PLANNING FOR HUMAN DEVELOPMENT – LESSONS FROM THE ASIAN EXPERIENCE

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1. INTRODUCTION

The Human Development (HD) concept is now a quarter century old.[1] However, many still perceive HD to be a welfare-enhancing notion; that rapid economic growth would provide the necessary resources for the social sectors for creating an accomplished, healthy and equal society.[2] Implicit in this perception is that economic growth, and people's enablement and wellbeing, are quite independent. The HD paradigm, which we argue for, however, puts forth that economic development must stem from deployment of the most abundant resource (workers, in most of Asia) for the welfare gains to be maximised.

The HD paradigm further states that for workers to create value they have to be adequately accomplished [must be able to perform at least the "basic functionings" of in Sen's sense (Sen, 2000)], making a case for investing in people as a precondition for production to accelerate. Recent literature on development also notes that economic growth cannot be sustained without people's inclusion (Sen, 1982; Amsden, 1989; Nell, 1998 – for a fuller discussion, see Mehrotra 2016). The essence of the argument is that human capital and other measures to improve people's empowerment are paramount. People are best empowered through better education, skills, adequate nutrition and health, among other factors.

Finally, the HD paradigm goes further than just to invest in health and education. Much of Asia was/is labour surplus; hence, *making optimal use of the labour* in the growth process until the time when labour from the low productivity sectors (read: agrarian sectors) is redeployed elsewhere would be most desirable. This does not automatically happen; *it has to be planned and carefully executed*.

This paper puts forth a case for HD-based planning: a process where human capital (education, skills, health– HC) and the economic sectors are brought into an integrated framework. More specifically, the paper attempts to:

(a). Analyse how some countries in Asia have forged ahead on the development scale while others have lagged;
(b). Identify the roots of the high achievers' success and the low achievers' lack of it in the (implicit or explicit) planning process,
(c). Present a simple model of how an HD-planning framework might look like.

Section 2 presents a conceptual framework, which would enable the reader to understand the interactions between goals/ends of development: economic growth,

[1] That is, if the concept is to be dated to the UNDP Human Development Reports.
[2] This thought had found coinage earliest in early 19th century in the writings of William Thackeray. However, even in the contemporary era this is the dominant thought among the techno-managerial class of professionals. In all the Five-year Plans in India, explicitly in the first four and implicitly in the later ones, this was the premise.

human capital formation, and income poverty reduction (and employment generation). Section 3 examines country experiences within this conceptual framework, and seeks the extent to which these goals were achieved. Each country case discusses why certain countries succeeded, others less so, and for a third category there were failures on multiple fronts, which prevented the synergy between the three goals was compromised. Section 4 suggests the planning principles that underlay the success of some, and the lesser success of other countries. Finally, Section 5 concludes the paper.

2. A CONCEPTUAL FRAMEWORK

Economic growth, human capital, and poverty reduction (typically, income-generation among the larger populace through *the employment route)* form the three ends of development (Figure 1).

Mainstream economics (typically, the Washington Consensus – free trade, minimal governmental intervention in markets, etc.) is insufficient as a heuristic device to permit developing an understanding of the intricacies and complexities concerning outcomes of a development strategy. Its theoretical foundations, rooted in utilitarianism, has had limited success so far in unbundling the family or examine and interrogate intra-household/entity allocation of resources (see Sen, 1985; Nussbaum, 2001). Its theoretical and philosophical basis has also been found to be weak (Sen, 1982; Sen 1985; Amsden, 1989; Nell, 1998). Despite this, mainstream economics had been at the core of much of public policy throughout the 1980s and 1990s and still is; and it has had extremely mixed results, as seen from the experiences of the Latin American and Sub-Saharan developing economies of Africa. Most East Asian economies, in contrast, performed very differently through this period, as they adopted policies not necessarily consistent with mainstream economics, or prescriptions emanating from its adherents (Rodrik 1997). Therefore, there is need for an alternative framework for development, which is founded on human development and the capability approach. The rest of this section briefly spells out this alternative framework.[3]

In this alternative framework, existence of two forms of synergies is posited. One exists between interventions in health, nutrition, family planning, water and sanitation and basic education; and the other between interventions that form the basis of income growth, reduction of income-poverty, and improved health and educational status. The first synergy is actually a sub-set of the second. With these two synergies as foundations, it is proposed to put forth an alternative approach to integrate economic and social policies. As a theoretical construct the notion of dual synergies forms a conceptual framework for understanding a given situation in terms of human development outcomes; it is, at the same time, a framework for drawing policy implications.[4]

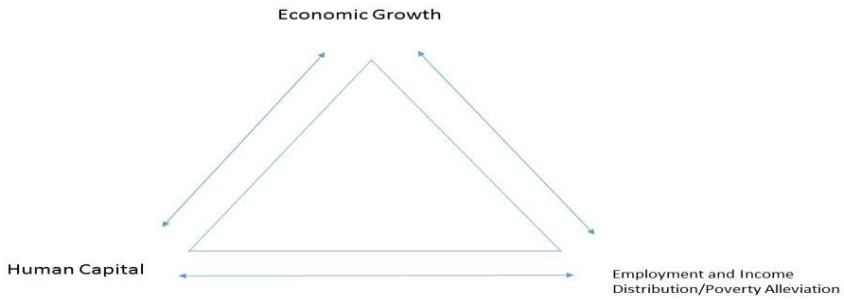
In any economic analysis it is important to distinguish the means from the ends. This paper strongly argues that the state has a central role in ensuring all three desirable *ends* or outcomes: economic growth, income-poverty reduction and improved health

[3]For a recognition of this failing see e.g. Ahluwalia(2011), and the Approach paper to the 12th Plan http://www.planningcommission.nic.in

[4]See Taylor et al,1997; Mehrotra, 2013;and Mehrotra and Delamonica, 2007; for applications of the framework to developing countries.

and education outcomes. The paper argues that to achieve these ends, appropriate means have to be adopted. The analysis suggests that in the contemporary Asian context, these translate into at least three broad propositions for the policy-makers. The first relates to land and agrarian reforms, for generating much larger marketed surpluses over consumption, release of surplus labour from it, and diversification of activities therein, all resulting in wellbeing of the rural populations. The second relates to the need for an industrial policy that would guide investments and promote technologies in areas of maximum private and social returns, which would increase value added rapidly and create broad-based employment. The third relates to increased investments in sectors that would help raise human capital and human development and would prepare people for gainful employment in modern sectors.

Figure 1: The Economic Growth-HD-Employment/Income Distribution Link



Source: Adapted from Mehrotra (2016)

Some Asian countries have pursued policies that (implicitly) rely on these three pillars and have succeeded in forging ahead; some others have progressed though they have not succeeded to the same extent as the first group; while a third group consists of countries that have faltered, wilfully or otherwise, and have remained in the low HD/low GDP bracket. It would be useful to examine empirically, the success and failure of countries on the pillars (vertices in Diagram 1).

The HD paradigm works as effectively within the market frameworks as in alternative (mixed economy) ones. The one distinguishing feature is strong government intervention:

1. To help different market entities and institutions to mature, especially at the earlier stages;
2. To monitor the functioning of institutions;
3. To remove distortions in factor prices (labour, capital, land);
4. Tonsure factor flexibility (labour and capital) and mobility (labour and capital);
5. To help train and re-train workers regularly;
6. To provide direction to national entrepreneurs in regard to market trends; and
7. To assist in R&D, in conjunction with the industry or even do these independently.

The starting point in HD planning is to put forward a key relationship between economic growth and human development. The relationships in Figure 1 posits that there is synergy as stated below:

(1). Economic growth is fuelled by human capital/skilled human-power;
(2). In the process employment is created, distributing incomes (and alleviating poverty); and falling poverty generates incomes and demand for new products of industry and services.
(3). Improved (productive) employment and incomes finance human capital (both public and private expenditure), in turn, which further fuels economic growth.

3. COUNTRY EXPERIENCES: WHO REQUIRES LEARNING FROM WHOM?

This section examines the experiences of select countries as in Table 1 representing most of East and South Asia. Countries in the light green shade have relatively high GDP per capita and high Human Development Index (HDI), in the yellow shade countries generally have medium GDP and HDI, while in red both GDP and HDI are low when seen from a comparative perspective in this table.

Table 1: HDI and GDP Per Capita, Select Asian Countries

Country	Global HDI Rank (2014)	GDP Per Capita (2014)
(1)	(2)	(3)
South Korea	17 (Global category: very high)	27,195
Taiwan	21 (Global category: very high)	22,288
Malaysia	62 (Global category: high)	11,307
China	90 (Global category: high)	7,990
Thailand	93 (Global category: high)	5,742
Sri Lanka	73 (Global category: high)	3,389
Indonesia	110 (Global category: medium)	3,362
Philippines	115 (Global category: medium)	2,858
Vietnam	116 (Global category: medium)	2,088
Lao PDR	141 (Global category: medium)	1,779
India	130 (Global category: medium)	1,617
Pakistan	147 (Global category: low)	1,450
Bangladesh	142 (Global category: medium)	1,217
Cambodia	143(Global category: medium)	1,168
Nepal	145 (Global category: low)	751

Sources: For HDI other than Taiwan, Human Development, Global Report 2015; for Taiwan, http://www.focustaiwan.tw/news/asoc/201409180039.aspx; for GDP, IMF and World Bank databases

The said synergies and the associated policy instruments as in (1)-(3) above are discussed in this section, namely, agrarian reforms and agricultural growth; industrial policy; and investments in human capital for select Asian countries.

2.1. AGRARIAN REFORMS

Effective agrarian/land reforms are expected to make optimal use of land and other resources to reap high crop and non-crop yields and distribute the gains in an equitable manner among the different stakeholders on the one hand, and withdraw workers from low productivity agricultural operations to redeploy them in relatively high productivity activities, on the other. Agrarian/land reform per se, however, would not be an answer to all development problems. Once set in motion, the other means need to be employed to ensure the synergy between the three ends (pillars) in the triangle

in Figure 1. In the Asian context thus, agrarian/land reforms are a *necessary* condition though not a sufficient one.

East Asian countries witnessed significant land and agrarian reforms from the 1950s onwards. Most were complete before the turn of the century, though some issues persist. In a similar vein Southeast Asian countries have also undergone reforms, though the degree of success has varied from one country to another. In contrast, South Asia has lagged behind in the sense that, either the land/agrarian questions have wilfully not been understood resulting in poor implementation (e.g. much of India), or not implemented at all (e.g. Bihar in India, and much of Pakistan). Some country-experiences would help understanding the situation.

THE SUCCESS STORIES

China launched several land reforms through 1946 until 1983, successively to redistribute lands earlier, then to form collectives and people's communes (after 1962), thereafter to constitute farmers' production teams with each team given production targets, a decade later to introduce household-based farming systems for improving private investments and production, and finally, since 1983, to embark upon reforms to improve land-use efficiency, rationalise land management, harmonise urban and rural development, and create land markets. China has removed the vestiges of pre-industrial (exploitative and inefficient) entities and methods associated with them, increased production and productivity, pulled more women into the workforce, and paved the way for industrialisation through the classic 'agriculture-to-industry' route. The paddy yields have exceeded five tonnes per hectares in the recent times. Promoting the other two pillars has helped in actually reap the gains in a synergetic manner. The proportion of workers to total engaged in farming as per the latest count is 33.6% (as in 2012), down from >70% in the 1970s (see, Short, 2001; FAO, 2010; Ho, 2005; Ding, 2003).

The *South Korean* authorities, between 1945 and 1950, confiscated land plots larger than three hectares (relaxed later), and redistributed the resulting surplus land among the landless as a part of land reforms. Lands earlier held by the Japanese colonial government and companies/individuals were also redistributed. A new class of family proprietor-farmers was created, who inducted modern agricultural technologies and harnessed waters for irrigation (> 50% of the total cultivated area), to reap paddy yields of 5-6 tonnes per hectare. South Korea has industrialised through the classic 'agriculture-to-industry route' to an extent that it is now a high-income country. The agrarian reforms, like in China, created asset equality, and laid the basis for more equitable growth later. Promoting the other two pillars helped in reaping the gains in a synergetic manner as labour shifted out of agriculture to the other, more productive non-farm sectors through the 1970s to the turn of the century. The proportion of workers to total engaged in farming as per the latest count is 5.7% (in 2015), down from >45% in the 1970s (Andrea, Matles S and William Shaw, 1990; FAO, 2015; US Library of Congress, n.d.).[5]

In *Malaysia* in the 1960s and 1970s, surplus lands were distributed to the Bhumiputras. Also fragmented lands were consolidated. Being a low labour-land ratio country, agrarian reforms were implemented through land development, research and

[5]The Taiwanese experience has not been too different; hence, not presented here. See Yueh (2016); and Amsden (1979).

development and their application to crops, regional development and agricultural policies to commercialise agriculture. These resulted in an increase in farm productivity and farmer's income level. Promoting the other two pillars also helped in reaping the gains in a synergetic manner. Malaysia now holds monopoly in palm oil production. The proportion of workers in agriculture in Malaysia was 11% in 2012.

LESS–THAN-FULL SUCCESS CASES[6]

Thailand too has historically been a low population density country. Nevertheless, there were land inequalities, high tenancy, lack of title deeds, encroachment on state lands, and poor land law implementation, until the mid/late 20th century. Thailand began improving the situation in the 1960s and 1970s, though not too effectively [(Suehiro (n.d.), USAID (2010), Gine (2004)]. However, application of technology and good management of irrigation waters has enabled Thailand to become among the largest rice exporters in the world (average yield > 3.5 tonnes/ha). Also, growth on the other pillars (discuss later) helped ease pressure on land; the proportion of workers in agriculture was 32.2% in 2014 compared to it being >75% in the 1970s in that country.[7]

Vietnam, in the years after World War II, initiated land redistribution to the poor and landless peasants in its north. After the partition of the country, in North Vietnam the government distributed lands to >2 million peasants land reforms (1953–1956). The South Vietnamese government also implemented the Land to the Tiller programme in 1970, limiting individual plot sizes to 15 hectares and distributing surplus lands to the landless. The reason for the reforms not having fully catapulted the economy in the earlier years was due to the prolonged 30-year war, first against France-US (1945-1975), followed by another resource-draining 10-year Cambodia war (1979-1989) and also an economic embargo up to the 1990s (Prosterman 1970; Moise 1983; Cima 1987; Chanda 1985). Agriculture nevertheless has modernised: paddy yield rates have exceeded five tonnes in the last 15-20 years and exports paddy. The proportion of workers to total engaged in farming as per the latest count was 38.9% (in 2013), down from >70% in the 1970s.The country has begun rapidly industrialising since the 1990s.

SUCCESS ELUDES A THIRD GROUP

Indian agrarian structure in the 1950s was complicated having multiple forms of land holdings, cultivation and distribution of gains, each of them being exploitative and inefficient. Poverty levels were high (>50% – Figure 2). The agrarian economic processes were/have been intertwined with social (caste) and political processes (electoral) factors. The land reforms law in 1954-1956 permitted some change, though not sufficient, to bring about real change. The law required the following:

1. Abolition of intermediaries (land rent collectors);
2. Tenancy regulation;
3. A ceiling on landholdings; and
4. Attempts to consolidate disparate, fragmented landholdings.

[6]Indonesia and the Philippines also belong to this category, but for reasons of space we will not be able to discuss them. On them, see Geertz, 1965; Aspinall and Fealy, 2003; and Hayami and Kikuchi 1981.
[7]Sri Lanka, like Malaysia, extensively developed plantations but the overall results have been slow owing to a prolonged war.

While the intermediaries were *overtly* done away with, covertly the practice is still prevalent. Land ceilings are camouflaged by registering lands under the names of kith and kin or extended caste relations. Since these very people controlled/control the political process, there has been/is little political will to push the reforms process. Large-scale land fragmentation and landlessness also exist, the situation having worsened by the demographic pressure. Post the late 1960s, efforts have been made to aggressively infuse modern technologies and irrigation, due to which the production had increased four-fold between 1950s and 2010. The average paddy yield is about 2.3 tonnes per hectare while of wheat it is 3.1 tonnes per hectare (2011-2012 data). The proportion of workers engaged in agriculture was about 48% in 2013, down from about 72% in 1971 (slow). The agrarian situation in Bangladesh, Nepal and Pakistan is not very different [Bangladesh: Boyce, Rosset and Stanton 2005; Nepal: Sugden and Gurung,2013; India: Thorner, 1962; GOI, 1976; Basu, 2016; Joshi, 1976].[8]

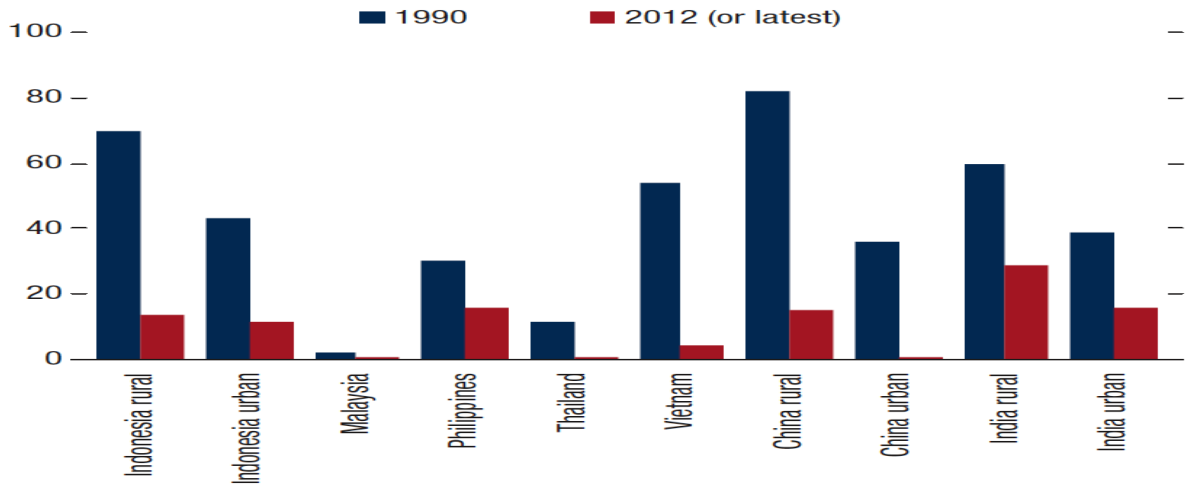
Finally, both Cambodia and Lao PDR, being latecomers to the development process, transited into market economies as late as in the 1990s. In both, farming was privatised in the late-1980s when farmers 'formally acquired' lands that they were earlier cultivating, albeit in a different capacity. However, this 'free-for-all' process resulted in some powerful interests acquiring large lands, and inequalities began to arise by the turn of the century. This process was further aggravated with the government leasing out large swathes of land for commercial farming to foreign companies. However, opening up of new lands has now stemmed the tide of landlessness. Area under cultivation having risen >3 times in the last two decades since the early-mid 1990s has helped. The paddy yield rates though are <3 tonnes/ha. The proportion of workers in agriculture in Cambodia is down to about 63% (2013 estimate), down from 72% in the early 1990s; in Lao PDR it still exceeds 70% (UNDP, 2016; RGC, 2014; UNDP and Government of Lao PDR, 2016; Government of Lao PDR,2016).

SUMMING UP

Countries that had successful agrarian/land reforms, coupled with policies of agricultural modernisation, have achieved high levels of land productivity. They have reduced the proportion of workers in agriculture, and succeeded in reducing poverty (Figure 2). The vice-versa also holds true. The role of governments in effective understanding of the socioeconomic processes, meaningful planning and judicious implementation has been central to the achievements.

[8]See also, http://mrunal.org/2013/10/land-reforms-post-independence-abolition-of-zamindari-reasons-impact-obstacles-limitations-first-amendment.html

Figure 2: Poverty Rates ($2/day, 2011 PPP), Select Countries in Asia



Source: World Bank, PovcalNet database.

2.2. INDUSTRIAL POLICY

The oft-stated proposition, found in the Washington Consensus (IMF/World Bank), is that governments are mainly required to provide a favourable macroeconomic environment (low inflation, devalued currency, labour flexibility, neutral trade regimes, etc.). The rest would be taken care of/be the responsibility of, the private sector. This, however, might not hold for most developing countries. There are at least four reasons why the said consensus might not work at least in Asia:

First: The asymmetry in information availability across different entities is huge, resulting in some entities having access to information becoming 'crony-capitalists'; this would lead to deteriorating economic governance and flight of capital.
Second: The maturity required among national entrepreneurs for advancing industrialisation without any assistance is extremely limited. Most entrepreneurial entities are risk-averse family-owned traders, new to modern enterprise development, and have a short time horizon.
Third, the scale of the national industrial houses is small to match with international companies.
Fourth, the technological prowess and resource availability with the national private sector are very limited.

There is no developing country anywhere in the world that has followed the Washington Consensus path and succeeded on either the economic growth- or human development targets in the recent decades.

In the earlier stages of industrialisation in Japan, Taiwan and South Korea, governments there worked in close cooperation with companies to further industrialisation. They also imposed import substitution with a view to protect national industries at the earlier stages (Heilmann and Shih, 2013). In Malaysia as well, the government supported industry through varied instruments: human capital investments (6-7% of the GDP), technology transfer (e.g. the Proton car), and palm oil promotion. Contrast this with India, which de jure had an industrial policy since the 1950s, but de facto the policies were more for *industrial regulation*: a list of 'don'ts'. Not surprising, in

the three decades ending 1980 there was little industrialisation other than some public investments. Starting in the 1980s, when its economy selectively opened up, most industry owners/managers shopped the world for modern technologies and imported 'completely knocked down' or 'semi-knocked down' kits of a range of products, to assemble and sell them in local markets. This resulted in a serious balance of payments crisis by the end of the decade of 1980s. In the 1990s and beyond when India began to follow policies similar to the World Bank/IMF dispensation, it underwent a virtual 'deindustrialisation', with many manufacturing companies closing shop to become marketing outlets of foreign manufacturers. This process has been seen in other countries as well: Cambodia, Lao PDR, or to a limited extent in Philippines and Indonesia. It follows that a supportive industrial policy is an essential in the initial stages of industrialisation.

Some country-specific details in select Asian countries are given below:

SUCCESSFUL PLANNING CASES

South Korea and Taiwan

In South Korea and Taiwan in the 1950s, import substitution strategies were enforced to promote local entrepreneurship/skills and save precious foreign exchange. Industrial policies in the 1960s and 1970s aimed at promoting *identified sectors* through allocating government resources to them. They developed light industry products, toys, shoes, garments, and the like; each of them labour intensive, and was in conjunction with the comparative advantage stemming from surplus labour and low wages at that time.[9]Agrarian reforms and investments in human capital facilitated the process (Park, 1991). The governments were promoting industry through fiscal and monetary instruments in addition to guiding/directing investments and providing attractive loans (World Bank2014; Huck-ju Kwon and Koo 2013; Amsden 1979). *Seen from an HD perspective this move was 'inclusive' and efficient economic planning*.

The second stage of industrialisation began in the 1970s after the comparative advantage in low-skill labour intensive products began to wane. There was a shift towards steel, petrochemicals, machinery, auto industry, shipbuilding, and electronics (e.g., South Korea's2nd Five-year plan in late 1960s-early 1970s, but also in Taiwan though Taiwan did not promote steel). The governments enacted laws to promote specific industries (Sakong and Koh, 2010).[10] Key policy instruments were: concessional credit, state-financed infrastructure, low taxes, duty-free import of machinery and materials, protective import duties, and permitting monopolies in several industriesto achieve scale (Park, 1991). Additionally, effort was made to promote national ownership of capital (Haggard, Lim and Kim, 2003). Finally, there was strong emphasis on Research and Development (R&D), with strong private sector partnership.[11]

Some key elements of South Korea/Taiwan's industrialisation:

[9]The capital intensity in these countries was low earlier and even today it is lower than, say in India despite that India is labour surplus. See Table 2.

[10]Some laws in South Korea in that period: Machinery Industry Promotion Act (1967), Shipbuilding Industry Promotion Act of 1967, Textile Industry Modernisation Act of 1967, Steel Industry Promotion Act of 1969, Electronics Industry Promotion Act of 1969, and Petrochemical Industry Promotion Act of 1970.

[11]The government established and expanded vocational schools and training outlets, and created government-funded research institutions to conduct R&D activities (Sakong and Koh, 2010 for Korea; Yang, 1993 for Taiwan). For data on R&D expenses see http://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS.

1. Policies changed with shifts in markets and innovations in science and technology. Thus, earlier the (incremental) capital-output ratio (ICOR) was low, but it increased after inclusion of more people in the mainstream (Table 3).
2. Government-industry partnership assumed a central place;
3. National industrialists were promoted for maximum retention of value added and for indigenisation of cutting edge technologies;
4. There was emphasis on R&D, to the extent of 4+% of the GDP (South Korea) and 3+% (Taiwan), was spent on it – among the highest in the world. The private sector contributed more than the government did on R&D.
5. Export orientation ensured product quality, competitive costs and current account surplus. Firms were supported but were required to deliver on exports; there were carrots, but also the stick was used (quite unlike India).
6. In both South Korea and Taiwan it is incredibly easy to do business, attracting large volumes of capital from indigenous and external sources (Korea rank: 6; Taiwan: 11).

Table 2: Incremental Capital-Output Ratios (ICOR), Select Countries

Country	Year	ICOR
China	1991-2011	3.90
	1990-1996	1.75
Japan	1961-1970	3.20
South Korea	1981-1990	3.20
Taiwan	1981-1990	2.70
India	2001-2007	4.14
	2014-	6.50
Bangladesh	2001-2007	4.80
Philippines	2001-2007	4.09
Thailand	1983-1990	3.83
Sri Lanka	2001-2007	4.86
Nepal	2001-2007	5.73

Sources:Hiroyuki Taguchi and Suphannada Lowhachai (2015); for India 2014, Kolhi R, 'Should we worry about the rise in incremental capital-output ratio?' Mint Newspaper, March 4, 2014

Seen from an HD perspective, the (flexible) industrial policy—a partof planning for industrialisation—created conditions for creating more jobs and skills, which promoted inclusion and eliminated poverty. South Korea and Taiwan are success cases and fall in the first category of achievers in Asia.

China

Industrial policy in China has evolved to bring about structural change in the economy. The state has played a crucial role in this process (Felipe et al, 2010; Gabriele, 2010; Heilmann, 2009; Kotz, 2005; Poon, 2009). China tried to emulate the Japanese/East Asian success in industrialisation in the late 1970s, to the extent that it invited Japanese, Korean and Singaporean experts to work in Chinese ministries in the 1980s,and it also sought technologies from abroad (Heilmann and Shih 2013).In the initial stages (1990-1996) the ICOR was as low as 1.95 and only after a certain time juncture did the ICOR rise to 3.9, implying that in the early stages a large number of workers were engaged for industrialising the country. China has been following the 'most effective use of the most abundant resource' approach for industrialisation and also promoting inclusion. Its industrialisation has been the most rapid in world's history.

At least four aspects in regard to Chinese industrial policy:

1.The government in close association with the industry (both public and private) has been closely navigating the economic development process on lines with other successful countries in East Asia.
2. There have been planned shifts in industrial policy from time to time to match with the changing market conditions and technological changes. In the process, the country has been able to indigenise technologies (reverse engineering) and increase national prowess in science technology.
3. In the initial phases the industry was labour intensive, which changed in the second phase towards relatively higher capital intensity (capital deepening), though it was not very high even in 2012 (Table 2).
4. While R&D investment in China is not high as in Taiwan or South Korea, it is still high at 2+% of the GDP and would lie within top 10% countries in the world in terms of percentage to GDP, and second highest in terms of absolute expenditure.

Seen from an HD perspective, the industrial policy created a very large number of non-farm jobs and diffused skills in the populace. Due to this inclusive strategy, poverty reduced rapidly (Figure 2). China presents a case of successful HD planning and falls in the category of high achievers in Asia.

Malaysia

Malaysia has had systematic public policy for balanced industrial development across sectors and has made harmonious progress towards achieving higher human development (Table 3). Flexible industrial policy is evident from this table, and coupled with synergy with the other pillars, it has yielded results.[12]

Table 3: Development Strategies: Thailand, Malaysia and Vietnam

Economy	Period	Development strategy	Industry/Export
(1)	(2)	(3)	(4)
Thailand	1960s-1970s	Import substitution, agriculture, mining	Agriculture, mining, construction
Malaysia		Agriculture, mining	Agriculture, mining, construction
Vietnam		Agriculture, mining and war effort	Agriculture, mining, construction, war infrastructure
Thailand	1970s-1980s	Export promotion and EPZs, investment protection, tax exemptions on investments, tourism, inviting foreign capital	Rice and commodities, tourism, machinery, basic metals, rubber, processed minerals, automotive industries (export promotion with import substitution strategy), Japanese –Thai Eastern Seaboard Development: Port, petrochemical, fertilisers, integrated steel complex
Malaysia		Import substitution + export promotion, EPZs, technological deepening, ASEAN integration, inviting foreign capital	Rubber, tin, iron ore, oil palm, timber, light manufacturing, tourism and travel, government linked corporations – Sime Derby (Bhd), Petronas
Vietnam		Export promotion, inviting foreign capital, Doi-moi, private sector promotion + war effort	Agriculture, heavy industries (meant to complement agriculture); Secondary sectors: commerce, construction, transport and services; Infrastructure: ports, roads, airports, telecom
Thailand	1990s-2010s	Export-drive, ASEAN +AFTA integration, technological	Construction, motor vehicles, transport industries, tourism, telecommunications

[12]Malaysia's expenditure on R&D is 1.13% of the GDP, which is above the developing country average of <1%.

		deepening, tourism	
Malaysia		Export-drive, ASEAN +AFTA integration, further technological deepening, construction, high-end services	Agriculture development: synthetic rubber, iron ore, Palm oil-bio-fuel; Electrical appliances and electronics
Vietnam		Export-driven, EPZs, ASEAN, inviting foreign capital	Construction, motor vehicles, transport industries, electrical appliances and electronics tourism, telecommunications
Source: Adapted from UNDP (2014)			

Seen from an HD perspective, the industrial policy, in the development process in Malaysia, created a large number of non-farm jobs and diffused skills among them, which rapidly promoted inclusion and reduced poverty dramatically (Figure 2). Malaysia as well, is a case of success and falls in first category of achievers.

THE MIDDLE RUNG COUNTRIES: COMPETENT PLANNING BUT CONSTRAINTS EXIST

Thailand and Vietnam

Thailand and the Philippines (along with Indonesia and Malaysia) were dubbed as the second group of Asian tigers after South Korea, Taiwan, Singapore and Hong Kong when they achieved very high growth rates over some 5-6 years in the late 1980s and early 1990s, until when the Asian Crisis of 1997 struck. Informally, Vietnam is now termed as a country likely to become a tiger economy in times to come. These countries have had industrial policies somewhat similar to each other and moulded to an extent on the East Asian success, though they lack the punch in terms of technological prowess and national capital compared to say, South Korea and Taiwan. Two cases of industrial policy, of Thailand and Vietnam are presented here to make a point.

Thailand has had a flexible industrial policy, changing from one decade to another and improving by the decade (Table 3). Compared to East Asia or even Malaysia, though, the science and technology component is yet not that strong here. Also, while there has been progress on agricultural development, it is again not strong enough to match the success in East Asia – the agrarian reforms were not too effective. The country has achieved some degree of inclusion and poverty reduction (Tables2 and 4, and Figure 2). In the ranking of countries in this paper thus, it should fall in the second category of achievers on HD.

Vietnam started late on industrialisation due to the war but has all along had an explicit industrial strategy within its development planning framework (Table 3). Even in the 1970s, it had implemented import substitution and export promotion strategies. The Doi Moi of 1986 was a carefully worked out strategy to open up the economy, attract foreign capital and transfer-in technologies. However, the long war and sanctions had/has retarded developing infrastructure and human capital, not creating conditions for really ‘taking-off’. It is a starter on science and technology and has relatively small industrial sector with little diversification. However, it is plugged to an extent with the other pillars and has achieved some degree of inclusion and poverty reduction (Tables 2 and 4, and Figure 2). Seen the light of the progress illustrated in agrarian reforms, the country qualifies to be in the second group in the HD ranking of countries in this paper.

POOR PLANNING, UNSUCCESSFUL RESULTS – THE 3RD TIER

India, South Asia and Others

India and South Asia are well known for planning and regulation of economic affairs, but strangely, the industrial policy of 1950s and all its versions until the 1980s were more regulatory than promotional. Since the 1990s, it has had a policy akin to the World Bank/IMF dispensation with the public sector to be privatised in time. The policy could be stated in the following points:

1. To promote a socialistic pattern in the society, the governments through the 1950s to 1980s—under a dominant public sector, manned by inefficient/hierarchical bureaucracies—invested heavily in heavy/capital intensive industries. All this effort ignored the notions of comparative advantage, factor endowments or demand patterns. The ICOR was and is very high (Table 2). Very few formal industrial jobs have been created and people outside agriculture subsist in low-paying informal work (Table 4).
2. A highly regulated private sector in terms of what to produce and in what quantities, where, and so on, was permitted to exist. They produced mainly for the local markets. This sector, in the absence of a clear promotional policy, never blossomed or reached a critical scale: in fact, there was a clear rivalry and mistrust between the public and private sectors, much to the disadvantage of industrial development (Das 1993).
3. A large number of consumer goods were reserved for the small industry sector irrespective of whether this sector could actually produce these efficiently (Basu, 2016; Jalan 1991).
4. For promoting science and technology a number of educational and research institutions were set up under the government, though most functioned as bureaucracies and were underfunded. They were also disconnected from the industry. On its part, the industry extensively borrowed/bought dated technologies from foreign companies and/or partnered with them for making products and processes, to be sold in captive local markets.
5. In the period since the 1990s and later, with the World Bank/IMF-type strategies in place, there has been some significant deindustrialisation in the country, and the sectors which have grown are the services – low-end/back office computer software development on the one hand, and human migration to different parts of the world as guest workers, on the other.

To worsen matters, there has been discontinuity—not smooth transition as in East Asia—in the policy structure every 5-10 years and also, no support to industrialisation from the other pillars, which have further thwarted long term planning and progress on industrialisation. The industrial policy has been exclusive of the larger populace; hence, unfriendly to human development.[13] The situation in much of South Asia is similar. Not surprising, other than Sri Lanka the major countries in South Asia fall in the low achievers' category. They are all characterised by informal employment on a large scale, and to a much greater extent than East Asian countries.

Table 4: Non-farm Informal Employment	
Country	% Workers in Informal Employment
(1)	(2)
China (2010, 6 cities)	32.99

[13] This typically implied, 'Capital goods production matters…. people do not'.

Thailand (2010)	42.30
Sri Lanka (2009)	62.12
Vietnam (2009)	68.19
Philippines (2008)	70.06
Indonesia (2009)	72.53
India (2009-2010)	83.59
Source: IMF, 2016, Regional Economic Outlook, Asia-Pacific, Chapter 4, at http://www.imf.org/external/pubs/ft/reo/2016/apd/eng/pdf/areo0516c4.pdf	

SUMMING UP

Countries which have successfully industrialised—irrespective of whether it is through the market- or a mixed public/private sector route—have had a carefully architectured and flexible industrial policy, enforced by the governments for strengthening those industries wherein the country has/had comparative advantage in terms of entrepreneurial maturity, scale, skills and competitiveness. Research and development has formed an integral part of the industrial policy and strategy. One key factor that has helped the whole process is partnership between entities: private sector, public sector, the state, academic/R&D institutions, and the like. In contrast, the unsuccessful ones have had a patchy industrial strategy, little partnership between the different entities, little if any R&D, corruption and cronyism.

The end result of strong industrial policies among the high-achievers was faster economic growth, led by industry, especially. By contrast, the South Asian countries achieved much slower economic growth. When they opened up after a long period of functioning as closed economies, they were just not ready – therefore, they suffered deindustrialisation. India has skipped the manufacturing stage, and has experienced faster growth in services – mostly of low quality; the result is poor inclusion and low human capital (see below). The synergy between growth, human capital and poverty reduction was not realised, quite in contrast to the East and Southeast Asian cases.

2.3. HUMAN CAPITAL[14]

The dual synergy model, which also traces linkages between education/health and economic development/poverty reduction, is a useful tool to compare experiences of countries.

COUNTRIES WITH POSITIVE OUTCOMES

China

Thereare several reasons why China managed to reduce poverty and gain on social indicators:

(1). China had universalised primary schooling by the end of seventies. Its literacy rate was 67% (79% male, 54.4% female) in 1981-82 (for 15+ year olds), which rose to 96% in2014.[15]This strengthened the synergies in Figure 1.
(2). The health policy in the 1950s until 1990s focussed a great deal on preventive and promotive health, especially in the rural areas. By the beginning of the 1980s, China was undergoing an epidemiological transition: prevalence of infectious diseases radically decreased, and infectious diseases such as polio nearly eradicated.

[14]A presentation on middle-tier countries is avoided here to cut repetition, as their outcome lie in-between the first and third.
[15]https://www.google.co.in/#q=adult+literacy+rate+in+china

Underweight, stunting and wasting among children were all down to <5% in 2009 compared to these being in double digits in the early 1990s [Hen (2008), Unicef (2013)]. There was a dramatic fall in infant mortality rate (IMR) as well, declining from 85in 1969 to 10in 2015. An important strategy in China was to train thousands of "barefoot doctors": 3-4 months of initial training, in addition to further annual training for upgrading their skills (Hsiao, 1995).
(3). Following from the human capital policy and investments, China's population growth began to slow in the 1980s to reach virtually a zero population growth in the 2011-2020 decade (see also, Hsiao, 1995). Better health and not coercion better explains the reduction in Total Fertility Rate (TFR) in China.
(4). While state expenditure data on education and health in China are not exactly comparable with other countries since their accounting methods are different, it is estimated that on expenditure on education has exceeded 5% of the GDP all along, and on health, about 3.5%. Rao (2016) notes that the numbers of PhD students in sciences in single university departments in China are in hundreds, and not in units or tens, as in India.[16]

South Korea

South Korea, a miracle country in terms of both economic and social development in recent decades, has been founded upon relatively equal distribution of assets/land, and government investment on education. Confucianism historically places great emphasis on the benefits of education; accordingly, the demand for education has always been high in Korean society. After independence in the mid-late 1940s and the Korean War in the early 1950s, educational facilities expanded rapidly with local communities providing facilities for schools and the US-supported military government covering about two thirds of operating costs, and also them providing teachers to replace the departing Japanese. By the early 1960s primary education was universal resulting in transition to secondary education, which too was mostly universal by about 1970. The government in South Korea spends some 7.6% of the GDP on education (2010 data), almost half of which is spent on higher (scientific) education.[17]The private sector and large companies also contribute extensively in higher education, especially in science.

The health sector received relatively less attention in Korea (government expenditure: ~2% of the GDP), though it was still higher than say, in India, Lao PDR or Cambodia). Despite this comparatively less attention, the health status improved: the IMR fell from 138 in 1950 to 38 in 1975, to about 5 in 2000, and <3 during 2010-2015, and the reason is the said synergy between the three pillars of Figure 1. Thus, when incomes and education improve rapidly, people adopt hygienic habits and also seek better health, even if they have to pay. Next, population control was a significant component of the government's growth strategy, and it worked, again due to the said synergy. With rapidly falling IMR, people chose to have smaller family sizes. People have also progressively opted for late marriages due to increased education and employment opportunities for women, in turn, limiting the number of children per woman. The labour force participation of women, which was 36.5% in 1965, rose to 40% in 1975, 47% in 1990, and exceeded 50% in 2014.[18]

[16]Rao CNR 2016, 25th Kelkar Memorial Lecture, June 27, 2016 (https://www.youtube.com/watch?v=jm_1HDIaO_I&feature=youtu.be)
[17] See Footnote 20, for reference.
[18] See for data, http://www.tradingeconomics.com/south-korea/labor-participation-rate-female-percent-of-female-population-ages-15-plus--wb-data.html

The state introduced compulsory medical insurance from 1976 onwards, which further provided a boost to people's health status.

Malaysia

Unlike the Republic of Korea, which has an ethnically homogenous population, Malaysia is an ethnically extremely diverse society. While the Malay stock forms a majority, the Chinese and Indian-Tamil population are significant in numbers and are an economically prosperous minority. At independence in 1957, the majority ethnic Malay population formed the peasantry, who were relatively backward in terms of their educational and health statuses and incomes.

At the time of independence primary education was mainly in the vernacular languages: in Chinese and Tamil for the two minority communities, respectively, and Islamic education for the Malay. The then government recognised that school education must be integral for improving the standards of living of the population in both rural and urban areas in introduced Bahasa Malay as the universal language. It launched a massive effort to unify the educational system and at the same time create an educational infrastructure to deliver education to the entire population, targeted especially at the rural population. By 1967, 91% of all primary school age children were enrolled in schools. The process involved a state-led standardisation of the school system – the curricula, syllabi, time tables, language(s) of instruction, organisation and funding of schools and teaching. *Bahasa* Malay became the medium for all, with other languages, including English, optional. As in 2009, the adult literacy rate was 95%, and primary school enrolment exceeded 99%, and some three-fourth of them moved to secondary education.

State expenditure on education exceeds 5% of GDP.[19]Next, the R&D expenditure was 1.13% of GDP in 2012, was less than the OECD average but was higher than the developing countries average.

Around 1957, some 70% of health services were concentrated in urban and semi-urban areas. For accessing health facilities, the rural population had to go to clinics in small towns and hospitals in large town(s): an arduous and expensive task. The government began to plan for health in the 1950s. Following from a study by the World Health Organisation, a National Rural Health Programme was formulated to correct the unequal distribution of health services. In 1960, the public health system was developed across the country, consisting of a three-tier structure: health centre, health sub-centre and midwife clinic. The government integrated health planning (along with educational planning) into the overall development planning for ensuring an appropriate apportioning of finances for building health and education facilities. It also located the Primary Health Care Units based on the size of the population to be served. The state spends about 4.3% of the GDP on health (2013 data from World Bank).[20]

Outcomes: IMR reduced from 67 in 1960 to 6 in 2015. All 100% population access safe drinking water and 96% access safe sanitation. Underweight children reduced

[19] See, Malaysia Education Blueprint 2013-2015, Government of Malaysia, Kuala Lumpur 2012
[20] See, http://www.tradingeconomics.com/malaysia/health-expenditure-total-percent-of-gdp-wb-data.html

from about 23% in 1991 to 12% in 2010-2012, and stunting reduced from 22% to 17% through 1999 to 2008-2012.[21]

THE THIRD TIER OF COUNTRIES

India (also applicable to most of South Asia minus Sri Lanka)

In India in the 1970s, the literacy rate was 43.6% (for 7+ year olds), which rose to only 52.2% literacy by the early 1990s. Some 40% Indian children could not actually read and write that that time. (China: ≤ 5%). The literacy rate reached about 65% in 2001 and 74% in 2011; rates significantly lower than those in all of East or Southeast Asia (Banerji and Duflo, 2011; ASER, 2012). The primary school enrolment exceeded 90% in 2014 but only some half reached upper primary school levels and less than a fifth completed 12 years of schooling. Those reaching university is a miniscule proportion.

State expenditure on education India never exceeded 3%. When the demand for more educational facilities became excessively large and the quantity and quality of these services (supply) did not improve, the gap was bridged by the private sector. However, this was expensive and also uneven in quality; hence, the real gap never got bridged. As in 2015, the ratio of government schools to private was 7:5 (42% private), and 360 universities out of 754, i.e. 48%, were private or under some trust management – a reflection of the state absolving its responsibilities.[22]

In health, India has had no comparable scheme of bare foot doctors of China or any other reach out system. Successive Indian governments have neglected rural areas and preventive health care; instead, they have permitted investments to grow in (specialised) curative care in the high-cost private sector, principally in urban areas. Also having mushroomed are small, specialised private providers, who are largely unregulated. The public health system simply did not have the wherewithal to cope with the disease burden (Rohde and Viswanathan, 1995).

State health expenditure as a proportion of GDP in India was among the lowest in the cross section of countries at 1.4% (2014 data); as a result, out of pocket expenditure accounts for 80% of total health expenditure in the country.

Some Outcomes:

1.The IMR in 2012 was at 38 (World Bank, 2015), higher than all of Asia other than Pakistan, Afghanistan, and Lao PDR.

2. The main nutritional intervention, Integrated Child Development Scheme (ICDS), although has existed since 1975, has complete coverage since about 2010 on, and suffered from poor design over its 40-year history.

3.Some 47% of all of India's children under five were underweight in 2006 according to the National Family Health Survey.

4. Population accessing safe water: 96% (2011); and safe sanitation: 35%.

There has been a gross lack of synergy between key basic services like preventive and preventive health, adequate nutrition, basic education, water and sanitation due to policy neglect. Low (quality) human capital stock is its direct outcome, resulting in high

[21]See for data, http://www.unicef.org/infobycountry/malaysia_statistics.html

[22] To make matters worse, the government provides land to private providers at highly subsidised prices for setting up facilities, but the providers charge full fees and reap huge profits. This holds true for all levels of education: school, college/university, technical or medical.

and sustained poverty. India's demographic transition too has been slow, owing to high TFR stemming from high IMR and overall poor education. The population grew from 350 million in 1947 to 700 million by 1981, and even in 2010-2011the population growth was 1.4%annually – an unaffordably high number.

The larger South Asian countries other than Sri Lanka have fared not too differently.

Lao PDR (outcomes generalised to Cambodia)

In Lao PDR and Cambodia both private and public sectors provide education. The primary level enrolment is 90+%. There are government primary schools in almost all villages, but the sufficiency of the supply stops there: schools are incomplete, teachers are untrained, there is informal fee, the education quality is poor, etc. Many prefer private schools for better quality despite them being expensive. In quantities, the numbers of lower secondary schools are a fourth of the number of primary schools, and upper secondary schools a tenth of the number of primary schools. The dropout, repetition and discontinuation in education after primary school are high owing to poor quality of schools, high private costs, distances to schools, and of course poverty. Of about 100 children joining Grade 1, only some 42 reach Grade 10.[23]

The health systems too have low access, high cost and low quality.[24]In 2015 there were some health-centres 985 in Laos and 1,020 in Cambodia (total villages: about 8,000 in Laos and 16,000 in Cambodia), most capable of rendering no more than *normal* birth delivery services (staffed by nurses, not doctors). Only big city hospitals are capable of conducting surgery. There is heavy urban bias.

Outcomes (Laos): Between 2001 and 2011, IMR reduced from 116 to 68 and Under5MR reduced from 146 to 79 (both high); stunted children: 27%, and underweight children: 45% (2010-2011); percentage population accessing safe water: 70% (2010-2011); and percentage population accessing safe sanitation: 59% (2010-2011).

Both Lao PDR and Cambodia's education and health depend on external donors. Each donor has a certain domain, model of dispensing health, and a time horizon. This creates a (disjointed) collage of health delivery mechanisms. Next, the private sector has been given a free role. Finally, the whole system is top-down (much like India); with the lowest levels receive the least.

SUMMING UP

Countries having shown success in human capital formation are the ones that have integrated it into the overall planning process and strengthened the synergies as in Figure 1. Their delivery mechanisms have inclusive, covering maximum areas and populations. The state expenditures on education have been in the range 5% of the GDP or more, and on health 2-3% or more. Finally, family planning has closely intertwined with reduction in IMR and such ratios, to make families adopt the small family norm rather than coerce them into adopting it.

[23] Source for education: National Human Development Report of 2016, UNDP Vientiane; NHDR 2016 Cambodia.

[24] Sources for health: GOL 2015, Report on 2013-2014 Plan Implementation, Department of Healthcare, Ministry of Health; GOL 2015, Report on Health Village Establishment 2013-2014, Department of Hygiene and Health Promotion, Ministry of Health; GOL (2016) National Socioeconomic Development Plan, Ministry of Planning, Vientiane; and http://www.la.one.un.org/sdgs/sdg-6-water-and-sanitation

3. AN HD-BASED PLANNING FRAMEWORK

THE PREMISE

The discussion until so far suggests the following:

(1). Countries which have achieved success have invested in human capital, have had a guided industrial policy, and these efforts have been preceded or accompanied by an (engineered) agrarian transformation process.
(2). The planning process has been coordinated on the three pillars in (1) above, such that there are synergies established between them to take the country forward.
(3). Planning has supplemented and complemented the market to help it grow. The state has assisted local entrepreneurs and industrial houses to mature (in terms of scale, skill and reach-out), for them to negotiate in international markets to their and the country's advantage.
(4). State expenditure on the human capital sectors has been in excess of 5-6% (education), and 3-4% (health); and skill formation has been in conjunction with the market/industry needs.
(5). There is strong partnership between the different partners: industry, government, academic and training institutions, international agencies, and all others.
(6). The planning process is flexible, in the sense that priority attached to industries and sectors, the R&D focus, etc. all change as per the changing times.

THE PLANNING PROCESS

There are three planning principles that seem common to the high achievers.

Planning Principle 1: For synergies to be realised in practice, actions on several fronts are needed; for example, progressive fiscal policies that are consistent with monetary policies to promote job-creating economic growth, income distribution and welfare policies to reduce poverty, good governance, investments in human capital, etc. In short, there is need for an integrated framework of several policies.

There are countries, which have achieved on the human capital scale but not economic growth (Sri Lanka), or those having achieved rapid growth in GDP but not income distribution or poverty alleviation (Philippines in the earlier years, Cambodia or Lao PDR now). This is because the relationship between economic growth, income-poverty (employment), and enhancement of education/health outcomes is a complex one, and also unique to each country setting. *Unless the growth process stems from a larger engagement of (an educated/skilled) populace and that they (the latter) also share the gains of this growth, the cycle presented in Figure 1 would not remain virtuous; eventually, development would remain stunted.* Thus, Sri Lanka has a large number of educated but low-skilled unemployed workers and no spectacular industrial growth, Lao PDR is critically dependent on exporting commodities with no deployment of its workers in modern activities, and the Philippines has been unable to consolidate its created wealth, which finds its way outside of the country. In either case, the synergy suggested in Figure 1 is not established.

Planning Principle 2: There is no single universal path to development. A path that the Soviets chose for development in the 1930s and 1940s, for example, need not have become a model of development for other countries in a later era. It is not surprising

that the Chinese chose a model of development significantly different from the Soviet one, and the Vietnamese chose a model closer to the Southeast Asian reality despite that itwas politically close to the Soviet Union. India, having chosen a Soviet-type industrialisation, did not go far. In the same sequence, it could be stated that a policy relevant at one time need not be relevant at another time. For example, the Korean or Chinese approaches to development and its developmental priorities changed almost every decade.[25]In other words, planners must first identify, and then engage directly with their own constraints within the synergy framework (Figure 1). If either the identification of constraints is inappropriate, or the policy to address those constraints is inadequate, there would be limited success.

Planning Principle 3: Itis often believed that labour-intensive technologies are inferior—they fall below the isoquant—and hence, would keep the industry at low productivity levels. This is not right. In reality, most products have an optimal level of factor combination and the real choice is about product combination. It is not surprising that East/Southeast Asian economies began with making garments, toys, and back-end simple assembly of mechanical/ electrical/ electronic products less than 30-40 years, before they embarked upon making other, more sophisticated products. At the earlier stage, thus, they were able to soak a large proportion of surplus labour from the agrarian sectors into the relatively productive sectors. Choice of technology is thus integrally tied to the choice a product.

Planning for development in an HD framework requires ensuring synergies between the three vertices of Figure 1. Next, planning requires being dynamic in the sense that priorities, strategies and public actions should change according to the changing environments and consolidation of gains. Additionally, the planning process should flexible and pragmatic—changing according to situations—and not led by a rigid ideology. Some key elements from our preceding account would be as follows:

The agrarian economy: Land/agrarian reforms, irrigation/drainage and water conservation, application of modern high-yield crop technologies, marketing of agricultural produce, credit to farmers, commercialisation of agriculture, and the like. Rapid productivity growth leads to rising incomes which generates rural demand for new manufactured consumer goods, first simple consumer goods, and later more sophisticated products.

Industrial policy: An industrial policy requires providing an environment for promoting industries in a direction where the country has or could develop comparative advantage. The policy is not expected to be merely a statement or one that identifies ‘yes’, and ‘no’ in regard to industrialisation; it is a full package of strategies, actions and executing agencies, with the private sector having a pivotal role.

Labour policy: This policy determines the labour requirement in the country by the required skills in a defined time frame, keeping in view the future growth in economic activities. Continuous training forms a part of a dynamic labour policy.

[25] See, Cha, Myung Soo (2004); and Myung Soo Cha, The Economic History of Korea (Yeungnam University) http://eh.net/encyclopedia/the-economic-history-of-korea/

Population policy: The main aim of this policy is to determine the extent to which the TFR is to be limited: in most Asian countries, the aim is to bring it down to two or less. For this, a containment of the infant mortality rate (IMR), female education, and their induction into the workforce are paramount.

Human capital:
Education and skills: All in the population must acquire at least 10 years of education as per the Sustainable Development Goals (SDGs).
Health: Different countries have different immediate targets in regard to health though the goals are the same – to achieve lower IMR/U5MR, increased longevity, and ensure a disease-free healthy populace.
Welfare: The need to extend welfare services varies widely across countries but their importance in sustaining human wellbeing.

A new concern may now be environmental conservation (though this was not the case in the earlier phase of development in the miracle economies of east and south east Asia

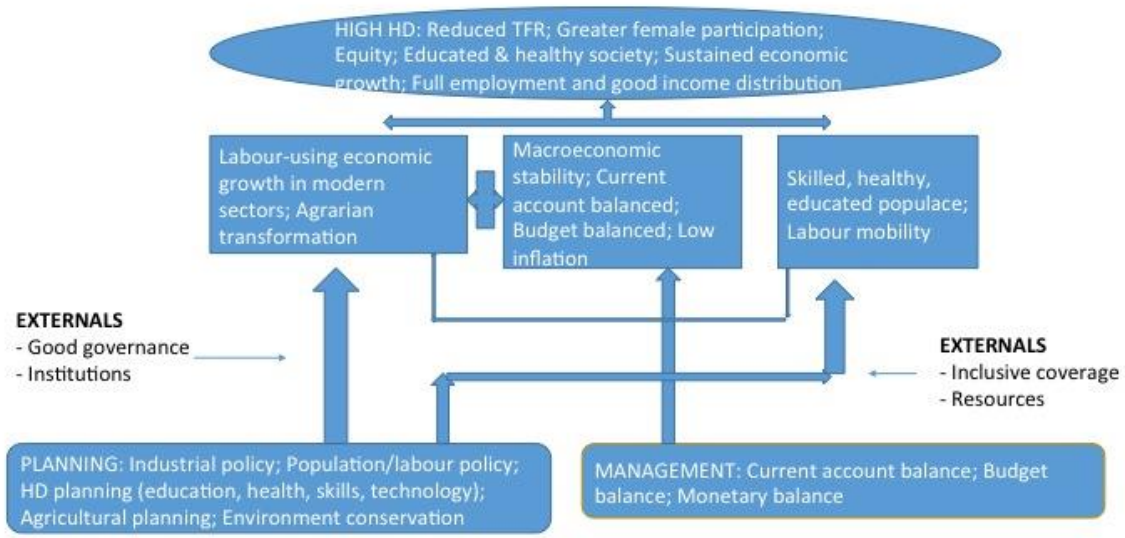
A simple diagrammatic representation of a possible HD-planning could be seen in Figure 3.

4. CONCLUSION

This paper makes a case for HD-based planning: a process where human capital (education, skills, health) and the economic sectors are integrated into a dynamic framework. Based on the development experiences of several successful and not so successful countries in Asia, it traces how investments in human capital and integration of human capital, industrial development and agrarian transformation, form synergies, to create meaningful results. It also traces the histories of countries that missed the opportunities of investing in human capital and developing the said synergies.

The main argument of the paper is that HD does not happen automatically through markets, as claimed by many: it has to be carefully nurtured through government interventions.

Figure 3: A Schema on Planning for HD



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