CHAPTER

20

PREPARING FOR THE DEMOGRAPHIC DIVIDEND

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*India is a glaring example of demographic dilemma–while rate of population growth is a matter of concern at one hand, at the other it also unfolds opportunity because children and youth account for a large share of this growth. It is an advantage for India now because the country is entering the demographic dividend phase while China is exiting it–demographic dividend refers to a period, usually, 20 to 30 years, when a greater proportion of people are young and in the working age-group. This cuts spending on dependants, spurring economic growth. India hopes that by the time this dividend phase ends around 2045, it would have achieved a stable and balanced population.**

* See different reports of the United Nations Population Fund, United Nations Children's Fund together with the Economic Surveys of 2010-11 to 2014-15.

INTRODUCTION

As the developed world is in the process of greying and are heading for a crunch in the 'working population', nations with growing population in the working age-group see this as an opportunity to employ their surplus manpower in there nations. In case of India, the situation has been considered to be highly favourable by international as well as Indian experts. But these are mere aspirations. To reap real diridends, we need to provide the required 'quality' to the quantity of our population. We need to strengthen our human resource development capabilities keeping in mind the future requirements. Only then the dividend of demography will be in India's favour.

The *Economic Survey 2012–13*, on the India's prospects of garnering demographic dividend, says, "Policymakers are usually focused on short-run economic management issues. But the short run has to be a bridge to the long run. The central long-run question facing India is 'Where will good jobs come from?' Productive jobs are vital for growth. And a good job is the best form of inclusion. More than half our population depends on agriculture, but the experience of other countries suggests that the number of people dependent on agriculture will have to shrink for per capita incomes in agriculture to go up substantially. While industry is creating jobs, too many such jobs are low productivity non-contractual jobs in the unorganized sector, offering low incomes, little protection, and no benefits. Service jobs have relatively high productivity, but employment growth in services has been slow in recent years. India's challenge is to create the conditions for faster growth of productive jobs outside agriculture, especially in organised manufacturing and services, besides improving productivity in agriculture. The benefit of rising to the challenge is decades of strong inclusive growth".

OPTIMISM VS PESSIMISM

Experts with optimistic views are confident in India's demographic dividend because of the fact that India's dependency ratio, as measured by the share of the young and the elderly as a fraction of the population, will come down more sharply in the coming decades. More working age people will mean more workers, especially in the productive age groups, more incomes, more savings, more capital per worker, and more growth. Also, because demographic change is associated with fertility declines, the transition period may be accompanied by greater female participation in the labour force [1].

As per the IMF, every fast-growing Asian economy in recent years has accelerated as it underwent a demographic transition. In India[2] itself, the high growth states (Tamil Nadu, Karnataka, and Gujarat) in the period 1991–2001 had a dependency ratio which was 8.7 percentage points lower than that of the low growth states (Bihar, Madhya Pradesh, and Uttar Pradesh) and an average annual growth rate that was 4.3 percentage points higher. Looking ahead, the low growth states will benefit more from the demographic dividend, as higher incomes and lower fertility alter demographics. Indeed, over the period 2001–11, the hitherto laggard states have grown at an average of around 5 per cent annually. The difference between their growth and that of the leaders in the period 2001–11 is just 1.5 percentage. So demographic transition seems to be correlated with growth, with some

1. Bailey, M.J. (2006), ***'More Power to the Pill: The Impact of Contraceptive Freedom on Women's Life Cycle Labor Supply', Quarterly Journal of Economics,*** No. 121, pp. 289–320.
2. S. Aiyar and A. Mody (2011), ***'The Demographic Dividend: Evidence from the Indian States'***, IMF Working Paper 11/38, Feb. 2011.

reasons to believe that causality flows both ways i.e., lower dependency ratios increase growth and higher growth reduces fertility and consequently dependency ratios.

These optimists point to another reason for cheer. Cross-country evidence suggest that productivity is an increasing function of age, with the age group 40–49 being the most productive because of work experience[3]. Nearly half the additions to the Indian labour force over the period 2011–30 will be in the age group 30–49, even while the share of this group in China, Korea, and the United States will be declining. That India will be expanding its most productive cohorts even while most developed countries and some developing countries like China will be contracting theirs in the coming decades can be another source of advantage.

However, the as pessimists are not convinced. A larger workforce translates into more workers only if there are productive jobs for it. Will there be enough productive jobs? One way to make progress in answering this question is to understand the commonalities as well as the differences between India's growth path and that of other populous fast growing Asian economies. By comparing where India is today, with where those countries were at similar stages in their development, as well as by looking at what they did next, we might get a better perspective on what India might need to do. Of course, any such analysis has to be accompanied by two important caveats—

(i) First, countries differ and do not necessarily follow similar trajectories;

(ii) Second, the global environment has changed.

The opportunities India faces now are different from those that previous fast growers faced when they were at a similar stage of development. Thus, blindly replicating their trajectory may be unwise.[4]

COMPARING GROWTH AND TRADE

If we analyse the various economic outcomes for selected Asian countries around their dates of initial 'takeoff' into periods of high growth, we identify the year of takeoff for comparator Asian countries based on IMF (2006)[5] the dates are 1979, 1973, and 1967 for China, Indonesia, and Korea respectively. For India, taking the year of takeoff as 1991, when major economic reforms began, the following narrative is clear as given below:

(i) India was growing at similar rates as other Asian economies before takeoff. After takeoff, it kept pace with Indonesia, but China and Korea grew faster.

(ii) Setting date 0 as the year the country's per capita GDP in 2000 US dollars, crossed $500;

(iii) By the time India's dependency ratio falls below 40 per cent, China's growth is more robust under both these alternatives, while India's matches that of Indonesia.

(iv) Korea's trajectory is similar to India's in the initial years after takeoff, though after 10 years the slope of its trajectory increases steeply.

3. Feyrer, J. (2007), ***'Demographics and Productivity',*** Review of Economics and Statistics, No. 89 (1), pp.100-109.

4. As is suggested by the ***Economic Survey 2012-13,*** MoF, GoI, p. 27

5. IMF (2006) defines the takeoff date for China as the year when major economic reforms began. For Newly Industrialized Economies (which includes Korea) and for ASEAN-4 (which includes Indonesia), the date is defined as the year when the 3-year moving average of constant price export growth first exceeded 10 per cent. Takeoff year 0 is defined as the year the country's per capita income crossed $500. The takeoff years are defined as 1993, 2003, 1988, and 1951 for China, India, Indonesia, and Korea respectively. Per capita income is measured by GDP per capita in 2000 US dollars. Takeoff year 0 is defined as 1979, 1991, 1973, and 1967 for China, India, Indonesia, and Korea respectively. Per capita income is measured by GDP per capita in 2000 US dollars. *Sources* : ***World Bank (2012)*** and calculations of the ***Economic Survey 2012-13.***

(v) By plotting an index of a country's share of world trade, with year 0 based on our first takeoff definition (1979, 1973, 1967, and 1991 for China, Indonesia, Korea, and India respectively). interestingly, India's growth in its share of world trade is similar to China's and greater than Indonesia's at similar periods after takeoff. India's openness is also evidenced by the trade to GDP ratio, which exceeded 55 per cent in 2011. By contrast, this ratio is only 31 per cent for the United States.

(vi) The takeaway from the evidence examined so far is that India's growth performance has been similar to that of some of the fast-growing Asian economies at similar stages after takeoff, but not as spectacular as China's. Interestingly, despite being seen as a trade laggard, India has grown more open to trade at about China's pace.

SOURCES OF GROWTH

For knowing the edge India has in garnering 'demographic dividend', a comaprision with the other Asian economies in the area of ***sources of growth*** will serve the purpose.

(i) Growth in per capita income is driven by growth in labour productivity (what the average worker produces), growth in working age population (fewer the people who are in the dependent age group in the population, greater the output), growth in the fraction of those who can work and that actually look for work (labour force participation rate), and growth in those looking for work who actually find it (employment rate).

(ii) Because accurate employment data are hard to find for developing countries, studies typically ignore the employment rate in decomposing the sources of growth. A decomposition of per capita income growth during the 20 years after takeoff suggests that across countries, much of the increase in per capita income comes from greater labour productivity.

(iii) Interestingly, except for Korea, **LFP**[6] (labour force participation) has fallen on an average annual basis, so it subtracts from growth.

(iv) Finally, the increase in the share of WAP (working age population) seems to add only a little to growth.

(v) Since the increase in working age population is what we call the demographic dividend, the fact that it contributes so little to growth (on average, 0.5 percentage points for India in the 20 years since 1991) may seem a puzzle.

The puzzle can be solved this way – the increase in the fraction of people working is probably not the main consequence of the demographic dividend. Instead, the effects of the demographic dividend are channelled through the increase in labour productivity, which comes from more physical capital employed per worker (in turn resulting from greater saving and investment), more human capital per worker (which comes from more education as smaller families lead to greater spending on education per child), and greater **TFP** (total factor productivity).[7]

6. LFP is a measure of the active portion of an economy's labor force. It refers to the number of people who are either employed or are actively looking for work. The number of people who are no longer actively searching for work would not be included in the participation rate. During recession many workers often get discouraged and stop looking for employment that is why the participation rate decreases.

7. TFP measures how productive the job intrinsically is, capturing aspects such as the technology used, efficiency with which the work is carried out, and use of hard-to-measure aspects of work such as tacit knowledge, organisational capabilities, and trust.

Therefore, it is useful to see how much each of these factors contributed to labour productivity. Better *human capital* accounts for only a small part of the growth in labour productivity for Asian fast growers. Instead, the two biggest contributors are the growth in capital deployed per worker and growth in TFP. Indonesia and Korea relied much more on capital deepening. India did not have as much growth in capital per worker as these countries but had stronger growth in TFP. Finally, China grew both because of more capital deployed as well as strong increases in TFP.

Quite interestingly, in the years beyond the 20th year after takeoff which India is now entering, capital deepening slowed for both Indonesia and Korea but it increased for China. More interestingly, TFP slipped considerably for Indonesia and was not large for Korea to begin with. However, it increased for China.

Precisely speaking, the underpinnings for continued strong Chinese growth in the years beyond the second decade after takeoff are a robust investment rate as well as substantial increases in the intrinsic productivity of jobs. If India were to follow a similar path, it would need to increase savings and investment, both of which will follow from the demographic transformation. But it will also have to increase the intrinsic productivity of jobs, that is TFP.

IMF *(World Economic Outlook-2006, 'Asia Rising: Patterns of Economic Development and Growth', Chapter 3)* suggests that a significant portion of China's increase in TFP has come as workers migrate from low-productivity sectors like agriculture to high-productivity sectors like manufacturing. What lies ahead for India? A recent **study**[8] says that LFP in agriculture is very low but it employs over half the labour force. In contrast, financial and brokerage services are the most productive sector, in the economy, but employ a tiny share of the labour force.

LABOUR PRODUCTIVITY & ITS REALLOCATION

IMF (2006) suggests that a significant portion of China's increase in TFP has come as workers migrate from low-productivity sectors like agriculture to high-productivity sectors like manufacturing. What lies ahead for India? That so many continue to be dependent on agriculture is one reason that the government has focused on improving productivity in agriculture, even while attempting to support incomes of both farmers and workers through various programmes. Agricultural productivity remains low probably because too many agricultural workers work with relatively fixed and limited amounts of productive assets i.e., land and capital (irrigation, technology, tractors, machinery, and the like). One way to increase labour productivity, therefore, is to increase investment (and thus capital per employee) across all sectors, including agriculture.[9]

An equally effective way of increasing labor productivity might be to increase TFP by moving some of those dependent on low-productivity agriculture to higher-productivity jobs in industry or services. This would also allow those who remain in agriculture to farm larger, more viable plots, employing more mechanised equipment to improve labour productivity. Clearly, more investment in worker-receiving sectors will be needed to keep up the capital per employee, but the typically greater TFP in those sectors will also mean much greater output per capita. Continuing

8. R. Hasan, D. Mitra, and A. Sundaram , 'What Explains the High Capital Intensity of Indian Manufacturing?' ***Indian Growth and Development Review,*** *2012.*
9. R. Hasan, K. Robert, and L. Jandoc, ***Labor Regulations and the Firm Size Distribution in Indian Manufacturing,*** Columbia Program on Indian Economic Policies, Working Paper No. 2012–13, 2012.

reallocation of workers out of low-productivity sectors into higher-productivity sectors is akin to increasing TFP and can therefore be a growth engine.[10]

What has been the situation of **workers' reallocation in India**? By plotting sectoral shares of employment and shares of value added in the years since takeoff the following situation has been shown by the **World Bank** *(World Development Indicators, July 2012)*:

Situation in ***Agriculture*** sector—

(i) India certainly has a bigger share of employment in agriculture today than the other Asian countries, but perhaps only because it has not had as many years since takeoff.

(ii) Employment share and value added share in agriculture in India is coming down at a similar pace as in the other Asian economies (though Korea seems to have a lower share of people in agriculture).

(iii) Extrapolating into the future, if India followed China's or Indonesia's path, about a 10 percentage point share of overall employment would move out of agriculture in the next 10 years, bringing the share of employment in agriculture down to about 40 per cent.

In sector ***Industry***, greater differences are seen—

(i) While the growth in India's share of employment in industry seems to be on par with the growth of other Asian economies at similar stages (with the exception of Korea), the surprising fact is that India's share of value added in industry has not grown to keep pace with its share of employment,basically, it has fallen.

(ii) Contrast this picture with China's where the share of value added in industry has always been very high relative to its share of employment, or Indonesia's and Korea's where the share of value added has kept increasing as the share of employment has increased (e.g., for Indonesia) or even decreased (e.g., for Korea).

(iii) The alarming conclusion is that while workers are being added to industry in India, the productivity of the jobs they are going into has not been high. In part, this is because the data we work with treats low-productivity construction as a part of industry, and the booming construction sector has accounted for a large share of the jobs created in industry.

(iv) However, an additional problem is that few of the jobs in industry are formal or being created by the comparatively more productive large firms.

The ***Services*** sector show another typical trait—

(i) While the share of employment in services has been growing very slowly, the share of value added is significantly higher than in other Asian economies.

(ii) China has a similar share of employment in services at a similar time from takeoff even though its share of value added is much lower.

(iii) A big factor in India's larger services share is that services started out at the time of take-off with a much larger share, but growth has also been strong.

Several finer points suggested by these sectoral pictures across countries:

(i) Unlike the conventional wisdom, India does not have more people in agriculture

10. M. Bosworth and S. M. Collins, ***'The Empirics of Growth: An Update'***, Brookings Papers on Economic Activity, 2003.

than other Asian countries at similar stages of development and the share of workers dependent on agriculture has been shrinking at a similar pace.

(i) However, the pace of shrinkage is set to increase if India is to follow the trajectory of these other countries.

(ii) One problem is that while industry is creating jobs, these have been relatively low-productivity jobs. As a result, per capita income in India has not benefited as much from inter-sectoral migration of workers out of agriculture as other Asian countries have.

(iii) A second problem is that the high-productivity services sector is not able to create employment commensurate with its growth in value added.

CHANCES OF MISSING JOBS

There is a clear transition of workers out of agriculture if we follow the path of other Asian countries. In addition, the demographic dividend will ensure more workers joining the labour force. How many workers will industry and services have to absorb in the next decade? How many will they absorb if they continue creating jobs as they have in the past? Could the demographic dividend turn into a demographic curse as some have argued? These questions may be answered taking clues from World Bank's *World Development Indicators-2012* and UN Population Division's *Revision of World Population Prospects-2010:*

(i) Assuming that employment in industry and services will grow during 2010-20 at the same rate as during the previous decade the share of employment in agriculture will fall to 40 per cent by 2020 (the same level as that of China in 2010). Population in the working age group will grow based on projections by the UN Population Division.

(ii) Assuming the labour force participation rate and the unemployment rate to be unchanged at 2010 levels, 2.8 million jobs will be missing by 2020.

(iii) To put this in perspective, this will only be 0.5 per cent of the labour force. While any shortfall in jobs is problematic, there does not seem an immediate cause for alarm.

There are a large number of assumptions which go into this estimate. For instance, labour force participation is pegged at the 56 per cent rate, the same as in 2010. If instead, more women enter the labour force, reversing the declining trend since 2000, the labour force participation rate could plausibly increase to 58 per cent by 2020. This is lower than the 60 per cent rate in 2000, but even with this conservative assumption, the number of missing jobs increases to 16.7 million, roughly six times that in the baseline scenario, and 3.7 per cent of overall employment in 2010. Finally, if the official unemployment is projected to decrease, say by 2 percentage points, over the next decade, again that would imply the need to employ a larger number of workers. The number of *missing jobs* in 2020 under this higher expected employment scenario is estimated at 11.8 million or four times that in the baseline scenario.

The back-of-the-envelope calculations done above should be taken as just starting point for more careful investigation. While a simple extrapolation of existing trends suggests India can absorb the labour exiting agriculture even if exits increase to the level experienced by China, there is no room for complacency. Minor changes in assumptions lead to tens of millions of additional jobs needed. So even while policymakers focus on making jobs more productive, India also needs more jobs than suggested by current trends so as to have a sufficient buffer.

REASONS BEHIND LESS CREATIVE JOBS

India's policies have created such a situation that too many small firms stay small and unproductive and are not allowed graceful close down. Too many large profitable firms/bisinesses prefer relying on temporary contract labour and machines than on training workers for longer-term jobs. We may visit the problem through two routes:

(i) Impediments to Business Growth

(ii) Labour Regulations

I. IMPEDIMENTS TO BUSINESS GROWTH

As a group, it is estimated that micro, small, and medium enterprises (MSMEs)[11] employ 81 million people in 36 million units across the country.[12] Yet, many of these firms are unable to grow and/or even shut down. As per a recent study,[13] as compared to surviving small firms in the United States which grow spectacularly, surviving small firms in Mexico grow moderately, while surviving small firms in India shrink. Productivity is commensurately lower in India. Indeed, within the MSME group, there is a strong concentration of small enterprises and near non-existence of medium enterprises. And that is the real challenge of the MSME sector—to be able to not just start up, but also continue to grow, thereby becoming a source of sustainable jobs and value creation.

Too many firms in India stay small, unregistered, unincorporated, largely informal, or in the unorganised sector because they can avoid regulations and taxes. These firms have little incentive to invest in upgrading skills of largely temporary workers or in investing in capital equipment that could bring them into the tax net, so their productivity stays low. Low productivity gives them little incentive to grow, completing the vicious circle. These firms face some of the key challenges while starting up and at every level of growth.

REGULATORY ENVIRONMENT

The regulatory environment plays an important role in the lifecycle (birth, growth, and death) of MSMEs. We may cite few glaring comparative examples from some sources:

1. As per the **World Bank's** *'Doing Business: Measuring Business Regulations', 2013'*–
   (a) India ranks 132 out of 185 countries in ease of doing business,
   (b) Starting a business where India ranks 173, takes about 12 procedures, 27 days, and a paid up capital of 140 per cent of per capita income.
   (c) By contrast, it takes only 7 procedures, 19 days, and 18 per cent of per capita income on average for our neighbours in South Asia.
   (d) After getting done with the ***initial procedures***, entrepreneurs have to obtain a number of clearances when applying for building/occupancy permits and utility connections. These require separate visits to various authorities whose employees often inspect the site.
   (e) It takes as long as 1.5 months to obtain an electricity connection in 7 out of the 17 benchmarked Indian

11. The criterion of investment in plant and machinery is used to categorize MSMEs—micro enterprises have investment ceiling of 25 lakh, small enterprises of 5 crore, and medium enterprises of 10 crore.
12. These data are from the Ministry of Micro, Small, and Medium Enterprises and include registered and unregistered units across manufacturing and services (including wholesale/retail trade, legal, educational, and social services, hotels and restaurants, transport, and storage and warehousing).
13. C. Hsieh and P. J. Klenow, ***'The Life Cycle of Plants in India and Mexico'***, Chicago Booth Research Working Paper No. 11-38, 2011.

cities. Many processes especially at state level remain complex, forcing companies to hire a consultant, thereby adding to the costs.

(ii) An easier ***process of exit*** is needed for the MSME, which can quicken and simplify the process of resolving the claims of workers and financiers so that the assets of the failed firm can be put to better use. According to *World Bank's 'Doing Business in India, 2009'* —

(a) Across 17 Indian cities, the insolvency process takes on average 7.9 years, costs 8.6 per cent of the estate value (mostly due to attorney fees, newspaper publication costs, liquidator's fees, and preservation costs), and the recovery rate is only 13.7 per cent.

(b) The process is slower even than in other South Asian countries where, in the same year, it took on average five years and creditors could expect to recover on average 19.9 per cent.

(c) Low asset recovery in failed firms feeds into lower levels of financing for Indian MSMEs.

The government has tried to compensate for some of these impediments by offering MSMEs incentives and concessions. But schemes and interventions based on tightly defined classifications create an incentive structure that might prevent firms from growing. Service tax exemptions for firms with less than Rs 10 lakh revenue and exemption from central excise duty for firms with an annual turnover of less than Rs 1.5 crore are examples of these schemes. The jump from 'small' to 'medium' enterprise especially entails loss of several perks.

(iii) However, there are, also many good practices and regulations strewn over different cities of India, which, if standardised and adopted across the country, can improve the business climate enormously. The *World Bank's 'Doing Business in India, 2009'* has shown that if a hypothetical city called 'Indiana' were to adopt best practices found in several benchmarked cities (e.g. lowering number of procedures to start business to Patna levels, days to start a business to Mumbai levels, procedures around construction permits to Ahmedabad levels, days to enforce a contract to Guwahati levels, and recovery rate for closing a business to Hyderabad levels), it would rank a much improved 67 out of the 181 economies measured.

DIFFICULT FUNDING

Indian banks and financial institutions are wary of lending to MSMEs because they lack adequate credit histories or collateral. A cluster-centric approach is one way of addressing this because it reduces transactions costs for the lender, while repeated interactions for a lender with cluster members increases the scope for building trust. While there have been efforts to facilitate these, their coverage is still small. Schemes such as credit guarantees by the Small Industry Development Board of India (SIDBI) have been useful, but there are gaps.

The presence of *Angel investors*, *venture capital funds*, and *impact investors* are still at a nascent stage and small compared to global peers. Most of these investments are biased towards services, especially technology and e-commerce. Government funds (through grants and seed funding programmes such as Technopreneur Promotion Programme and Technology Development Board) are often

available after extensive paperwork and slow processing. Moreover, the experience from other countries is that new venture finance is often an activity better left to the private sector, with the government facilitating the way or piggy-backing on private funding rather than actually taking the lead.

To the extent large banks are concerned, with remote central offices they tend to have bureaucratic procedures for loan approvals, and limit discretionary authority for branch officers. As a result, small and medium enterprises, which tend to have short and largely informal track records, find it hard to fulfil the norms for obtaining credit.[14] Moreover, conversations with bankers and business people suggest that large banks exert less effort in trying to help a small troubled firm than they would a larger client. As a result, in countries with more varied banking systems, small firms tend to migrate to smaller banks for assistance.[15] Better funding to MSMEs can happen with the presence of more small local banks in India.

A vibrant *corporate bond market* could serve more in this scenario. Even then the MSMEs will not be able to issue bonds, but as large firms will migrate to the 'bond route' (as they are typically cheaper) it will make space on the bank balance sheets for MSME loans.

Lack of Quality Infrastructure

The lack of quality infrastructure (roads, utilities, real estate, logistics) increases transaction costs disproportionately for MSMEs which typically cannot create customised alternatives such as access roads and captive power plants which larger firms can. Absence of this supporting infrastructure causes *greater cash burn* and distraction of management from core business operations. One constraint in creating infrastructure or setting up businesses is **land acquisition**. A number of reforms are needed or are on the anvil (see the next sub-title *'Land Reforms'*) to ensure that land is less of an impediment to growth.

Land Reforms

Land is probably the single most valuable asset in the country today. Not only could greater liquidity for land allow more resources to be redeployed efficiently in agriculture, it could ease the way for land-utilising businesses to set up. Perhaps as important, it could allow land to serve as collateral for credit. Three important steps are needed regarding it[16]:

(i) to map land carefully and assign conclusive title,

(ii) to facilitate land leasing, and

(iii) to create a fair but speedy process of land acquisition for public purposes.

The National Land Records Modernisation Programme (NLRMP), started in 2008, aims at updating and digitising land records by the end of the Twelfth Plan. Eventually, the intent is to move from *presumptive title* (where registration of a title does not imply the owner's title is legally valid) to *conclusive title* (where it does). Important points related to this process may be summarised as follows:

(i) Digitisation will help enormously in lowering the costs of land transactions, while conclusive title will eliminate legal uncertainty and the need to use the government as an intermediary for

14. Allen Berger, Nathan Miller, Mitchell Petersen, Raghuram Rajan, and Jeremy Stein (2005***), 'Does Function Follow Organisational Form? Evidence from the Lending Practices of Large and Small Banks' Journal of Financial Economics***,76: 237–69.

15. Ibid.

16. ***Economic Survey 2012–13,*** MoF, GoI, p. 40

acquiring land so as to 'cleanse' title.

(ii) Given the importance of this programme, its rollout in various states needs to be accelerated. Easier and quicker land transactions will especially help small and medium enterprises that do not have the legal support or the management capacity that large enterprises have.

(iii) Prohibitory *land leasing norms* raises the cost to rural-urban migration as villagers are unable to lease their land, and often have to leave the land untilled or leave a family member behind to work the land. Lifting these restrictions can help the landless (or more efficient landowners) get land from those who migrate, even while it will allow landowners with education and skills to move to industry or services.

(iv) Compulsory registration of leaseholds and of the owner's title would provide tenants and landowners protection.

(v) Of course, for such a leasing market to take off, owners should be confident that longterm tenancy would not lead to their losing ownership. With a vibrant leasing market, and clear title, there should be little reason for not strengthening ownership rights.

(vi) For large projects with a public purpose, such as the proposed National Industrial and Manufacturing Zones, which will facilitate the setting up of small and medium enterprises, large-scale land acquisition may be necessary.

(vii) Given that the people currently living on the identified land will suffer significant costs including the loss of property and livelihoods, a balance has to be drawn between the need for economic growth and the costs imposed on the displaced.

(viii) The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Bill 2011, currently before Parliament, attempts to draw such a balance. As experience is gained with large-scale land acquisition, the institutions set up by the bill can be fine-tuned to achieve its aims.

(ix) Finally, encouragement needs to be given to land readjustment schemes, where when an area is identified for development, owners participate by giving up some of their land for infrastructure creation, but get back the rest, with the benefit that its value is enhanced by the infrastructure. Small and medium enterprise clusters can benefit especially from such schemes.

(x) Given that large-scale land acquisition is still at a nascent stage, central schemes should allow room for states to experiment and should be modified, the light of the experince of states.

This measure will also create a conducive environment for 'corporate' and 'contract' farming which is not picking up due to absence of a proper 'land-leasing' norm in the agriculture sector. But then the 'labour law' reform will also be needed which will benefit the business and industries, too.

The major **non-labour impediments** for a small business to become formal and grow large, as well as some steps the government is taking have been highlighted here, there is evidence that these constraints affect industrial performance. After classifying industries according to their intensity of use of infrastructure, or dependence on external finance, it has been found out:[17]

17. P. Gupta, R. Hasan, and U. Kumar, ***'Big Reforms but Small Payoffs: Explaining the Weak Record of Growth in Indian Manufacturing'***, in S. Bery, B. Bosworth, and A. Panagariya (eds.), ***India Policy Forum***, Vol. 5, Sage Publications, Delhi, 2008, pp. 59-108

(i) that post delicensing, industries more dependent on infrastructure, grew less as compared to industries which are not as dependent on infrastructure; and

(ii) the gain in manufacturing-sector output in these industries has been especially small in states with inferior infrastructure.

(iii) that industries more dependent on external finance have witnessed slower growth as opposed to those less dependent on external finance, and have fared much worse in terms of new factories, employment generation, as well as new investment.

Therefore, there is need to take steps for improving infrastructure, access to finance, as well as the overall business environment. It is hoped that massive infrastructure projects like the ***DMIC*** (Delhi-Mumbai Industrial Corridor) will provide relatively light regulation, and heavy infrastructure, where businesses have easy access to the land they need and workers can live in a safe healthy township (see the next sub-title *'The DMIC'*).

THE DMIC

Conceived by the Ministry of Economy, Trade and Industry (METI) of Japan and the Ministry of Commerce and Industry (MoCI) of India, the DMIC seen as an example of India's 'Integrated Approach to Industrial Growth and Development'. This is being developed by the Government of India with a view to using the high-capacity western Dedicated Freight Corridor as a backbone **for creating** a global manufacturing and investment destination. The project seeks to develop a series of futuristic infrastructure-endowed smart industrial cities that can compete with the best international manufacturing and industrial regions. The *master plan* has a vision for 24 manufacturing cities. Potential production sectors include general manufacturing, IT/ ITES components, electronics, agro and food processing, heavy engineering, pharmaceuticals, biotechnology, and services. Total investment is pegged at $90 billion. ***Special features*** [18] of the the Project are as given below :

Possible Socio-economic Impact: Its Influence Area of 436,486 sq. km is about 13.8 per cent of India's geographical area. It extends over seven states and two union territories, viz., Delhi, Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat, Maharashtra, Daman and Diu, and Dadra and Nagar Haveli. Around 17 per cent of the country's total population will be affected. The project goals are to double employment potential in 7 years, triple industrial output in sector on a sustained basis over next three years.

Urban Governance: Its innovative urban governance framework corporatises the urbanisation process. The central government will create a corpus fund, the 'DMIC Project Implementation Revolving Fund', as a trust administered by a board of trustees. The fund will contribute debt and equity to the SPVs (Special Purpose Vehicles) on a case-by-case basis. Land will be made available by the state government. The city SPVs will be vested with the responsibilities of planning and development and the power to levy user fees. The SPVs are to be companies under the Companies Act. The valuation increases from urbanisation and development will accrue to the city-level SPVs, and will be reinvested in the cities. The initial construction of the cities will be done through project managers with global experience, who will control, monitor, review, and supervise the detailed engineering.

18. Presented by the ***Economic Survey 2012-13,*** MoF, GoI, p. 41 with inputs coming from Amitabh Kant, CEO & MD and Abhishek Chaudhary, Vice-President, DMIC Development Corporation Limited.

Financing: Its trunk (basic) infrastructure is unlikely to be commercially viable that is why it would require government funding. Such internal infrastructure projects include land improvement, road works, earthworks, sewerage, storm water drainage, flood management, and solid waste management. Once such infrastructure is in place, the subsequent additions to the cities will be commercially viable and can be implemented through public private partnerships (PPPs). For major infrastructure activities such as power plants, integrated townships, and highways, PPP projects are planned. Various sources of funding have been planned as multilateral, bilateral, and domestic government.

Physical Infrastructure: The Multi-modal High Axle Load Dedicated Freight Corridor (DFC), 'a high-capacity railway system', is at the heart of the infrastructure. It will cover 1,483 km and will have nine junction stations along which other railroad networks will connect allowing the system to extend its reach across a wide area. Other infrastructure plans include logistic hubs, feeder roads, power generation facilities, up-gradation of existing ports and airports, developing greenfield ports, environment protection mechanisms, and social infrastructure.

Industrial Infrastructure: It seeks to upgrade existing industrial clusters and also develop new industrial facilities—to be developed on the concept of 'node-based development', based on Investment Regions (IRs) and Industrial Areas (IAs). These are proposed as self-sustaining industrial townships with world-class infrastructure including domestic/international air connectivity, reliable power, and competitive business environment. IRs will have a minimum area of 200 sq. km. and IAs 100 sq. km. In all 24 manufacturing cities (IRs and IAs) are planned. Seven major manufacturing cities are being planned for the first phase. These will serve as the key nodes for overall growth and development.

Power Infrastructure: Power for the industrial and residential zones is an essential requirement. The provision of world class power infrastructure will require 'twenty-four hour' good quality supply. The major power inputs will come from six gas-based projects of around 1000–1200MW each. Other power options include the use of renewable energy sources integrated through a smart grid.

Skill Development: The skill-building strategy underlying the DMIC is based on a 'hub-and-spoke' model in which one Skill Development Centre in every state with subsidiary institutions linked to it. Curricula will be based on the types of industries located in the region and identified regional strengths.

Land Acquisition: Land acquisition appears to be a major challenge. Different state governments are adopting diverse approaches for dealing with the issue. Gujarat has a 'land-pooling' model whereby 50 per cent of the land is acquired while the remaining 50 per cent is left with the original owners giving them a stake in the upsides generated by land monetisation. Maharashtra allows for 'negotiated purchase' involving various stakeholders. In Haryana and Rajasthan, trunk and industrial infrastructure are created by the state governments but private developers directly participate in the other activities. The value increase is captured by the states through development fees. Furthermore, in the initial DMIC master-planning process, the attempt was made to identify large, easy-to-acquire land parcels that were either barren or government owned.

Environmental Clearances: The master-planning process was put forward for a general Terms of Reference clearance, which has already been obtained. This has reduced the compliance load for individual project clearances. The individual projects will now need to get their draft impact assessments cleared by the respective state pollution control authorities.

Water Management: As the corridor passes through relatively arid parts of the country, the industrial hubs are to have integrated water resource management plans drawing upon lessons from countries such as Singapore. It is proposed to make each manufacturing city self-reliant and sustainable in terms of its water requirements. Recycling is a major strategy in all the industrial nodes.

STEPS TO IMPROVE BUSINESS CLIMATE

The business climate of India has not been conducive enough for the arrival, growth and winding-up of the MSMEs. By effecting some regulatory changes, the business climate for MSMEs can be improved in a great way which they may be summarised as follows:[19]

Common policy: There are a vast number of business regulations that often overlap and sometimes contradict each other. A common policy and an institutional architecture overseeing all business regulations will help consolidate and enact changes.

Facilitation: Establishing independent facilitation and coordination agencies as PPP service companies with mandate from the state government, staffed with specialists and responsible for getting work done through various departments for starting up and running of businesses. These agencies will also help arrange services such as financing, finding raw material suppliers, and marketing products. They will charge a fee for some of the services provided, and be financially selfsufficient.

Simplification of Registrations: Creating a one-stop online registration system for time-bound registrations for starting a business. The applicant will need to file a single application on the website, with the required information being picked up by each government department. Over time, this process can be extended to other activities such as trading across borders and paying taxes. This will require detailed mapping exercises and setting up of a 'best practices' framework.

Easier Compliance after Growth: Enabling compliance ratings of MSMEs (through ISO-like common standards) and allow easier compliance norms to firms with higher ratings. Easier norms can take the form of simpler procedures (such as self-certification) across government departments. For instance, a company with a good history of tax compliance should be treated as a good citizen when it deals with the pollution control board. Over time, high compliance ratings could also act as a signal to financiers and enable easier access to credit.

Easy Exit: The arduous process of exit for unsuccessful companies needs to be made simpler, faster, and cheaper.

Transforming Employment Exchanges: Transforming the 1,000-odd employment exchanges across states into career centres offering counselling, assessments, apprenticeships, training, and jobs.

Improving Statutory Pre-emptions: Currently for low wage workers in formal employment, the plethora of statutory pre-emptions, especially

19. Various issues of the ***Economic Survey;*** Employment and Unemployment Situation in India (various years), ***NSSO,*** Ministry of Statistics and Programme Implementation (MOSPI); ***Census of India,*** as has been presented by the ***Economic Survey 2012–13,*** MoF, GoI, p. 42. *Notes* : Industry includes manufacturing, construction, mining, and utilities. Organized-sector employment is obtained from the ***Economic Survey.*** The organized sector consists of non-agricultural establishments in the private sector that have 10 workers or more, and all establishments irrespective of size in the public sector. For the other subsectors within industry, the organized sector essentially refers to all companies and government administrations. Unorganized-sector employment is estimated by deducting estimates of organized employment from total employed workforce. Total employment is generated by multiplying the worker population ratio (from the NSSO Employment-Unemployment Surveys) by the estimated population of India as per ***Census*** sources.

for provident fund and health insurance, can lead to very low net salary and act as disincentive to formal employment. The value and benefits received from these pre-emptions can be improved by encouraging competition between different pension and health schemes.

Reducing Attractiveness of Staying Small: Growing bigger is unattractive in India because some of the benefits targeted at MSMEs are withdrawn while some new regulations and obligations come upon them. Innovative approaches are needed for giving MSMEs the incentive to grow. For instance, new regulations could be kept in abeyance for a period after the MSME crosses the size threshold that would require it to meet the regulation.

II. LABOUR REGULATIONS

India has a number of labour practices that, economists have argued, further impede the creation of productive jobs in the largescale organised sector. There exists considerable variation in hiring practices across firms of different sizes in India. A recent study [20] finds that the job creation rate is much bigger for small firms than for large ones; on the other hand the job destruction rate is higher in large firms, with the result that the net employment rate in large firms is negative and strikingly smaller than in small firms.

In the same way, organised industry creates few jobs compared to unorganised industry (which is dominated by small firms). Growth in unorganised industry jobs in 2009–10 is primarily explained by a dramatic growth in construction. Based on data from National Sample Survey Organisation (NSSO) surveys, employment in construction increased by 70 per cent between 2004 and 2009. One recent development is the significant pickup in growth of the organised industry sector jobs in 2009–10. However, two points may be of note. First, this growth is characterised by adding mostly to 'informal' jobs within the formal sector with little increase in productivity. Second, despite the recent pickup in organised-sector job growth, unorganised-sector employment still constitutes more than 95 per cent of overall industry employment; specifically within manufacturing, unorganised-sector employment comprises 70 per cent of overall employment.

Why more jobs are not being created by India's large organised manufacturing? There are several possible explanations. First, strict labour laws may have hindered the growth of organised large-scale manufacturing. India, the employment protection legislation (EPL) laws are stricter than in all but two OECD countries. However, very few workers are actually covered by these laws. Indeed, India may suffer the consequences of strong worker protection (low flexibility for employers and strong reluctance to offer workers formal jobs) without giving most workers the benefits. Although the direct impact of India's labour regulations has been a subject of intense debate, there is a substantial body of evidence which suggests that rigid labour regulations have played a significant role in explaining low organised manufacturing output and employment and high informal manufacturing output.

However, some economists dispute the evidence that establishes the importance of labour regulations in determining economic

20. S. Dougherty, V. C. Frisancho Robles, and K. Krishna, ***'Employment Protection Legislation and Plant-Level Productivity in India',*** NBER Working Paper No. 17693, 2011. The study has taken data upto 2004 and has applied the silmilar methodology as applied by the economists Steve Davis, John C. Haltiwanger, and Scott Schuhh, Job Creation and Destruction, MIT Press, Cambridge, 1998.

outcomes. In India's case, one of the first and most frequently cited studies on the topic[21] has come under extensive criticism [22]. While more work has been done that addresses some of these criticisms, the evidence on the effects of labour regulations outside of India is also mixed. As per the World Bank,[23] 'A careful review of the actual effects of labour policies in developing countries yields a mixed picture. Most studies find that impacts are more modest than the intensity of the debate would suggest.' If labour laws really constrain firms, they would respond in predictable ways:

(i) Relying more on capital instead of labour

(ii) Resorting to informal arrangements/ limiting their scale in order to remain outside of the formal sector altogether, and/or

(iii) Hiring contractual labour

The increased use of capital-intensive techniques is reflected in a steeply rising capital/ labour ratio for the organized economy.[24] This raises the obvious question whether it is justifiable for a relatively labour abundant country like India with low wages to be increasingly resorting to more capital-intensive technology. Of course, as we have argued earlier, countries would use more capital per worker as they get richer, but the capital intensity is higher and has increased at a much faster rate for large firms than for small firms in India, even while they have created fewer jobs.[25]

Firms would also resort to informality if labour laws were overly constraining (as has been argued earlier in this chapter). The extent of informality in India stands out relative to countries at similar levels of development (discussed in the next sub-title *'Informality of Employment in India'*). Roughly 85 per cent of the workforce in India is engaged in the informal sector all of which are unincorporated enterprises operated on a proprietary or partnership basis and with less than 10 employees. The prevalence of informal employment – workers in either the informal sector or in the formal sector but lacking employment or social security benefits is even higher; 95 per cent of jobs are informal and 80 per cent of non-agriculture wage workers work without a contract.

There is **advantage of formal employment** via contracts for worker training and learning, especially if contracts have a significant probability of being rolled over into the long term. Experience is important for skill development. With a paucity of technical/vocational training institutions (say like the *German model*) in India, 'on-the-job learning' is one of the easiest and most viable models of human capital accumulation. Employment that is likely to endure provides incentives to the firm for nurturing skill building and to the worker for developing skills. These contracts necessitate *backloading* of pay and incentives (compensation increases with experience) so that workers do not avail of the training and leave. In contrast, informal and temporary contracts are in fact flat and sometimes even *frontloaded*, absolutely the inverse of the desired architecture. Long-lasting employment does not mean tenure for life, which is the other extreme of the contract space commonly

21. T. Besley and R. Burgess, ***'Can Regulation Hinder Economic Performance? Evidence from India.' Quarterly Journal of Economics,*** 119 (1), 2004, pp. 91-134.

22. A. Bhattacharjea, ***'Labour market regulation and industrial performance in India: A critical review of the empirical evidence,' Indian Journal of Labour Economics***, 49 (2), 2006, pp. 211–232.

23. World Bank, ***'Doing Business: Measuring Business Regulations'***, 2013.

24. Prachi Mishra, ***'Has India's Growth Story Withered?', Economic and Political Weekly,*** Vol. XLVIII No. 15, N. Delhi, April 13, 2013.

25. S. Dougherty, ***'Labor Regulation and Employment Dynamics at the State Level in India'***, OECD Economics Department Working Papers No. 624, 2008

found in India. Permanent employment not only limits firm flexibility, it also reduces some workers' incentives to learn or exercise effort. An intermediate structure that exists in most countries is contracts that allow termination in situations of firm distress or for poor worker performance, but with carefully designed and effective redressal mechanisms if the employee is fired without cause, as well as compensation for severance and unemployment benefits.

Whatever be the causes, the fact is that India is not creating enough productive jobs. Moreover, India has the *dubious distinction* of having some of the most comprehensive labour laws in the world, even while having one of the largest fractions of the working population unprotected. Not only do informal workers have lower productivity and earn less, but they are also more vulnerable to violations of basic workers' rights such as reasonable working conditions and safety at work. It may be the stringent protection that is afforded by existing regulations that is responsible for both the 'paucity of good jobs' as well as the inadequate protection that most workers have. In India, reforms are typically implemented only after they have been subject to a lot of debate and after some sort of ***political consensus*** is reached on them. It is therefore imperative that consensus building on **labour market reforms** should start soon. India needs many more firms in the formal sector, especially firms that continue growing and creating productive jobs. India may take some ideas from Mauritius as how did it undertake reforms that improved employment.

It may take time to build political consensus for fundamental reforms. In the meantime, states could be allowed more flexibility to experiment without coming into conflict with central statutes. As best practices evolve, success in job growth will resolve theoretical debates more easily than a thousand papers. If indeed, rigid labour laws are determined to be the key constraining factor in the creation of productive jobs. Win-win reforms are easily available. Existing permanent workers can continue till retirement with their privileges left untouched. The remaining workers could be encouraged to move into contractual employment that can be terminated, but which gives the worker some protections including severance pay, unemployment insurance, and the right to reverse unfair dismissal through appeal.

In the meantime, the government should continue to create a minimum safety net for informal workers (in the informal sector and in informal work arrangements in the formal sector) by, for example, extending the reach of national-level schemes such as the RSBY (Rashtriya Swasthya Bima Yojana) and the NPS (New Pension Scheme) and introducing *unemployment insurance schemes* (e.g. Supplementary Unemployment Benefits Fund to be created by automotive companies).

INFORMALITY OF EMPLOYMENT IN INDIA

The *extent, causes* and *consequences* of informality in India's employment can be seen by the following way:

1. Extent of Informality

India has witnessed impressive economic growth over the past 20 years, but despite of it, the vast majority of Indian workers continue to toil in informal employment.

(i) Roughly 85 per cent of the workforce is engaged in the *informal sector*; even after excluding the agricultural sector, the share of the workforce in the informal sector remains at 70 per cent.[26] The prevalence of *informal employment* workers in either

26. As of 2009-10. The informal sector is defined by the National Commission for Enterprises in the Unorganised Sector (NCEUS) as all *unincorporated* enterprises operated on a proprietary or partnership basis and with less than 10 employees.

the informal or formal sector who lack employment or social security benefits is even higher.

(ii) While precise estimates of the extent of informal work arrangements are hard to come by, a detailed study by the National Statistical Commission reveals that as of 2004–05, 95 per cent of jobs are informal and these are not limited to the informal sector, even in the public sector, 33 per cent of all jobs in India are informal.[27]

(iii) Among wage employees outside of agriculture, more than three-quarters have no written contract, 70 per cent are not eligible for any paid leave, and 74 per cent are not covered by social security benefits. Along all of these measures of informality, India saw an uptick over time.[28]

(iv) "While high levels of informality are not uncommon in South Asia, India (along with the rest of the region) stands out from an international perspective. Using lack of pension coverage as a proxy for informal employment, 91 per cent of the labour force in South Asia is informal, surpassed only by Africa. Compared to countries at a similar level of development, India's very low usage of written contracts for its non-agricultural employees, 80 per cent of whom work without a contract, also stands out. This figure is higher than for, for example, China, Pakistan, Ghana, and South Africa. This is despite the fact that India's share of employment in the informal sector is roughly in line with that of its peers and confirms the significant prevalence of informal arrangements within the formal sector."[29]

2. Causes of Informality

Informal employment results both from workers being excluded from formal jobs and from workers or firms voluntarily opting out of formal employment.

(i) The 'exclusion' view of informality emphasises the *dual nature* of labour markets, in which a highly productive formal sector coexists with a subsistence informal sector, which absorbs excess labour.

(ii) It has been found out through evidence that constraints to the expansion of the formal sector model (such as insufficient capital accumulation and natural resources)[30] or overly burdensome costs of registering[31] lead to persistent informal employment.

(iii) As per the 'voluntary' view, firms and workers decide on whether to become formal by comparing the perceived costs of being formal with its perceived benefits. In this setting, labour institutions, taxation, and regulations primarily explain the prevalence of informal employment, by effectively increasing the

27. The incidence of informal jobs in the formal sector is highest among the non-informal household sector—95 per cent of jobs are estimated to be informal, as has been studied by R. Kolli, A. Sinharay, ***'Share of Informal Sector and Informal Employment in GDP and Employment', Journal of Income and Wealth,*** 33(2), July-December 2011.

28. National Sample Survey, ***'Informal Sector and Conditions of Employment in India',*** Report No. 539, January 2012.

29. R. Nayar, P. Gottret, P. Mitra, G. Betcherman, Y. Lee, I. Santos, M. Dahal, M. Shrestha, ***'More and Better Jobs in South Asia',*** World Bank, 2012.

30. A. Lewis, ***'Economic Development with Unlimited Supplies of Labour'***, The Manchester School of Economic and Social Studies, May 1954.

31. H. De Soto, ***'The Other Path',*** Harper and Row Publishers, New York, 1989.

costs of formality. At a cross-country level, countries with more burdensome entry regulations have larger informal sectors.[32] The labour laws of India may incline firms to go for informal arrangements, rely more on capital instead of labour, or limit their scale in order to remain outside of the formal sector altogether. This issue has been discussed in the next sub-title *'Labour Laws as Impediments'*).

3. Consequences of Informality

The high rate of informality in India is a drag on its economic development and a source of considerable inequity.

(i) Productivity differences between workers in the formal and informal sectors are large, suggesting that moving a worker from an informal to a formal firm would bring about sizeable gains from improved allocation of resources.

(ii) Rough estimates suggest that an informal job in the formal sector has double the value added than an informal job in the informal sector. And importantly, the value added per worker in a formal job within the formal sector is almost ten times that in an informal job in the formal sector. Therefore, loosely speaking, the benefits of moving into contracts within the formal sector are likely to be substantial and significantly higher than the gains from moving an informal-sector worker into an informal job within the formal sector.[33]

(iii) Besides earning less, informal workers are also more vulnerable to violations of basic human rights such as reasonable working conditions and safety at work. With little job security and limited access to safety nets, most of the informally employed remain extremely vulnerable to shocks such as illnesses and loss of income. This is why a strong correlation exists between informality and poverty in India.[34]

(iv) From the point of view of firms, informal work arrangements bring benefits: lower price and greater flexibility in adjusting the quantity of labour in response to fluctuating demand. Yet, these benefits are partly offset by costs, such as low worker loyalty and inadequate incentive to invest in worker skill building. Moreover, any net benefits need to be weighed against the social costs to the workers and the economy as a whole.

(v) Finally, persistently high levels of informality come at a significant fiscal cost in terms of forgone fiscal revenue.[35] In 2004–05, the unorganised sector contributed roughly half of India's GDP[36] implying a significant expansion of the tax base if the informal sector were to join the formal economy. The high

32. S. Djankov, R. La Porta, F. Lopez-de-Silanes, and A. Schleifer, ***'The Regulation of Entry', Quarterly Journal of Economics,*** 117(1): pp. 1-37, 2002.

33. These rough estimates provide an upper bound of the difference in value added across formal and informal jobs, since informal workers may not be as productive as formal-sector workers for reasons unrelated to their employment status, such as lack of education or skills. The causality could also go the other way if firms that are less productive are more likely to employ informal workers.

34. As per the National Commission for Enterprises in the Unorganised Sector (NCEUS), 2011.

35. S. Levy, ***'Good Intentions, Bad Outcomes: Social Policy, Informality and Economic Growth in Mexico',*** Brookings Institution Press, Washington, 2008.

36. National Statistical Commission, ***'Report of the Committee on Unorganised Sector Statistics'***, Ministry of Statistics & Programme Implementation, GoI, N. Delhi, 2012, p. 30.

The Mauritian Miracle

While Mauritius was assuming self-rule from the British, two noted intellectuals (and to be **Nobel laureates**), James Meade (economics) and V.S. Naipaul (literature) prophesied a bleak future for this small island. In the 1960s, Mauritius was heavily dependent on one crop, *sugar*, was prone to 'terms-of-trade' shocks, and was undergoing rapid increase in population. What followed though was counter to their predictions. Between 1977 and 2006, real GDP grew by an average of 5.2 per cent per annum. Per capita GDP growth averaged 4.2 per cent versus 0.7 per cent for the rest of Africa. From 1970 to 2008, life expectancy increased from 62 to 73 and infant mortality dropped from 64 per 1000 births to 15.

What explains this performance? A leading factor in the first two decades of turn around is the creation and efficient management of the EPZs (Export Processing Zones). Some major characteristics of the 'Mauritius EPZ' were:

(i) It was not a geographical zone – any firm could opt into the regulatory scheme.

(ii) The main policies were – ease of inputs and materials imports, no restriction on repatriation of profits, a 10-year income tax holiday for foreign investors, a policy of centralised wage setting, and an implicit assurance that labour unrest would be minimized and wage increases moderate.[37]

(iii) Firms were allowed to constantly adjust labour force through layoffs and realistic compensation packages and allowed greater flexibility in work hours.

(iv) It had relaxed laws so that women could participate to a greater extent.

These structural transition had a very positive and quicker impact on the economy. The first stage was motivated by a productive structural shift and ensuring full employment. By 1990, about one-third of the labour force on the island, 90,000 people, was employed in the EPZs. Jobs added in the EPZs accounted for two-thirds of the total increase in employment between 1970 and 1990. Increased per capita incomes from this transition eventually fuelled more human capital build-up, allowing further diversification into services.

prevalence of informality also hampers the ability of economic policies to have direct and quick impact on the economy.

LABOUR LAWS AS IMPEDIMENT

A rapid expansion of the manufacturing sector has been a key element of the growth experience of successful developing countries, especially labour-abundant ones. In this context, the Indian manufacturing sector exhibits many peculiarities:

(i) It contributes (also documented earlier in the chapter) a rather small and stagnant share to GDP;

(ii) Its composition is more skewed towards skill and capital intensive activities compared to countries at similar levels of development;[38]

(iii) Only a small share of employment in manufacturing is in organised manufacturing. The unorganised

37. P. Romer, ***'Two Strategies for Economic Development: Using Ideas and Producing Ideas'***, Proceedings of the World Bank Annual Conference on Development Economics, 1992.

38. A. Panagariya, ***'India: The Emerging Giant'***, Oxford University Press, New York, 2008.

manufacturing sector accounted for almost 70 per cent of total manufacturing employment in 2009–10; [39]

(iv) Employment is heavily concentrated in small firms. The degree of concentration is much higher than in other Asian countries. For example, the share of micro and small enterprises in manufacturing employment is 84 per cent for India versus 27.5 per cent for Malaysia and 24.8 per cent for China.

These characteristics of Indian manufacturing are quite puzzling in that product market reforms since the early 1990s, including dramatic trade liberalisation and virtual abolishment of the industrial licensing regime, have been primarily focused on removing various constraints on the manufacturing sector. How then does one explain the peculiarities of the Indian manufacturing sector? Several theories have been put forward to explain this puzzle, ranging from strict labour laws that have hindered growth, especially of labour-intensive industries, infrastructure bottlenecks that have prevented industries from taking advantage of reforms, and credit constraints due to weaknesses in the financial sector which may be holding back small and medium sized firms from expanding. India's labour regulations have been criticised on many grounds including sheer size and scope , their complexity, and inconsistencies across regulations:

(i) There are 45 different national and state level labour legislations in India.[40] The labour laws apply only to the organised sector.

(ii) As the size of a factory grows, it increasingly becomes subject to more legislation. A few specific pieces of the legislation are particularly constraining.

(iii) According to Chapter VB of the **IDA** (Industrial Disputes Act), it is necessary for firms employing more than 100 workers to obtain the permission of state governments in order to retrench or lay off workers.

(iv) While the IDA does not prohibit retrenchment, states have often been unwilling to grant permission. Section 9A of the IDA lays out the procedures that must be followed by employers before changing the terms and conditions of work, which introduces additional rigidities for firms in using their existing workers effectively.[41] In particular, worker consent is required in order to modify job descriptions or move workers from one plant to another in response to changing market conditions.

How do these regulations affect the manufacturing sector quantitatively?

Evidences[42] show that industrial performance has been weaker in states with pro-worker labour laws. There have also been several recent studies that establish the importance of labour regulations.[43] Estimates using plant-level data suggest that firms in labour intensive industries and

39. ***'Report of the Working Group on Employment, Planning and Policy for Twelfth Five Year Plan'***, Planning Commission, N. Delhi, 2012.

40. A. Panagariya, ***'India: The Emerging Giant',*** 2008, op. cit.

41. An employer must give a notice of three weeks in writing to the workers of any change in the working conditions including change in shift work, grade classification, rules of discipline, technological change that may affect the demand for labour, and changes in process or department. See Datta-Chaudhuri (1996) and Debroy (2010) for details.

42. T. Besley and R. Burgess, 2004, op. cit.

43. Studies such as – (a) S. Dougherty, V. C. Frisancho Robles, and K. Krishna, ***'Employment Protection Legislation and Plant-Level Productivity in India'***, NBER Working Paper No. 17693., 2011; (b) P. Gupta, R. Hasan, and U. Kumar, ***'Big Reforms but Small Payoffs: Explaining the Weak Record of Growth in Indian Manufacturing',*** In S. Bery, B. Bosworth, and A. Panagariya (eds.), India Policy Forum, Vol. 5, Sage Publications, N. Delhi, 2008, pp. 59-108.

in states with flexible labour laws have 14 per cent higher TFP than their counterparts in states with more stringent labour laws. Moreover, the impact of delicensing has been highly uneven across industries within India's organised manufacturing sector. In particular, labour-intensive industries have experienced smaller gains from reforms. In addition, states with relatively inflexible labour regulations have experienced slower growth of labour-intensive industries and employment. Further, the difference in the performance of labour-intensive industries in states with flexible labour laws and states with inflexible labour laws has increased over time. Labour laws may also be an important factor responsible for the skewed distribution of size in Indian industries. Firms in states with more inflexible labour regulations tend to be smaller, especially in the labour-intensive sub sectors of manufacturing.

A contrarian view is that Indian businesses have learnt to get around the laws by hiring contractual labour, outsourcing non-core activities, etc; it is thus argued that labour regulations are not a binding constraint to industrial performance and employment growth. Indeed, in surveys of firms, businesses do not list labour laws among the top constraining factors. One way of reconciling this response with the systematic empirical evidence discussed here is that firms have learned to adapt to the labour laws by either not hiring permanent workers or by staying below the threshold of these laws and therefore, they do not see them as a constraint. A study[44] points out that the counterfactual of whether labour laws would constrain firms that would emerge in the absence of strict labour laws cannot be captured in the surveys. Moreover, the adverse consequences of the labour laws can be inferred from the low rate of job creation in the formal sector, low productivity in the informal sector, and small firm size, especially in labour-intensive industries and states with more inflexible labour laws.

SERVICES NOT CREATING ENOUGH JOBS

While the share of employment in services in India was relatively high at take-off, its growth has since then been slow (as have been discussed earlier in this chapter). At the same time, the share in value added, which was high at take-off, has continued to rise quickly. This implies that *while productivity in the sector has been high, the services sector is not creating many jobs* this is the opposite of the problem with the industry.

In the process of business creation, there may some common impediments to services and industry both, for example, regulatory hurdles and access to funding and infrastructure. Labour regulations are also likely to constrain creation of jobs in services. For example, 27 per cent of retail stores in India report labour regulations as a problem for their businesses.[45]

But what stands out for the services sector is the importance of **education** and **skilling**. Suitable higher education is important for high-end services such as IT, software development, and finance. Mid-level services such as retail trade, hotels, and restaurant services also require adequate skilling of the labour force. The 'formal apprenticeship' programme of the government, which places ***employers at the heart of education,*** can play a powerful role in imparting job-relevant skills and also retraining, preparing, and upgrading the labour force. In its current form, the Act and

44. Krueger, A. O. (2007***), 'The Missing Middle',*** Stanford Center for International Development Working Paper No. 343.

45. Labour regulations for India's retail sector are contained in the Shops and Establishment Act (SEA), which includes minimum wages, regulation of hours of work, and rules for employment and termination of service. See Mohammad Amin***, 'Labor Regulation and Employment in India's Retail Stores'***, Social Protection and Labor Discussion Paper No. 0816, World Bank, 2008.

the Rules governing apprenticeships are outdated and rigid from both the perspective of employers and employees and they need to be amended (discussed in the next sub-title *'Need of Formal Apprenticeship'*).

Addressing both quality and quantity issues are the twin challenges in skill development and training so as to correct the mismatch between employers who do not get people with requisite skills and millions of job seekers who do not get employment. The National Skill Development Mission (NSDM) aims to impart employment-oriented vocational training to ***8 crore people over the next 5 years*** by working with state governments (through the State Skill Missions) and incorporating the private sector (through PPPs and for-profit vocational training) and NGOs. Basic education is also an important input for enhancing human capital. Recent government initiatives to expand access to quality primary education are important; however, more needs to be done (discussed under the forthcoming sub-title 'Improving Primary Education'), see Box 2.8).

NEED OF FORMAL APPRENTICESHIPS

In the process of achieving a quality manpower, experts have always emphasised the schemes which impart formal apprenticeships to the working population of a country. Though India has already such schemes put in place, but due to several reasons could not bring in the desired effects in the economy. As India aspires for higher demographic dividend, it is high time that India re-oriented and restructured the existing set of Acts and Rules governing the apprenticeships to bring in rational points, we may have a **three part** discussion on the issue.

1. The Importance of Apprenticeship

Equipping the labur force with productive skills lies at the heart of tapping the demographic dividend. Apprenticeships are an effective way of ensuring that entry-level workers have the skills required to join the formal workforce by 'learning on the job' and even 'earning while learning'. It has been amongst the oldest social institutions in India. However, it needs to be formalised and scaled up. In the current environment, India's educational system is overburdened by sheer demand for quality education. According to a recent study[46] by India's first vocational university, 80 per cent of India's higher education system of 2030 is yet to be built and is grappling with the *threefold problem* of cost, quality, and scale. This is compounded by the inability of much of the current education system to produce 'work-ready' labour. In fact, the **disconnect** between the formal educational system and requirements of the employers becomes even more acute in times of rapid structural and technological change. In such an environment, company-led apprenticeship programmes, that place employers at the heart of education, can play a powerful role in imparting job-relevant skills and also repairing, preparing, and upgrading the labour force. They can aid five important transitions that the labour force is currently making

(i) from agriculture to non-agriculture,
(ii) from rural to urban,
(iii) from the unorganised sector to the organised,
(iv) from school to work, and
(v) from subsistence self-employment to wage employment.

Several countries have benefited greatly from focused programmes on skilling the workforce on

46. TeamLease , ***'India Labor Report (2012), Massifying Indian Higher Education: The Access and Employability Case for Community Colleges'***, TeamLease and Indian Institute of Job Training, Ahmedabad, 2012.

the job, including Japan, US, UK, and Germany. Germany, in particular, has a well-known dual education system that combines classroom/online courses at a vocational school with workplace experience at a company. School authorities are responsible for the former while the company is responsible for the latter. More than 75 per cent of Germans below the age of 22 have attended an apprenticeship programme. Training apprentices also benefits corporates. The UK Task Force Report on Apprentices in 2005, demonstrated that the benefits of apprenticeships were numerous, including – i).increased productivity, ii). lower net costs of training (versus training non-apprentices), iii). greater staff retention, and iv). a more highly motivated workforce.

2. Things India Have

The apprenticeship programmes in India are governed by The Apprentice Act 1961 and the Apprenticeship Rules 1992. The organisational structure and rules and regulations overseeing it are complex and burdensome. The Ministry of Labour and Employment oversees 'trade apprentices' through six regional offices. The Ministry of Human Resource Development oversees 'graduate, technician, and technician (vocational) apprentices' through four boards located in different cities. There are strict norms on permissions, trades permitted, training duration, stipend levels, apprentice/employee ratio, and training facilities. It is onerous to create new apprenticeship positions, and there are several vacancies even in positions that have already been created. As a consequence, India only has under 3,00,000 formal apprentices.

To ensure that comparier do not hire cheap labour in guise of an apprenticeship programme, the regulatory norms were kept tighter. The need of the time is to develop set of provisions streamlining regulation and incentivise corporates, while protecting the interest and well-being of apprentices.

3. Making it Work

The present rules and regulations overseeing apprenticeships need to be changed such that employers and prospective apprentices can choose each other freely by just requiring information on what will be learnt on the job and a minimum wage. Some recommendations including those from the 2009 **Planning Commission** taskforce are described below:

(i) *Simpler Regulation:* A single window mechanism is needed to clear company applications for pan-India apprenticeship programmes. Currently, companies need to approach each state apprenticeship adviser separately. Partnerships between companies and industry federations should be facilitated by giving timely permissions.

(ii) *Wider Reach:* Presently apprentices are only allowed in specified trades. Majority of graduates are not currently covered under 'Formal Apprenticeships'. In addition, the procedure to include new trades especially services, which are largely excluded, is complex and can take many months. A fully deregulated list is needed for apprenticeships to remain dynamic and in line with the changing needs of the workplace.

(iii) *Flexibility to Companies:* At present many schemes are required to be unnecessarily long (up to four years), and have rigid requirements on 'worker to apprentice ratio'. Moreover, the penal provisions for companies, even for small violations of the rules, are very severe. Certain relaxation of rules can help give flexibility to companies. For example, the duration

of apprenticeship training can be allowed to vary across trades and companies. Short-duration programmes (less than 12 months) can be freed from much of the oversight provided they pay minimum wages. Relaxing the rigid requirements on the ratio of apprentices to workers could also accelerate capacity creation.

(iv) *Dual System of Training:* Partnerships between companies and educational institutions should be encouraged. Like the 'German model', corporates can be allowed to outsource theoretical training, and educational institutions can be allowed to outsource practical training.

(v) *Active Exchanges:* There should be active exchanges and portals, matching prospective apprentices to employers.

WAY TO EVIDENCE-BASED BETTER POLICY

Educational investments contribute to aggregate economic growth. More than this, they enable citizens to broadly participate in the growth process through improved productivity, employment, and wages, and are therefore a critical component of the 'inclusive growth' agenda of the Government of India. The past decade has seen substantial increases in education investments under the Sarva Shiksha Abhiyan (SSA), and this additional spending has led to considerable progress in improving primary school access, infrastructure, pupil-teacher ratios, teacher salaries, and student enrollment. Nevertheless, student learning levels and trajectories are disturbingly low, with nationally representative studies showing that over 60 per cent of children aged 6-14 are unable to read at second-grade level. Further, these figures have shown no sign of improving over time (and may even be deteriorating).[47]

The decade also saw a number of high-quality empirical studies on the causes and correlates of better learning outcomes based on large samples of data and careful attention paid to identification of causal relationships. This research has identified interventions/inputs that do not appear to contribute meaningfully to improved education outcomes, as well as interventions that are highly effective. In particular, the research over the past decade suggests that increasing inputs to primary education in a 'business-as-usual' way is unlikely to improve student learning meaningfully unless accompanied by significant changes in pedagogy and/or improvements in school governance. It is, therefore, imperative that *education policy shifts* its emphasis from simply providing more school inputs in a 'business-as-usual' way and focuses on improving 'education outcomes'.

SCHOOL INPUTS

Both administrative and survey data show considerable improvements in most input-based measures of schooling quality. But there is very little impact of these improvements in school facilities on learning outcomes. This is not to suggest that school infrastructure does not matter for improving learning outcomes (they may be necessary but not sufficient), but the results highlight that infrastructure by itself is unlikely to have a significant impact on improving learning levels and trajectories. Similarly, while there may be good social and humanitarian reasons for 'mid-day meal' programmes (including nutrition and child welfare), there is no evidence to suggest that they improve learning outcomes. Even more striking is the fact that no credible study on education in India has found any significant positive relationship between teachers possessing formal teacher training credentials and their effectiveness for improving student learning.

47. ***ASER-2012,*** as cited by the ***Economic Survey 2012–13,*** MoF, GoI, N. Delhi, p. 286.

In the same way, there is no correlation between teacher salary and its effectiveness for improving student learning, and at best there are very modest positive effects of reducing pupil-teacher ratios on learning outcomes. As discussed further, these very stark findings most likely reflect *weaknesses in pedagogy* and *governance* which are key barriers in translating increased spending into better outcomes.

The results summarised so far can be quite discouraging. Fortunately, the news is not all bad, because the evidence of the past decade also points consistently to interventions that have been highly effective for improving learning outcomes, and are able to do so in much more cost-effective ways than the status-quo patterns of spending.

PEDAGOGY

The science of education, teaching and classroom instruction (pedagogy) is a key determinant which decides how schooling inputs translate into learning outcomes. Today, following the right kind of pedagogy has become particularly challenging in India as several millions of first-generation learners have joined a rapidly expanding national schooling system. In particular, standard curricula, textbooks, and teaching practices that may have been designed for a time when access to education was more limited, may not serve the purpose in the new circumstances prevailing today. The default pedagogy of 'completing the textbook', does not reflect the learning levels of children in the classroom, as they always remain behind the textbook expects them to be. Evidences suggest that the 'business-as-usual' pedagogy – simply following the textbooks – can be improved with large positive impacts in early grades that target the child's current level of learning:

(i) These positive results have been found consistently in programmes run by non-profit organisations in several locations (including UP, Bihar, Uttaranchal, Gujarat, Maharashtra, and Andhra Pradesh).

(ii) The estimated impact of these interventions have been considerably high often exceeding the learning gains from a full year of schooling (their instructional time period is typically only a small fraction of the duration of the scheduled school year).

(iii) These interventions are typically delivered by modestly paid community teachers, who mostly do not have formal teacher training.

(iv) The supplemental remedial instruction programmes are highly cost effective and deliver significant learning gains at much lower costs than the large investments in standard schooling system.

GOVERNANCE

Another explanation for the 'low correlation between increases in spending on educational inputs and improved learning outcomes' may be the *weak governance* of the education system and limited effort on the part of teachers and administrators to improve student learning levels:

(i) The most striking symptom of weak governance is the high rate of teacher absence in government-run schools. While teacher absence rates were over 25 per cent across India in 2003, an all-India panel survey in 2010 that covered the same villages found that teacher absence in rural India was still around 24 per cent.

(ii) The fiscal cost of teacher absence was estimated at around Rs. 7,500 crore per year suggesting that governance challenges remain paramount.

(iii) There is evidence that even modest improvements in governance can yield significant returns. Improving

monitoring and supervision of schools is significantly correlated with reductions in teacher absence, and investing in improved governance by increasing the frequency of monitoring could yield an eight-to-tenfold return on investment in terms of reducing the fiscal cost of teacher absence.

(iv) The importance of motivating teachers by rewarding good performance has also been pointed out by the evidences. Rigorous evaluations of carefully designed systems of teacher performance pay in Andhra Pradesh show substantial improvements in student learning in response to even very modest amounts of 'performance-linked pay' for teachers, that was typically not more than 3 per cent of annual pay.

(v) Evidence from a long-term follow up shows that teacher performance pay was 15 to 20 times more effective for raising student learning than reductions in pupil-teacher ratios.

(vi) More broadly, these results suggest that the performance of front-line government employees depends less on the level of pay and more on its structure.

WAY TO POLICY

Putting the lessons taken from the evidences discussed above, following three immediate policy measures are desired at the moment for right kind of 'human resource preparedness'.[48]

(i) Make learning outcomes an explicit goal of primary education policy and invest in regular and independent high-quality measurement of learning outcomes. While independently measuring and administratively focusing on learning outcomes will not by itself lead to improvement, it will serve to focus the energies of the education system on the outcome that actually matters to millions of first-generation learners, which is functional literacy and numeracy.

(ii) Launch a national campaign of supplemental instruction targeted to the current level of learning of children (as opposed to teaching to the 'textbook') delivered by locally hired teacher assistants, with a goal of reaching minimum absolute standards of learning for all children. There is urgent need for a *mission-like* focus on delivering "universal functional literacy and numeracy" that allow children to *'read to learn'*. The evidence strongly supports scaling up supplemental instruction programmes using locally hired short-term teaching assistants that are targeted to the level of learning of the child, and the cost-effectiveness of this intervention also makes it easily scalable.

(iii) Pay urgent attention to issues of teacher governance including better monitoring and supervision as well as teacher performance measurement and management. A basic principle of effective management of organisations is to have clear goals and to reward employees for contributing towards meeting those goals. The extent to which the status quo does not do this effectively is highlighted in the large positive impacts found from even very modest improvements in the alignment of employee rewards with organisational goals. There can be

48. K. Muralidharan, ***'Priorities for Primary Education Policy in India's 12th Five-year Plan', in*** NCAER-Brookings India Policy Forum 2012–2013, NCAER, New Delhi, 2012.

potentially large returns of implementing these ideas in education and beyond.

The next decade will see the largest ever number of citizens in the school system at any point in Indian history (or future), and it is critical that this generation that represents the *demographic dividend* be equipped with the literacy and skills needed to participate fully in a rapidly modernising world. In a fiscally constrained environment, it is also imperative to use evidence to implement cost-effective policies that maximise the social returns on any given level of public investment. The growing body of high-quality research on primary education in the past decade provides opportunity for putting this principle into practice.

CAUTIONS TO PREPAREDNESS

The economic history of recent times is replete with examples of economies that were supposed to have great potential but ultimately did not achieve rapid economic growth and improvements in standards of living. We also have, at the same time, instances of economies classified as *basket cases* that achieved rapid turnarounds. India's achievement in the post-reform period and South Korea's rapid transformation surely fall in this latter category. But India's continuing on a rapid growth path is not preordained. Besides favourable circumstances, it requires deft policy making and a broad vision of the future, possible risks, and opportunities. We stand at a crossroads where we need to develop a clear strategy for continued inclusive growth. Let us consider what might happen under different hypothetical scenarios based on informed estimates, which reflect the forces that will be at play:[49]

(I) Business as Usual

Big aspirations of the 'demographic dividend' are not bad provided India goes for the timely and right kind of preparations for it. But if the 'business as usual' style of functioning continues, fallouts may be highly ugly.

(a) Some improvement in infrastructure but only slow improvement in education, and no change in institutional structure such as business regulation and labour laws.

(b) Some movement from agriculture to low skill services such as construction and household work, as well as to informal manufacturing, but too few quality jobs.

(c) GDP growth settles into a comfortable 6–7 per cent, the new 'normal'.

(d) There is growing presence of unprotected workers in manufacturing and the possibility of rising labour frictions.

(e) There is immense pressure on education to make students job-worthy, but with organised manufacturing playing little role in training workers and imparting skills on the job, there is a continuing mismatch between employer needs and worker capabilities.

(f) Growth is slower than it could be and inequality higher than it ought to be.

(II) Reforms

In the times of globalising world being in sync with the time and contemporary world will be necessary. There will be requirement of speedier concensus on the fronts of 'economic reforms'. If the required kind of 'reforms' are effected at the 'right' times, outcomes may be glorious and historic—

(a) Vast improvements in infrastructure, education, as well as in business regulation and labour laws.

(b) As fewer workers depend on agriculture, larger holdings and more investment

49. This part is based on the ***'Consequences & Conclusion'*** discussed by the ***Economic Survey 2012–13***, in Chapter-2: Seizing Demographic Dividend, MoF, GoI, N. Delhi, pp. 53-54.

in capital and technology create a much healthier agricultural sector, with significant rural entrepreneurship surrounding activities like horticulture, dairy products, and meat.

(c) The manufacturing sector becomes a training ground for workers, absorbing more students with a middle or high school education.

(d) India moves into niches vacated by China such as semi-skilled manufacturing, even while enhancing its advantage in skilled manufacturing and services.

(e) India experiences faster and more equitable growth.

(f) Social frictions are minimized as both agriculture and manufacturing create better livelihoods.

(III) Decline

Suppose India fails or lags in the process of putting the 'required set of things' in place, so that it can strengthen its position to garner higher demographic dividend, i.e., no improvement in infrastructure, education, or institutions . Just visualise the resulting ugly scenarios –

(a) As fewer jobs are created outside of agriculture, more people stay in agriculture, increasing the pressure on land and lowering incomes. Small agricultural plots do not provide enough income, nor can they be leased out.

(b) More families break up, with males seeking work elsewhere, and labour participation increases.

(c) There is large-scale migration to overburdened cities.

(d) More supports are given to agriculture and transfers are made to rural areas so as to prevent further migration.

(e) The strain on government finances increases.

(f) Income inequality between good service jobs in cities and marginal agricultural jobs in rural areas increases tremendously.

(g) Social strains/tensions grow.

The above-given scenarios are *clear possibilities* and should be seen as 'indicative' rather than conclusive in any way. The key policy message from this chapter is that India has to focus on an agenda to create productive jobs outside of agriculture, which will help it reap the *demographic dividend* and also improve livelihoods in agriculture.India needs to examine carefully whether regulations constrain businesses excessively and, if so, stripping the excess regulation while ensuring adequate protection and minimum safety nets for workers, will be the need of the time. Building infrastructure and expanding access to finance will also help. The government looks clearly engaged in this process, further steps need greater debate and action. Future governments will also be required to follow them. Continuity will be playing a very crucial role in this phase thus it will be advisable that not only the government in the seat of power but the opposition in the Parliament also accepts the delicacy of the moment and tries to build a concensus coming above the petty politics of the past. This becomes even more important when Indian politics is crossing through the phase of coalition governments in the Centre. Together with the Union Government the active support from the State Governments will be the need of the time and the process of planning may be used here tuned with the idea of 'monitorable targets', to attain this end.