58 per cent persons.
- 71.74 per cent of establishments are own-account establishments (that is, establishments without any hired worker), and the remaining 28.26 per cent with at least one hired worker.
- Own-account establishments grew at the rate of 56.02 per cent, while the growth of establishments with hired workers was 15.11 per cent, since 2005.
- Over 96.4 per cent establishments were under private ownership.
- More than one-third (36.19 per cent) of all the establishments were home-based (that is, inside the household), 18.44 per cent operated from outside the household 'without a fixed structure', and the remaining 45.37 per cent outside households 'with fixed structure'.
- Around 90 per cent of establishments were owned by proprietors, of which 15.4 per cent were females.

From this data, a few facts become obvious.

Firstly, agriculture is no more the default employment option for the majority of Indians. From 2010, non-farm jobs exceeded farm jobs in India. With increased mechanization in agriculture and a rising population, the agriculture sector from rural India is forcing a wave of migration to urban India.

Further, a recent report⁶ on the National Sample Survey Office's (NSSO) latest jobs survey also points to rising surplus labour in rural areas. According to the report, the LFPR

declined from 67.7 per cent (2011–12) to 58.7 per cent (2017–18) in rural areas, in comparison to a corresponding fall in urban areas from 49.3 per cent to 47.6 per cent in the same period. The LFPR gap has narrowed between urban and rural areas due to a decline in the active labour force in villages.

Secondly, while the maximum number of people with fewer skills are consumed in sectors requiring pure physical labour like construction, others are engaged in non-agriculture establishments.

Thirdly, almost all of these establishments are informal one-person enterprises.

Fourthly, opportunities in non-farm establishments are rising faster in urban rather than rural areas.

Finally, with people hitherto engaged in agriculture leaving it and the manufacturing sector facing rising competition from imports and its formal segment shredding jobs, for a vast majority of Indians with limited education and skills, the only hope is self-employment in the informal sector.

Own-Account Units: The Curse of Informality

An influential report on the informal sector in India stated that ‘more than 90 per cent of the workforce and about 50 per cent of the national product in India are accounted for by the informal economy’.⁷ One of the most important reasons for informality is the cost of being formal. If formality imposes a very high cost, the majority of small entrepreneurs choose to work ‘informally’.⁸ The theory has been supported by several studies in different parts of the world that excessive regulations force small entrepreneurs to ‘informal activity’. Three different factors have been identified that are responsible for the non-observance of public laws and regulations:⁹

- Regulations imposing prohibitively high cost on formality.
- Informal entrepreneurs lacking the skill and the knowledge to comply even with simple regulations.
- The state and its organs being too weak to protect private contracts and property rights efficiently.

The very small size of an average manufacturing unit could largely be attributed to excessive regulation and high cost of compliance. Most manufacturing processes are conducted in areas where the access of officials is difficult.

In India, the three biggest policy and structural stumbling blocks which stigmatize the informal sector and put onerous burdens on it are:

- Zoning policies in urban areas
- Electricity charges on type of uses
- House tax on commercial enterprises.

Zoning Policies in Urban Areas

Dwindling economic opportunities in the agricultural sector and rapid economic growth fuelled largely by the services sector in urban areas is pulling masses from rural to urban centres. Towns and cities are swelling. While the urban population was barely 11.4 per cent in 1901, it increased to 34 per cent in 2017, and is expected to cross 40 per cent by 2030. But urban planning is lagging by decades. Almost everywhere, municipalities and urban local bodies (ULBs) are in shambles. Most are understaffed, do not audit accounts and are practically bankrupt. During the colonial era, cities were imagined in binary terms—residential and commercial—from the perspective of the collection of revenue/tax. The same thinking continues even now.

Historically, India has lived and sustained its economic activities not in binary terms but in working and living spaces that overlap in thousands of artisan and textile clusters across the country. Such a setting allowed family members to contribute to economic activity in a flexible manner and also allowed the passing on of skills to the next generation through informal mentorship.

The bifurcation of cities into residential and commercial/industrial zones may be all right for larger businesses, but for self-employed people neither does it make any economic sense nor it is feasible. Meanwhile, organized professionals like lawyers, chartered accountants, etc., have extracted concessions for themselves from ULBs to work from residential areas, the ordinary self-employed Indian working from home has become a ‘criminal’.

The current situation leaves citizens with limited employment opportunities with a cruel choice: Follow the law and die of hunger, or break the law and survive by buying peace with authorities and be prepared to live under the perpetual threat of persecution. Of course, wherever possible, people take the latter path. But its very setting means that excessive limits are placed on establishments operating from home: working from an ‘unauthorized area’ automatically disqualifies them from joining formal channels of finance and government support. They are condemned to operate at a suboptimal level, and employment is confined to just the owner.

The situation could be corrected by envisaging and imagining the planning of cities in terms of the needs of self-employed people. This would require allowing the dual use of properties with the right thresholds (like the maximum number of people employed or the use of electricity up to 10KW), and also creating affordable ‘plug ‘n’ play’ and ‘pay as you use’ commercial infrastructure at a massive scale for allowing commercial activities.

Electricity Charges on Type of Use

When reforms were undertaken in the power sector, the Electricity Act, 2003, prohibited the formulation of tariffs on the basis of the type of user, such as agricultural, commercial or residential. But later, the clause was amended, allowing the perpetuation of the age-old practice of cross-subsidization. Therefore, the moment a person became self-employed, operating from his/her premises, utilities could hold the person liable for the 'misuse' of electricity. The electricity tariff for commercial use of power ranges from 50 per cent to 200 per cent higher than a residential connection. Therefore, whenever the 'misuse' comes to the notice of inspectors of utilities, penalties with arrears are imposed on the consumer. Non-payment could also lead to imprisonment. Therefore, people tend to carry out economic activities on a very low scale to evade capture.

The tariff needs to be rationalized as per the letter and spirit of the Electricity Act, 2003. It should not be differentiated based on the type of consumer. If the government does want to subsidize any segment of consumers, it should directly transfer the amount to their bank accounts. This will then not distort the market, prevent wastage and stop harassment in the name of misuse.

House Tax on Commercial Enterprises

According to the Constitution, India is a federation of states and union territories. House tax and octroi (local tax collected on the entry of goods in its jurisdiction) used to be a major source of revenue for ULBs. Octroi has long since been abolished and been made a part of sales tax in many states. The sales tax is also now subsumed in GST. The abolition of octroi, though highly desirable from the standpoint of free movement of goods, had an adverse impact on the finances of ULBs. After foregoing

their octroi revenue, it is believed that ULBs have become more aggressive in collecting house tax. Most of them increased their tax rates soon after, especially on commercial properties.

Self-employed people are again the first set of victims. If any commercial activity is spotted in a residential property, authorities are quick to term the property as commercial, slapping higher tax rates, penalties and arrears from the date of occupation. Hence, landlords are fearful of letting property on rent to people who are self-employed. Their preference is someone employed with the government or corporate sector.

There are many other limitations household enterprises and MSMEs face, and the governments at the Union and state levels are consistently working to improve existing conditions. But the three issues highlighted in the paper—zoning of urban areas, differential rates for commercial and residential consumers of electricity, and higher house tax rates for commercial properties—together force a large number of self-employed people to work ‘in hiding’, operating at a suboptimal scale, and shun outside employees.

House tax authorities should treat properties where self-employed people reside at par with residential properties. The need for generation of revenue for ULBs is genuine. They need to put their house in order, adopt modern accounting methods and get themselves regularly audited. This would allow them to raise money from banks, financial institutions and even the public. Furthermore, states should devolve financial and administrative powers to ULBs and allocate resources as their fair share from revenue collected.

A Paradigm Shift to Enable Formal SMEs to Create Jobs

MSMEs in India are defined and chiefly administered through the Micro, Small and Medium Enterprises Development

(MSMED) Act, 2006, and related subordinate legislation in the states. In its present scope, almost all economic activities, registered or otherwise, could be covered by it. The registration is enabled online, and by 2 October 2019, 11.4 million MSMEs were registered on the Udyog Aadhaar portal. However, out of the total, only 2.2 million MSMEs filed a detailed memorandum giving the minimum data required to enable them to access public support schemes. Therefore, the later number alludes to the size of the formal MSME sector that includes both services and manufacturing enterprises.

The number of MSMEs falling under the organized sector (factories employing more than ten workers and using electricity) can be deduced from the Annual Survey of Industries (ASI), which tracks all registered factories. The 2017–18 ASI series estimates the number of factories at 2,37,684, including large, medium, small and micro enterprises.¹⁰ Even if it is safely assumed that 90 per cent of these enterprises are MSMEs, the size of MSME manufacturing in the organized sector is shockingly low.

Since 1991, the year India changed its economic course to a more liberalized and market-driven economy, the MSME sector has been in a state of painful transition. Prior to liberalization, competition in industry was firmly regulated. On the domestic front, to set up a large industry one needed a licence, but not to set up a small one. Further, a large number of products were reserved for exclusive manufacture by small-scale enterprises. The government also controlled inputs from coal to iron to other raw material, and issued permits to control production. Protection to the domestic industry from imports, large or small, was given by high tariff walls and quantitative restrictions (QRs) through licences and permits. With India's accession to the World Trade Organization (WTO) in 1995, the tariffs were brought down in a synchronized fall, and QRs became

untenable. After a trade dispute with the US over QRs, India had to dismantle the QR regime totally by 2004.

Therefore, almost the entire manufacturing sector, comprising largely of the tradeable sector, is subject to the discipline of imports. Reforms on the external front—largely pushed by international commitments like the WTO, Basel norms in the financial sector and intellectual property rights (IPR) treaties—have not kept pace with the corresponding domestic reforms needed to enable manufacturing, especially in the MSME sector, to become competitive enough to withstand imports (see Santosh Mehrotra's chapter, 'Industrial Strategy with Employment Policy for Job Creation').

The government continues to have an overwhelming presence in the economic sphere in India and acts like 'a business conglomerate'.

Firstly, government-owned monopolies in electricity, railways, etc., and its dominating presence in key sectors such as banking, steel, telecom, aviation and petroleum, among others, thwarts competition and innovation.

Secondly, India is perhaps the only country left in the world to have sectoral ministries like railways, shipping, steel, chemicals, etc. The public sector undertakings (PSUs) and parastatals that fall under the domain of a specific sectoral ministry clamour for favourable policies, thereby distorting markets.

Thirdly, through its financial and insurance behemoths (like public sector banks, life insurance corporations, etc.), government representatives can and do exercise enormous influence in the boards of almost all the large Indian private sector companies.

Fourth, it is estimated that with the combined procurement of goods and services through its three tiers (central, state and local governments), the value of the government's procurement contract exceeds one-third of India's GDP! Through this massive buying, they choose 'winners' and exercise enormous influence on the choice of technologies, standards and business practices,

setting a precedent for the rest of the economy. Government procurement is marred by higher costs and poor quality. It is not a coincidence that none of the industrial sectors in which the government has been the major buyer has produced internationally competitive companies.

Finally, because government 'interests' are in every sector, all the state organs responsible for governance, including the appellate, police, regulators and judiciary, tend to develop bias towards the government. This so-called 'public' interest makes access to justice by small economic players untenable in economic and commercial disputes where the government also has the dubious distinction of being the biggest litigant.

Because of the government's excessive and omnipresent character, almost the entire economic life falls under its web. At any time, a government organ can intervene and disrupt markets out of considerations that may not always be economic. The shadow of this Indian government juggernaut means doing business is a risky, unpredictable and costly affair.

In an open economy that is increasingly getting linked with the global economy, it is extremely difficult to have an exclusive industrial policy for the MSME sector in contravention of international treaties and commitments. The policy space has shrunk, but has not disappeared. What is critical is to identify and address those constraints that are domestic and weighing businesses down.

We delve into three sets of issues: (i) governance and policies; (ii) access to credit; and (iii) access to markets.

Governance and Policies

Reforms

The government will have to decisively vacate space in the marketplace. Its presence is taking a huge toll on the efficient

functioning of factor markets. No amount of props and sops can replace an efficient marketplace as fertile ground for MSMEs to take root and grow. But the bargaining power of the organs of the government—which are dabbling and meddling in the marketplace, and are beneficiaries in the short term because of the status quo—is enormous and makes further reforms politically challenging.

In the foreword for the Tenth Five-Year Plan document in 2002, Atal Bihari Vajpayee, prime minister of India and chairman of the Planning Commission, wrote:

We have inherited from the past a wide range of controls and restrictions on entrepreneurial initiatives, which have retarded the emergence of an investor-friendly climate in the country. We must shed the mind-set of shortages that had given birth to this regime of pervasive controls, and create an environment which welcomes entrepreneurship with open arms.

In spite of heading a wobbly government constituted of over twenty coalition partners, Vajpayee initiated the first wave of government rollback from the marketplace.

After decades of weak coalition governments, India has been witnessing a new era of strong, stable governments at the Centre since 2014. If there has been a right time to start dismantling old structures to unleash a new wave of entrepreneurship, it is now.

A National Feedback and Grievance Redressal Mechanism

While India is making impressive strides in the World Bank's Ease of Doing Business (EoDB) Index, all assurances of transparency, predictability and timeliness fall flat in the absence of an efficient governance system on the ground. It is imperative to set up

an Internet-based three-tiered feedback and grievance redressal mechanism, meshed with relevant departments and associations in districts, states and the national capital, to function in an ombudsmanlike manner. A periodic analysis of complaints is necessary to enable grounded policy interventions and develop agendas for reforms for continuous improvements in the EoDB. To ensure accountability, an IT-based framework needs to be designed with similar urgency, and resources deployed, as was done for setting up the Aadhaar database—with ‘dedicated desks’ in every government office, big or small, in federal, state or local governments across the country.

Any citizen should be able to register grievances in a structured format so that it appears on the web-based portal, to be monitored by an ombudsman, like a lokpal/lokayukta. The framework will ensure decisions or forwarding of complaints to the next level, and track accountability of the concerned functionary. Using big data/digital analytics, the process will generate indicators for next-generation systemic reforms, leading to continuous improvements in EoDB. Of course, a prerequisite for the implementation of such an online governance process will be to re-engineer the existing business processes of the government—from the centre down to the city/district/cluster level—to align with the requirement of an IT-based monitoring system.

Modifying the Licence Raj

There are umpteen activities that still require licences to operate. Most such licences are a prerogative of the state. These regulatory requirements increase financial burdens as well as administrative delays. They constrain an MSME that is interested in doing business at a pan-Indian level. A detailed study is needed to ‘know’ all activities requiring licensing. Authorities should be

required to follow the principle of ‘duty to publish’ updated requirements and the complete process of obtaining the licence online.

Further, the entire licensing regime needs to be reviewed and a comprehensive study conducted to effect reforms such as making all licences valid pan-India, like driving licences. Especially after the introduction of Aadhaar, GST and PAN, state-wise registration should be abolished forthwith and all such licences should be valid throughout the country.

Reviving District Industry Centres

The DICs set up in 1977 with assistance from the central government played a critical role in the development of the small-scale sector. With central assistance withdrawn, most of them lie in a shambles today. The DICs need to be revitalized and reimagined, building upon the global best practices of the Small Business Administration of the USA, the SME Corp of Malaysia, and the Small and Medium Business Corporation of South Korea, among others. As the DICs sit on prime land in most cities, public private partnerships (PPPs)/consortiums could develop the land to create public infrastructure, like convention centres, trade fair complexes and office space for start-ups to sustain themselves and carry out the mandated duties of DICs, including data gathering, a secretariat for local grievance redressal and feedback portals, advisory services and small-ticket financing under self-employment schemes.

Facilitating Labour Laws

Easing labour laws is a long-pending demand of MSMEs. The legislative framework for labour welfare, including the Factories

Act, needs a complete overhaul. While the government has already indicated grouping of labour laws into four labour codes on wages, social welfare, shop floor safety and industrial relations, all of them were held up due to strong opposition from the interested quarters (though that is changing, see S.C. Srivastava in 'Tackling Jobless Growth: Labour Policy and the Labour Code'). The Small Factories Act, already approved by the cabinet, will make labour laws simple to follow for MSMEs. As recent examples show, such ease in labour laws motivates a large number of MSMEs to come out of the shadow of the informal sector to the formal economy. To encourage MSMEs (particularly the informal micro sector) to abide by labour laws and provide a feasible safety net to workers, a few legislative initiatives are essential.

Firstly, an employer's contribution towards social security (ESI, PF, etc.) for MSMEs should be pegged at 10 per cent of the salary of the employee. The employer should be rid of registers/inspections having contributed 10 per cent per employee per month.

Secondly, the Small Factories Bill which aims to address many grievances of the MSMEs against the current labour and factory regulation should be passed on priority.

Thirdly, the punitive provisions under the labour laws are too harsh for businesses. Some provisions, like charging the management for abetment for murder for any fatal accident in the work area, are draconian and scare away people from hiring in small factories.

Insolvency for Non-corporates/Exit from Business

The Insolvency and Bankruptcy Code (IBC), 2016, for the first time provided for an orderly resolution of stressed assets and failed enterprise, allowing the redeployment of resources back

into the economy. However, at present, it is applicable only for companies. As 97 per cent of MSMEs are proprietorship and partnership 'firms', the modern insolvency framework is still elusive to MSMEs. The government should immediately frame rules for non-corporate firms also so that the widespread sickness in the sector be mitigated at the earliest.

Secondly, one of the major reasons of sickness in MSMEs is the delay in payments from buyers. If MSME buyers undergo a Corporate Insolvency Resolution Process (CIRP) under the IBC, MSME dues are classified under 'operational creditors' and fall way down the priority list. Therefore, in a snowball effect, if a big corporate house undergoes CIRP, payments of their large number of MSME suppliers get wiped out. The situation can be largely reversed if a way is found to place MSME creditors at par with 'financial creditors' or by creating a mechanism to protect MSME receivables through an institution like the Credit Guarantee Trust Fund.

Streamlining Credit Delivery

In India, public sector banks (PSBs) have a near monopoly in the credit market, and being the weakest business entity, MSMEs are wholly dependent on PSBs for almost all their credit needs. However, like typical government entities, PSBs operate in their 'one size fit all' approach as per the letters of the rulebook. And as bank managers get no incentives to function innovatively, they prefer to take it easy. In fact, after the recent strictures for bank managers that make them liable if a loan goes bad, they have become more reticent. MSMEs have remained economic pariahs in the country's organized credit delivery system. It is widely accepted that MSMEs which have access to institutional credit constitute as little as 5 per cent of the total MSME universe.

Appraising the Credit Need of MSMEs

Institutionally, banks suffer from some systemic weaknesses in appraising the credit need of MSMEs. There is a need to understand the business of small borrowers—their complexity, dynamics and high sensitivity to the global and national business environment, for mere survival. Of late, the excessive reliance of top banking managements on a ‘system-based approach’, a euphemism for ‘superficial data on excel sheets’, as opposed to banking by data analytics, innovation and risk profiling, has further constrained the frontline banker from lending to MSMEs.

There is also a need to completely overhaul the mechanism of evaluation and documentation for evaluating proposals in light of such credible IT-based systems such as PAN, DIN, GSTIN, Aadhaar, electronic signatures, etc. The review should mandate fresh guidelines on lending, requirement of asset-based collateral securities, getting rid of superfluous documentation and notifying timelines for various services with a clear process of complaint and appeal, preferably through a web-based system.

Revival of Sick Enterprises/Non-wilful MSME Defaulters

The recent turmoil in the Indian economy has put huge stress on MSMEs, and a considerable number of enterprises have failed to service their debts, some temporarily, others terminally. Strangely, instead of being sensitive in the stressful situation, the Reserve Bank of India prescribed even stricter norms, called the Special Mention Account (SMA) classification.¹¹ While the intention behind SMA may be to identify and mitigate early sickness, what is practised on the ground is miles removed. The process needs to be thoroughly investigated, reviewed and overhauled. The biggest systemic failure happens due to procrastination of bank managers and higher officials in taking

decisions. If managers and debtors both hide irregularities, it becomes impossible to identify problems at an early stage. As decision-making time lengthens, the borrowing entity gets into deeper difficulties, making rehabilitation more remote and expensive. It is imperative to devise a separate fast track for dealing with non-wilful defaulters. Firstly, such cases need to be identified and then classified into potentially viable and non-viable accounts. Secondly, potentially viable ones could be revived under a well-thought-out scheme prepared in consultation with the stakeholders.

New MSEs and the Need for SFCs 2.0

In the 1970s and 1980s, the spectacular growth of manufacturing SMEs was primarily financed by state finance corporations and cluster-level cooperative banks. Due to the deterioration of governance and political intervention, most of them either folded or became ineffective. Their demise created a void in financing SME projects, which could never be filled by the banks. The reasons why banks find it so hard to efficiently finance projects are as follows:

- Long-term project financing does not gel with the business models of banks. They borrow short term and dither over lending long term.
- Bankers lack domain knowledge (of sectors, products and geographies, clusters), which is essential for evaluation and risk analysis of SME projects.
- Globally, medium-term financing of SME projects is done by specialized state finance institutions or cooperative, local credit unions which have intimate knowledge about businesses and geographies for the objective risk-profiling of the borrower and prompt appraisal of a project. This also

leads to an acceptable collateral demand and rational costing of the loan.

Therefore, it is high time the Ministry of Finance and the RBI started consultations with stakeholders, including multilateral agencies, to reinvent institutions like cooperative credit unions and state-level finance corporations.

Addressing Working Capital Needs

Working capital shortages and their crippling effects on the growth of MSMEs are well-documented. The Trade Receivable Discounting System (TreDS), an online bill discounting platform that helps cash-starved MSMEs raise funds by selling their trade receivables to corporates, is a good market-based instrument that needs further support. RBI/executive/legislative intervention is necessary to mandatorily route bills for purchases by corporates through TreDS and make these co-accepted on a deemed basis after fifteen days so that banks, financial institutions and others can buy these and provide liquidity to MSMEs.

Bond Market for SME Loans

Efforts need to be made to develop a bond market for MSME lending by banks and NBFCs. Such a bond market would not only bring down the cost of finance for MSMEs, but can also create a supply and demand mismatch to positively impact MSME lending.

Bank Guarantee and Non-fund-based Limits

In the course of business, a number of non-fund-based financial instruments are used, such as bank guarantees, performance

guarantees, bid bonds, etc. While large corporates get them at nominal cost, MSMEs have to pay through the nose to get them: they have to cough up margin money and interest during the use period of guarantee and collateral security to back it. There is also a separate limit for non-fund-based uses. It becomes a binding constraint for MSMEs which quote for government and private tenders and are often crowded out of tender business.

To promote the growth of the SME sector, and enhance its access to huge public procurement, it is essential to break the monopoly of banks in the 'guarantee' business and allow other players as well. In the USA and other developed countries, insurance companies are allowed to provide bank guarantees, as essentially it is a risk cover. This has reduced the cost of such instruments tremendously. Similar solutions could be explored for India as well.

Creation of a Large and Specialized SME Bank; Creating Over-Supply of Credit

Very large-sized MSME-dedicated banks with specific knowledge and experience of lending to small businesses should be invited to set up shop in India. With a large capital base, deep understanding and long-term experience of lending to the target audience, such banks can transform lending to MSMEs into a small-banking business. Once this happens, regular banks will also be attracted towards MSMEs. This may provide a perennial source of funds to MSMEs at competitive prices.

Revitalizing Trade Credit Channels

A healthy trade credit system can increase the velocity of money circulation multiple times, in effect increasing its availability. With

banks having far greater comfort in lending to big businesses, trade credit can also channelize bank credit to MSMEs in an indirect manner. The government cannot create an atmosphere of trust, but it can take measures so that trade on credit increases—for example, by making it possible to recover the amount of bounced cheques in a matter of days. People can then start selling goods on credit on the strength of post-dated cheques.

Access to Markets

The importance of market access for MSMEs cannot be overemphasized. And in a partially controlled economy like India, the government has a big role to play in opening markets to MSMEs in both the domestic and international arenas.

Capacity-building of MSMEs to Participate in International Trade

As mentioned by a Parliamentary Committee recently, only 0.2 per cent of Indian MSMEs today export 40 per cent of India's total merchandise. How spectacular the result will be if the number of exporters doubles to 0.4 per cent! It is a fair projection and quite feasible if potential exporters could be informed about the scope in the world market and provided the initial handholding.

A couple of initiatives may turn the situation around. Firstly, half of the export promotion funds should be earmarked for MSMEs by redesigning institutional mechanisms. Secondly, a comprehensive mega MSME export support programme needs to be envisioned, with a structured export support programme on the lines of CBI-Netherlands and the US's National Export Initiative (NEI). Thirdly, a dedicated unit is needed in the Ministry of MSME (and a standing committee) with adequate

resources to continuously study and apprise the negotiating team on WTO/FTA issues concerning MSMEs.

Ensuring Access to Public Procurement

The government is a big buyer in India. There is also a public procurement policy for micro and small enterprises (2012–18), excluding medium enterprises, which mandates all central government agencies (unless exempted in specific cases) to procure at least 25 per cent of their purchases from MSEs. Not all agencies adhere to this. Many agencies specifically set the conditions in tenders in such a way so as to exclude MSE suppliers. Increasingly, large tenders are given on turnkey terms, where a large private agency gets the order and is not obliged to follow the mandatory procurement policy.

The Way Forward

The essay has discussed the fact that mass-scale jobs are already being created by people themselves through self-employment and household enterprises. But these segments operate at suboptimal levels due to irrational taxation and harassment by authorities. Policymakers have not yet woken up to the full potential of the segment in terms of both the ability to create jobs and contribution to the economy.

On the other hand, the formal segment of MSMEs, especially in the tradeable sectors, faces rising competition from imports. However, the overwhelming presence of the government distorts the functioning of factors markets, and policy rigidities make the survival of MSMEs difficult.

For the informal sector, the paper proposes three eminently doable reforms that could unburden the life of self-employed persons and their establishments in urban areas immensely.

Firstly, the dual use of residential areas should be allowed to facilitate self-employed people to work from home for most activities (except perhaps a small negative list). Secondly, the electricity tariff should be uniform irrespective of its use, at least in residential areas. Thirdly, house tax for residential properties should not be charged at the rate of commercial properties merely because it is being used by a self-employed person to carry out legal economic activity.

For the more formal segment of enterprises, the MSMEs, which are subjected to global competition, the challenges are graver. Creating an environment where MSMEs can take root and grow requires a set of deep reforms. The government needs to shed its role of a 'conglomerate' and stop influencing markets directly and indirectly. Many steps that the government needs to take are likely to be unpopular; perhaps that is why past regimes have dithered so far.

Changing the course, like in 1991, could indeed unleash a new wave of entrepreneurship and create jobs in the formal and organized sectors.

Mass Entrepreneurship as a Solution to the Jobs Problem

Sandhya Thukaram and Madan Padaki

India is a land of radical and substantive change. At any point of time, a revolution is underway. These revolutions are silent and not always evident, but nevertheless on the cusp of influencing change. This constant change affects people on a scale that is unimaginable elsewhere. There is a massive change silently transforming our economy, and this may well set the national discourse around growth and employment for decades to come. This is coupled with the extreme unemployment of our times, and these factors work in tandem and apart. But their interaction, and how we respond to it, can be significant to our economy's future.

The major change is a demographic one, which all countries have gone through or will go through. India's massive young population is one of the largest in the world—a double-edged sword which can be channelled to be India's singular strength. It provides India and its businesses with a large supply of labour. It also means that there are a large number of consumers willing to

buy the goods and services that generate income for these very businesses. This is good for the economy; the aggregate supply as well as demand can be high, creating a virtuous cycle that causes growth, employment and better lives for all.

However, simple macroeconomics tells us that an extremely high supply can mean there is an excess of the resource at hand, and very often that excess is simply discarded or devalued to a lower price. Millions now live in unemployment after being discarded by the economy, and millions more subsist through jobs that pay much less than they reasonably should.

But if one looks at it from a broader economic perspective, it doesn't make sense. Labour is unique in the sense that it can create its own demand. By virtue of having to simply exist, the youth of this country have to consume goods and services. This consumption should boost demand in an economy, creating jobs that employ these same youth.

But amidst the worst unemployment we have seen in decades, this line of thinking is clearly wrong. We have the people, we have the demand, we have the labour, so why are there no jobs?

There are a few explanations. One is bad timing. Due to the NPA crisis, private investment in the economy is falling as firms are afraid to lend and individuals are afraid to borrow. Moreover, demonetization created a cash crunch that severely affected consumption and exports. The government is also in a mood for slow reform and no big projects with massive budgets have been laid that could have stimulated growth. Unlike the bull market of the 2000s, there is no supportive global environment that can boost growth. Had only one of these occurred, the other factors would have probably balanced it out. However, these did occur at the same time, and this hit growth and employment hard, causing high joblessness.

There is probably some truth to this explanation. These conditions could very likely have made the jobs crisis of recent times worse. But it is probable that the explanation is more structural than it being just the result of recent misfortune.

Jobs are not provided by big employers. The world's largest private employer, Walmart, employs only 2.3 million people, and this number drops fast when you look at the next biggest employer. The next largest private employer, Foxconn, employs just a little more than 8,00,000, a third of Walmart's figure.¹ These numbers are massive. However, they are minuscule compared to the total workforce of a country (or the world, as these companies operate in several countries). Even if we gave all the jobs across the world at Walmart only to Indian youngsters, it would employ less than 1 per cent of them. So where will all the jobs come from?

To answer this, we refer to the words of Nobel Prize-winning economist Edmund Phelps, who wrote, 'Most innovation (and job-creation) wasn't driven by a few isolated visionaries like Henry Ford and Steve Jobs; rather, it was driven by millions of people empowered to think of, develop, and market innumerable new products and processes, and improvements to existing ones (in their local communities).'² This line captures the essence of mass entrepreneurship as a solution to the jobs problem.

Let us take a closer look at what Phelps is saying. He says that big companies and lone individuals did not and simply cannot provide the volume of employment any economy requires; even the largest of companies are minuscule compared to an economy. Instead, employment at that scale has to be provided by many, many small entrepreneurs. These entrepreneurs are nowhere near the size of large companies like Walmart, but instead employ only a handful of people. This number is usually above five and below twenty. These small entrepreneurs perform basic tasks in a local economy—a barber, a grocer, a pub owner. This

scenario, reproduced across hundreds of communities, creates the millions of jobs and growth that propel an economy. These are the people and businesses that have to provide employment for an economy. And that is the core of mass entrepreneurship.

Relevance of Mass Entrepreneurship

Let us go back to the jobs crisis we face. Where does mass entrepreneurship stand in all of this? How is it relevant? And what are the structural problems we mentioned that affect employment?

We will answer the last question first, and the answers to the first two will be apparent in it. As mentioned above, employment at such a scale requires a strong engine. Mass entrepreneurship is one such engine which can create employment in large numbers. As for any economy, India must also focus on these mass entrepreneurs or, as is the official term, MSMEs, to provide jobs for our population. Structurally, however, the growth of mass entrepreneurs has been silently, if not actively, discouraged. India's jobs story is split into two narratives—self-employed farmers, who make up 44 per cent of the workforce but less than a fifth of its output, and large tech-based companies that are highly valuable and internationally respected but employ very little labour. Let us examine both of these.

Let us look at the large tech firms first. India's start-up story is widely known and praised. Indigenous firms such as IT giants TCS and Infosys are known worldwide, along with smaller and fast-growing ones such as Ola, Swiggy, Byju's, etc. India will have 10,000 start-ups by 2020, and \$4 billion worth of investment has been poured into these start-ups since 2016. However, the employment generated by them is not significant enough in the big picture. They are expected to employ only

2,10,000 people in 2020. Let us do a little more trickery in the numbers. Let us assume all these 2,10,000 jobs were created only in 2016. If all the investment supplied to these start-ups was utilized to create these jobs, it took \$20,000, or Rs 13 lakh, to create one job. Let that sink in. These companies are so capital-intensive that it takes Rs 13 lakh to create one job.³ In reality, this figure is much higher, since the number of jobs created are much lower, and outside investment is only part of their total revenue.

Unemployment levels are in fact higher amongst people with higher educational qualifications; the more educated you are, the less likely you are to have a job. This goes against common sense. It is obvious that if you study more, more job opportunities will open up, and crucially, more lucrative job opportunities. However, millions of Indian youth have studied energetically believing this truism, and created the problem where there is an excess of them at the exact time that such salaried jobs are shrinking. Furthermore, studying more may have an unintended effect; since these people have higher skill levels, they refuse to take up jobs that pay less because they will not utilize the effort spent in educating themselves, and prefer to keep searching for a job that adequately compensates their skill levels. Meanwhile, the companies that are supposed to create these jobs instead pour their funding into capital. One half of the Indian jobs story, the one we all aspire to, clearly cannot provide the jobs our country needs.

What about the other half? A respectable 48 per cent of adults and 34 per cent of youth are self-employed. Normally, this would point to high levels of entrepreneurship in an economy. However, the picture is very different in India. Nearly 60 per cent of these self-employed workers are in agriculture, where the ability to hire more people and expand is questionable.

This is proven once more when you consider that out of the 59 million establishments registered in India, 42 million or 71 per cent employ just one person—themselves.⁴ Most of the self-employed generate little to no employment for others. But it gets worse. Many from the self-employed workforce are in fact unemployed, and only call themselves self-employed to avoid the stigma of unemployment.

There is another layer to self-employment, but before we delve into it we must bring two important terms into the picture: opportunity entrepreneurs and necessity entrepreneurs. A necessity entrepreneur is a person who, due to the lack of jobs, is forced into starting a business to sustain himself; he becomes an entrepreneur out of necessity. An opportunity entrepreneur is a person who sees an opportunity for entrepreneurship and starts a business to exploit that opportunity; he becomes an entrepreneur out of opportunity. The two types have some subtle differences, but the overarching and most noticeable difference would be their mindsets. There might also be differences in educational levels and access to capital; one would expect opportunity entrepreneurs to be better educated and perhaps have better access to capital for their businesses. A necessity entrepreneur would only run his business to sustain himself; however, an opportunity entrepreneur would constantly be looking at ways to grow and use his profits to expand. Due to the very difference of these types, the amount of employment generated by opportunity entrepreneurs is far more—thirty-one times more—than a necessity entrepreneur.⁵ Most necessity entrepreneurs never hire more than one person. We further believe that the disguised unemployed mentioned previously eventually become necessity entrepreneurs due to the lack of jobs.

We now know that opportunity entrepreneurs can provide the employment our country needs. So, how many of them

exist? We estimate that the number of youth opportunity entrepreneurs is 1 to 5 million, or a mere 0.75 per cent to 4 per cent of the youth workforce. This is not accounting for the adult workforce. My personal estimate is that less than 1 per cent of the total workforce of India are opportunity entrepreneurs. Other estimates support this; only 21 per cent of non-farm employees work in small and medium-sized enterprises (SMEs) (which in this context refers to businesses with less than fifty employees and usually below twenty), compared to 82 per cent in China, 75 per cent in Bangladesh and 62 per cent in Germany.⁶ These numbers are far too low to generate the kind of employment that India needs.

Mass entrepreneurship endeavours to accomplish that, to create a large number of SMEs which would provide employment for five to twenty people. Mass entrepreneurs take advantage of local demand and utilize local supply to run a business; they can provide the ubiquitous goods and services everyone needs in a local environment. The truism mentioned at the beginning is invalid in our current situation; demand produced by labour is not met with supply from labour. This is the structural problem in our economy; it is so focused on a certain type of employment that it neglects every other alternative, including mass entrepreneurship. Mass entrepreneurship can help demand meet supply. Each business operates in a small area, with a small target. Reproduced nationally, this solves the structural problem in our economy. In fact, this exact logic held true during the boom years of 2005–12; small businesses spurred job creation.⁷ An important caveat here is that it was not new businesses but existing businesses that contributed largely to the rise in employment. Hence, mass entrepreneurship is twofold; encouraging more people to take up entrepreneurship, but also supporting the growth of existing entrepreneurs.

What Is a Successful Model of Entrepreneurship?

Where will these entrepreneurs come from? I believe the maximum potential to grow a large number of mass entrepreneurs comes from the youth. The youth are the most suitable to be groomed into mass entrepreneurs for several reasons.

There are currently 282 million youth (aged eighteen to twenty-nine) who are of working age. Of these, 128 million participate in the workforce currently. This 128 million comprises about one-fourth of the workforce, and this number is set to increase.⁸ These massive numbers provide a large supply of possible entrepreneurs.

The youth are also the most educated segment of the workforce. Nearly 13 per cent of all youth are still in education. At least 8 million graduate secondary school every year, and over 3 million graduate college. One-fourth of all youngsters apply to go for higher education every year. These better-educated youth will be more skilled and hence will have a higher chance of setting up and running a business successfully.

The youth are also unemployed in large numbers. While only 2 per cent of adults are unemployed, a staggering 13 per cent of youngsters are unemployed.⁹ These numbers are bolstered every year by youth who have left education but are unable to find employment. The unemployed are disproportionately young; more than 60 per cent are between the ages of eighteen and twenty-five.¹⁰ These large numbers of unemployed and well-educated youth are a valuable resource we can tap into to create mass entrepreneurs.

A more supportive environment would greatly help entrepreneurship in India. An interesting way to create this kind of environment is through TV shows. TV shows such as *The Apprentice* and *Dragons' Den* focused around entrepreneurs have seen higher acceptability of entrepreneurship among viewers.

A possible replication of this in the Indian context may lead to a higher acceptability of entrepreneurship here as well.

Access to capital is a huge factor in setting up a business for many youngsters. Nearly 56 per cent of all youngsters, or more than half, cite lack of finance as the primary reason for not being able to set up a business. This may be because Indian banks rarely give collateral-free loans for individuals to set up businesses with. However, the youth usually have very little wealth to give as collateral, since they have barely started earning. This makes capital hard for youngsters to access. Furthermore, starting a business takes up a large portion of an individual's income in India, close to 15 per cent. Compare this to the US, where it takes 1 per cent of their income, and 0.6 per cent in China.¹¹ Starting a business takes a significant financial investment on behalf of a person in India, and accentuates the risk taken while making such a decision, which may put off many individuals from setting up a business. Even existing schemes by the government have not been entirely able to solve this problem. For example, the Micro Units Development and Refinance Agency (MUDRA) loan scheme, set up by the Indian government to help small businesses access cheap loans, has not realized its full potential, since most of the loans are going towards solo entrepreneurs, inhibiting job and business growth.

Easier finance for youth would significantly boost entrepreneurship. A case study in this area would be the Bharatiya Yuva Shakti Trust (BYST). It provides collateral-free loans to entrepreneurs to use in business. These entrepreneurs are also given financial advice from approved banks. It also refers entrepreneurs with a good track record of repayment to larger banks, both public and private. This helps many entrepreneurs access easy finance and set up businesses, and is a model that should be replicated. However, this model has not been tested at a larger scale, and only time will tell. On the other hand, the self-help

group (SHG) model has proven to be successful at scale, yet it may not be the most replicable model for mass entrepreneurs. The success of financial access for mass entrepreneurship hinges hugely on financial linkage partners coming together to create innovative models specifically for mass entrepreneurs, and perhaps including the use of technology will solve many associated problems.

Another important factor is the network that an entrepreneur has. A wide and strong social network connects entrepreneurs to customers, to capital, to suppliers, and crucially, to potential employees. These networks are extremely important to entrepreneurs to grow a business. However, most of these networks come from previous work experience, which youngsters do not have. It has been shown that the age and size of a person's social network are correlated; the older you are, the more people you are likely to have met, which would have made your network grow. Young people obviously do not have this advantage. Hence it is difficult for them to grow a business.

Another case study to see here is an online platform called IndiaMart. It directly connects sellers to buyers by allowing them to list their products directly on the platform, from where buyers can choose the products they want. The registration fees are also very low and sometimes free, making it easy for entrepreneurs to list themselves. This creates a direct network between buyers and sellers. However, it fails to connect entrepreneurs to potential employees and sources of credit and other resources. A similar platform may be useful to help entrepreneurs cultivate such networks.

Another vital area is the requisite skills to grow a business. Only 2 per cent have undergone any vocational training programmes; and that is not all. Nearly 42 per cent of students in vocational training find the education subpar, and 72 per cent of employers find the students from these courses simply unemployable. Nearly 70 per cent of youth don't even know that such programmes exist.¹² Hence, large numbers of students

cannot think critically or solve problems, which leads to their businesses (if they ever start them) failing. To boost these skills, we need to upgrade the quality of these vocational training programmes, and increase awareness around these networks.

This brings us to the last major factor—exposure to industry. A greater amount of industry exposure has proven to be directly related to higher chances of success of a business. Entrepreneurs with zero to three years of industry experience comprise 11 per cent of all successful businesses, compared to entrepreneurs with over ten years of industry experience, who comprise a huge 47 per cent of all successful businesses.¹³ An MIT study found that people with just three years of experience were 85 per cent more likely to launch a successful business in that industry than people with no experience.¹⁴ This disproportionately affects youth as they have little to no work experience and hence little exposure to the industries they are trying to set up a business in. This exposure is vital for a business because it provides technical experience and knowledge about the industry, lets them understand how to manage a business in that particular industry, and crucially, helps them build networks in that particular industry. This can greatly affect their chances of success.

We cannot wait for the economy to provide run-of-the-mill jobs for these millions of people. We need to encourage our workforce to create their own jobs. The youth are a ready resource to tap into to create the mass entrepreneurs our economy needs. With a few changes (albeit these would be significant changes), we can spur our youth to become mass entrepreneurs. This would benefit even the youth that do not become entrepreneurs, as youth tend to employ youth, and job opportunities increase as well. Furthermore, youth entrepreneurs act as role models for others, and this encourages an entrepreneurial career.

Another crucial demographic we can tap into is women. Female labour participation has been decreasing for more than a

decade now, and has slipped to a measly 16 per cent (2017–18). Nearly 67 per cent of women between the ages of eighteen to twenty-nine are neither in the workforce nor education, and are most probably staying home as housewives or are denied the chance to pursue higher education or jobs by their families.

While nearly equal numbers of young men and women are in education, women run only 8 per cent of all businesses in India. Bangladesh performs much better, with women running 32 per cent of all businesses.¹⁵ It is possible that many of these businesses employ just one person, but it still shows a gap that India can bridge.

The two largest problems for women entrepreneurs (above the problems for all entrepreneurs) is their inability to travel for long hours and distances, as well as their shorter working hours. They are not allowed to travel a lot due to social pressures and their families, whereas their working hours are less than men as they also have household responsibilities to attend to. A possible solution to this problem could be encouraging home-based businesses for women—selling homemade food, running tuition classes from home, etc. This would take away the need to travel while allowing them to easily schedule their hours.

Sectors Appropriate for Mass Entrepreneurship Expansion

Besides demographics, there are specific sectors in which we should encourage mass entrepreneurs to start their businesses. These sectors involve businesses that create a lot of jobs, rely on local demand and supply, and are easy to set up. The three sectors are construction, hospitality and food processing.

Construction accounts for 11 per cent of India's GDP, and is growing rapidly. The industry hires 2.3 million people over 1 million establishments. Nearly 32 per cent of these establishments

hire at least one worker, and the average number of workers in a firm is 5.3.¹⁶ The industry is highly fragmented, with the largest companies accounting for only 20 per cent of the total market, and half the firms being in the unorganized sector. This means there are lots of small firms. Moreover, a large number of youth are trained in construction programmes, which show a lot of interest in them.

Hospitality is a sector with a lot of opportunities. Hotels and restaurants employed 7.8 million people in 2011–12 and 8.7 million in 2017–18. The hotel industry alone employs six million people over many establishments, 40 per cent of which hire at least one worker. It is highly fragmented as well, with the largest firms accounting for only 22 per cent of the industry. On average, a business employs 4.3 workers. Crucially, demand far outstrips supply in this industry, by a factor of two.¹⁷

India needs 1.4 million hotel beds a night, but has only 0.24 million. International tourist arrivals alone are expected to increase to 30.5 million by 2028. This vast and unmet demand in the hospitality industry presents a sustainable opportunity for mass entrepreneurs.

Our last sector is food processing. Food processing is expected to grow at 11 per cent, and employs 6.4 million people (in 2011–12). The average number of workers per establishment is 4.2. This sector is conducive to high growth. Domestic and international demand are set to rise much faster than the rest of the economy, and processed foods are fast becoming an important part of an Indian household's expenditure, currently comprising 31 per cent of their total expenditure.¹⁸

This is an excellent opportunity for rural youth to turn to. They can bring their knowledge and contacts from the agricultural industry in their businesses. The requisite amount of capital is also quite low, and such a business is easy to set up. However, its success depends on good quality products, which require significant skills for an entrepreneur, such as being trained in procuring high-quality raw material, identifying the

most suitable technologies, and controlling the quality of the output. Furthermore, networks on the demand side are crucial to develop so as to ensure that the product reaches retail and the business runs.

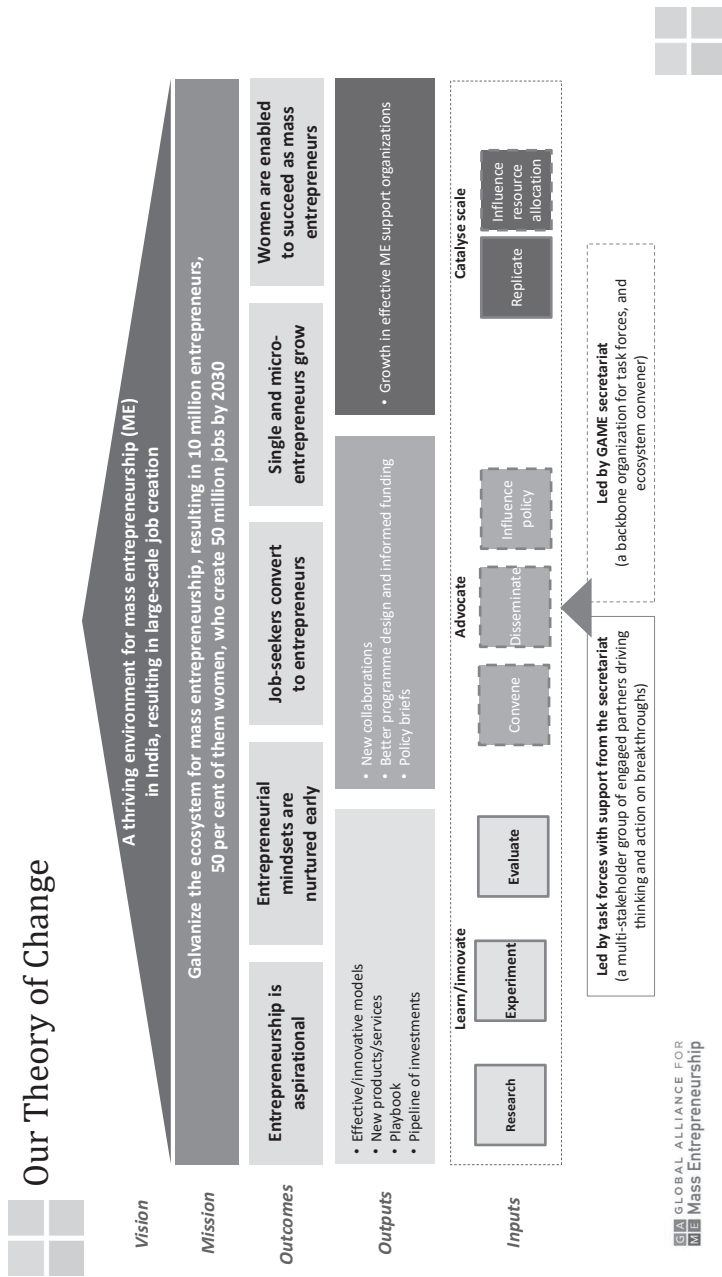
These three industries currently offer huge potential to thrive in.

Need for an Alliance for Mass Entrepreneurship

Aside from all these technicalities and numbers and cold data, the simple message of mass entrepreneurship is that it can help spur employment in a country through the innovations of many, many small entrepreneurs. We do not ask them to set their sights so high that they are almost always bound to fail. We do not ask for heavy-handed, bureaucratic government programmes to increase employment through some forced entrepreneurship. We only recommend a tried and tested method that has provided employment to billions around the world (see below for the theory of change and the alliance model).

We see this manifest in our neighbour, China. China may be an economy dominated by government-run enterprises and tech firms such as Tencent and Alibaba, but the true success is their ability to harness the power of mass entrepreneurship. More than 13 million enterprises were set up in China between 2014 and 2017, 95 per cent of which are in the private sector. In 2018, they have scaled greater heights, with more than 18,000 businesses being set up every single day. Very few of these millions of businesses will become a Tencent or Facebook. But they will all collectively boost the growth and employment of a country.

The Global Alliance for Mass Entrepreneurship (GAME) has been set up to catalyse mass entrepreneurship in India with the intent to create 10 million new entrepreneurs, at least half of whom will be women, and 50 million new jobs by 2030. India needs its entrepreneurs to be a source of significant employment.



Outcomes

- Outcome 1: Entrepreneurship is aspirational—Young India largely aspires for either government or private sector jobs; bringing entrepreneurship to this choice set will create a pipeline of mass entrepreneurs for generations to come.
- Outcome 2: Entrepreneurial mindsets are nurtured early—While aspiration is a necessary condition, mindsets and skills are essential ingredients for success as an entrepreneur. We will look to build these early (that is, school), as they have much to do with entrenched and long-standing attitudes (such as risk aversion).
- Outcome 3: Job seekers convert to entrepreneurs—With declining job creation, and a finite pie of public sector jobs, encouraging youth to dive into entrepreneurship, be their own boss, and create jobs for others will be crucial. To achieve this outcome, we will amplify high-leverage enablers (such as peer networks) and help remove frictions/inhibitors (like turnaround times for loans).
- Outcome 4: Single entrepreneurs and micro-entrepreneurs grow—Solopreneurs and micro-entrepreneurs dominate India's entrepreneurship space, serving hyperlocal demand and producing/supplying at a sub-scale. Supporting them with backward and forward linkages and in identification of profitable business models will be crucial.
- Outcome 5: Enabling women entrepreneurs (cross-cutting outcome)—We know from research that women seek flexible and safe working environments and business opportunities. Gendered social norms, limited role models and discrimination in the value chain are problems unique to women. We will continuously bring a gendered lens to all our efforts.

As mentioned previously, we believe that Outcome 4 will be a significant driver of Outcome 3. Given that Outcome 4 will likely drive higher job growth, we will focus greater efforts here.

Through our engagement with stakeholders, we have identified four primary breakthroughs that will unlock the scale for mass entrepreneurship:

- Breakthrough 1: Entrepreneurial skills and mindsets—This cuts across the entire entrepreneurial journey, from aspiring to be an entrepreneur to becoming a mass entrepreneur. GAME will leverage learnings and expertise from organizations which have worked on supply-side entrepreneurship development, for entrepreneurial training, mentoring and domain (technical) expertise such as the United Nations Development Programme (UNDP), Rural Development and Self Employment Training Institute (RUDSETI), deAsra Foundation, Entrepreneurship Development Institute of India (EDII), among others, and showcase and build on their efforts.
- Breakthrough 2: Technology and tools—Technology will be a crucial driver for disseminating knowledge, and increasing the productivity and operational efficiencies of mass entrepreneurship. It will also be a key output in delivering the mass entrepreneurship action agenda (for instance, online peer networks, mass entrepreneurship opportunity maps, etc.).
- Breakthrough 3: Financial linkages—Timely, low-cost and adequate financing has been a challenge for mass entrepreneurs who are willing to pay a higher rate of interest. On the supply side, micro-entrepreneurs are believed to be ‘hard to reach’ and ‘risky’ to serve. Creating

solutions to de-risk, reducing operational expenses of loan servicing, and identifying new pathways to access capital (like micro equity) will be some of the pathways to unlock this breakthrough.

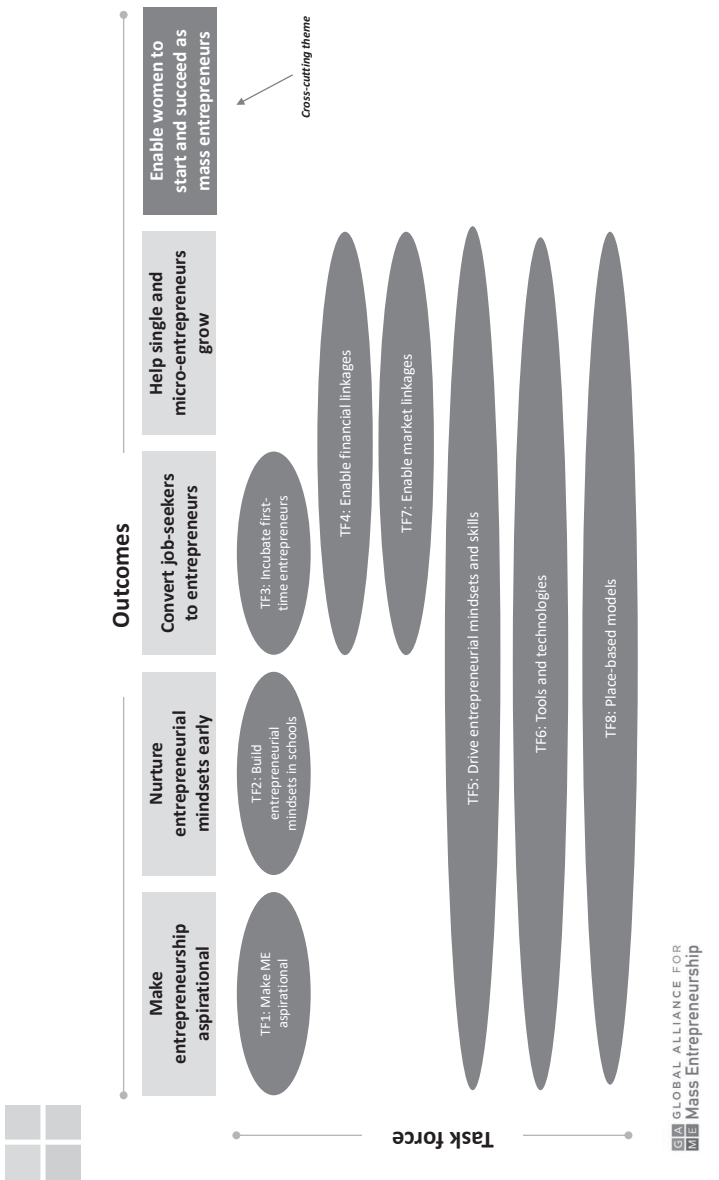
- Breakthrough 4: Market linkages: For mass enterprises, both forward and backward linkages have much to do with geography and sector. Our learnings from Meghalaya, and other regional markets, suggest that in the past there has been an overemphasis on technical and general business development services, rather than sector/geography-specific value chain services. Understanding and building a strong demand side network to support entrepreneurs while also building entrepreneurs' ability to recognize and serve local demand will be critical.

All these breakthroughs have to come together in a particular geography-sector-target-group combination as a 'value chain' where a combination of skilling, financial linkages and technologies will be utilized. To that end, we will create 'place-based models' in different operating conditions to understand the local needs/nuances and test models that offer a range of support services to entrepreneurs.

Alliance Model to Achieve the Outcomes and Breakthroughs

GAME will operate as an 'alliance' of ecosystem partners, and a few of these committed partners will come together in taskforces formed to tackle specific breakthroughs. These taskforces and the alliance will be supported by a core team or 'secretariat' to oversee operations.

Task Forces Mapped to Outcomes



1. **Alliance Partners:** The alliance comprises of all ecosystem players committed to the mass entrepreneurship agenda—private sector, government, donors, CSR/philanthropic foundations, non-profits, implementation organizations, etc. These players will join the alliance through a formal screening/application process and will engage through a defined partner programme.
2. **Taskforces:** Designed around breakthroughs, GAME taskforces will be constituted of committed alliance partners. These taskforces will problem-solve and identify action items for partners and the ecosystem to take on. Below, we describe the objectives, processes and composition of these taskforces.

Objectives

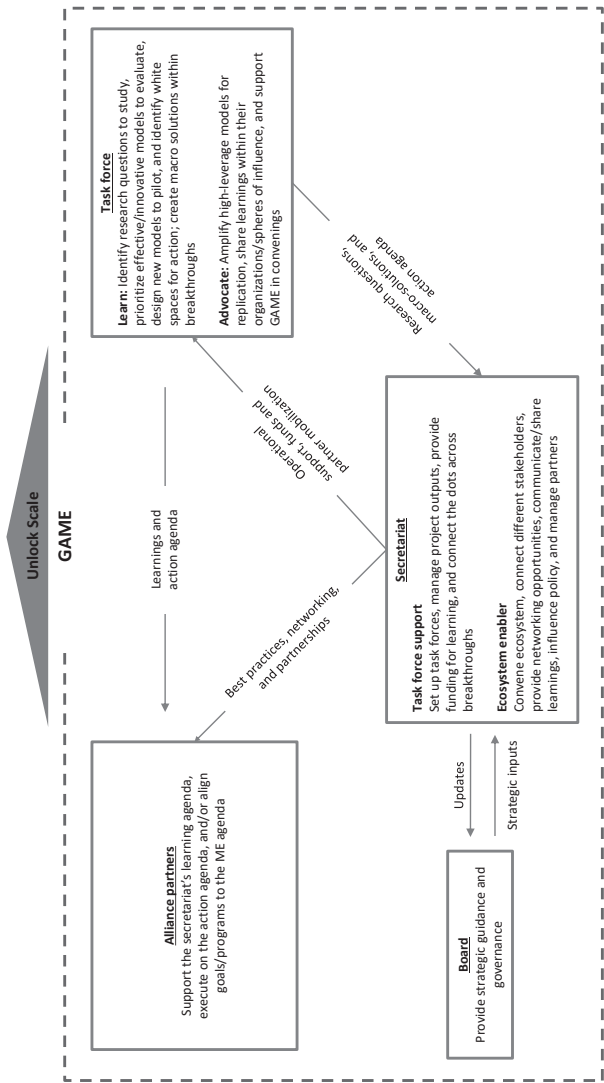
Each taskforce will be responsible for implementing learning, advocacy and replication agendas for their breakthrough to ultimately identify macro unlocks. These would require a coordinated effort, and hence taskforces will be expected to come up with an action agenda.

Process

Broadly, each taskforce will follow this process to arrive at unlocks for each breakthrough:

- **Learn/innovate:** Learning from existing interventions, schemes and policies to identify effective models, white spaces for action and innovations for testing. Taskforce members will have a dynamic relationship with the secretariat on funding and partner mobilization vis-a-vis the learning agenda.

The Alliance Model



- Advocate: Armed with fresh insights and unlocks for their respective breakthroughs including policy recommendations, taskforce members will use their influence in both formal (conventions, events, etc.) and informal (interactions with grantees, internal conversations, etc.) gatherings to drive better decision-making and action.

The narrative of the 75 million necessity entrepreneurs in India today has to be changed. It is time for the masses to realize their potential and entrepreneurial opportunity, allowing them to rewrite the script of aspiration, possibility, success and gender equality. GAME is committed to enabling the entrepreneurial landscape for small and micro-entrepreneurs; it is an idea whose time has come.

Rural Industrialization in India: Some Policy Perspectives

Sarathi Acharya

The Indian labour force has been growing at about 1 per cent to 1.5 per cent a year in the second decade of the 2000s (until 2016). This growth is likely to be so maintained for at least the next decade because of high natural population growth rates in the last decade of the twentieth century and the first decade of the present one. The backlog in the numbers unemployed in 2016 is estimated at about 40 million persons and this is despite the fact that there has been a secular fall in labour participation in the recent years. The challenge thus is to create at least 10 million jobs a year for the next several years. This is only to address the open unemployment problem—if underemployed persons are to be counted, the problem is much larger.¹

The rural non-farm sector (or enterprises) (RNFS or RNFES)—constituting commercial enterprises, small manufacturing, handicrafts, etc.—is one key sector that has the potential to engage more workers and grow in the coming years.² This is also essential since agriculture is increasingly unable

to productively employ more workers owing to limited land frontiers. A large number of workers whose principal engagement is counted to be agriculture are already employed in non-farm activities part time. Off-season migration in an attempt to look for work has also stayed high in the recent decades.

There are numerous motivations and potential benefits in promoting rural industrialization and other non-farm activities—the most compelling being job creation for surplus labour. An equally forceful impetus emerges from a related issue of asset/income creation in rural areas. With more than half the agricultural labour force being landless or near landless, any attempt to diversify occupations will most definitely help in creating some endowments, both human and physical. Third, given the diverse nature of activities in the non-farm sector, falling returns are unlikely to set in in most non-agricultural activities, and therefore it is expected that people working in these activities will gain. Fourth, in the absence of multinodal urban-industrial complexes to productively employ large populations, rural job diversification would help stem the excessive population concentration and congestion in metropolitan centres.³ Finally, there is a notable association between rural occupational diversification and rural poverty reduction.⁴

This essay aims to put forth a few policy proposals towards job creation through rural industrialization.⁵ The next section presents a synoptic view of the present status of rural industries in India, followed by the main section on policy options. The essay then ends with concluding remarks.

Status of Rural Industries

Trends and Patterns

The formal sectors engage fewer than 35 to 40 million workers in a workforce of more than 490 million in the country, and these

sectors have not been absorbing labour to any significant extent in the recent years.⁶ The agricultural sector employs some 205 million workers, that is, about 44 per cent of the total workforce.

It is estimated that the size of the rural non-farm workforce is in the range of 60 to 65 million, engaged in a little over 35 million RNFEs, as seen from the Sixth Economic Census of 2014. The National Sample Survey's seventy-third round pertaining to 2015–16 estimates the number of units to be 36.3 million, employing some 49.9 million workers.⁷ The Economic Census also finds that hired workers constitute about 35 per cent of the total employment in RNFEs, and women workers form about 31 per cent. The growth in the number of RNFEs over 2005–14 has been estimated at about 39.9 per cent or about 4.3 per cent annually by simple average. However, the growth in employment in these enterprises was only 34.4 per cent through 2005–14, which is less than the growth in enterprises. There are several possibilities for this situation, viz.:

- The sizes of these enterprises are falling; this is borne out by both the Economic Census reports and the NSS reports.⁸
- The enterprises are using lesser labour.
- Many enterprises are seasonal (such as expelling oilseeds, or sugarcane), and employment in these is undercounted.

All these could be simultaneously true. The fact that artisanal activities, industries such as khadi and many other traditional crafts are dying out and the newer enterprises are more in the genre of bicycle/motorbike repair, marketing of inexpensive city-made construction materials and furnishings, and the like, and the latter are more into providing services, could result in reduction in employment per enterprise.⁹

The average size of an RNFE is small, but the average is pulled down because of a large presence of one-person/

household-operated enterprises. Enterprises that employ ten to fifteen workers are not uncommon, though much larger ones of thirty to forty workers are simply not there. Some exceptions could be of sugar mills and cotton ginning units. While not much is known about rural non-manufacturing activities, it is a reasoned guess that trading has flourished with a larger integration of rural markets with external markets.

The more progressive states—either in agriculture or industry—also exhibit a higher per capita value added, a higher growth in overall activity and a higher employment in the RNFS compared to others. Thus, Haryana, Kerala, Punjab and Tamil Nadu exhibit better progress in occupational diversification compared to say, Bihar. Inter-sectoral links, infrastructure and other complimentary factors have made rural industries more dynamic in certain locales than others.

Scale, Technology and Productivity

‘Small industry’ in India is defined in terms of fixed assets; the currently fixed limit is at Rs 50 million.¹⁰ There is a separate definition for a rural industry. The average size of fixed capital in rural manufacturing enterprises is much smaller compared to a couple of decades ago. The service enterprises are smaller than those in manufacturing, and since service enterprises are expanding more, the average size per enterprise is reducing. There is up to 20 per cent mortality in this sector: some survive due to product reservations, some others because cheap urban products have not yet reached in remote locales, and many others because they price their own work at abysmally low prices. Finally, in some cases, operating the enterprise is an additional activity of the owner, the primary activity being agriculture.

Data suggests that the relatively larger units in the category of ‘small manufacturing’ are more efficient and are in a position

to absorb technology better. The level of education of both workers and owners has been found to be limited. There appears to be a positive association between the education of owners (and workers), size of enterprise, technological sophistication and earnings. Some owners of very small enterprises were themselves one-time paid workers in a similar line of activity, suggesting the possibility of upward mobility for workers, but then, given the scale of activity, the absolute earnings of those turned owners are quite low.

Only in a few cases is the technology employed somewhat sophisticated. This has mainly been found in the relatively large-sized enterprises in RNFEs employing more than fifty workers. In fact, there are no technologies available for easy dissemination to the smaller RNFEs. There are no links either between the technology-generating institutions and RNFEs. Often, the owners adapt available technologies to their requirements and not vice versa. It is also seen that the plant and machinery are purchased second-hand.

Infrastructure is very inadequate in most rural locales. Electricity is notoriously irregular, roads are not proper, and though telecommunication penetration is high now, social infrastructure is few and far between. Modern financial services to meet working or fixed capital needs are not available from institutional sources, and entrepreneurs have to depend upon either their own reserves or go to moneylenders.

In sum, the present status of rural industries suggests degrees of technological and social backwardness faced in rural areas. Not all rural industries, though, perform so poorly; there are a few dynamic ones as well. The more dynamic ones are typically those that rely on modern technologies and are linked to the larger markets, and exhibit characteristics that are different. These industries are established in relatively more developed regions, for example, in Punjab, Haryana, Gujarat, Maharashtra

and Tamil Nadu, and are often located on the periphery of major towns and markets.

Employment and Working Conditions

An interesting relationship is observed between productivity and earnings, ensuring that there is a possibility of fetching relatively higher earnings by raising productivity.

On aggregate, wages in RNFEs are generally higher compared to those in agriculture. Also, a notable segment of RNFEs are not seasonal and not affected by weather conditions, unlike in agriculture. The migration patterns also show that people aim to migrate away from the agrarian sector into non-agricultural activities, both in rural and urban areas. Non-agricultural activities have thus been found to be a desirable choice for workers. Having stated this, a number of qualifications that reflect upon the nature of activities in the RNFS are mentioned next. These refer to the nature of work in rural industries and non-agricultural activities, earnings and working conditions.

There are locales where workers are able to establish a high degree of complementarity between agricultural work and engagement in non-agricultural activities. A typical example is sugar mills, where the main work in factories is between February to March and May each year, which is a lean season in agriculture. Workers undertake agricultural work during the monsoon crop, and thereafter go to work in sugar mills. Wages in sugar mills are somewhat higher than those in agriculture, and this often exerts an upwards pressure on agricultural wages. Similarly, there are other agro-based industries or those in food processing that employ workers seasonally or on a part-time basis. The increased seasonal migration of workers, to a great extent, is because of such demands for labour. The strong association between non-agricultural activities and reduction in

poverty proportions found at the macro and meso levels has its logic in workers getting work for longer hours and/or for higher wages.

There is a strong industry specificity in the wages paid. The modern, more prosperous and dynamic industries pay better compared to others. In this regard, human capital emerges as a strong reason for this link, since industries such as engineering and metal works require workers to possess knowledge about the job, while in others such as tile-making, workers may only possess some hereditary skills. It is also seen that there is a positive association between the wages paid and the size of the enterprise. The larger enterprises are more likely to possess better technologies and are better adjusted in the market than smaller ones; as a result, they enjoy higher productivity. Lastly, a wage–profitability link is found in these enterprises. If entrepreneurs earn more, they pay more too for retaining experienced workers.

To sum up, scale, technology and endowments are the key determinants of productivity, earnings and working conditions. Among the important reasons for low productivity in rural industries and other non-farm activities is acute shortage of capital and technology, low skills of workers, low institutional credit availability, lack of information, poor market linkages and poor infrastructure. Those rural industries which score high on each of these counts thrive and provide decent jobs, and vice versa.

Policy Perspective

The RNFS requires to be made a viable option. It has to move away from a conventional understanding of RNFEs of the artisanal- and khadi-type industries to another level. In this regard, an enabling macroeconomic environment for the growth of this sector also needs to be put in place. Further,

specific measures are needed to raise the productivity and employment-generating capacity in RNFEs. Some thoughts in this direction are as follows.

Existing Policy Structure for Rural Industries in India

Rural industrialization policies date back to the early 1950s. It was then stated that to address the problem of employment in the short run, rural and small industries should be promoted. Among other issues, the Gandhian proposition of revival of rural non-farm activities for attaining self-sufficiency at the village level was endorsed. Common features of the public policy, which have continued throughout the planning period and later have been to provide subsidies and product reservation for the rural/decentralized sector. For traditional industries, there has been some aid offered in the form of product improvement and marketing. The overall financial allocation to this sector has however been rather modest, never exceeding 1 per cent of the Five-Year Plan (and later) allocations. Also, the bulk of the effort has aimed to augment supplies without necessarily making this sector responsive to the market demand. Aspects of deepening the capital base, activity/product diversification, enrichment of human capital or other approaches that would integrate these activities into the mainstream economy have by and large been absent in the policy structure. In effect, the promotion of rural industries has, at best, been little more than welfare-oriented activities of the state.¹¹

The basic mindset is of rural areas only being capable of nurturing traditional non-farm activities on a small scale. Now, well into the new millennium, the need for alternatives is staring us in the face harder than ever before. It is at this juncture that experiences of other countries can provide useful lessons.

Do International Experiences Have Any Lessons for India?

The most successful stories of rural industrialization are from the Far East—essentially Japan, China and Taiwan, and to a lesser extent, Vietnam. In these countries, rural industries had contributed to creating employment as well as producing goods for the society in the early stages of industrialization. There are several differences, in policy as well as practice, that distinguish these countries from India. Some of these are presented here:

1. An aspect that distinguishes India from East and South East Asia is the definition of rural industrialization itself. In most East and South East Asian countries, rural industry is integrated into the overall industrial development strategy; in contrast to India, where the industrial strategy has been distinct and exclusive, having no place for rural industries. This ‘inferior status’ of rural industries has never permitted them to be harmonized with the rest of the economy.
2. In these countries, there is a lack of distinct demarcation between rural and urban industries. Industries have been distinguished based on their dispersion vis-à-vis their concentration in a few areas. Separate policies are formulated for these two categories so that handicaps suffered by the latter can be addressed. There is no label attached to rural industries as such. In contrast, in India, ‘rural’ is recognized as a distant ‘poorer cousin’ of urban.
3. On the scale of operations, (rural) industries may be small but not necessarily always small and dominated by single-worker operations in East and South East Asia. There are rural enterprises in Vietnam, Cambodia and Thailand that employ well over a few thousand workers. Low-productivity household production enterprises are common in India but not so prominent in East and South East Asia.

4. In East and South East Asian countries, effort has been made to improve the rural infrastructure and human capital. As a result, it has been possible to integrate rural industries with urban industrialization processes, larger markets and exports. Most rural enterprises have little of these in India as seen earlier in the essay.
5. In East and South East Asian countries, programmes of agricultural modernization, aimed at obtaining large marketable surpluses, have been in promulgation since the 1930s, which in turn have provided raw materials as well as markets for the produce of rural industries. India has been thirty to fifty years behind them on this count. It is also important to recall that these countries have had a relatively successful record of land reforms, in contrast to it still being an unfinished task in most of India.

The key takeaways from the above are that rural industries require to be integrated with sectoral development programmes rather than being kept locationally isolated in rural areas. Infrastructural development to remove the locational handicap is thus essential. Finally, the scale constraint must be removed.

To Redefine RNFEs

Rural industries and other economic activities require redefinition. They need not be small units using local resources and simple technologies, and marketing their products locally or in niche markets only (such as khadi). Rural industries require to be developed as:

Ancillaries and captive units

There are/could be some forward linkages of small enterprises/ rural industries. Some could get established through ancillaries,

others through outsourcing, yet others through setting up captive units, still others through assembly of parts, and a few through marketing/brand sharing. It is an important step to promote rural industries to strengthen such linkages. The larger and urban-based enterprises that could link the smaller enterprises as their back-end business partners would recognize that if certain activities are farmed out, they stand to gain owing to low labour and establishment costs outside. The higher the subcontracting to rural enterprises, the more is the cost advantage. Also, the more specialized the product or service provided by the rural units, the greater is their bargaining power. Such a relationship can bring about economies of scale, efficiency, technological upgradation and competitive strength to the rural units. A typical example is the automobile industry, which typically has a few hundred suppliers. Some of them are more sophisticated, like those making gearboxes, tyres, brakes, etc. There are suppliers to the ancillary enterprises that make relatively simpler products, like nuts, bolts, tyre covers, and so on. There are simple product suppliers, like tiles for the shop floors or air-conditioner part suppliers. Many of these (simpler product) units could be located in rural areas not too far from the main manufacturing hub but far enough to penetrate the hinterland.

These processes are not restricted to the mechanical or electrical engineering industries. This is possible in garment-making as well. Part of the cutting, machining and tailoring (CMT) process has been farmed out to specific locales; for instance, the Lupin Human Welfare and Research Foundation (LHWRF) in Weir (Bharatpur district) has initiated a programme to undertake a part of CMT work, employing local girls and women belonging to poorer, Scheduled/Backward Castes after training them for six months. They have experimented with such trainings and market links in as many as six states in western India. This has improved the work participation of

women in this highly feudal/caste-conscious locale and also increased their income. Similar training has been undertaken by Usha International all over north India; it has opened 20,000 schools to train women in different garment-making activities from which benefited 35,000 women. They also provide online courses free of cost.¹²

Service Providers

These directly take care of the service needs of existing products such as tractors, two-wheelers, farm machinery (motors, pumps, diesel engines) and the like. Field interviews in rural Bharatpur and Alwar districts suggested that almost all of the services are currently met by providers from the town only and not anywhere else. Among the reasons stated was that the larger companies give out franchises to larger businessmen in the towns, who then open workshops in the district headquarters. There is scope for an alternative model where smaller service providers could be dispersed through rural areas. They require to be skilled in the trade and also possess some wherewithal in terms of equipment.

Final Product Makers

The South East Asian experience suggests that it is still possible to establish larger enterprises in the hinterland to make garments, shoes and other cotton and leather products at a large scale, employing hundreds of workers. The scale component would be taken care of, and with technologies/approaches introduced for quality control, most handicaps of being 'rural' could be addressed.

So far, this has been found to be true for cotton-ginning, sugar-milling, oil-exPELLING (to a limited extent), food- and agro-processing (marketed by larger companies like Patanjali or Pepsi).

If this can work for a few products, it could work for more. The missing links are infrastructure and skills/entrepreneurship, aspects that are discussed in the subsequent paragraphs.¹³

The need for special centres for undertaking research and development (R&D) for RNFEs is paramount.

Promoting Rural Industrial Clusters

Thailand follows an approach named the ‘one village, one product’ scheme. Following from the earlier Japanese success, the scheme proposes that each of the villages take up the manufacture of a single product, which in turn could then be sold in larger markets. Two points qualify this programme:

- (a) A whole village works towards making a product, because of which the marketing problems are managed through sheer scale—sales, price, transport, etc. Additionally, there is a considerable division of labour resulting in better product quality and low cost.
- (b) There is an effort to extract maximum value from each product or process; for example, in the context of leather, there is vertical integration right from animal husbandry to animal slaughter and skinning, flaying, tanning, leather/meat processing, etc., at the same village level. As a result, more jobs are created at the village level itself.¹⁴ This surely is possible in select locales in India.

India has so far defined six major clusters: the Hooghly Industrial Belt, Mumbai–Pune Industrial Region, Ahmedabad–Vadodara Region, Madurai–Coimbatore–Bengaluru Region, Chhota Nagpur Plateau Region, and the Agra–Mathura–Meerut–Saharanpur and Faridabad–Gurgaon–

Ambala belts. These, however, inform little on the RNFE sector. Nevertheless, there are MSME clusters that have come up as well; the government recognized 388 such clusters accounting for a large number of products. Some small-enterprise clusters are so big that they account for 90 per cent of India's total production of those articles. The typical example is of the knitwear cluster of Ludhiana. Next, almost all gems and jewellery exports are from the clusters of Surat and Mumbai. Also, the clusters of Chennai, Agra and Kolkata are well-known for leather and leather products.¹⁵ While these clusters do attract workers from elsewhere, they are not in rural areas, and other than the leather cluster, none are drawn on rural inputs.

It is important that a similar approach is developed for rural areas. India has more than half a million villages and over 10,000 recognized semi-urban centres within the vicinity of villages. While it is unrealistic to propose that all of these 10,000-odd locales can provide strategic advantages for non-agricultural growth, one approach is to target a development block as a possible centre for RNFEs. There are some 5500 blocks in India out of which a large number could qualify to become nodal points, since most development blocks have the basic infrastructure and administrative and technical wherewithal. Several kinds of industrial clusters could be developed here: a one-block-one-product type, a rural resource-based type, a skill-based one if there is a rural training institute in the vicinity, or any other. The basic principle is to establish clusters in a 'growth centres' approach in as many dispersed locales as possible.

It is essential that first, the present infrastructure at the block level be raised to a higher level than it is today. Some of the most basic inputs required are electric power, transportation and communication, to be established across the length and breadth

of the country. In this regard, the whole industrialization model should be more decentralized. It is important that industrial growth nodes be spread across the countryside at the block/village or district level.

A successful example of planning in a cluster-based approach has been presented for the Delhi National Capital Region (NCR); a synoptic view of it is as below. Note that this proposes industrialization to penetrate up to the block level without referring to the word 'rural'.

Aggregate policies for Delhi NCR would involve some priority transport linkages connecting the region to other parts of the country as below:¹⁶

1. Eastern and western peripheral expressways,
2. Regional rapid transit system,
3. Dedicated freight corridor,
4. Delhi–Mumbai industrial corridor,
5. Integrated freight complexes,
6. (Proposed) additional transport linkages including expressways, railways, etc.,
7. Augmentation of the existing links.

Growth Drivers

The priority units are MSMEs. Cheap credit, adequate industrial infrastructure and transportation facilities to them for reducing logistics costs are some incentives being put in practice. Next, an attempt would be made to mainstream the informal/decentralized sector for increasing productivity and improve working conditions and wages therein. Third, digitization would be promoted extensively, for which adequate investment in digital infrastructure is to be made.

The Manufacturing Sector

The state and the region would strive to attract high productivity industries such as those in electronics, software and high-tech mechanical and electrical industries, among others. R&D centres for high-tech businesses and trades, including for multinational companies, would be encouraged. Adequate infrastructure facilities in key designated areas will be established, where high-skilled personnel can undertake innovative jobs in various segments of knowledge industries (such as medical and clinical research, R&D in communication and IT, R&D in manufacturing, etc.).

Setting up industrial clusters as well as technology/skill upgradation facilities are prerequisites to ensure steady and sustainable growth of the industrial sector. The Functional Plan for Economic Development of NCR of 2016 presents a policy structure and intervention strategy in the manufacturing sector for sustained industrial growth in NCR.¹⁷ It recommends a cluster-based approach to optimize resources in industrial activities, especially MSMEs, with an emphasis on textiles, auto components, general engineering and sports goods, among others. All MSMEs in the clusters should also have access to common facility centres (CFCs) for sourcing indivisible facilities—deep freezers, market information, hiring labour, etc. Finally, a combination of measures including technological and skill upgradation are to be undertaken to revitalize the traditional and old industrial clusters, such as in Panipat, Meerut and Ghaziabad.

The Tertiary Sector

The role of R&D is crucial in economic development. At present, there is a fairly decent base for R&D

activities in some parts of NCR, for example, knowledge and innovation centres at Rai (Sonapat), Rohtak and Greater Noida.

Specific Priority Industries

Agro-based and Food Processing Industry

- Food-testing laboratories in the Haryana sub-region;
- Fruit and vegetable processing parks in Bulandshahr district of Uttar Pradesh and Jhajjar district in Haryana for horticulture produce.

Electronics, and Information and Communication Technology

- Appropriate policy interventions for operationalization of SEZs to boost exports;
- Software development in NCR: Delhi, Gurgaon and Noida.

Automobiles and Automotive Components

- Induced cluster at IMT Manesar and Bawal (Haryana) for automobiles and auto components, including provision of skilled manpower and infrastructure such as workers' hostels, etc.;
- Adequate support infrastructure, including forward and backward linkages, for the auto park in Alwar and research institutes (such as the upcoming national automotive testing and R&D project) in Haryana;
- Infrastructure support for auto component industries for Faridabad, Gurgaon, Noida, Meerut and Alwar.

Handloom, Hosiery, Textile and Garments Manufacturing

- Apparel park in Gurgaon SEZ and at Barhi (Sonapat) under the Apparel Park for Exports Scheme, Government of India;
- International trade and convention centre at Panipat;
- International trade centre at Gurgaon for promotion of garments;
- Textile park in Alwar district;
- Dyeing houses in Faridabad and Ghaziabad districts;
- Textile skill development centre at Okhla.

Footwear, Leather Garments and Accessories

- Infrastructure for leather development at Bahadurgarh, Haryana.

Facilitation

Registration and Other Assistance

The DICs were initially set up to promote small units and act as liaison centres between the state and central governments. Today, their activities do not go beyond registration and some amount of regulation. A revamping of DICs so that they act as conduits of information clearance, promotion and transfer of technology is of paramount importance. DICs, the National Research Development Corporation, National Productivity Council and a host of other agencies should work for the interests of stakeholders, in a proactive and business-friendly style, to promote RNFEs.

Possibilities of setting up common facilities for providing market information, quality control, design, machine-tooling,

repair, select processing and waste disposal can be envisaged in the industrial clusters. Some innovative planning and management approaches such as establishing value chains, setting up associations of rural enterprises and forming cooperation groups for information-sharing too would be of immense value addition.

Most RNFS producers face problems in procuring raw material and fuel. If raw material prices are subject to fluctuations in supply, producers end up paying high prices for them, which they are rarely able to pass on to their clientele. The fact that these producers buy inputs in small quantities further implies that they end up paying higher prices. Further, dependence on middlemen for the supply of raw materials can be financially crippling. DICs could provide a pool of raw materials which could then be sourced by the units. Since the proposal is to create similar units in a district, the pool is not expected to be very diverse.

Finances

One of the fundamental problems faced by the RNFS is access to credit, whether it is for fixed capital or working capital. India has a vast and complex financial network, constituted of finance institutions, commercial banks, cooperative banks, specialized rural banks and cooperative societies. Yet, private moneylenders, as per recent estimates, meet more than 70 per cent of business needs in rural areas.

The Small Industries Development Bank of India (SIDBI), National Bank for Agriculture and Rural Development (NABARD) and some commercial banks provide loans to modern small industries. There is some (very restricted) government support to handloom/khadi/village industries. Other rural industries generally do not get loans from institutional sources.

In recent years, initiatives have been taken up by some non-governmental organizations (NGOs) engaged in development finance, which to an extent have been backed by banks. The mode of lending, however, continues to be promotional rather than mainstream. In other words, there is no institutionalization of loan provisions to the RNFS outside the modern small industries segment.

The basic difficulties related to extending credit to RNFEs, other than, say, sugar mills and large cooperatives, are the non-availability of collateral, (in)security of loans and less than adequate legal standing of the borrowing organizations. Many potential users from this sector are not in a position to complete the appropriate paperwork—they cannot fill complicated forms, do not understand the terminology, face linguistic and class barriers, etc.—and as a result, they do not qualify by default. The other face of reality is that banks do not have the expertise or experience to effectively negotiate with small and geographically scattered entrepreneurs. They are equipped to handle large-sized loans and a few customers, and *not* a large number of customers wanting small quantities of loans. In dealing with small customer, their transaction costs tend to rise; as a result, they shy away. It requires a different approach to bank with such customers, a management style not very popular in the dominant thought.

Recent experiments reveal that while small operators may individually not qualify for credit as per the norms laid down, their credibility rises if they work in groups. Credit groups composed of small borrowers often begin as savings groups, and as their credibility as savers gets established, they also qualify to apply for group loans—in quantities that banks can manage to administer—and distribute the amounts among themselves according to each member's needs. There need not be concessions on interest rates or payback periods; the interest rates could be at par with the prime lending rates or even higher.

The important task is to establish credit groups and make them functional. So far, the lead in this direction has been taken by NGOs equipped with experience in community development and commitment to rural development. Institutionalization of this effort at the national level would require strengthening the business component in local self-governments.

The concept of a local area bank is yet to emerge in India. What exists is institutions registered as cooperative banks serving the credit needs of their members. Individuals with a missionary zeal, who have felt the latent need, have created organizations that somehow fit into the existing legal framework. A high-powered committee, set up to examine how credit needs of the tiny and micro sector can be met, has suggested establishment of unit banks in localized neighbourhoods (to be named as local area banks). This recommendation requires implementation.

Extending Training, Skills and Transfer of Technology

Any form of training in modern skills, be it machine handling and repair, or managing accounts and marketing, requires that the person possess some basic literacy and numeracy. Basic education thus becomes an essential prerequisite for industrialization.

It is important to offer technical and managerial/organizational training to rural workers in industries through a variety of means, such as establishing links with formal training systems, community-based approaches, exposure tours and other similar methods. Successive governments have committed to improving the skills of the larger masses, and the latest version is the Pradhan Mantri Kaushal Vikas Yojana (PMKVY). The objective of this skill certification scheme is to enable the youth to take up industry-relevant skill training, which would help them secure better livelihoods. Individuals with prior learning

experience or skills will also be assessed and certified under the Recognition of Prior Learning (RPL) process. Under this scheme, the training and assessment fees are completely paid by the government. It has to be seen whether this scheme makes any headway, as most earlier schemes were unable to meaningfully provide skills.

There are currently no centralized product-development/R&D facilities for the kind of activities that the RNFS undertakes. In several of these activities, a little help can add considerable value. Business service centres (BSCs), armed with technical and business information, can be junctions for the transfer of technology. This is a new concept for rural Indian conditions, and the modus operandi of BSCs would have to be devised according to the extant local conditions. The general prescriptions for their establishment, however, are stakeholder partnership, no fee-free services and internal flexibility to match demand.

One of the problems faced by most skill-training programmes in India is that the extant basic education is too low for skills to be imparted effectively, which is unlike the Far East or many parts of South East Asia. The trainees are not able to grasp technology easily beyond the basics; and this is particularly so when mechanical technology is rapidly giving way to electronic-control-based technology. This is a major challenge and solutions to it need to be found. Next is the language issue. There are as many as twenty-two official languages in India but technical literature and instructors are available in a maximum of two to three languages. There is thus no escape from requiring translations of technical materials in different languages in addition to training local instructors in several languages.

Finally, there is no substitute for government-run institutions in education and training. The private sector in education and training, despite it being promoted in policy, is not suitable since experience shows that none of the private institutions are

rated at par or higher than public ones. The fees they charge are also high.

Conclusion

This essay first examines the present status of rural industries in India. It then examines the extant policies and proposes fresh initiatives for the new millennium. In the absence of a sound policy for promoting the non-farm sector, these activities remain of low productivity, obsolete technology and are to an extent not integrated with the larger markets. They also do not have access to most of the inputs and facilities required for modern production. While rural industries and non-farm activities continue to provide livelihood to 40 to 50 million workers, the quality of jobs provided is not always decent.

Solutions to questions raised at the outset about creating decent jobs for the largely dispersed population across the vast stretches of the country can be sought if the mindset about the definition of the RNFE changes. The intent to develop rural industries should be genuine and resources devoted to this effort adequate. Rural industries need integration sectorally and should not be regionally isolated. Also, the scale of RNFEs need not be small, though small ones too could coexist. Large-scale ancillarization could strengthen links between large and small industries.

Promoting Artisanal Clusters

Tamal Sarkar, A.S.K. Sharma and Smriti Jain¹

Micro, small and medium enterprises (MSMEs) cover services, artisanal manufacturing and manufacturers of non-artisanal products. Each such unit can be either an own-account enterprise (working with family labour only) working from home or working with hired labour, either from home or from a factory set-up. This essay identifies challenges and comes up with policy-level suggestions for promoting artisanal enterprises, covering mostly own-account enterprises. Artisanal enterprises are mostly seen in clusters; hence, apart from secondary literature, we also did some small sample data collection from artisanal clusters, and analysis thereof, to get a feel of the on-ground scenario. The policy suggestions are based on experiences of working in a cluster and were also selectively verified at a stakeholder consultation done by the Foundation for MSME Clusters (FMC).²

Methodology

India had around 45 million non-agricultural establishments as of 2013.³ Of these, 10.3 million (22 per cent) were in the

manufacturing sector. Of these manufacturing units, 1.9 million (around 20 per cent) were artisanal units producing handlooms and handicrafts. 1.5 million units (around 80 per cent) were artisanal own-account enterprises (AOAEs) or ‘nano’ units.⁴ Together, these units gave job opportunities (through employment or as family members) to around 4.2 million persons.

Table 1: Employment Intensity of Artisanal Units⁵

	Without hired workers	With at least one hired worker	Total
Number of units	14,77,380	3,96,244	18,73,624
Number of employees	24,43,238	17,61,568	42,04,806
Average employment per unit	1.65	4.45	2.24

These artisanal units are mostly found in the 3700-odd artisanal clusters⁶ all over the country. They are largely (80 per cent) nano (or own-account) enterprises using mostly hand-operated tools and working with family labour. Males dominate the ownership pattern in these units, and a majority of them are under private proprietorship.

Table 2: Ownership Pattern of Artisanal Units⁷

Artisanal enterprises	Percentage of total
Led by males	80
Led by females	20
Private proprietorship	96.5
Joint enterprises (partnerships/self-help groups or SHGs/cooperatives)	1
Others	2.5

The concentration of artisanal units is well-distributed across the country. While Uttar Pradesh dominates both in terms of number of enterprises and employment, the top ten states in terms of number of establishments include West Bengal, Assam, Odisha, Andhra Pradesh, Tamil Nadu, Rajasthan, Maharashtra, Gujarat and Madhya Pradesh. For our purposes, we have selected four states from the top ten and three from the others at random. These seven states have around 40 per cent of the enterprises and employ around 40 per cent of the artisans.

Table 3: Presence of Artisanal Units⁸

States	Percentage of total artisanal enterprises	Percentage of total persons employed in those artisanal enterprises
Uttar Pradesh	17	18
Odisha	8	7
Andhra Pradesh	8	6
Assam	5	5
Karnataka	3	4
Telangana	2	2
Jharkhand	1	1
Total	43	43

The technical challenges faced by nano enterprises are varied and cover nearly all aspects of business operations, including raw-material procurement, manufacturing, human resources, finance, market promotion, infrastructure, sustainability, etc. and vary depending on the nature of the product, the size and level of development of the unit, etc.⁹ To get a better understanding of the challenges, we did a survey of 157¹⁰ artisanal units in eight clusters in the selected states. Almost 80 per cent of these were

nano units. The survey was done through a random selection of artisans and also through chain sampling. The results were analysed from the demand side (viewpoints of artisans) and the supply side (analysis of results).¹¹

Table 4: Clusters Surveyed¹²

	Location of cluster	Products of cluster
1	Hadapada (Odisha)	Stone-carving
2	Tumakuru (Karnataka)	Multiple products such as coir, areca nut leaf plates, sisal ropes, clay lamps, etc.
3	Dhemaji (Assam)	Handloom products such as mekhola chador, gamocha
4	Agra (Uttar Pradesh)	Hand-embroidered products such as kurtis, dupattas, cushions, etc.
5	Gumla (Jharkhand)	Bamboo, jackfruit and pottery
6	Karimnagar (Telangana)	Gold jewellery
7	Soro (Odisha)	Stone-carving
8	Srikakulam (Andhra Pradesh)	Handloom products such as cloth, sarees, lungis, etc.

Analysis of Survey Results

Although challenges from the demand side vary from cluster to cluster, some of the highlights are as follows:

1. More than 60 per cent of respondents ranked lack of access to finance and limited market penetration and designs as the major challenge for growth. According to them, most bankers are not keen to extend credit facilities to labour-

intensive artisan-based clusters. The lack of necessary documents such as an audited statement of accounts, PAN or Aadhaar cards and apprehensions among artisans about bank interest rates and long approval times, are some of the reasons for low take-offs.

2. More than 40 per cent identified limited access to quality raw materials as a challenge.
3. More than 40 per cent also felt that limited skill sets for product diversification and the lack of necessary advanced machines were affecting their productivity.
4. More than 80 per cent of the respondents ranked poor health as the least critical area.

An analysis of the data also identified the following aspects from the supply side:

1. Does joint entrepreneurship help?

Here we considered joint entrepreneurship from two aspects—being a member of a joint enterprise (cooperative society/society/producers' company) or an SHG. In the case of joint enterprises, it was observed that in most cases, artisans get 26 to 72 per cent higher wages than those working on their own. They also work for 17 to 29 per cent more hours (barring Tumakuru), 4 to 30 per cent more days per month (barring Gumla and Karimnagar), and 1 to 15 per cent more months per year. Joint enterprises with strong marketing networks are also providing financial support and inputs to members, helping them in upscaling their skills, which have helped the artisans get better wages.¹³

Table 5: Impact of Joint Enterprises on Earning¹⁴

	Cluster	Average daily wage (Rs) of sample artisans		
		Member of joint enterprises	Non-member of joint enterprises	Percentage higher for member of joint enterprises
1	Hadapada	545	420	30
2	Soro	429	250	72
3	Tumakuru	452	418	8
4	Dhemaji	0	187	NA
5	Agra	246	250	-2
6	Gumla	234	144	63
7	Karimnagar	500	392	28
8	Srikakulam	251	200	26

In the case of SHGs, it was found that though in many instances group members were earning 14 to 48 per cent higher wages (barring Agra where the wage differential is minimal), not much difference was observed in terms of number of working hours, days and months. Some of the reasons for their relatively (as compared to joint enterprises) low impact on the livelihood of artisans are: limited size, lack of professionalism, objective of SHG formation being more for thrift than for business promotion, limited recognition among major marketing channels (as such groups are informal in nature).

Table 6: Impact of SHGs on Earning¹⁵

	Cluster	Average daily wage (Rs) of sample artisans		
		Member of SHGs	Non-member of SHGs	Percentage higher for member of SHGs
1	Hadapada	700	473	48
2	Soro	500	416	20
3	Tumakuru	481	422	14
4	Dhemaji	0	187	Not applicable
5	Agra	246	250	-2
6	Gumla	217	165	32
7	Karimnagar	500	393	27
8	Srikakulam	0	249	Not applicable

2. *Is there a significant wage increase over the professional life of an artisan?*

One-third of the respondents are less than thirty-five years old and are termed as young, which is disturbing as this shows that members of the younger generation are not joining their respective ancestral craft in good numbers. Also, those of the older generation with all their experiences earn around 2 to 21 per cent higher wages (barring Gumla¹⁶). This shows that in the lifetime of an artisan, the majority do not get any substantial increase in their wages.

Table 7: Impact of Age on Earning¹⁷

	Cluster	Average daily wage (Rs) of sample artisans		
		For artisans aged less than or equal to 35 years	For artisans aged above 35 years	Percentage higher for artisans aged above 35 years
1	Hadapada	413	500	21
2	Soro	380	433	14
3	Tumakuru	419	456	9
4	Dhemaji	175	200	14
5	Agra	244	248	2
6	Gumla	242	186	-23
7	Karimnagar	361	430	19
8	Srikakulam	225	250	11

3. How different is the wage rate from the minimum wage?

Artisans are highly skilled persons. They mostly work on a piece-rate basis and hence the minimum wage rate does not hold any statutory significance. However, the effective wage rate of an artisan is 3 to 65 per cent lower than the minimum wage of highly skilled persons (barring the Karimnagar cluster). This does not imply that the family is earning below the minimum wage. It may so happen that the overall effective wage earning of the person through a mix of other professions (as this is often not a full-time job) is above the minimum wage. However, in either case, it has an important bearing as higher wage rates in other competing professions will lead to a trade-off with their inherent skill. Since persons other than artisans are not capable of entering this profession, this will ultimately lead to the vanishing of the art form.

We also calculated the monthly earnings assuming that each artisan works for eight hours a day and twenty-two days a month and found that the average wage is 4 to 40 per cent lower than

the minimum wage of highly skilled persons, barring the two stone product clusters of Soro and Karimnagar which have links to higher-order value chains. Thus, it is most likely that a large number of artisans are underemployed, and given a chance they will exit from artisanal activity and move to other higher-return professions.

Table 8: Wage Differential as Compared to Minimum Wage¹⁸

Cluster	Wages (Rs per month)			Percentage lower actual wages of sample artisans as compared to minimum wages of highly skilled workers	Percentage lower adjusted wages (standard working hours) of sample artisans as compared to minimum wages of highly skilled workers
	Average for sample artisans for actual working hours	Adjusted average for sample artisans for standard working hours (full employment)	Minimum for highly skilled workers for standard working hours		
Hadapada	9940	11580	10464	5	-11
Soro	9199	10081	10464	12	4
Tumakuru	10225	9923	10560	3	6
Dhemaji	4114	7181	11904	65	40
Agra	4665	6804	7800	40	13
Gumla	3395	7062	8040	58	12
Karimnagar	9427	9544	8736	-8	-9
Srikakulam	6385	5360	8736	27	39

Note: Standard working hours are taken as 8 hours a day and 22 days a month

There are two dimensions to this issue. Firstly, the artisans at one point of time were not only the owners of the production techniques, but also of whatever design elements were present in the products. Those were the times when artisans used to operate in a local-local economy, producing locally and selling locally as per the tastes of the local community.¹⁹ Over the years, as the market became local-national and local-international, the design element, which is a principal value-adder, eluded artisans as designs started coming from specialized service providers (designers), which the artisans are not. Thus, they have become mere job workers, and a critical and significant portion of value addition has got removed from their earning ability.

Secondly, in any art, there are several activities in the value chain which severely constrain productivity due to lack of mechanization. The degree of mechanization is extremely low, and there is huge scope for mechanization to do various preparatory and support works other than the art form of the activity, which is done by hand. This can enhance the productivity and wages of the artisans.

Table 9: Scope for Mechanization²⁰

	Cluster	Current general production tools	Suggested machinery
1	Hadapada	Hand tools only	Block-cutting machine, profile-cutting machine, gantry crane, EOT crane, stone router machine, slab-cutting machine, etc.
2	Dhemaji	None	Fly shuttle loom, warping machine, higher width loom, dyeing instruments, calendaring machine, dobby and jacquard, etc.

3	Agra	Hand tools only	Stitching machine, embroidery machine, button stitching machine, CAD/CAM, ironing machine
4	Gumla	None	Tamarind processing machine, chironji plant, seed lac plant
5	Karimnagar	None; use of wire/sheet-making machine only	Faceting and milling machine, bangle- and ring-turning and profiling machine, laser-engraving machine, CNC router, digital weighing machine, ball-making machine, welding machine, gold and silver dyes, digital vacuum pressure casting gold melting machine, sheet and wire drawing machine
6	Soro	Hand tools only	Stone-block-cutting machine, CNC stone router, crane, EOT crane and stone polisher
7	Srikakulam	None	Hank to cone/bobbin winding machine, drum warping machine, single needle sewing machines, pico machine, embroidery machine, industrial sewing machines, zig-zag machine, ironing machine, over-lock sewing machines, hand tools
8	Tumakuru	Hand tools	Pith block making, defibering, power loom, two-ply yarn, RO system, mechanized cleaning, frame looms

4. *Are the wages gender neutral?*

In Dhemaji, weaving is traditionally done by women artisans and the wages are low; the same can be seen in Gumla, where the cluster consists of women artisans only. Clusters of Odisha which do well in terms of minimum wage standards have only male artisans. In the rest of the clusters, males earn 32 to 48 per cent higher than women (barring Srikakulam). In some clusters such as Dhemaji, Agra, Tumakuru and Gumla, promotional agencies and institutions have encouraged women participation by providing them necessary training, inputs and equipment, which is noteworthy and highlights the importance of encouraging such institutions. While in some cases women are restricted to only peripheral activities and thus get low wages, they are generally absent on the marketing front, which is mostly male-dominated, and monetary transactions too generally happen through males.

Table 10: Wage Differential among Males and Females²¹

	Cluster	Average daily wage (Rs) of sample artisans		
		Male	Female	Percentage higher for males
1	Hadapada	483	NA	NA
2	Soro	420	0	NA
3	Tumakuru	490	372	32
4	Dhemaji	NA	187	NA
5	Agra	266	190	40
6	Gumla	0	212	NA
7	Karimnagar	470	317	48
8	Srikakulam	249	0	NA

5. Does education count?

The level of education has a significant impact on the wage level. Those who are educated above the secondary level are getting 17 to 69 per cent higher wages compared to those with levels below it. Better bargaining and risk-taking abilities due to the confidence offered by education and better access to markets are the major factors for better wages.

Table 11: Wage Differential Based on Education Level²²

	Cluster	Average daily wage (Rs) of sample artisans		
		Illiterate/ lower secondary	Secondary and above	Percentage higher for those above secondary
1	Hadapada	436	508	17
2	Soro	363	506	39
3	Tumakuru	365	570	56
4	Dhemaji	0	187	NA
5	Agra	246	246	0
6	Gumla	209	250	20
7	Karimnagar	313	420	34
8	Srikakulam	150	254	69

6. Do schemes help?

Thanks to local NGOs and state-level agencies such as DICs, more than 65 per cent of respondents are aware of promotional schemes such as the Prime Minister's Employment Generation Programme (PMEGP), Ambedkar Hastshilp Vikas Yojana (AHVY) and social welfare schemes related to health insurance,

housing, etc. Those who have better scheme awareness earn 25 to 109 per cent higher wages as compared to those whose level of scheme awareness is none. However, the usage of schemes is low. Only 18 per cent of artisans have availed schemes, mostly in three clusters, there being a distinct difference in wages among users and non-users of schemes.

Table 12: Impact of Scheme Utilized on Wages²³

	Average daily wage (Rs) of sample artisans		
	Those who utilized schemes	Those who did not utilize schemes	Percentage higher for those who utilized schemes
Tumakuru	471	301	56
Gumla	200	180	11
Karimnagar	513	440	17

7. Does entrepreneurship help?

The level of entrepreneurship can be ascertained based on the level of risk taken by the artisans. Nearly 80 per cent of the artisans are working on their own or with family labour, with the least risk. Only 20 per cent of total respondents are units which are working through hired labour, and they are also mainly seen in Hadapada, Soro and Tumakuru and to some extent in Agra. The earnings of those working with hired labour are 8 to 38 per cent higher.

Table 13: Wages of OAEs and Enterprises with Hired Labour²⁴

	Average daily wage/income (Rs) of sample artisans		
	Wage for those working with family labour	Income for those working with hired labour too	Percentage higher for those working with hired labour too
Hadapada	465	615	32
Soro	411	500	22
Tumakuru	363	466	28
Agra	250	270	8

The Way Forward

Promoting Joint Enterprises and Linking to Higher-Order Value Chains

The majority of artisans are in practice piece-rate earners. The growth rate of earning over the lifetime of an artisan is marginal as a majority of them are in a low-level equilibrium trap, producing non-unique products. One way of breaking the shackles is to get linked to higher-order value chains, which can give them access to global products that fetch relatively higher returns (wages) and higher engagement and also in the process the requisite global knowledge to earn higher wages and profits from new global business connections, away from the local-local market.

Such growth warrants formalization and professionalization, among other things. However, nano enterprises find it extremely difficult to follow this route because of sheer size. An individual

nano enterprise does not generate enough surplus to manage and afford formalization and take professional support. Thus, it loses out on both business and growth that promote knowledge and can help it break free from a low-level equilibrium. In the absence of such inputs, these nano enterprises perform in a market-based value chain²⁵ having multiple buyers and sellers and producing non-unique products, where earning is equal to wage earned. Such wage rates, in the presence of increasing competition, decrease over a period of time.²⁶

But from a marketing viewpoint, demand for products from higher-order value chains is not a constraint. However, connecting to these demand points needs professional and temporary handholding support. Shortfalls appear in appropriate raw material selection, skills required for addressing new-age demands, standardization, just-in-time production and all other modern management needs. Also, they are seriously constrained in large-scale production. Again, in view of the low returns, these nano enterprises often get engaged in multiple livelihoods and lose out on finesse in their art form.

One way to handle this issue is to consolidate the nano enterprises through the formation of formal organizations, for instance, a company of nano enterprises.²⁷ The nano enterprises should be shareholders of this initiative. The company should start with market linkage guided by support institutions whose business is to create group enterprises. It should involve at least one or a few start-ups, preferably local, who will continue to take interest in the business after the initial handholding by the support institution. During the formative stage, the support institution should identify artisans who have comparative advantages in various aspects of the business including design, productionization and market promotion, and make them nodal points in those areas in the joint business initiative. Simultaneously, the support institution needs to infuse all aspects

of formalization right at the very beginning of this initiative, thereby smoothing the medium- to long-term growth potential of the joint enterprise.

This will push the joint enterprise and with it all its nano enterprise owners into a hierarchical²⁸ value chain, which will enhance their knowledge and ultimately pull them up to a network-based value chain where they will specialize and work with multiple higher-order value chain partners and have earnings that will include both wage and profit.

Creation of such joint enterprises will require policy orientation in the following aspects. Firstly, one needs to recognize the huge presence of nano enterprises and create a new category of units called nano enterprises, other than MSMEs. Secondly, one needs to support enterprise-oriented NGOs to promote and create such joint enterprises of nano enterprises with targeted outcomes. Thirdly, higher-order value chain players need to be given incentives to get their production linked to such formal collectives of nano enterprises.

Skill Development

The technology of producing a product is learnt through family involvement and is not a constraint. The major constraints are in the design element and in market promotion. Several attempts are being made by various agencies in promoting, designing and market promotion knowledge by organizing design development and marketing training. Given the number of artisans, such one-off inputs are not enough. They fall short of the critical push that is required for a sustainable change. There are two dimensions to it.

Firstly, there is a need for a base skill. This needs to be present and can only be acquired through a full training course in the form of a diploma or degree provided to artisans. Such

training in designing should also include elements of costing, e-commerce and marketing. To make it further deep-rooted, such courses should also be made part of the curriculum in schools and be made available to students, especially those who come from artisanal backgrounds in artisanal clusters. Also, there is a need to create handicrafts universities and colleges that especially create specialists in these fields. All these will enhance the level of current learning as well as future learning capacities and will transform the artisan into 'Art hi shan'.^{29 30} More entrepreneurs will also get created through this process.

Secondly, there will be a need for learning on the job. Here, while short-term inputs, available through schemes in designing and market promotion, should continue, there is a need to link these to the market. Like any other individual, artisans also learn fast when learning leads to immediate business returns, preferably income generation.³¹ Thus, regular skill development programmes should have business targets. Also, private-sector value chain partners should be encouraged to train artisans in newer products through training programmes and also ensuring buy-back of products created or follow up with orders.

Mechanization

Mechanization leads to higher wages. This can happen through a two-stage process—at the level of an individual artisan or for a group of artisans.

At the individual level, there are schemes for providing tools to artisans. However, studies need to be done to identify the scope for further mechanization in the peripheral techniques of the art form such that the art retains its originality and simultaneously the returns become higher through restricted mechanization. Also, the tools need to be propagated by giving training. It has been observed that although tools exist, the lack

of provision of training in those tools creates a bottleneck in its usage.

At the group level, there are various cluster development programmes that support mechanization through the creation of CFCs.³² However, these programmes speak of ‘one cluster, one CFC’. But in a cluster, the units are often scattered. This is particularly true for nano artisanal units which are distributed far and wide across several villages. There is both inertia and transportation cost challenges when a CFC is away from the village. Hence, there is a need to shift from the ‘one cluster, one CFC’ model to a ‘one cluster, several CFCs’ model depending on the economics of usage. The management of CFCs in a cluster can be assigned to a producers’ company created by nano artisanal units from several villages, but the usage can be made much more practical and intensive through the distribution of a similar set of divisible assets in several villages.

Scheme Awareness

The level of scheme awareness is limited because of a lack of proper communication. Most of the schemes appear complex to artisans. They need to be made available in simplified forms and in local languages. There is also a need to have a policy of time-bound official approval and clearing of schematic support.

Cost–Benefit Ratio of Schematic Interventions

All schematic interventions must be monitored based on outcomes rather than inputs (money spent) and outputs. For nano enterprises, some of the standard outcomes can be increase in employment, wages, hours/days/months of working, income, profitability, turnover, etc. Such outcomes need to be

monetized and one needs to have a minimum cost–benefit ratio for any schematic intervention.

Payment Guarantee

The lack of paperwork is a major issue for loaning to nano enterprises. Simultaneously, nano enterprises are constrained when buying raw materials and machinery in the absence of working capital as well as term loans. While banks cannot give loans without paperwork, aggregators who are in regular touch with nano enterprises and are fully aware about their business positions can take such risks. However, they also have limitations in terms of the payment recoverable due to their working capital position. A middle path can be worked out by giving loans to aggregators such as raw material and machinery suppliers who can then provide loans to the nano enterprises against the goodwill that the latter have created with aggregators or against work orders received by them. Such loans can also be given to the local organization of the nano enterprises.

Policy Suggestions

Some of the policy suggestions based on the above analysis are as follows:

1. In order to strengthen the entrepreneurial status of nano enterprises, they should be identified as a special category of enterprises apart from the current definition of MSMEs. Special support should be provided in the creation of 4000 joint enterprises of such nano artisanal enterprises for market promotion (and not necessarily for the creation of CFCs) across the country. While the categorization should come through an amendment in the Micro, Small and Medium

Enterprises Development (MSMED) Act, the creation of such joint enterprises may be promoted by the Ministry of MSME, Ministry of Textiles³³ and Ministry of Rural Development.

2. Schemes should be created that support partially and in a staggered manner market creation and the associated skill development by value-chain partners when working with joint enterprises of nano artisanal units. This can be done by the Ministry of MSME, Ministry of Rural Development, Ministry of Textiles and also agencies such as the National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), etc.
3. Create degree and diploma courses in designing by schools/ colleges/universities situated in and around clusters for cluster-based products. This issue needs to be addressed by the Ministry of Human Resource Development.
4. All schemes that support design development initiatives should be coupled with orders executed, and all relevant schemes of the Ministry of Textiles may be worked upon accordingly.
5. Several schemes for creating CFCs are in operation. The current thought process is 'one cluster, one CFC'. However, the cluster firms are mostly spread out across geographies which are often not close enough for easy access to artisans. Hence, let the schemes allow the creation of one special purpose vehicle (SPV), that is, a joint enterprise, and many CFCs, under the ownership of the SPV in a cluster.
6. Apart from the provision of tools, let there be scope for training in usage of new tools through schematic support.
7. Let all schemes be summarized and translated in all regional languages and be made available through mobile application-based software (apps). The respective ministries can do it for their schemes.

8. Let banks be allowed to give priority-sector lending to approved vendors for onward loaning to intermediary organizations, machinery and raw material suppliers. Banks should also be encouraged to go for bill discounting for small-value invoices.

Boosting Women's Work Participation in India

Jeemol Unni

Over the last few decades the National Sample Survey Office (NSSO) data on employment and unemployment recorded a decline in the participation of women in the workforce. In the World Economic Forum 2018, then International Monetary Fund (IMF) chief Christine Lagarde and Norway's prime minister, Erna Solberg, said, 'Raising women's labour force participation to that of men can boost GDP, for example, by as much as 9 per cent in Japan and 27 per cent in India.'¹ They further noted other macroeconomic benefits that IMF research had uncovered, such as reducing gender gaps in employment and education can help economies diversify exports, tackling gender inequality can reduce income inequality and drive more sustainable growth. This paper discusses how to boost women's participation in the workforce to fully garner the benefits of more sustainable economic growth.

The essay is broadly divided into two sections. The first section will present the current and changing situation of women's

employment in India, and the second section will provide some suggestions for actionable ideas and recommendations to boost women's work participation. We conclude by highlighting some broad issues.

Changing Situation of Women's Employment in India

The declining participation of women in the workforce has been explained mainly by two opposing views. One view is that the decline is due to the increasing average household incomes in the country, with the growth of the economy resulting in women withdrawing from the labour force. This is known as the 'income effect'.² Further, with rising incomes, girls may continue into tertiary education rather than enter the labour market. The opposing view is that this decline in female labour force participation reflects a 'discouraged worker effect' arising from the lack of demand. Such a situation arises when the employment situation is bleak; so women prefer to opt out of the labour market and not offer themselves for work.

Work participation rate: Women's participation in the workforce has been very low in India, much more so in urban areas. The Periodic Labour Force Survey (PLFS), officially released in May 2019, showed a further sharp decline in women's participation in the workforce in 2017–18 (Table 1). The decline was particularly sharp in rural areas, falling from 33 per cent in 2004–05 to 17 per cent in 2017–18 for all ages, and from 48 per cent to 23 per cent for women above fifteen years of age. Women's participation in urban areas was low initially but dropped further from 17 per cent in 2004–05 to 14 per cent in 2017–18 for all ages, and from 23 per cent to 18 per cent for women above fifteen years of age.

Table 1: Women's Workforce Participation, 2004–05 to 2017–18; Usual Status, Principal Plus Subsidiary, Rural and Urban (Percentage)³

Year	Women's Work Participation			
	Rural		Urban	
	All ages	15 years+	All ages	15 years+
2017–18	17.5	23.7	14.2	18.2
2011–12	24.8	35.2	14.7	19.5
2004–05	32.7	48.5	16.6	22.7

Source: National Sample Survey (various rounds)

Status of employment: A broad classification of workers by status is that of self-employed and wage employed. The NSSO further splits wage workers into regular or salaried and casual wage workers. More than half the women workers in rural areas are self-employed, though the figure has fallen from nearly 63 per cent in 2004–05 to 58 per cent in 2017–18 (Table 2). The number for regular and salaried women workers rose sharply to more than half the women workers in 2017–18 in urban areas and to a smaller extent in rural areas.

Table 2: Women's Status in Employment, 2004–05 to 2017–18, Usual Status, Principal Plus Subsidiary; Rural and Urban (Percentage)⁴

Year	Women's Status in Employment					
	Rural			Urban		
	Self-Employed	Regular Salaried	Casual Wage	Self-Employed	Regular Salaried	Casual Wage
2017–18	57.7	10.5	31.8	34.7	52.1	13.1
2011–12	59.3	5.6	35.1	42.8	42.8	14.3
2004–05	63.7	3.7	32.6	47.7	28.4	25.8

Source: National Sample Survey (various rounds)

In rural areas, the majority of self-employed women work in agriculture. Of the total female urban employment in 2011–12, 3 per cent are self-employed as street vendors and 32 per cent are engaged in home-based manufacturing. While it would appear that women in urban areas have been absorbed in salaried employment, the quality of this work is questionable. We found that in 2011–12, of the 43 per cent of regular salaried workers, 13 per cent were domestic workers and about 2 per cent were waste-pickers. These four vulnerable groups—street vendors, home-based manufacturers, domestic workers and waste-pickers—constituted nearly 50 per cent of the female urban workforce in 2011–12.⁵

The precarious nature of regular salaried employment in rural and urban areas is indicated by the nature of the contracts. PLFS 2017–18 found that 71 per cent of the urban women workers who reported having regular salaried employment did *not* have a written job contract and this had risen from 61 per cent in 2004–05. In rural areas, while the share of regular salaried employment among women was quite low, 58 per cent were without a written job contract in 2017–18. Further, 52 per cent of urban women and 47 per cent of rural women in regular salaried jobs in 2017–18 were not entitled to paid leave.⁶ Therefore, the fact of an increase in regular salaried employment among women in urban areas alone is not something to celebrate. It does not reflect the precariousness of these jobs and the increase in the share of women in such precarious jobs.

Hours worked and availability for additional work: For the first time, the NSSO collected information on hours worked in PLFS 2017–18. This was measured as the average number of hours worked in a week during the four quarters of the survey period from July 2017 to June 2018. The survey found that self-employed men work twelve hours more than women per week.

And in regular and casual employment, men work seven hours more than women in a week. However, this does not mean that women work less hours as we need to understand their large contribution to unpaid work inside and outside homes.⁷

Under the patriarchal system prevailing in the country, women undertake most of the domestic and care work in the household. It has also been argued that women undertake a lot of expenditure-saving activities to support the family's income, which generate work other than domestic and care work.⁸ These activities included working on kitchen gardens/orchards, rearing poultry, free collection of fish, small game, wild fruit, vegetables, husking paddy, preparing jaggery (gur), preservation of meat or fish, weaving baskets/mats, making cow-dung cakes for fuel, tailoring/weaving and tutoring of own or other children.

The NSSO also collected information on these activities under code ninety-three and regarding domestic care activities under code ninety-two in its usual activity status. In PLFS 2017–18, 50 per cent of women in all age groups between twenty and fifty-nine years undertook domestic care activities under code ninety-two. More interestingly, 15 per cent of women in all age groups between twenty-five to fifty-nine years undertook expenditure-saving activities under code ninety-three.⁹ In contrast, hardly any men of these prime age groups (less than 1 per cent) undertook either domestic care or expenditure-saving activities.

PLFS 2017–18 collected information on whether labour was available for additional work. Overall, a larger proportion of self-employed women reported being available for additional work and also for more additional hours.¹⁰

The fact that women reported availability for additional work and were engaged in expenditure-saving activities indicated there was a felt need among women for work and income. The

traditional norms prevalent in society probably implied that they were available only for certain kinds of work and in certain locations closer home. Clearly, the declining work participation of women as a macro phenomenon is more complex than it appears at first. As the contribution of this (nearly) half of the population is crucial for the economy, in the next section we discuss some possible ways to boost women's participation in the workforce.

Suggestions to Boost Women's Work Participation

As discussed, there are two broad categories of workers—self-employed and wage-employed. However, these categories of workers are not homogeneous. The self-employed consist of employers, those who hire workers; own-account workers, who do not hire workers on a regular basis; and contributing family workers. Among the wage-employed, besides regular salaried and casual workers, there are myriad types of contract workers on varying terms and conditions of work. Besides this dual category of self-employed and wage-employed, there are workers who find themselves in between the two. They have been categorized recently as 'dependent contractors' in the 19th International Conference of Labour Statisticians resolution concerning statistics of work, employment and labour underutilization.¹¹

Dependent contractors are workers who undertake production or service on a contract. They are like the self-employed to the extent that they take risks, often using their own assets. They are also like wage workers as they generally work on a piece rate. They may be dependent on the contractor for market linkages and raw materials and do not have any influence on the price of the product. These dependent contractors can be 'job contractors' in the value chain of a manufacturing

activity or they could be new world workers in the 'platform economy' such as Uber drivers. As women workers, each of these categories would require special focus and action to help boost employment.

Policies for Boosting Employment and Productivity of Self-Employed Workers and Entrepreneurs

In 2013, the economic census of India recorded 58.2 million enterprises, 45.5 being non-agricultural enterprises. The majority of these non-agricultural enterprises were micro and small enterprises, nearly 66 per cent being self-employed operating with only family labour.¹² More than half of the women self-employed workers were in the manufacturing sector, much of their work being undertaken at home, perhaps as sub-contracted homeworkers. Trade was the next largest economic activity among women who were self-employed. NSSO data showed that in terms of class (defined by household per capita expenditure), there was an increase in the number of women self-employed in the real estate and business services, prominently in the upper middle and upper classes. A definite class difference was noted among self-employed women, with the poor and lower-middle classes engaged in home-based manufacturing and trade, while the upper middle and affluent women were venturing into real estate and business services.¹³ We can see that women work in different sectors, but also belong to different classes, and hence boosting employment for each of these segments of the workforce would need a nuanced understanding and policy options. We shall try to highlight some possibilities.

Align policies to promote an ecosystem for women entrepreneurship development: The key to women entrepreneurship development is to provide women with an enabling entrepreneurial ecosystem.

Providing the environment and skills necessary to succeed as business leaders will help boost women entrepreneurs. To achieve this goal, the challenges faced by women entrepreneurs need to be addressed. Preeti Goyal and Vanita Yadav¹⁴ reported that women entrepreneurs in developing countries such as India faced challenges of much greater magnitude than those faced by women in the context of developed countries. Specifically, women in India face challenges concerning access to finance, socio-cultural biases, legal concerns, individual traits, institutional voids and lack of business-related skills. How to make institutions such as banks, industry departments of the government, courts and industry associations women-friendly is a challenge that needs to be addressed.

Training in entrepreneurship: For women to be engaged in small business, a definite need of the hour is training in entrepreneurship. The training would need to be tailored to the needs of different businesses based on the size, scale and sector of the industry and, as we noted above, socio-economic classes of women. This is an absolutely required first step in a country aspiring to encourage a start-up culture.

Mentoring: Women entrepreneurs need mentors and role models. There is a need to visualize how women can contact mentors and gain from their guidance. This could be part of fostering an ecosystem that encourages entrepreneurship. Developing a private ecosystem such as local chambers of commerce or associations that encourage women and which the women entrepreneur can approach comfortably for advice and to request services is essential to foster women entrepreneurship.

Clusters and infrastructure: In our surveys of informal enterprises in Ahmedabad and Surat, we have observed the clustering of

economic activities of small own-account enterprises such as in kite-making, garments, bidi- and agarbatti-rolling, street-food-vending and autorickshaws.¹⁵ These tiny enterprises are often located in and around homes within low- or middle-income housing colonies. To enhance the productivity of these enterprises, the provision of basic infrastructure facilities such as water and sanitation, storage facilities and legal and continuous supply of electricity is essential. Enterprises that operated from small workshops or homes often depended on illegal power connections, partly because no facility was provided to them or they were charged at higher commercial rates similar to small-scale enterprises. Besides the provision of continuous legal electricity, supply at the differential rate charged to such enterprises would help them to remain competitive in the market.

Small enterprises located in industrial areas are often provided limited power capacities of 5 HP, which do not allow them to operate more than two or three machines.¹⁶ Such limited power capacity does not allow them to expand or introduce other processing machines in their enterprise, and that has had an impact on the productivity of the enterprise, forcing them to operate at a lower scale. There is a need at the policy level to review this issue.

Another constraint faced by small enterprises is that often there are no proper roads that connect to these clusters of enterprises. This problem becomes very acute during the rainy season when waterlogging occurs and transporting of parts/components and final goods becomes difficult. Though many of these clusters may have come up informally, it is essential that the industrial associations recognize the important functioning of these enterprises in the overall production process or value chain and provide them with proper work sheds and access to roads and other infrastructure to undertake production operations.

In sum, if clusters of micro and small enterprises are developed with the same importance given to large industry clusters, they can attract credit, more contracts or job orders and increase the scale of activities to improve productivity. Such clustering of units with adequate infrastructure facilities can help to unleash the growth potential of micro and small enterprises.

Policies for Boosting Employment and Incomes of Wage Workers

A large share of women are wage workers, particularly in casual labour and also in piece-rated wages in subcontracted activities or at public works sites. Here are some actionable suggestions to improve the life and working conditions of such women workers:

National minimum wage: It is generally believed that all wagedworkers in India are covered under the Minimum Wages Act, 1948. However, this act covers only those employed under a list of identified industry/occupation groups included in a Schedule of Employment. These schedules of employment are decided separately by the Union government and each state government. They are likely to legally cover only a fraction of the workforce in the non-agricultural sectors, and with poor implementation of the act, an even smaller fraction of this set would be effectively covered. This is reflected in the rather stark estimate of the National Commission for Enterprises in the Unorganised Sector (NCEUS) that about 40–50 per cent of male casual workers and more than 80 per cent of female casual workers received wages below minimum wage norms defined by the commission. If one were to consider a higher national minimum wage of Rs 66, an even higher proportion of workers fell below the norm.¹⁷

A national minimum wage (NMW) for all employments not included in the Employment Schedules of the Minimum Wages Act was a recommendation of the NCEUS. Both waged workers and homeworkers, dependent contractors who work on contracts from home, need to be covered by this NMW. The NMW should be set through a tripartite consultative process, with unions/associations, employers/contractors and the government, based on the minimum basic needs of waged workers and homeworkers and his/her families. The significance of this policy suggestion is its all-inclusive nature, which covers homeworkers.

The state or government can be committed to efficiency or to equity. The assumption of the tripartite bargaining process is that the state is committed to efficiency and not equity. A state committed to efficiency is also not in favour of regulations such as minimum wage because it can cause rent-seeking behaviour among the enforcement officials. The importance of this NMW suggested by the commission is less about the level of the wage (which may or may not reduce overall employment), but more about the inclusiveness of the policy. Thus, if enforcement is inadequate, as it increasingly is, the NMW should be viewed as a positive and effective bargaining tool provided to the trade unions and associations representing various segments of waged workers and homeworkers. Further, the NMW, if reasonably implemented, can be seen as a forced sharing of benefits of economic growth. It will help boost incomes and purchasing power among workers. This is particularly essential in a period of declining economic growth, such as we are facing in India today, mainly due to poor demand in the economy leading to a weak investment climate.

Valuation of skills: Another concern of gender activists has been that the wages of employments where women workers are predominant are either not included in the Schedule of

Minimum Wages or are valued as unskilled work and hence are at a lower minimum wage. While this is rather difficult to prove, the NCEUS adopted an approach of studying certain industry groups where women were in large proportions, such as the textile, garment and medical industry, and noted, 'In the occupations related to the textile industry, we see clearly that the jobs of supervisors and machine operators are male-dominated, while the preparatory work of making fibre and yarn, spinning and winding is dominated by women. In the garment industry, women tailors are not too few, but it is the kind of garments they stitch that makes the difference in valuation. Sewing and embroidery work are clearly dominated by women.'¹⁸ The minimum wages if fixed would either ignore the preparatory work of women or give a lower value to the manual skills of sewing and embroidery, where in fact the skill is gained through long years of experience. This is true of other trades such as agriculture where there would be no minimum wage fixed for weeding, which is predominantly done by women.

While minimum wages are set by committees that periodically review existing norms, the uniqueness of this recommendation is that it explicitly takes into consideration the gender dimension of the sexual division of labour and its implications for remuneration to women. These, together with the inclusion of homeworkers, again predominantly women, in the NMW are unique, gender-sensitive recommendations. If implemented, it would help boost work participation of discouraged women workers, who may enter the labour market if the new wage rate is higher than their reservation wage.

Incentivized demand-driven approach to skill training: Skill training is equally important for waged workers and we propose an incentivized demand-driven policy approach to skill training. Some suggestions for implementing this approach are:

- Create an incentive system for skill training in technical educational institutions that are able to find jobs and place their trainees and students.
- Create incentives for firms to invest in their workers' training. On-the-job training is a major method engaged by formal and informal enterprises to train their employees. The idea is to rejuvenate the old apprentice scheme of the Government of India, which was meant for the public sector, in a privatized form.
- Incentivize educational institutions and enterprises that maintain diversity of students and employees. Gender, social and economic diversity will benefit enterprises, institutions and the country, and drive up participation rates of women.

We argue that if students and workers see the benefits of education and skill training, they would be willing to invest in themselves. Further, if most enterprises see the benefits of conducting training for their employees, there will be no poaching across enterprises. The enterprises will be able to reap the benefits of their investment and would be willing to undertake on-the-job training activities. Such a demand-driven incentive structure can replace the current supply-driven approach to training and help to reduce the skill mismatch. It will improve employability of workers in small, medium and large enterprises. Of course, all this is based on the premise that there will be high economic growth, which will create an increasing demand for workers. Increased government spending on vocational and skill training would help boost women's work participation.¹⁹

Policies for Dependent Contractors

As discussed earlier, dependent contractors include old-style job works, or piece-rated work conducted at home (homeworkers)

or in an enterprise. It also includes the new form of hiring through the platform economy, or the gig economy. Here we present a couple of suggestions for both types of workers.

Wages for homeworkers: Minimum wage recommendations do not preclude the fixation of minimum wages for the piece-rated work often undertaken by homeworkers. However, homeworkers bear a number of 'hidden costs' which are not considered while fixing the minimum piece-rate wages. Homeworkers incur costs of the use of infrastructure, or they have to pay for non-wage costs of production, such as workplace, equipment and utilities such as electricity and water. The employers or contractors of homeworkers also use various strategies to increase their profits, such as delayed or deferred payments and rejection of pieces of a product on the ground of poor quality. If these workers are part of a value chain of production, the cost of downswings in market demand are often downloaded on to these workers, through non-payment for completed products and rejection of products on the pretext of poor quality.

The NCEUS recommended that the wages of a non-agricultural worker working on piece-rate for eight hours should at least be equal to the time-rated minimum wages fixed for that category of work in the state. The wage payment period cannot exceed one month, and any delay beyond this will require the employer to pay penal rates of interest. Further, there shall be no deduction from the wages or payment to workers and homeworkers, including if an advance was paid to the worker, or basic amenities such as accommodation provided to seasonal migrant workers. And finally, in recognition of the direct costs of use of infrastructure such as own tools, equipment, or use of part of own dwelling, the value of such contributions would be ascertained by the employer and added to the wages paid to the worker.²⁰

An important and easy way in which the employer/contractor evades the payment of benefits, such as provident fund, to homeworkers engaged in employments which are protected by legislation, such as bidi-rolling, is either by not registering the worker or not keeping records of work done and payments made. In a far-reaching recommendation, the NCEUS suggested that every unorganized waged worker and homemaker should receive a wage slip providing the details of payment received, and the employer shall maintain registers and records for verification, if required.

While the state has been encouraging flexibility in the labour market, there are no prizes for guessing whether such recommendations will ever be enacted as law and enforced. However, for a state wedded to growth and which speaks of 'inclusive growth' in the same breath, these recommendations can have far-reaching implications.

Platform collectives: As in the case of informal enterprises, it is difficult for workers in the platform economy to get contracts and administer them, deal with the bureaucratic complexities of enforcing the contract, and managing accounts and income tax requirements. The nature of work on the platform affords them few chances of collective agency, partly due to location, but also as they are often in competition with each other for work. However, there are forms of solidarity and cooperative organizations of platform workers springing up in Europe and elsewhere.

SMart is a cooperative dedicated to freelancers.²¹ It started as a collective of artists in Belgium and then expanded to other European countries. It helps freelancers to work within the cooperative framework without creating their own, retain autonomy and focus on their core activity, accessing the best social protection. A variety of the barriers to entry, for example, bureaucratic complexity, can be worked around through

contextually appropriate IT systems. Marginal costs tend generally towards zero once the system is established. There are platforms of lawyers and other professionals, though it is possible that there would be strong resistance from professional bodies. A few examples are Stocksy United, a global cooperative of stock photographers and videographers;²² Enspiral Network, a global collective of social enterprise ventures and social entrepreneurs, which started in New Zealand and now has entrepreneurs from around the world;²³ and Up and Go, a platform of women-owned small businesses with fair work practices for on-demand quality cleaning services in the USA. Up and Go claims that its businesses receive 95 per cent of the service fee, much higher than other app-based gig workers.²⁴ The movement is small and has not reached scale yet in most cases, but these experiments will sooner or later find the optimum solution to the misuse and abuse of the platform system of work organization. The positive feature of such collectives is that it helps integrate small dependent contractors in the formal regulatory and financial systems. Policies that encourage and help the formation and working of such collectives of freelancers will greatly help boost the employment of women, particularly as they may prefer to work from home. Freelancers are a growing breed of workers we know very little about.

Policies to Address Women-Specific Issues

In 1987, the Shramshakti Report²⁵ was a landmark report on working women. It noted that all women are workers because they are producers and reproducers. Even when they are not employed, they are involved in socially productive and reproductive labour, all of which is absolutely necessary for the survival of society. That is, both the economic and household work of women is important for the growth and

stability of the economy and society. All the work that women do is equally important, but it implies a double burden of work for them.

We noted that 50 per cent of all women in prime age groups undertook domestic care work (code ninety-two) and 15 per cent undertook unpaid expenditure-saving activities (code ninety-three) in 2017–18. It is obvious that in order to boost women's participation in the workforce, some solution has to be found to reduce the double burden and free women from these arduous activities to enable the use of full potential.

Child/elderly care and other domestic services: Affordable childcare and elderly care services for women of all classes of society are absolutely essential. Every organization, office and enterprise hiring more than fifty employees is mandated to provide crèche facilities. Women are allowed to visit the crèche four times in a day. However, this is often implemented in the breach. Further, women generally work in small-sized organizations or from home. Hence, public access to affordable childcare is required.

Elderly care services are much more complicated as the needs of the elderly are varied depending on age and health issues. There is less awareness of this need and fewer services on offer. It is essential that the policy options for affordable elderly care are considered seriously as our demographic structure leans towards older age groups.

Many other domestic chores, such as washing and cleaning, can be eased through technology. In advanced countries, washing machine facilities are available at affordable prices. Such facilities are a cheap option and useful for daily laundry. Availability of water and sanitation facilities at the doorstep and affordable catering services are important. Private enterprises can be encouraged to take up some of these services to ease the burden of domestic work.

A draft National Policy for Domestic Workers is under discussion in the central government. The recommendations will benefit this large section of women workers, estimated at 50 lakh. It will facilitate their right to form their own associations or trade unions and entitle them to minimum wages, access to social security and protection from abuse, harassment and violence.²⁶ A more regularized system will also help boost employment both for domestic workers and their women employers.

Changes in the Maternity Benefit Act: Paid maternity leave for women employees was increased from twelve to twenty-six weeks under the Maternity Benefit (Amendment) Act, 2017. Another positive feature of this amendment was that it extended benefits to mothers adopting a child below three months of age, and to commissioning mothers, that is, those who choose to place their eggs in other women's wombs. The Employees State Insurance (Central) Amendment Rules, 2017, was also amended to include adopting and commissioning mothers. These are clearly very progressive amendments taking into consideration the changing norms in society. They will encourage more women to participate in full-time employment. However, they could also act as additional barriers to the entry of young women into good jobs in the regular permanent employment category as employers may see them as an additional cost.²⁷

Sexual Harassment of Women in the Workplace Act, 2013: It is well known that workplace sexism is rampant in all industries. This has been brought out quite forcefully recently through the #MeToo movement. After much deliberation, the government enacted the Sexual Harassment of Women in the Workplace Act, 2013. This act mandates every organization to have an Internal Complaints Committee (ICC) to which such complaints can be directed. However, it is possible that if the predator is the

head of the institution, the ICC may not operate fairly. Hence, it is necessary for the victim to have recourse to an external agency. In India every district has a local complaints committee (LCC) under the district collector's office. This is mandated in the Sexual Harassment of Women in the Workplace Act, 2013, to take care of such eventualities and also for workers in organizations with no ICC to be able to place their complaints under the LCC.

To conclude, the participation of women in the workforce has seen a secular decline over the past few decades. While we may argue that this may be due to the increase in household incomes—the 'income effect'—it also reflects the patriarchal norms in a society that places women primarily in the role of caregivers. In this chapter, we argue that women are available to do additional work, but that they may be faced with a 'discouraged worker effect', being unable to find work in industries and locations of their choice. Changing patriarchal norms, which will take time, and providing employment in industries and locations of their choice can help boost women's employment.



III

FOCUSING ON NEGLECTED GROUPS AND SECTORS



Missing Social Equity and Dalit Entrepreneurship

Arun Khobragade

Babasaheb's Constitution conferred citizenship on all of us and gave our votes an equal value, which was a revolutionary change in Dalit politics. Similarly, reservation as an idea pulled out the so-called Untouchables from the traditional caste pit and changed their ability to learn and teach. Firstly, these changes equalized value and vote, and secondly, the ability to learn and teach triggered amongst Dalits (Scheduled Castes/Scheduled Tribes) a century of disruption. However, the state of poverty has not been relegated to the background. The key problem for Dalits is that the socioeconomic canvas of India does not allow them to take their education beyond government jobs.

If we look at India, major changes have taken place since 1992. The LPG (liberalization, privatization and globalization) programme has had a direct impact on job opportunities in the government sector, and hence drastically impacted the opportunities available through reservations.

Secondly, over the past decade, India has leapfrogged directly into the technologically supported service sector, and

hence Indian youth, especially Dalit youth, have not been given opportunities to upgrade their skills to match the requirements of the sector. As a result, we have a large pool of educated but unemployed youth.

Today, global factors have pushed national boundaries, and hence, it doesn't matter to customers where production is done as long as they derive value. It doesn't matter to American shoppers in Walmart whether the jeans they're buying are manufactured in China, Bangladesh, India or anywhere else as long as they all have a Levi's tag. What this means is that the power of control has shifted from the owner of the manufacturing unit to the owner of goodwill—the brands.

At the same time, the international operator is not well-versed with the social nuances of the place where they set up their factories. They are interested in producing a quality product, for which they have their own established practices, and they want operators who can adhere to the same consistently.

Thirdly, technological innovations are disrupting the markets and major business transactions are taking place online. Amazon and Flipkart did a business of \$4 billion on their platforms for Diwali 2018. This goes past the rationale of needing a good market location to sell your product—you have a global market if the product or service is unique and consumer-friendly.

The end result of all these changes is that the government's role in the economy is diminishing day by day, and hence its share as an employer is also getting reduced. Affirmative action only through employment in government jobs is now a proverbial drop in the ocean.

The changes in the socioeconomic environment after the implementation of the Constitution in 1950 have since forced changes in the way of life for Dalit youth. The path of 'education to employment' followed by them since 1950 does not hold true any more, and hence a new dictum of 'education to entrepreneurship' must become the norm.

The logic behind ‘education to entrepreneurship’ is that owning a business could provide a springboard for economic progress and further socioeconomic advancement. Secondly, it also reflects the shift of the nation state from being a provider and distributor of welfare goods and resources to one that aims to create an enabling ecosystem to secure opportunities and better goods and services.

The Three Cs of Indian Entrepreneurship

Community, capital and credit—the three Cs—have played a major role in establishing community-based business houses in India. The principal formula of community-based businesses has been that the community comes together and creates capital. The capital is then distributed as credit within the community. The key ingredient in this virtuous cycle is trust.

Ever since the early days, when *chaturvarna* (the four-caste system of Brahmins, Kshatriyas, Vaishyas and Shudras) was the norm, Vaishyas were way below Brahmins and Kshatriyas in the social pecking order, and trade and commerce was not considered a very honourable profession.

Social equity was derived from belonging to a particular ethnic group, and the use of associated networks greatly enhanced the continuing business success of an ethnic business by providing varying physical and intellectual ethnic resources such as labour, capital, supplier and markets. Hereditary trade helped a new entrant in getting not only market information, but also access to credit and community support at the place of trade.

A recent study shows that cultural proximity between the boards of any two firms leads to a higher likelihood of the two firms entering a merger and acquisition (M&A) deal in India.¹ The study further states that the phenomenon indicates firms’ reliance on culture, as measured by caste, as an informal channel of information when making critical investment decisions

with imperfect information. Caste and community links play a role in various aspects of the Indian market, from securing capital to integration into supply chains. There is rarely a clear demarcation between formal business networks and informal community networks. The fuzziness of these social networks interferes with market logic.

If we look at the traditionally ascribed caste-based skillsets such as that of a cobbler, a barber, etc., no *chamar* (cobbler) or *nai* (barber) or *vishkarma* (carpenter) has been able to create enterprises the way other castes have professionalized the same businesses. The conversion from barber shops to salons has taken place, but the *nai* has remained where he was. No barber has been able to elevate himself to own a chain of salons or has become a brand, like Habib's. The lack of credit and capital, both social and financial, is the reason that the enterprise remains small and unable to grow.²

On the other hand, the growth of Marwari businesses can be attributed to community resources and connections, which could be leveraged to raise capital or expand the scope and spread of business operations. A firm could open as many branches as the number of brothers, nephews, in-laws, cousins or trusted accountants permitted. Over time, each of these would develop into or further spawn independent firms, facilitating diffusion of entrepreneurship within the community.³

Take any successful business in India, belonging to, say, Marwaris, Parsis, Gujaratis, Reddys, Chettiars or any other community; business has developed only with the help of the community's social equity.

Nadars can be closely identified with Dalits for their social and economic isolation by society. Nadars were not allowed to enter Hindu temples or even stand too close to upper-caste people, and women of the Nadar caste, who stood one notch above Untouchables in India's ancient caste hierarchy, were

once forced to bare their breasts before upper-caste men as a reminder of their low station.

The Nadars' spectacular rise from despised manual labourers who made a mildly alcoholic palm wine to business leaders in one of India's most prosperous states is due to the impact of the three Cs.

Entrepreneurship and the Excluded Class

Dalit capitalism as a term was coined by Chandrabhan and team during the Bhopal Conference in January 2002, where the agenda that capitalism would fight caste was propagated. On the administrative front, Dalit capitalism is a call to democratize capital, but on the social front, it is a transformational declaration of cutting the limbs of *manuvad*, which prohibits Untouchables from owning and accumulating wealth.

The key aspect of capital is that it has the potential to generate surplus value, and the basic problem of Dalit capitalism is that Dalits hold their resources in defective forms—the land which their houses stand on is not registered, their businesses, like autorickshaw-driving, vegetable-selling and other such services are not formally accounted, and hence their income is not registered. This is the downside of informality in entrepreneurship.

However, trying to create a competitive ownership structure is difficult in an economy with deep-rooted cultural interests and inequitable distribution. The process demands the redistribution of assets to establish equity and correct historical imbalances.

A recent MSME annual survey suggests that 12.45 per cent of the total unregistered non-agricultural MSMEs are owned by SCs; however, not even one of them is a medium-sized MSME (that is, where the investment in plant and machinery is more than Rs 5 crore). The moot question then is: what are

these enterprises? A place for self-employment? Most of the businesses are small, run by a family labour force, and employ wagedworkers as and when they grow.⁴ Looking at the schemes on the website of the National Scheduled Castes Finance and Development Corporation (NSFDC), it is clear that all the schemes are basically designed to alleviate poverty and not create entrepreneurs.

Globally, there are three examples which try to integrate excluded social groups in the economic mainstream. The implementation strategy of all three programmes was to create an ecosystem of the three Cs: community, capital and credit.

The first and most studied is the affirmative action programme in the USA. The second is the New Economic Policy of the Malaysian government for achieving inter-ethnic economic parity between the predominantly Malay Bumiputera ('sons of the soil') and the predominantly Chinese non-Bumiputera. The policy aimed to increase the percentage of Malays employed in non-agricultural occupations, particularly at the managerial level, and to increase the Malay share of ownership in national wealth. The government hoped to increase Bumiputera corporate equity ownership to 30 per cent by 1990, with the emergence of a full-fledged Malay entrepreneurial community within one generation by supporting the accelerated expansion of the Malay middle class, capital accumulation on behalf of Malays and the creation of Malay capitalists.

Finally, there is the South African policy of Black economic empowerment (BEE). For companies operating in South Africa to get a high BEE score, they must fulfil five codes—ownership, skills development, management control, enterprise and supplier development.⁵ There is a Black Economic Empowerment Commission to monitor the same. Certain industries require an entity to have a particular percentage of Black ownership or BEE level in order to receive and maintain a licence to operate.

The three policies tried to create market access for those who have been excluded in one way or another. NEP and BEE went further ahead and aimed to provide ownership in the listed corporates, and assumed that as equity holders, the excluded people would safeguard the training, employment and vendor development programmes for their people.

However, the implementation of these programmes has clearly demonstrated that the effectiveness of affirmative action policies is dependent on the commitment of the executive branch for its enforcement, on the legislative branch for its implementation, and, most importantly, on a judiciary that upholds the Constitution in its letter and spirit.

Dalit Entrepreneurship Post-2012

The reservation period since the adoption of the Constitution in 1950 till date can be divided into four phases:

- 1950–1970: Awakening and migration
- 1970–1990: Braving the anti-reservation movement
- 1990–2012: Loss of opportunity, diminishing role of the government in employment and primary education
- 2012 and beyond: Self-respect movement.

Since 2012, the government at the Centre has very gingerly stepped in the right direction by acknowledging the role of entrepreneurship as a tool of economic development for the youth of Dalit communities—either through providing for preferential purchase to the tune of 4 per cent of the overall central government purchases, or by starting a venture capital fund for Scheduled Castes, or by creating a stand-up scheme to provide for targeted lending. However, the thrust of all these policies is to increase the rate of business

ownership, but no attention is being paid on improving business performance.

The 4 per cent scheme which provides for purchase preference does not provide any price preference, which means that the supplier of 4 per cent quantity has to meet the L1 price (lowest price) of the supplier of 80 per cent quantity. You don't need a doctorate in economics to understand that this is not a commercially viable principle for the 4 per cent supplier.

The economics of business is established on the age-old simple formula that $\text{Cost Price} + \text{Profit} = \text{Sale Price}$. Unfortunately, the cost price of each enterprise varies and varies tremendously as it is dependent on various parameters.

Some of the common parameters on which enterprises differ are as follows:

1. If the enterprise is old, then its financial cost is either less or nil, as it may have paid off its loan or is paying whatever minimal balance remains. However, for the first-time Dalit entrepreneur, the financial cost is very high as more than 70 per cent of assets (plant, machinery, building, etc.) have been established on borrowed money, and the cost is charged on the entire amount of the loan. Thus, his cost of finance will be higher; hence, he will not be able to match at L1 price.
2. For old enterprises, the cost of interest is less as the borrower has experience and also a repayment track record, whereas the first-time Dalit entrepreneur does not have any track record, and at times the collateral security may also be missing. Thus, his cost of interest will be higher; hence, he will not be able to supply at L1 price.
3. For old enterprises, credit facilities, both for raw material and allied services, are available, as they are the established name in the market, thereby they get the benefit of indirect finance for working capital at a nominal rate of interest. For

the first-time Dalit entrepreneur, raw material and allied services have to be procured by paying cash, and since working capital flow from the bank is restricted or has been consumed/diverted in the creation of long-term assets, he has to invariably borrow from the market at higher costs. Thus, his cost of working capital will be higher; hence, he will not be able to supply at L1 price.

4. Since old enterprises have been in the business long enough and have been suppliers to PSUs, the flow of funds from the PSU to them continues on a rotational basis and they are not devoid of funds. On the other hand, the first-time Dalit entrepreneur has to finance the cycle of first payment, which is usually 100–120 days. What it means is that the enterprise has to bear the additional financial cost due to the credit period. Thus, his cost of credit will be higher; hence, he will not be able to supply at L1 price.
5. As an older enterprise has been in the market for a longer period, its capacity utilization is high, which in turn reduces its production cost ($\text{Production Cost} = \text{Fixed Cost} + \text{Variable Cost}$), as the fixed cost is distributed over a greater number of goods produced; so the overall production cost gets reduced. The first-time Dalit entrepreneur is fresh in the market and his capacity utilization is low at the current stage. Thus, his cost of production will be higher; hence, he will not be able to supply at L1 price.

Thus, due to inbuilt injustice in the 4 per cent procurement scheme, SC/ST enterprises do not participate in it.

The venture capital fund is a misnomer, as the scheme implemented by the Ministry of Social Justice and Empowerment through the Industrial Finance Corporation of India (IFCI) is actually a debt-financing scheme with interest at 8 per cent and quarterly repayment of interest and instalments. The key

criteria when we had envisaged the venture fund was that we identify growth sectors and support existing entrepreneurs in those sectors to overcome the issues that they are facing from the existing lending infrastructure, as the accounts have become stressed either due to lack of finances for working capital or expansion, or due to unseen problems. However, the fund was designed as plain vanilla financial support without providing for any affirmative action.

The key to the success of government schemes for Dalits is the fact that these schemes must be looked upon as parameters for economic growth, and officials have to be trained to develop such an outlook. On the other hand, youth of the SC/ST communities must also be trained to understand the competitive market and overcome the bottlenecks listed below to achieve the desired results.

The Problems of Dalit Entrepreneurship

In my experience of the past ten years of propagating the idea of entrepreneurship amongst Dalit youth as a means of attaining economic empowerment, I have found that there is a generational shift taking place amongst them. Though they are interested in entrepreneurship, they do not have access to primary factors that can support entrepreneurship amongst them.⁶

Starting a successful venture is a complex undertaking that requires more than just the idea. It needs a good team, a strong network, strategy, capital and other important attributes.

Lord Buddha spoke of '*samyak drishti*' or the right outlook, which literally translates to 'see it as it is'. If we want to follow this principle, we cannot live in the past and see the present. If entrepreneurship is the dictum to pull the Dalit world out of its poverty then let's take a look at the bottlenecks that have to be surpassed to achieve the desired results, and discuss each in turn.

1. Lack of Early-Stage Risk Capital

In the above statement, two words are important: ‘early’ and ‘risk’. Thus, what Dalit entrepreneurs need is a partner who can provide funds at the early stage of the business and who will participate in the risk. This is a hybrid of angel and venture capital investment. If we want to wean away today’s Dalit youth from the employment mindset and make them undertake the entrepreneurial journey then that can happen only if the cost of failure is reduced considerably. In the case of debt funding, the cost of failure increases tremendously because the loan has to be repaid along with the interest, and one can also lose the collateral provided, which in most cases will be the residential dwelling. Thus, entrepreneurial failure will not only make the Dalit entrepreneur penniless, but chances are that he will become homeless also. Furthermore, the repayment of interest and principal in the initial three years of a business is the main cause of its failure.

In the first three years, the first-time entrepreneur is trying to fight the competitive market and maximize his capacity utilization, and hence is always in need of working capital. However, debt has to be serviced every month or quarter, and, as a result, promoters have to use their working capital for repayment, instead of using the funds for utilization as working capital to strengthen the venture. Hence, banks should provide a thirty-month moratorium on principal repayments for MSME loans below Rs 5 crore.

2. Inexperience in Deploying Capital

Capital comes with a cost, whether you borrow it or deploy your own. In the former, there is the applied rate of interest, and in the latter, it is the cost of opportunities that you forgo due to your investment. The best way to learn the tricks of the trade is

to actually undertake the trade. Dalit entrepreneurs have to be encouraged to grasp the financial workings of the enterprise that they want to operate—they should understand the commercial terms, the language of the trade and the margins involved before they approach any financial institutions.

However, we have observed that most of the applications of Dalit youth with banks are for setting up the production unit (factory), and the bankers during their appraisal can make out that the applicant does not have any understanding of the proposed business; hence, the proposal is rejected. It is always better that the youth first undertakes the trading activity and then sets up the manufacturing unit.

3. The Lack of Organizational Capability⁷

Most Dalit entrepreneurs miss the three Cs concept of business—customer, credit and cash. The key aspect of business is not in establishing a manufacturing unit or establishing a store—it is the ability to identify a customer and deliver to him/her the product that he/she wants and recover the cost of the product.

4. Inability to Deploy Managerial Talent

Being first-time entrepreneurs, Dalit youth do not employ specialists as that involves costs, and hence end up doing everything themselves—from managing operations to handling finance to marketing the product and also doing the HR function. As a result, they cannot deliver on any segment and finally end up in a debt trap.

For an entrepreneurial ecosystem to be created, one of the steps is showcasing success stories, creating networks of venture capitalists, building platforms for sectorial growth, but above all, strengthening the education system at the primary and secondary levels. The experience of Pratham, the NGO that comes out

with the Annual Status of Education Report (ASER), states that while skill training helps learners build strong foundations in their careers, there is a glass ceiling for those who lack basic reading and arithmetic abilities.⁸

In order to handhold Dalit youth, we need to create incubation centres in universities and colleges where aspiring entrepreneurs are provided with essential infrastructure that will nurture their ideas and make them bloom to viable business plans.

The essential infrastructure must provide:

- Mentoring
- Primary common facilities such as office space, office equipment, staffing and other services
- Support from financial institutions
- IPR (intellectual property rights) support
- Support with licensing and other regulatory requirements
- Inventor–investor engagement
- Handholding with PSUs (public sector undertakings).

Equitable Distribution of Credit and Capital

It would be proper to quote here the Commencement Address ‘To Fulfill These Rights’ by Lyndon B. Johnson at Howard University, 4 June 1965:

This is the next and the more profound stage of the battle for civil rights. We seek not just freedom but opportunity. We seek not just legal equity but human ability, not just equality as a right and a theory but equality as a fact and equality as a result.

Over the past ten years, all our discussions on promoting Dalit entrepreneurship with either the government or the private sector have had ‘quality’ as a key discussion point. The procurement

managers of these companies would always say that they do not and will not compromise on quality. Fair enough. We have never asked for any compromise on quality, but I always had this: If you do not compromise on quality, then why does your final product/service not meet global standards?

Caste stands out as a central decision-making force during procurement, as it has been with labour recruitment, capital formation and networking.

As stated earlier, the three Cs of community, credit and capital are key to create businesses.

For Dalit entrepreneurs, the community aspect transcends region, language and caste/sub-caste when it takes the mantle of Ambedkarism. The other two, credit and capital, are the critical components of financial inclusion, and the key issue with regard to making financial inclusion a success is obtaining reliable data on the lending done till date to Dalits through the PSL tool of the RBI.

The genesis of PSL is in the report of the M.V. Nair Committee in 2012 that brought in changes so as to build an ecosystem to facilitate the flow of capital to sectors that matter the most in socioeconomic inclusion through commerce, employability and education. Banks have been mandated by the RBI to review PSL at the board level on a half-yearly basis (30 September and 31 March), on Statement I and subsequently in Statement II A. Both the statements capture the consolidated amount of lending to the weaker section of society. However, it does not capture the data at a granular level for lending done to Dalits. Hence, we do not have any reliable data to know on the extent of credit access for Dalits.

However, if you look at any analysis of PSL programmes, you will find analysis and assessment of agriculture, MSME and export, but as regards weaker sections, forget the assessment, most critiques will not even mention it. The PSL policy doesn't specify any measures for means and mechanisms of credit flow

to weaker sections, and no direction is provided to banks to channelize the credit flow to weaker sections.

As I envisage it, there are four major issues in extending PSL to weaker sections, especially in the sector of commerce and industry:

- Annual monitoring on the last Friday of March
- Last-mile connectivity
- Biases in lending
- Standard procedure for assessing project capability.

In order to increase the penetration of credit flow to Dalit youth, the RBI must gather data for lending to Dalits at a granular level, and release this compiled data. When data can be captured for women as a category of the weaker section, the same can also be done for Dalits. Also, in due course, from 2021, the tracking of PSL with data on Dalits should be on the last Friday of every month rather than just the last Friday of March, so as to monitor the financial inclusion programme of banks closely.

Secondly, as part of the common guidelines for PSL, it should be mandated that the register with receipt, sanction/rejection/disbursement should be recorded and given to the investigating agency. One would like to know who the investigating agency is and whether it analyses the reason for the rejection of loans to Dalit entrepreneurs and reports the same. If yes, what has the RBI done as remedial action, and if not then it is a clear requirement that such an agency be immediately appointed by the RBI. This will help reduce the biases and also assure Dalit youth to pursue their dream of entrepreneurship.

Looking at all of the above, we can say that though financial inclusion is there in principle in the PSL norms and various schemes of the Government of India (like Jan Dhan, Stand Up Scheme and Each Branch, Each Year Loan to SC/ST/Women Entrepreneurs Scheme), in practice, the absence of any reliable

data by the RBI on SC/ST as a category in the weaker section in the PSL segment undermines the genuineness of financial inclusiveness. Hence, the time has come to create a regulatory authority to oversee the programmes of financial inclusion, in particular to the SC/ST category, and open the doors for financial access to the 25 per cent segment of India's population.

Concluding his speech on 25 October 1944 at the Reconstruction Policy Meet in New Delhi, Dr Ambedkar pointed out that, 'We want industrialization of India as the surest means to rescue the people from the eternal cycle of poverty in which they are caught. Industrialization of India must, therefore, be grappled with immediately.'⁹

Dalit youth must inculcate an entrepreneurial spirit. The way forward for Dalit youth is to relentlessly focus on excellence and mastery of subject and acquire a modern outlook and the innovative mindset of Babasaheb Ambedkar.

Building the Workforce for India's Emerging Clean Energy Sector

Neeraj Kuldeep and Arunabha Ghosh

India's Renewable Energy Ambition

India is undergoing an energy transition. Renewables have dominated power sector investments since 2015. What India is attempting in seven to ten years took Germany more than two decades to achieve. This is nothing short of revolutionary. India has official targets to reach 1,75,000 megawatt (MW) of renewable energy capacity by 2022. It has already deployed more than 83,000 MW, and another 29,000 MW is already in the construction and commissioning pipeline.¹ There have been indications that India will aim for 2,75,000 MW by 2027.² Independent studies suggest that with falling technology costs, cheaper finance and better grid integration, solar and wind power could account for up to 42 per cent of electricity generation by 2040, up from about 8 per cent today.³ In short, the existing targets for renewables suggest a floor, rather than a ceiling, for India's clean energy ambitions.

India's renewable energy story goes back to the mid-1970s. But it was the launch of the National Solar Mission in 2010

that galvanized attention and action. At the time, renewable energy prices were high and many questioned the wisdom of India embarking on an aggressive clean energy pathway. Several factors, however, have contributed to the growth of renewables in India in the past decade.⁴ One such factor is the potential to create new jobs. Infrastructure sectors tend to be capital-intensive, but renewable energy creates more jobs per unit of power generated than thermal power. How can India build a workforce to support its clean energy transition?

This chapter outlines the total employment generation potential of India's renewable energy targets and offers estimates for an emerging electric mobility sector. Drawing on primary surveys, the chapter provides the latest available data on existing workers in the solar and wind sectors. Having spelled out the jobs potential, the chapter turns to challenges in building this workforce and, in response, practical solutions to these challenges. Finally, the chapter explores the potential to add to this workforce via local manufacturing and greater synergies between clean energy and electric mobility.

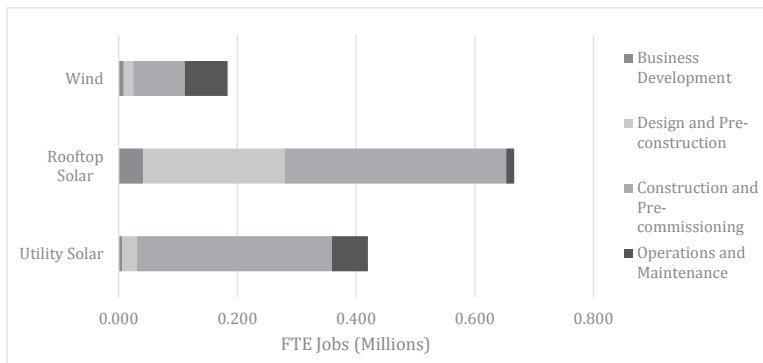
Many New Jobs in a Sunrise Industry

Employment in the renewable energy industry, as in any other sector, can be classified into three categories: direct jobs, indirect jobs and induced jobs. Direct jobs correspond to people employed in project deployment, which includes business development, design and pre-construction, construction and commissioning, and operations and maintenance (O&M) activities. Indirect jobs are those created by manufacturers and suppliers of plant equipment. For example, indirect jobs in the wind sector would include suppliers of wind towers, blades, nacelles, wind turbines, etc. Induced jobs are generated when workers in the renewable energy sector spend their earnings on goods and services throughout the economy. From the perspective of distributed renewable energy

(DRE), induced jobs would also include additional jobs created by new businesses that emerge based on DRE solutions.

India's targets of 1,00,000 MW of solar and 60,000 MW of wind power capacity are likely to generate about 1.3 million direct jobs on a full-time equivalent (FTE) basis.⁵ These jobs are spread across the entire project deployment value chain. The total number of people employed in various activities (whether business development, design, construction or operations) and the duration of each phase varies throughout the project deployment cycle. For example, a solar or wind developer would not require construction workers during the tendering and bidding process, which is part of the business development cycle. Construction workers are only required for the actual erection of the solar or wind plant, the duration of which could vary from three months to five months to even a year depending on the size of the project. FTE estimates eliminate these ambiguities and are calculated based on the total number of hours contributed by the workforce. Figure 1 indicates the potential for FTE job creation across the different phases of project deployment.

Figure 1. FTE Job Potential across Different Phases of Project Deployment



Source: Ghosh et al., 'Clean Energy Powers Local Job Growth in India' CEEW-NRDC Interim Report, February 2015.

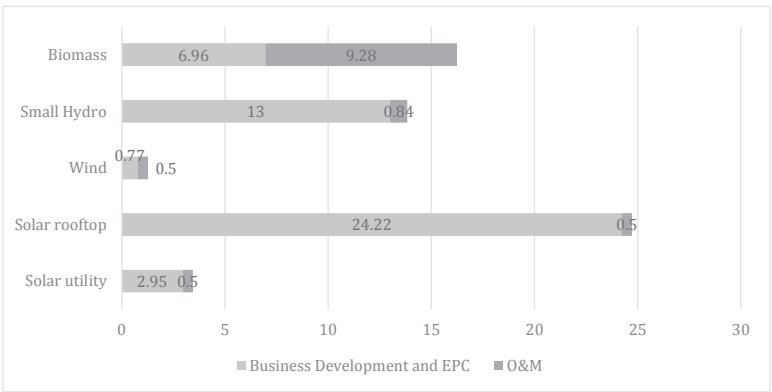
However, a million FTE jobs translate into a workforce of 3,30,000 people. The difference between FTE jobs and the actual workforce is because not all activities require a person to be employed throughout the year. So, there are some part-time jobs and some full-time jobs. Especially during the construction phase, which requires a large workforce to set up a solar or wind power plant, workers are hired on a contract basis for a single project, whereas people employed in business development or design activities as well as during the O&M phase are permanent employees of project development firms. To be sure, 3,30,000 is a non-trivial addition to the workforce when compared to the nearly 3,00,000 people employed in Coal India.⁶ This sizeable workforce would likely grow even more as renewable energy targets are raised in future.

Since 2014, the Council on Energy, Environment and Water (CEEW) and the Natural Resources Defense Council (NRDC) have been conducting periodic surveys to estimate existing jobs in solar and wind. The surveys reach out to solar and wind developers; engineering, procurement and construction (EPC) companies; equipment manufacturers and service providers to source market-based accurate information on total employment in the sector. The latest estimates suggest that 61,000 jobs had already been created in the utility-scale solar and wind power sectors.⁷ The rooftop solar sector employs another 38,600 people.

The type of clean energy project also plays a role in determining the job potential. Figure 2 compares the employment coefficient for different renewable energy technologies based on their employment creation potential. The employment coefficient calculates the total jobs that could be created by installing 1 MW of generation capacity over a duration of one year. Rooftop solar installations create

maximum employment during the project development phase. Rooftop solar creates 24.7 jobs for every MW of installation compared to only 3.45 jobs in case of large utility-scale solar plants. Wind power creates only 1.27 jobs per MW, mostly thanks to the use of prefabricated components and more mechanization during construction.

Figure 2: Employment Coefficients (jobs/MW/year) for Renewable Energy Technologies



Source: Neeraj Kuldeep, Poonam Nagar Koti, Arjun Dutt, Tanmay Bishnoi and Abhishek Dalal, ‘Employment Potential in India in Power Sector: A Long-Term Assessment of Net Employment in the Conventional and Non-conventional Sector’, CEEW, SCGJ and IASS, July 2019.

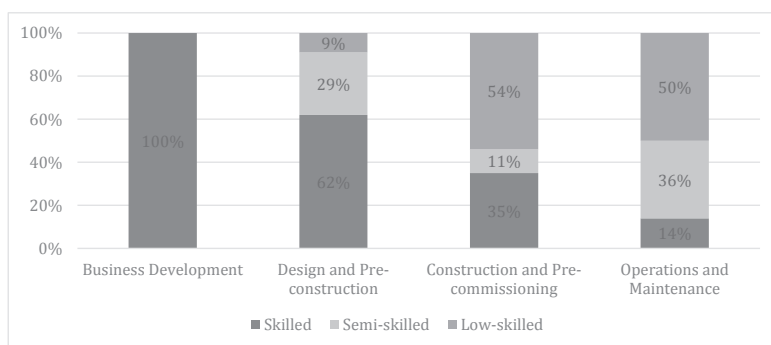
DRE is already a major job creator. The smaller size of projects, distributed over a large geography, needs a larger workforce to establish and service installations. In 2017, based on primary data collected from 37 DRE companies, the sector provided direct employment to about 3,09,000 people.⁸ The estimates include both formal and informal jobs. Informal employment (non-contractual engagements with registered companies) is

particularly important in the case of the DRE sector, as many small companies hire local people to perform sales activities or provide local services to consumers. In addition, the DRE sector has created employment opportunities for another 4,70,000 people, inducing jobs in end-user communities thanks to newly acquired or improved electricity access.

Biomass and small hydro are the two other renewable technologies included in the 1,75,000 MW target. Both being DRE technologies, they tend to create higher employment compared to utility-scale installations. Since these installations are located primarily near rural areas, they provide employment opportunities to the local population. For instance, the O&M phase of a biomass plant employs 9.28 people for every MW. The labour intensity for O&M is significantly higher compared to any other technology as it requires additional workforce to manage biomass fuel. Another advantage of biomass technology is that it requires semi- or low-skilled workers for fuel-handling activities.

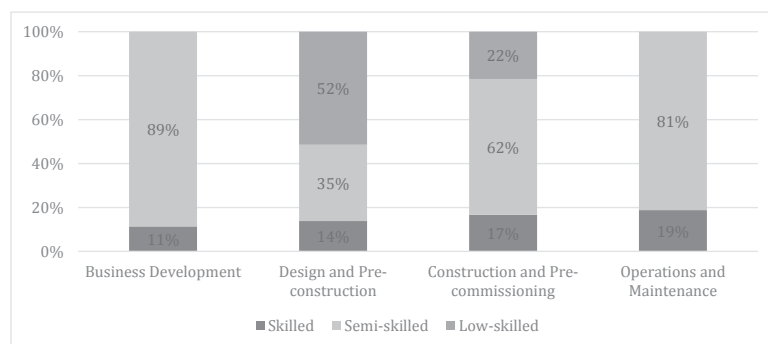
In general, will the clean energy transition create jobs for skilled or unskilled workers? Figures 3 and 4 show the split across sectors and the value chain. The business development phase requires highly skilled and trained professionals to participate in the tendering and bidding process, legal and regulatory due diligence and contractual agreements with various entities. The design and pre-construction phase again employs skilled technical personnel for plant design-related functions. Construction and O&M require a mix of semi-skilled and low-skilled workers, but the share of low-skilled workforce far exceeds the other skills categories. For example, in the case of a solar power plant, about 75 per cent of the people employed during the construction and O&M phase are semi- or low-skilled in nature.

Figure 3: Share of Skilled, Semi-skilled and Unskilled Manpower in Total Workforce for a Solar Project



Source: Kuldeep et al., 'Greening India's Workforce: Gearing Up for Expansion of Solar and Wind Power in India', CEEW-NRDC Report, June 2017.

Figure 4: Share of Skilled, Semi-skilled and Unskilled Manpower in Total Workforce for a Wind Project



Source: Ghosh et al., 'Clean Energy Powers Local Job Growth in India', CEEW-NRDC Interim Report, February 2015.

There is a gender dimension as well. Gender balance in the renewables sector is less studied. A preliminary analysis of the participation of women in rooftop solar and DRE finds that women constitute only 11 per cent of the total workforce.⁹ This is higher than other energy sectors, but lower than some service sectors, such as finance, technology services, etc.

What Is Holding Back Job Growth in Renewables?

In principle, with rapid growth, new entrants to the workforce should be rushing to find jobs in renewable energy. In reality, several factors have introduced doubt in career prospects or have blocked the pipeline for the smooth entry of trained workers.

1. *Unclear Career Prospects*

Barring the wind energy sector, renewables in India have been around at some scale for less than a decade. Between 2014 and 2018, annual solar installations were growing rapidly and reached 9000 MW in FY 2017–18. The rapid uptick in solar installations demanded additional workers. The total workforce requirement grew from 4000 people in FY 2014–15 to 29,000 people in FY 2017–18. But when GST, safeguard duties and cancelled auctions dampened enthusiasm for project developers, workforce demand also collapsed to 20,000 people in FY 2018–19. Such fluctuations in policy add to uncertainties over the long-term prospects of the sector. As a result, skilled manpower might not be ready to commit to the sector as a whole.

The wind sector is also experiencing a slowdown. Steep competition between solar and wind and among developers to keep lowering generation tariffs has meant that the volume of annual installations has dropped significantly. As demand for

wind turbines, blades and towers dropped (turbine manufactures are operating at unsustainable capacity utilization rates of less than 20 per cent), many manufacturers have had to lay off staff. Workforce needs in wind project implementation dropped to 2000 in 2018—71 per cent lower than in 2016.¹⁰

The DRE sector continues to face challenges. With smaller teams and the constant need for multitasking, DRE firms are often not able to provide a clear career trajectory to their employees. The existing workforce in the sector, after acquiring the necessary skills and experience, move to other well-established sectors for better career prospects and earning opportunities. This creates a significant gap in meeting the skill needs of the sector.

2. *Remote Location of Projects*

For large-scale solar and wind power projects, the priority is to first use wasteland. Moreover, in order to keep tariffs low, cheaper lands are sourced, but tend to be located far from urban centres. This is as true for solar park projects, which are in remote areas. The local conditions are not always favourable to workers employed on these projects.

Consider a project in Bhadla village in Jodhpur district in Rajasthan. The Bhadla solar park, when commissioned, is expected to have 2250 MW of operational solar capacity. Building such huge capacity needs an extended time frame, and employees have to be posted at the site for the entire period. While it is a very suitable site with good solar radiation, it is about 150 km from Jaisalmer city and 250 km from Jodhpur city. Temperatures can breach 45°C during the summer months, with dusty wind conditions, limited water, limited network availability and scarce public transport. It is difficult to find engineers who would be willing to spend a year or more in such harsh conditions.

Bhadla might be an extreme example, but the reality is not too different for other solar parks and wind power projects. As a result, many potential recruits shift to other infrastructure sectors, making a skilled workforce harder to find in a sector that otherwise has strong growth prospects.

3. Skills Not Matching Pace with Growth

Despite the recent downturn and uncertain career prospects, there are still not enough skilled professionals in the sector. Annual installations of solar capacity have increased from a few hundred MW to a few gigawatts (GW) in recent years. With the increase in ambitions for renewable energy, the time frame to meet targets has shrunk. As a result, industry has fallen short of building a workforce with adequate skills commensurate to the rapid deployment necessary to meet targets.

CEEW undertook a primary survey with industry representatives of forty companies to understand the skills gap in the industry. About 83 per cent of industry representatives were of the view that there is a dearth of skilled manpower in the sector.¹¹ The need was felt across all skill levels, be it highly skilled manpower to undertake business development activities or semi/low-skilled manpower for construction and O&M activities.

In order to fill the manpower gaps, the renewables industry has tended to look to related sectors. However, the power sector is a highly regulated market with periodic changes in policy or shifts in how the regulatory regime responds. This makes it difficult for the existing manpower to shift to solar projects in particular or to renewables in general.

Industry representatives also highlight the limited transferability of skills in the renewables sector. General functions such as project management or financing can be handled by

professionals from other sectors, but the bulk of the requirement is in the semi- and low-skilled category, which are technology-specific. For instance, the existing construction workforce from the real estate or infrastructure sectors cannot be shifted to solar module installation. Modules must be handled with care, and each module needs to be connected to adjacent ones with precision. This cannot happen unless the workforce has been specifically trained for solar projects.

4. Training Programmes Not Tailored to Meet Industry Needs

Many industrial training institutes (ITIs), vocational training institutes (VTIs) and government-supported training providers have also begun programmes and courses to tap into opportunities in the renewable energy sector. In the rush to have these new training programmes, there has been limited focus on understanding the industry's needs. Both the structure and content of the training programmes have been found wanting. CEEW's study on skill gaps found that industry believes the training programmes do not provide the necessary technical knowledge and practical training to perform precision tasks. This is also the result of the poor quality of trainers in the sector, who sometimes do not have the experience of working in the industry. Instead, industry prefers in-house and on-the-job training to skill their staff.

Another challenge is the duration of such training programmes and the proximity of training institutes. ITIs and VTIs offer programmes of two or three months' duration, which requires trainees to stay away from work, imposing an additional cost on their parent firms.

New entrants to the semi- and low-skilled workforce also face similar challenges. The training institutes are located in urban centres, far away from actual job sites, which requires

trainees to move away from their families and community. It further imposes an additional financial burden to sustain a living in urban towns, when many times trainees are also the main breadwinners for their families. If the quality of training is not as per industry standards, trainees get offered lower salaries. Such challenges deter increasing participation of additional manpower in the sector in order to meet the demand for a semi- and low-skilled workforce.

5. *The Suryamitra Programme and Its Shortcomings*

In 2016, the government launched the Suryamitra programme to create skilled manpower of 50,000 professionals in the solar energy sector.¹² However, there have been many challenges in how the programme has unfolded and the quality of skills imparted. CEEW's interactions with renewable energy project developers indicate that Suryamitras, as they are called, do not meet industry expectations, and their training is found to be inadequate. The trainers also seem to lack the skills needed to train Suryamitras. The minimum qualification for trainers is only two to three years of experience, far short of what would be necessary to impart adequate knowledge of on-ground challenges. Many state nodal agencies (SNAs) do not include on-ground realities in their practical training. The poor quality of training has meant that many large solar companies have not taken part in recruitment drives for Suryamitras.

In past years, most of the training programmes were organized in the last quarter of the calendar year, leaving a significant gap in terms of availability of skilled Suryamitras throughout the year. Although the number of training sessions has increased from seventy-five to 228, meeting the target of 50,000 Suryamitras within the next two years would mean that 400–500 sessions have to be conducted each year. These

shortcomings have limited job opportunities for Suryamitras; only about half of them were able to secure employment in the first two years. The remuneration offered to them is also low—in most cases, lower than the minimum wage rate for skilled labour in many Indian states. Conversely, trainees lack interest in many cases, since the trainings had been offered free of cost initially, giving them no incentive to be serious in building their skills.

Creating a Sustainable Workforce

The challenges are not insurmountable. But they need a different approach than what has been followed so far.

1. *Ensuring Demand Certainty*

Rapid growth notwithstanding, renewable energy in India is still an emerging industry. Although the sector potentially offers tens of thousands of jobs, realizing these opportunities would largely depend on how certain the sector's growth is expected to be and how attractive that growth trajectory proves to existing workers in other sectors or to new entrants to the job market. Long-term job security is one of the key considerations for any employee when considering a career in a major infrastructure sector.

In order to inspire confidence and attract more to its fold, the renewable energy sector needs greater demand certainty. There cannot be any backsliding on India's renewable energy commitments. The demand for renewables must increase not only at the central government level but also for each state, district and city. Demand could be aggregated at the household level, strengthening the case for bottom-up, demand-driven renewables growth.¹³

2. Promoting the DRE Sector to Grow Employment Opportunities

Utility-scale installations in the solar and wind sectors create fewer jobs for every MW compared to smaller capacity installations such as rooftop solar, biomass power, small hydro, etc. The targets for small hydro and biomass deployment are limited to 5000 MW and 10,000 MW, respectively. Much of this is already in the operational phase. Renewed focus on these technologies would lead to higher employment in the sector overall. Biomass power could provide additional employment opportunities to 35,000 people for biomass fuel collection for every 1 GW of new generation capacity. These jobs would be primarily in rural areas, providing additional income to households for their crop residues.

Similarly, the rooftop solar sector has enormous potential to create employment opportunities. It has been struggling to keep pace with utility-scale installations and is falling far behind the 40,000 MW target. Rooftop solar jobs are not limited to one particular geography but are spread across the country, and would require support not just from the central government but equally from state governments. There is a need to pilot innovative business models with opportunities for additional revenue for electricity utilities. In turn, these utilities could step up to the forefront to support accelerated rooftop solar deployment, creating many more jobs in the process.¹⁴

3. Creating Local Entrepreneurs and Business Opportunities

Solar photovoltaic (PV) technology is modular and offers scalability. The feature has led to many solar PV-based innovations for various applications. Solar irrigation pumps, solar lights, solar home systems, solar-powered sewing machines, milking

machines and micro grids are some of the innovations that are already being deployed and many are still in the development phase. Creating a market for such innovations and solutions would lead to additional employment across the product supply chain and to provide after-sales services.

More than 4 million rural micro enterprises in India mention the lack of reliable electricity as the top bottleneck to their businesses. But increased access to reliable electricity in rural areas (from solar) would create the opportunity for many new local non-farm and farm-based industries to emerge and create additional employment. A market opportunity of more than \$50 billion exists for clean energy innovations.¹⁵

An enabling ecosystem is needed to help scale these innovations. Such an ecosystem would offer affordable market intelligence to enterprises, facilitate strategic pilots, enable enterprise and consumer financing, and connect with micro, small and medium enterprises to help manufacture and distribute at scale.¹⁶

4. *A Nimble Workforce*

Renewable energy technologies are constantly evolving and getting better. Initially, wind turbine capacities were within the range of 200–500 KW, whereas the latest installations are using turbines greater than 2000 KW. The sector is now willing to harness sea winds and move beyond land-based installations to offshore installations. Similarly, for solar as well, module and inverter technologies are witnessing constant upgradation. Hybrid plants are now in consideration with battery technologies. Solar installers will need to learn about single- and dual-axis trackers in future. Considering these developments and to keep pace with technology development, the existing as well as new workforce would need to be nimble enough to adapt to

evolving technologies and build additional skills. The workforce would also have to be flexible enough to learn, unlearn and re-learn quickly.

Additionally, since the bulk of jobs would be available close to plant sites, which are located away from training centres, there is a need to bring these training centres to the project sites. Mobile training institutes with experienced trainers who could move from location to location would ensure maximum participation by overcoming associated challenges of remote locations of training institutes. Information and communications technology could be adopted to continue training workers at plant locations via video conferences. Cellphone applications are also an attractive alternative for re-skilling the existing workforce by developing short videos on the latest technology developments to keep them updated.

5. *Boosting Local Manufacturing*

Creating a local manufacturing industry for various renewable energy and clean energy technologies would lead to additional employment in the sector. As per CEEW estimates, domestic manufacturing of solar PV modules and wind components could employ an additional 45,000 and 10,000 people, respectively.

A related sector for job growth is electric vehicles (EVs). As India aims for 30 per cent EV penetration by 2030, the level of indigenization will be a crucial factor contributing to the jobs in automotive manufacturing.¹⁷ At present, about 90 per cent of the powertrain components of an internal combustion engine for a four-wheel vehicle are sourced locally. By contrast, most of the EV powertrain components are imported. If India were able to achieve 30 per cent EV penetration by 2030, lack of a local supply chain would result in a loss of a significant share of jobs in four-wheel automotive manufacturing. CEEW analysis suggests

that a high level of indigenization (90 per cent of EV powertrain components) could result in about 40,000 jobs in four-wheel powertrain manufacturing (excluding battery pack assembly) by 2030 at 30 per cent EV penetration. This would be about 5.7 per cent lower than the jobs resulting from a business-as-usual scenario (that is, only 2 per cent EV penetration in 2030). However, given the recent push for battery-pack assembly in India, this loss could be offset to some extent by indigenizing battery pack assembly. CEEW estimates that about 1,65,140 jobs could be created for battery pack assembly alone.

Renewable energy and the overall clean energy transition in India (including mobility and manufacturing) offer some of the few new sources of job growth. If the distributed nature of the technology were further harnessed, the sector would also create job opportunities across cities and the rural economy, not just in far-flung, remote project sites. The value chain of renewables projects creates jobs for low-skilled workers to very skilled professionals. But the technologies are also rapidly evolving, and the workforce will need continuous training. Designing training programmes that respond to industry needs and workers' limitations would go a long way towards supporting the clean energy transition. A sustainable energy sector needs a sustainable workforce.

Strengthening Towns through Sustainable Employment¹

*Amit Basole, Mathew Idiculla, Rajendran Narayanan,
Harini Nagendra and Seema Mundoli*

The Need for an Urban Employment Guarantee Programme

India is facing a crisis of both quantity and quality of employment. It is clear, from private data sources such as the reports of the Centre for Monitoring the Indian Economy (CMIE) as well as the recently released PLFS report of the NSSO, that the rate of open unemployment has steadily risen over the past few years.² As per PLFS 2017–18, open unemployment stands at a historic high of 6.1 per cent, and unemployment among educated youth has reached 20 per cent. Unemployment in urban areas at 7.8 per cent is higher than the unemployment rate in rural areas (5.3 per cent). In addition to this, Indian towns and cities continue to be plagued by the prevalence of low-wage, poor-quality, informal work. PLFS data shows that despite a rise in the prevalence of regular-salaried work, over 50 per cent of

the urban workforce remains either self-employed or in casual wage work.

At the same time that our towns and cities are facing a crisis of jobs, there is also a crisis of quality of life due to ecological stress and lack of adequate public services. With malls, motorcycles and mobile phones proliferating, our streets are in disrepair, water bodies are rapidly being degraded and green spaces disappearing, the quality of air is deteriorating and common spaces are shrinking. Thus, we see a dramatic divergence between the quality of private and public goods in new India.

Centrally funded programmes like the Smart Cities Mission and Jawaharlal Nehru National Urban Renewal Mission (JNNURM) have disproportionately focused on the development of bigger towns and cities. Hence, it is important to re-focus our attention on improving the livelihoods and ecology of urban areas beyond major cities.

Urban local bodies (ULBs), which are largely responsible for developing and administering our towns and cities, find themselves unable to carry out their core tasks due to lack of adequate resources. Most ULBs in India are severely understaffed and are unable to hire more workers since they are financially restrained³—a centrally funded programme covering worker wages will help fill this gap. Further, the present staff of most ULBs is not fully suitable for performing tasks related to the renewal of urban commons and monitoring the urban environment. This programme can generate a new set of ‘green jobs’ that can strengthen the capacity of ULBs as well as promote sustainable urban development.

Creating jobs, improving the capacity of urban local governance and supplying quality public goods and services require serious public investment. But if made to an adequate

extent, such investment has the potential to pay for itself many times over. Not only does it directly improve welfare by raising incomes and creating assets, there are many positive spillover effects too:

- It increases demand by raising incomes directly and indirectly in the informal sector by improving the next-best option that workers have.
- It provides a better trained workforce to the private sector by allowing educated young workers to acquire skills and improve their employability.
- It creates assets that improve the town's ecology and quality of public services, which have a direct impact on productivity and quality of life.
- It creates a shared sense of public goods in which every resident has a stake.

India has been a leader in the implementation of an employment guarantee via MGNREGA. While cities and towns do not yet have an equivalent of MGNREGA, India also has a history of urban employment schemes. One of the most prominent central programmes in this regard was the Swarna Jayanti Shahari Rozgar Yojana (SJSRY) launched in 1997, which provided employment to the unemployed and underemployed urban poor through self-employment and wage employment.⁴ The Urban Wage Employment Programme component of SJSRY covered those living below the poverty line in ULBs with less than 5 lakh populations. SJSRY was replaced by the National Urban Livelihoods Mission (NULM) in 2013.⁵ This programme and its subsequent version laid more emphasis on self-employment and entrepreneurship than on wage employment. However, unlike MGNREGA, India's past urban employment schemes were not

demand-driven, and only a set of identified beneficiaries could avail their benefits.

An employment guarantee programme strengthens the ‘right to life’ enshrined under Article 21 of the Constitution of India. As the Supreme Court of India has held in multiple cases, the ‘right to life’ is not restricted to mere existence but also includes the ‘right to livelihood’⁶ and the ‘right to live with human dignity’⁷. In the last two decades, several rights-based legislations have been introduced to further these constitutional ideals. In particular, the MGNREGA is a legislative realization of the ‘right to life’ through a ‘right to work’. A legally enforceable ‘right to work’ in urban areas appears to be a natural extension.

Finally, we note that the idea of a minimum or basic guaranteed income has gained traction in policy circles across developing and developed countries. The specifics differ from proposal to proposal but the key aspect is an unconditional cash transfer to some identified group of beneficiaries. While modalities of an income guarantee are worth debating, we believe that an employment guarantee has three key advantages over the former:

1. Employment guarantee schemes are generally self-targeting and demand-driven. In a country like India, with scarce income data, an employment guarantee programme circumvents the complicated process of identifying beneficiaries.
2. Employment guarantee, such as the one proposed here, enables people to contribute productively to the creation of useful public goods and services.
3. An employment guarantee has the potential to foster active citizenry. It enhances engagement in democratic decision-making through public meetings and public hearings. On the one hand, it increased people’s political capacities in

community-building, and on the other, it strengthens local accountability.

How Will the Programme Work?

We now elaborate on the key aspects of the proposed programme. We emphasize that this is only one possible manifestation and we invite a public discussion on the various proposed aspects. Further details on each aspect are available in the full policy paper.⁸

This programme will cover ULBs with a population of less than 1 million as per the latest Census. This programme will thus cater to about 4000 small and medium towns, and keep all the major metropolitan cities as well as most state capitals out of its purview. As per the 2011 census, 377.1 million people were living in urban areas, which is 31 per cent of India's total population. Of these, 323 million (27 per cent) lived in areas under a ULB (called statutory towns) and 54 million (4.5 per cent) lived in areas considered urban by the Census but administered by panchayats (called census towns). Census towns would not come under the purview of the present programme since MGNREGA already covers all areas which do not have a ULB. In 2011, cities with a population of less than 1 million accounted for 162.3 million people, or about 50 per cent of the urban population (and 13.5 per cent of India's total population).⁹

The programme will cover three kinds of towns:

- Type 1: Small towns with a population up to 50,000; they are mostly areas transitioning from rural to urban and are often governed by nagar panchayats.
- Type 2: Medium-sized towns with a population between 50,000 and 3,00,000; in most states, these are governed by municipal councils.

- Type 3: Cities with a population between 3,00,000 and 10,00,000, having a municipal corporation.

We propose that the programme will provide employment in a variety of works for people with a range of skills and education levels. Such works can address a wide range of issues in a variety of urban spaces such as streets, footpaths, bridges, tunnels, water bodies (ponds, tanks, lakes), wells, wetlands, storm-water drains, canals, coasts and beaches, riversides, hill slopes and valleys, parks, protected areas, forest land and wooded groves, government-managed areas of worship, historical monuments and heritage structures, playgrounds and open spaces, areas along roads and railway lines, below high-tension wires and flyovers, slums, government schools, anganwadis, colleges, hospitals, housing projects and other unoccupied public lands.

Here is an indicative list of works. The full policy paper provides a larger list of tasks and works that can be undertaken to promote urban ecological sustainability.¹⁰

Public works: This includes building maintenance and upgradation of civic infrastructure, like roads, footpaths, cycling paths, bridges, public housing, monuments, laying of cables and other construction work. These are already being carried out by ULBs, but can be expanded with more funds under the new programme.

Green jobs: This includes creation, restoration and maintenance of urban common spaces, green spaces and parks, forested or woody areas, rejuvenation of degraded or waste land, cleaning of water bodies (tanks, rivers, nullahs, lakes). Work that can be undertaken here includes water conservation and harvesting, flood control, micro-irrigation, enhancing urban greenery, preventing coastal and hillside erosion, disaster management, enabling urban agriculture for subsistence and so on. These works will not only create jobs but will also improve the livelihoods of communities that are dependent on urban commons.

Monitoring and surveying jobs: This includes gathering, classification and storage of information on environmental quality and other aspects of quality of public goods. This will require easy-to-use equipment for data collection and software for data entry. This can provide both temporary employment as well as valuable skills and work experience for educated youth. Accordingly, these positions can be for a continuous period of 150 days in a year (five months), and with a different set of people hired each year. The information from monitoring and data collection could feed into prioritizing the kind of works that need to be done.

Administrative assistance: This includes assisting municipal offices, local public schools, health centres and so on in administration or other ancillary functions, thereby freeing up the teaching or medical staff for core functions. These jobs can again be geared towards more educated workers, who can avail of this opportunity to build administrative, managerial and record-keeping skills. These positions may also be for a continuous period of 150 days in a year.

Care work: This includes assisting regular public employees working in *balwadis*/anganwadis or creches, providing child-minding services for parents working longer hours, assisted care for the elderly and various services for the differently abled, such as reading to the visually challenged, assisting those with hearing or mobility impairment to manage various activities and so on. This addresses the problem of the urban poor with such needs often having to fend for themselves. Lessons could be drawn from the Kerala model of community-based part-time volunteers for palliative care. Such jobs will also lead to much-needed skills for care services, which are going to become much more important in future.

As can be seen, the programme allows the undertaking of a variety of works, thereby providing jobs for people with a

range of skills and education levels, as well as addressing a wide diversity of urban needs. Programme funds cannot be used to hire workers for manual cleaning of sewers and other such legally prohibited tasks. Further, all work undertaken via the programme must ensure basic standards of equal pay for men and women, availability of childcare, proper worksite facilities such as the availability of potable drinking water, first aid services, shade facilities, toilets and so on.

A job card will be required to be eligible for this programme. The job card will also document any skills/education a worker may have, for example, mason, plumber, electrician, Bachelor of Arts in psychology and so on. The job card would contain the following details about a worker: name, address, educational qualifications and specialized skills from a roster of possible skills. Once the job card details are entered in the programme implementation software, depending on the skill levels of the applicant, a set of possible job openings in the ULB would be available. Each time a person completes some work through this process, the job card would be updated along with the work details. The job card itself will act as the CV of the person for future work and skill development. There would be a provision that a job card holder must be able to get work within a stipulated time, failing which an unemployment allowance would have to be paid.

Two broad types of workers can be identified:

Category 1: These are workers with varying levels of formal education up to Class 12, engaged in works such as construction labour and other types of daily wage work, trades of various kinds, such as masonry, painting, carpentry, plumbing, electrical works, gardening, childcare, elderly care and so on. This is a considerable fraction of the urban and peri-urban workforce. The programme will raise their earnings as well as improve their

conditions of work. Under Category 1 employment, the types of work undertaken can include standard public works as well as the restoration of urban commons and public provisioning of care. 100 days of work will be guaranteed.

Category 2: These are workers with a formal diploma or degree beyond the higher secondary certificate. These would include industrial training diplomas, various certificate courses in computing, English and so on, as well as bachelor's/master's degrees. Category 2 work may be envisioned in the form of an apprenticeship for a contiguous period of five months (150 days) in which the worker assists in the administrative tasks at municipal offices, government schools, public health centres and so on, or is part of monitoring, evaluation, survey or data entry teams. The core idea for Category 2 work is to integrate a skilling programme within an employment guarantee programme. This will enable higher-educated unemployed youth to gain work experience, acquire useful skills and, in the process, earn some income.

Category 1 work is primarily aimed at addressing the issue of underemployment and low-wage informal work by providing additional employment opportunities with adequate wages and regulated working conditions. Work under Category 2 is primarily for providing some work experience, internship opportunities and training to unemployed, educated youth. If the programme succeeds in attracting and skilling young people, they will also be able to use the certification from the programme to secure further opportunities in the private or public sector.

The ULB shall be the principal authority responsible for administering this programme. Each ULB would have a designated facilitation centre with at least three trained staff members to register employment. The registration of work demand, date of receipt and the list of works would be available

at the facilitation centre. Depending on the existing skill levels of the applicant, a set of possible works would be available. For each category of work, a work ID would be generated with a tentative work plan containing the number of person days of work required. The facilitation centre would also have designated staff for the registration of grievances. The aim is to strengthen urban local governance as well as assist ULBs in undertaking core functions. This programme seeks to supplement and not replace the present workforce employed at the ULB, either directly or through contractual arrangements.

In the case of existing permanent employees, the rollout of this programme will not affect their employment. Vacancies for permanent staff of ULBs, cannot be filled by hiring under this programme. Workers will be paid by the ULB from the grants earmarked for the programme, while permanent employees will continue to be paid by the ULB through its regular sources of revenue. Each ULB would identify a list of contractual workers who are employed under short-term contracts so that they can be employed under this programme. Workers on a short-term contract with contractors would be eligible upon completion of the existing contract. The rollout of the programme would not affect them while the contract is in force.

ULBs would be expected to prepare the annual work plan and identify the projects to be undertaken and appoint a dedicated official in the form of a chief programme officer (CPO) for implementation. For Type 2 and Type 3 towns, additional programme officers may also be recruited by the ULB to administer this programme.

Furthering the idea of a decentralized and participatory democracy as envisaged by the 74th Constitutional Amendment, the ward can be empowered as the basic unit of governance vested with key functions.¹¹ Each ward can have a ward officer whose sole responsibility will be to supervise all the work carried

out under this programme. For Type 1 and Type 2 cities, based on the population of the ward, a ward officer may be made responsible for two or more contiguous wards. Additionally, one or more engineers and other technical officers may be appointed for designing and supervising the projects.

Every ward of the ULB will have a ward committee (a constitutionally recognized body consisting of the elected councillor of the ward and other members from civil society), which will identify the works and review the progress in monthly ward committee meetings.¹² To ensure that the works under this programme are identified in a participative manner, the ward officer shall call for an annual meeting of the ward sabha to take inputs regarding the projects to be undertaken in the coming financial year. While the ward sabha consists of all adult members of the ward, this annual meeting is restricted to identifying the works under this programme and is hence specifically targeted at potential workers.

In the case of Type 3 towns, which have higher population in each ward, the ward officer may hold a set of mohalla sabha meetings instead of the ward sabha meeting to ensure that every person in the ward has an opportunity to participate in the meeting. The works suggested by the ward/mohalla sabha will then be presented to the ward committee. The ward committee shall then identify the list of projects and prepare the budget estimates for the same in the form of a priority list. These will be submitted to the CPO. The CPO can then make the annual works plan and budget based on demand from each ward and submit it to the council of the ULB for approval.

The ULBs shall be administratively answerable to the urban development department (UDD) of the concerned state government. Each state shall constitute a programme director housed at the UDD who will be responsible for the overall administration and monitoring of this programme. The state

government shall be responsible for collating, reviewing and approving the annual work plans of all ULBs and sending the estimate of expenses of the programme to the central government. In the central government, a dedicated ministry of employment may be made responsible for reviewing and approving the state plans under this project as part of a national strategy to address the employment problem. If such a ministry is not created, the Ministry of Housing and Urban Affairs at the central level may be made responsible for the overall administration of this programme.

Transparency and accountability are twin pillars for successful implementation of any public programme. Section 4 of the Right to Information Act, 2005, concerning mandatory and proactive disclosure of information, shall be strictly adhered to in the implementation of this programme. The programme design can draw from structures envisioned by the Central Employment Guarantee Council (CEGC) in 2010. CEGC is a statutory body for the implementation of MGNREGA and has laid down the Minimum Principles of Transparency¹³ that have been accepted by the Ministry of Rural Development.

A well-functioning programme of this kind should actively involve consultation with workers to suggest ways to improve their capacities and access to information. Information systems should have a worker-centric, inclusive and compassionate design to enhance participatory democracy. Thus, a critical feature of this programme is the design and development of a bottom-up, worker-centric, worker-consulted, janata information system (JIS), whereby a worker's job card would have an easily accessible virtual counterpart. Since workers are actively involved in the production of information, it would be a right for them to have a stake in information presentation and dissemination mechanisms and to have access to their own work records on demand. To avoid a situation where an information

system subverts legal rights, the JIS itself would be subject to periodic audits by the comptroller and auditor general (CAG).

Proactive disclosure would minimally include:

1. Reading out key pieces of information such as details about work sites, budgets, expenditure and worker wages at the facilitation centres on the first and third Saturday of each month.
2. Displaying periodically updated information through boards and wall paintings at the information facilitation centres at the wards.
3. Disseminating information using audio-visual tools such as voice broadcasts on the phone and SMS, radios and newspapers.
4. Free and open access to all records on the Internet.

Transparency mechanisms are put in to foster good accountability and governance that can at least be built in two ways. Proactive accountability is to ensure that implementation proceeds as envisioned. This can be achieved through mandatory and regular social audits. Reactive accountability addresses implementation lacunae via robust grievance redressal structures. Details on possible structures are available in the full policy paper.

Programme Budget

The budget depends on programme wages as well as the potential size of the workforce. A point of reference for setting programme wages comes from the wage structure observed for broad occupational categories in the CMIE Consumer Pyramids survey. We choose three occupations: casual wage work and self-employed entrepreneurs in the informal sector (people in various kinds of trades) and white-collar clerical

workers. The first two are likely to sign up for work under Category 1. The last occupational type is the closest to Category 2 work. According to these data, median earnings reported by casual wage labourers in urban India in 2018 were Rs 9625 per month or Rs 370 per day assuming a twenty-six-day working month. Self-employed informal entrepreneurs reported median monthly earnings of Rs 12,500 or Rs 480 per day, while white-collar clerical workers reported median earnings of Rs 28,125 per month or Rs 1082 per day.¹⁴ In addition, we note that the overall median daily wage (across all occupations) in urban India in 2018 was Rs 500 per day.

The second point of reference for setting a programme wage is the recently proposed national floor minimum wage of Rs 375 per day as well as the recent Ministry of Labour and Employment order dated 28 September 2018 that gives minimum wage rates plus variable dearness allowance for a variety of occupations.¹⁵ For Type B areas (intermediate towns), the proposed unskilled, semi-skilled and skilled/clerical rates are Rs 466, Rs 527 and Rs 617 per day, while for Type C towns (smallest towns) they are Rs 373, Rs 437 and Rs 527 respectively.

Taking these two points of reference and keeping in mind the administrative constraints, we propose a wage rate of Rs 500 per day for Category 1 workers, and the same rate converted into a monthly stipend of Rs 13,000 for Category 2 work (work requiring the continuous presence of a person with a diploma or degree). Since Category 2 work is envisioned as a skilling or training apprenticeship programme for youth with diplomas or degrees beyond Class 12, it need not pay in accordance with market rates. This is also why we refer to the payment as a stipend rather than a wage or salary. The wage structure will be the same for men and women, following the gender parity norm

established under MGNREGA. Wages would be indexed to the Consumer Price Index for Urban Consumers (CPI-U). The base wage rate may be adjusted upwards based on cost of living considerations.

Here are our budget projections for guaranteed employment for 100 days (Category 1) and 150 days (Category 2) of the year. The total budgetary requirement will have three components: labour, material and administrative cost. We propose a 60:40 ratio, that is, 60 per cent of the total budgetary allocation would be labour cost, and 40 per cent would be a combination of material and administrative cost. Labour costs should be split between the Centre and the states in an 80:20 ratio, while non-labour costs would be shared between the Centre, states and ULBs. Payment of penalties to workers in case of delays in wage payments (delay compensation) would thus be proportionately allocated to the Centre and states depending on who is causing the delay. In the case of Type 1 cities, the smallest and most resource-constrained, non-labour costs will be shared between the Centre, state and ULB in the ratio of 50:40:10. For Type 2 cities it will be in the ratio of 50:30:20, and for Type 3 cities, the largest, in the ratio of 50:25:25. The sharing scheme is intended to create a sense of ownership of the programme across all three levels of government.

The total estimated labour costs depend on the number of people expected to make themselves available for work. According to the CMIE Consumer Pyramids survey, 50 per cent of workers earn up to Rs 500 per day in urban areas. Data also shows that around 25 per cent of the urban workforce has a diploma or degree beyond Class 12. Using these numbers, we present two possible schemes, one where one adult from every household is guaranteed work and the other where every adult resident of a town is guaranteed work.

Scheme 1: Household

The projected population for 2018 is 1.3 billion.¹⁶ Applying an urbanization rate of 35 per cent gives us a total urban population of 474 million.¹⁷ Given that roughly 50 per cent of the urban population resides in towns of less than 1 million, we get a small-town strength of 237 million. Assuming an average household size of four persons gives us an estimated 59 million households. One worker from each household gives a total possible workforce of 59 million or 5.9 crore.

If we assume that all workers earning less than the programme wage will demand work for the entire period, we get a Category 1 workforce of around 30 million. For Category 2 work, only the higher-educated qualify, and in addition we assume that only the openly unemployed are likely to sign up since a continuous presence of five months is required. Using an unemployment rate of 20 per cent (the PLFS rate for the higher educated), we get an estimated 3 million workers. The programme cost in this case works out to a total of Rs 2.8 lakh crore, or 1.7 per cent of GDP.

To put this number in perspective, note that if every job card holder under MGNREGA (~70 million) were to get the full 100 days of employment at a wage rate of Rs 200 per day, the programme cost would be Rs 2.3 lakh crore (1.4 per cent of GDP). Further, World Bank noted that MGNREGA should be funded to the extent of 1.7 per cent of GDP.¹⁸ This programme is in the same range.

Scheme 2: Individual

Instead of guaranteeing employment to only one adult from every household, it would be preferable for the scheme to cover every adult resident, which was the original vision behind the

Right to Work campaign too. If this option is followed, the total possible worker pool would be 94.5 million or 9.4 crore. This number is obtained by starting from the estimated Indian working age population in 2018 (900 million), calculating the small-town fraction (14 per cent) and applying an LFPR of 75 per cent. This LFPR is much higher than the observed average of around 50 per cent as per the PLFS. This is because India's low overall LFPR is driven largely by a very low participation rate for women, and a central aim of the proposed programme is to encourage participation of women in the workforce.

As before, assuming that all workers eligible for Category 1 will sign up and around 20 per cent of those eligible for Category 2 will do so, we obtain a total programme budget of Rs 4.5 lakh crore, that is, 2.7 per cent of GDP.

The programme costs may seem high, but we emphasize the positive spillover effects that will result from higher wage rates, skilling components and the strong element of public goods creation. Thus, it is more an employment, skilling and asset creation programme in one. Finally, we have assumed that the entire bottom half of the urban wage distribution will demand work. We have also assumed a large LFPR for Scheme 2. These are strong assumptions, and the actual demand for work, and thus the actual costs, will likely be lower.

To honour a truly demand-driven programme, at least two things are critical. First, an inventory of work should be planned well in advance. Second, funds should be made available whenever there is a demand for work. In addition, wage payments should be made on time to be compliant with the Payment of Wages Act, 1936. The planning and submission of the labour budget at each ULB takes care of the first aspect of the demand-driven principle.

The Way Forward

Criticisms of an urban employment guarantee scheme that have recently been made are that it does not aid India's structural transition from rural to urban and from low-productivity to high-productivity work.¹⁹ It is true that a jobs guarantee programme cannot make the growth process distributionally more equal by itself. But the programme that is implicitly assumed in this criticism is simply a direct extension of MGNREGA to urban areas. As we have outlined here, an urban programme can, and perhaps should, take a very different form. If an ambitious urban employment guarantee programme along the lines proposed here is implemented, it has the potential to transform the structure of the economy as well as contribute significantly to an improved quality of life for millions of people. Specifically, the following effects may be envisaged on the economy at large:

1. A multiplier effect resulting from reduced unemployment and underemployment and increased incomes. This will boost demand in small towns and create conditions for successful entrepreneurship in a distributed fashion
2. Increased productivity as well as improved quality of life due to better-functioning public goods and services
3. Increased employability and productivity in the private sector due to skilling in the programme
4. Rising informal sector incomes due to an effective wage floor
5. Reversal of ecological degradation.

The key steps involved in the rollout of such a programme are:

Passing of a National Urban Employment Guarantee Act: This act will legally bind the state to provide a fixed number of days of work for all eligible people who apply under the programme, lay

down the governance structure for administering the programme and provide accountability mechanisms for its operation.

Creation of a Ministry of Employment: We propose that this programme be administered by a newly created ministry of employment under the Government of India. The ministry will be responsible for all matters related to employment generation, including the administration of MGNREGA.

Establishing functionaries for administering the programme: The central and state governments have to hire, through an open process, a set of dedicated staff which is responsible for administering this programme, as well as staff responsible for accountability measures under this programme.

We believe that the time is right for India to embark on this path.

Notes

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I: MACRO STRATEGY

Industrial Strategy with Employment Policy for Job Creation

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A Strategy for Job Creation

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Rural Industrialization in India: Some Policy Perspectives

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 10. There are separate definitions for micro enterprises and small enterprises. Micro manufacturing enterprises could be as small as having fixed assets up to Rs 2.5 million. Similarly, micro trade enterprises are those having investment up to Rs 1 million. Refer <https://msme.gov.in/know-about-msme>.

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Promoting Artisanal Clusters

1. The authors are thankful to Mr Sagnik Lahiri, Ms Suchismita Nayak, Mr Rajkumar, Mr Yatish and Mr Rahul Bhalla for data collection and preliminary analysis. The views expressed in the essay are purely personal and not necessarily of the organization where the authors are working.
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III: FOCUSING ON NEGLECTED GROUPS AND SECTORS

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Strengthening Towns through Sustainable Employment

1. A longer version of the policy proposal is available here: https://cse.azimpremjiuniversity.edu.in/wp-content/uploads/2019/04/SWI2019_Urban_Job_Guarantee.pdf. We gratefully acknowledge inputs from Nikhil Dey, Jean Dréze, Jayati Ghosh, Arjun Jayadev, A. Narayana, Anand Shrivastava and Rakshita Swamy on previous drafts. Responsibility for errors lies with the authors.
2. See 'Recent Trends in Employment and Unemployment in India', State of Working India 2019, Centre for Sustainable Employment, Azim Premji University, Bangalore. Available at <https://cse.azimpremjiuniversity.edu.in>
3. Janaagraha Centre for Citizenship and Democracy, 'Annual Survey of India's City-Systems (ASICS) 2017, <http://janaagraha.org/asics/report/ASICS-report-2017-fin.pdf>.
4. An antecedent to SJSRY was the Nehru Rozgar Yojana introduced in 1989.
5. The NULM was further restructured and renamed as the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) in 2016.

6. In *Olga Tellis v. Bombay Municipal Corporation* (1985 SCC [3] 545), the Supreme Court held that ‘An equally important facet of the right to life is the right to livelihood because no person can live without the means of livelihood.’
7. In *Maneka Gandhi v. Union of India* (1978 SCC (1) 248), the Supreme Court held that ‘The right to live includes the right to live with human dignity and all that goes along with it . . . and also the right to carry on functions and activities as constitute the bare minimum expression of human self.’
8. A longer version of the policy proposal is available here: https://cse.azimpremjiuniversity.edu.in/wp-content/uploads/2019/04/SWI2019_Urban_Job_Guarantee.pdf.
9. As per the 2011 Census, 53 cities have a population of over 1 million, which account for 160.7 million persons or 42.6 per cent of the urban population. Total urban population of 377.1 less 160.7 million less 54 million (census towns) gives us a total small-town population of 162.3.
10. The list of potential works that can be undertaken in the programme to promote urban ecological sustainability is based on the following studies and on other unpublished work:
 S. Mundoli, B. Manjunatha and H. Nagendra, ‘Effects of Urbanization on the Use of Lakes as Commons in the Peri-Urban Interface of Bengaluru’, *International Journal of Urban Sustainable Development* 7.1 (2015): 89–108; S. Mundoli, B. Manjunatha and H. Nagendra, ‘Commons That Provide: The Importance of Bengaluru’s Wooded Groves for Urban Resilience’, *International Journal of Urban Sustainable Development*, Special Issue 9.2 (2017): 184–206; S. Mundoli, B. Manjunatha and H. Nagendra, ‘Lakes of Bengaluru: The Ones Living but Now Endangered Peri-Urban Commons’, *Working Paper Series* 10 (2018), Bengaluru: Azim Premji University; S. Mundoli, H. Unnikrishnan and H. Nagendra, ‘The “Sustainable” in Smart Cities: Ignoring the Importance of Urban Ecosystems’, *Decision* (Journal of IIMC), 44.2 (2017a): 103–20; S. Mundoli, H. Unnikrishnan and H. Nagendra, ‘Nurturing Urban Commons for Sustainable Urbanisation in India’, *Journal of the India International Centre* 43.3–4 (2017b): 258–70; H. Nagendra, *Nature in the City: Bengaluru in the Past, Present and Future* (New Delhi: Oxford

- University Press, 2016); V. Narain and S. Vij, 'Where Have All the Commons Gone?' *Geoforum* 68 (2016): 21–24; H. Unnikrishnan, S. Mundoli, B. Manjunatha and H. Nagendra, 'Down the Drain: The Tragedy of the Disappearing Urban Commons of Bengaluru', *South Asian Water Studies* Special Issue 5.3 (2016): 7–11; S. Vij and V. Narain, 'Land, Water and Power: The Demise of Common Property Resources in Periurban Gurgaon, India', *Land Use Policy* 50 (2016): 59–66.
11. The 74th Constitutional Amendment, passed in 1992, added Part IX A, 'The Municipalities', into the Constitution of India. It mandated the creation of elected local governments in urban areas and sought to empower them through the devolution of functions, funds and functionaries.
 12. Article 243-S of the Constitution, introduced by the 74th Amendment, states that every municipality having a population of 3 lakh shall have ward committees. While it does not restrict municipalities below this population from having ward committees, this provision has been poorly implemented, since most ULBs, both above and below populations of a 3 lakh, do not have functioning ward committees.
 13. Azim Premji University, 'State of Working India 2019', Bengaluru, 2019, <http://nrega.nic.in/CEGC/TransparencyandAccountability.pdf>.
 14. Income data are obtained from the second wave (May to August) of the 2018 CMIE Consumer Pyramids Survey, the most recent wave for which full data are available. The numbers presented pertain to all of urban India and not only small towns.
 15. Report of the Expert Committee on Determining the Methodology for Fixing the National Minimum Wage, https://labour.gov.in/sites/default/files/Committee_on_Determination_of_Methodology.pdf.
VDA Minimum Wages order dated 28/9/2018, <https://clc.gov.in/clc/node/586>.
 16. United Nations Department of Economic and Social Affairs, 'World Population Prospects: The 2017 Revision', <https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html>.

17. Urbanization rate as per Census 2011 was 31 per cent. In view of the rapid urbanization over the last decade, we have adjusted it upwards to 35 per cent.
18. R. Murgai and M. Ravallion, 'Employment Guarantee in Rural India: What Would It Cost and How Much Would It Reduce Poverty?' *Economic and Political Weekly* (2005): 3450–55.
19. *Hindustan Times*, 'Urban Employment Guarantee Scheme Signifies India's Failure to Address Inequality', 5 March 2019, <https://www.hindustantimes.com/editorials/urban-employment-guarantee-scheme-signifies-india-s-failure-to-address-inequality/story-WdvzySh9GyaRuodCAMCyNP.html>.

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