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India's Demographic Dividend or Disaster?

Mismanaged Factors of Production – Land, Labor, Infrastructure, Cities

By Ajay Chhibber¹

Abstract: India entered its so-called demographic dividend around 2005 – expected to last until 2055. India has already utilized almost a third of the period of its demographic dividend– it saw a period of explosive growth from 2003-2012 – but has not been able to sustain that growth. And since 2012 growth has generated less and less employment, as it has turned inward, so it is not helping the working age population get usefully employed. The labor force participation rate for women has been low and is now falling. To understand where India stands in this transformation we ask – why is so much of Indian labor not employed in the organized sector ? why does India with limited capital – and vast quantities of surplus labor invest so much in relatively capital intensive sectors ? why is land which is scarce so badly allocated ? why do most of its cities develop in an unplanned manner ? what can be done to use India's underlying factors of production better to generate greater, more inclusive and sustained prosperity for its citizens? These second-generation reforms are not easy as they need cooperative federalism and much broader consensus but without them India's demographic dividend may become a disaster.

JEL Classification: J0, J1, J2, J5, J6, J8, R0, R4, O1, O2

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1. Introduction

India entered its so-called demographic dividend around 2005 – expected to last until 2055. It is a period when a country has a surge of working age population 15-64year-olds which supports the elderly and the young. Japan, Hong Kong, Singapore entered such a phase of demographic dividend in the 1960's and grew very rapidly to become developed countries. Brazil entered such a phase in the 1960's as well but while it had a sharp growth spurt for a decade from 1966-75 that spurt was not sustained and Brazil remained in a middle-income trap. Much of Latin America remains stuck in the same trap leading to huge increases in social conflict, high inequality and low growth. The Arab world entered their demographic dividend phase in the 1990's but despite rising education levels without growth and employment frustration among the population – especially the youth led to the Arab Spring a decade ago. Their dividend became a demographic disaster.

China entered its demographic dividend coinciding with economic reforms in the 1980's and has seen very rapid and sustained growth for over 3 decades. India has already utilized almost a third of the period of its demographic dividend² – it saw a period of explosive growth from 2003-2012 – but has not been able to sustain that growth. And since the 2010 growth has generated less and less employment, as it has turned inward, so its not helping the working age population get usefully employed.

Whether a country realizes its demographic dividend depends on how capital, labour and land come together to generate income, employment, the division of income depends enormously on initial attributes but also on technological change and how that change is generated, spread, and determined by market forces but also by government policies, regulations and in the end by specific interests and competition. To understand where India stands in this transformation – why is India's so dualistic? why is so much of Indian labor not employed in the organized sector ? why does India with limited capital – and vast quantities of surplus labor invest so much in relatively capital intensive sectors ? why is its share of industry much less than what it should have been ? why is land which is scarce so badly allocated ? why do most of its cities develop in an unplanned manner ? what can be done to realign the economic system to use India's underlying factors of production to generate greater, more inclusive and sustained prosperity for its citizens?

India is urbanizing rapidly but in an unplanned manner with streams of migrants coming into towns and cities and setting up slums or slum-like shelter in peri-urban areas. It has begun to address the issue of red tape through efforts to improve its rankings on the World Bank's Ease of Doing Business, which has improved to 63. But the costs of doing business remain high because land is expensive, inflexible labor laws have prohibited a well-functioning labor market and logistics costs remain high –

² India's southern states have seen a rapid slowdown in population growth and are aging as well.

despite some recent efforts to invest more in infrastructure and move up the rankings on the LPI index to 44th, but remains below China, Malaysia, Thailand, and Vietnam. Let us turn to some basic features of a dualistic economy like India to understand the transformation India needs.

2. Economic Dualism and Structural Transformation

In 1954 Arthur Lewis (1954), an economist from St Lucia published "Economic Development with Unlimited Supplies of Labor "and introduced what came to be called a dual sector model or the "Lewis Model". Lewis argued that the central process of development consists of moving a large mass of underemployed workers, with low productivity (in Lewis's terms, workers whose marginal product is "negligible, zero, or even negative,"), out of a "subsistence" sector, where living standards are necessarily low, into a modern "capitalist" sector, where output per worker can be higher because it is "fructified by capital" Gollin (2014). In 1979 he was awarded the Nobel Prize in economics for this work, which led to the creation of a new field in economics called economic development.

Lewis did not consider dualism as rural-urban, or even agriculture vs nonagriculture. You could have a segment of agriculture that used capital and was modernized. At the same time, you could have parts of the urban sector where a mass of people sell services in what is loosely called the informal sector. Dualism could be described as modern vs traditional (via technology) or formal vs informal (via the labor market).

His model has been criticized from many angles. If there is an unlimited supply of labor, then wages should stagnate, but they often do not. If wages are stagnant due to their unlimited supply, then wage shares should decline over time – but they do not. Why does capital not spread across the economy rather than stay in a modern enclave sector? Investment in human capital (through education and skilling), as distinct from physical capital can be another option for the use of capital and drive development Chiswick (2018).

Lewis did not discuss duality as between agriculture and non-agriculture others did. Fei and Ranis interjected a third phase in the Lewis transformation, when the demand for food would rise and there would be a need to invest part of the surplus on increasing food supply. This is turn would require modern farming techniques to generate the increase in food supply.

While all these criticisms remain valid nevertheless, the underlying appeal of the Lewis model in describing the process of transformation of a traditional economy or the lack of it remains very valid and thereby appealing. Other complications could be added – for example restrictions on the use of capital, land or for that matter labor could accentuate the dualism.

Arbitrary and capricious restrictions in labor market flexibility can accentuate dualism as even the modern sector prefers under these circumstances to hire more

casual labor and adjust their production systems accordingly. Firms prefer to remain in the formal sector rather than grow larger and face all the tax and regulatory requirements. Land- use restrictions can reduce affect decisions on location, employment and size in ways that are often unpredictable. Land and labor inspector raj prevails – with huge opportunities for corruption.

3. India's Dualistic Labor Market

"India's labor laws are anti-worker" Former PM Atal Bihari Vajpayee

India's working age population will increase by at least 12 million per year until 2030 – roughly adding a Belgium every year. India's labor force participation rate (LFPR) is around 0.5 – reasonably high for men at approximately 0.8 but shockingly low for women 0.2. The reason why its so low are still a puzzle with explanations ranging from need to perform unpaid home- work³, lack of appropriate jobs⁴, to safety issues, discrimination, inadequate training for women and overall patriarchy. But even with this low LFPR means people cannot find suitable employment as India produces only around 5 million employment every year. As a result, an additional million people every year must find some means to survive by becoming self-employed – hawking and selling their labor on the streets as Lewis described.

India would need to create at least 8.5 to 9 million employment every year until 2030 to reach a Lewis turning point – 6 million to meet the employment needs of everyone entering the working force and looking for a job, 1.5-2 million if the LFPR of women rises to 0.5 making the average LFPR 0.65 and another 1 million to absorb the sink of underemployed people eking out a precarious living on the streets. At present according to the World Bank India (2018) creates 0.75 million employment for every 1% growth. This means India would need to grow at 12% per annum to create adequate work to realize its demographic dividend – a tall order for an economy which had slowed down to 4-5% pre-COVID. Even reaching 8-9 % GDP growth (the rate India grew in 2003-2008) would be a huge achievement. In addition, India must generate more employment from its growth - at least 1 m of employment for every percent of GDP growth-more inclusive growth. India must not raise it growth rate but significantly change the way it marries labor, capital, and land to create much more employment.

It is in this context that one can view India's economic transformation and how it has differed from other countries – especially in the Asia region. During its high growth phase from 1980 to 2008, total factor productivity (TFP)⁵ grew at 2.6% annually, with the service sector providing half of it. The manufacturing sector showed TFP growth of only

³ If you add unpaid work the female LFPR jumps to 86%.

⁴ India did not adequately expand low-skilled apparel, textiles, electronics where women with secondary level education find jobs in countries like Bangladesh, Cambodia, Malaysia, Thailand and Vietnam.

⁵ Total factor productivity measures the how productively have the factors of production land, labour and capital been used to generate output.

0.3% - much lower than even in Pakistan. By contrast China shows enormous growth in manufacturing TFP which grew 1.4% during its initial growth phase after China's economic reforms from 1978 to 1993, which then rose to 3.1% from 1993 to 2004. TFP growth in agriculture and services was lower in China than in India, but China was able to generate huge number of jobs in manufacturing – and pull people out of agriculture and raise standards of living and reduce poverty. Export led manufacturing – whereby China became the factory of the world – created the jobs to which millions of low-skilled workers could move to and improve their standard of living, send remittances back to their rural families and build a better life.



Figure 1: India's Productivity Growth Came Largely from the Services Sector

Sources of annual growth in total factor productivity in China, India, Pakistan, and Thailand, by sector and reallocation effects

Sources: Authors, based on data from Bosworth 2005, 2010; Bosworth and Collins 2008.

Note: The contribution of reallocation during a decade is calculated as aggregate TFP growth minus the sum over the three sectors of TFP growth weighted by the share of the sector in GDP at the beginning of the decade.

Source: Flagship: More and Better Jobs in South Asia, World Bank 2011

By contrast India saw a boom in the service sector where high skilled jobs were created but it meant that a large mass of low skill labor – was left languishing in rural areas – or drifted to urban centers and took up finding ways to make a living selling things on the street or taking up jobs in construction at wages which kept many of them below the poverty line. India became the back-office IT center for the world, but its benefits were not spread to masses of low-skilled labor. This dualism between a few skilled workers getting jobs in fast growing IT and service sectors with masses of unskilled labor underemployed or self-employed but poor is largely because India missed the bus on manufacturing that China was successful in. Today Vietnam is following this model and in some sectors like textiles and apparel Bangladesh is too. But the story is even worse than that because India's labor laws encouraged dualism. Hasan, Mitra and Ramaswamy (2003) find a positive impact of trade liberalization on labor-demand elasticities in the Indian manufacturing sector. These elasticities turn out to be negatively related to protection levels that vary across industries and over time. Furthermore, they find that these elasticities are not only higher for Indian states with more flexible labor regulations, but they are also impacted to a larger degree by trade reforms. Aghion, Burgess, Redding and Zilibotti (2008) following delicensing, showed that industries located in states with pro employer labor market institutions grew more quickly than those in proworker environments.



Figure 2: Vulnerable Employment and the Human Development Index

Source: HDI Indicators 2020

To get around the rigidities in hiring and firing that constrain the ability to adjust to production demands, businesses have increasingly used contract labor. The share of contract workers in factories among total workers increased from 26% in 2004-05 to 36% in 2017-18, while the share of directly hired workers fell from 74% to 64% over the same period. India has the largest share (about a third) of a category called "casual wage workers" or in colloquial use "daily workers" in South Asia. Even higher than in Pakistan 17 percent, Nepal 10 percent, Bangladesh 22 percent or Afghanistan 14 percent, Bhutan 4%. Sri Lanka and Maldives have none. The Periodic Labor Force Survey Report (2018-19) indicates that 70% of regular wage/salaried employees in the non-agricultural sector did not have a written contract, 54% were not eligible for paid leave and 52% did not have any social security benefit.⁶

UNDP's Human Development Report provides data on the share of vulnerable employment in total employment – it is as one would expect highly correlated. But India sticks out as a huge outlier. With its level of HDI, based on cross country comparisons (Figure 2) India's share of vulnerable employment should be at most 50% but it is above 75%. India labour protection, safety nets are amongst the weakest in the world. This was exposed vividly during the sudden lockdown -when millions of migrant casual workers – had to trudge back to rural areas under horrific conditions in the largest mass migration see since the Partition of India. Chhibber (2020) did a simulation exercise of using the share of vulnerable employment as an index of vulnerability and using it to create a vulnerability adjusted HDI. The exercise calculates how far the HDI drops with a shock of 1%, 2%, 5% (Table 1). Any shock larger than 1% intensity drops India from the medium HDI category to low HDI category as its vulnerability adjusted HDI drops below 0.55 – the cutoff for medium human development.

HDI	Inequality	Vulnerability	Vulnerability	Vulnerability
2019	Adjusted	Adjusted	Adjusted.	Adjusted HDI
	, HDI	HDI (1%	HDI (2%	(5% shock)
		shock)	shock)	, , , , , , , , , , , , , , , , , , ,
0.647	0.477	0.5703	0.4936	0.2635

Table 1: India's Vulnerability to Shocks: Impact on Human Development Index

Source: Chhibber (2021)

India has also very little protection for its workers. Some, attribute this to a mass of inconsistent laws. Instead of trying to meet these laws firms prefer to hire casual labor for whom these laws and regulations need not be applicable. Ahsan and Pages (2008) find that registered sector employment and output gets reduced by laws that increase employment protection or the cost of labor disputes substantially. The share of value added that goes to labor does not increase by such laws and so they do not benefit labor. Labor-intensive industries, such as textiles, are the hardest hit by amendments that increase employment protection while capital-intensive industries are the most affected by laws that increase the cost of labor dispute resolution. These adverse effects are not alleviated by the widespread and increasing use of contract labor.

Gordon, Li and Shu (2010) believe that labor flexibility is a key factor that explains China's advantage with respect to India in productivity growth in manufacturing. It also explains the much smaller size of Indian firms (median size 18 vs 134 for China) and the link between firm size and city complexity that underpins China's advantage and higher productivity. It has been argued that labor rigidity arising from the fear of having to take prior permission for retrenchment/closure even if businesses are not viable (lack

⁶ <u>Periodic Labour Force Survey Report (2018-19)</u>, Ministry of Statistics and Programme Implementation, June 2020.

of an easy exit option), and high administrative burden since multiplicity of labor laws has resulted in multiple inspections, returns and registers, explain why firm sizes have remained small in India. This has constrained growth of firms.⁵ Amongst registered factories, the Annual Survey of Industries (2017-18) indicates that 47% factories employ less than 20 workers, but provide only 5% of employment, and 4% of output.⁷

Hasan and Jandoc (2010) find little difference in the size distribution of firms between states believed to have flexible labor regulations versus those with inflexible labor regulations. However, restricting attention to labor-intensive industries, they find a greater prevalence of larger-sized firms in states with flexible labor regulations. But the idea of a missing middle – lack of firms in size 100 -1000 is not borne out by the data. Kishore (2015) shows that in 1980-81 only 31.5% of factory workers were employed in this middle category of firms but by 2011-12 that share had grown to 45.6%. But this growth did not come from small firms growing larger but instead it came from large firms growing smaller. Employment in firms larger than 1000 workers fell from 44.7% in 1980-81 to 28.5% in 2011-12. Outsourcing by larger firms may explain some of this but labor laws were not responsible for this decline. But what is clear is that average factory size has declined in India – not grown and may explain why India has struggled to compete in manufacturing. India does not have a missing -middle factory problem, it has a small size factory problem.

The 6th Economic Census (2013-14) reported that there were 5.9 crore establishments in India employing 13.1 crore people (of which 72% were self-employed and 28% hired at least one worker.⁸ A total of 79% workers were in establishments with less than ten workers. ⁹More than 70% of manufacturing employment is in firms with size smaller than 10. Labor laws explain to a large extent why firms remain small but may not be the entire story. For example, the ability to let go labor without permission was 100 but there is no inflexion point at that level. But other laws start to come in at the firm size of 10. Nevertheless, this idea that the inability to hire and fire workers at 100 workers as a reason why Indian manufacturing firms do not grow large is not borne out by the data.

4. The New Labor Codes

India has now tried to clean-up 29 labor laws into 4 labor codes, on (i) Wages, (ii) Industrial Relations, (iii) Social Security, and (iv) Occupational Safety, Health and Working Conditions.

The labor codes on wages and industrial relations apply to all establishments, with limited exceptions. The codes on social security and occupational safety increases the thresholds for factories from 10 to 20 (with power) and 20 to 40 (without power). According to PRS India, A report of the ILO (2020) shows that collective

⁷ <u>Volume I</u>, Annual Survey of Industries (2017-18), Ministry of Statistics and Programme Implementation.

⁸ Highlights of the Sixth Economic Census, 2013-14, National Statistics Commission, Government of India.

⁹ Periodic Labour Force Survey Report (2018-19), Ministry of Statistics and Programme Implementation, June 2020.

dismissals to be authorized by public authorities¹⁰ are required in only 22 countries (including India, Pakistan and Thailand). Of these, seven countries (including India, Sri Lanka and Colombia) do not require consultation with workers' representatives. On the other hand, notification to both workers' representatives and competent authorities are required in most countries, but no prior permission is needed.

The Industrial Relations Code increases the threshold to 300 workers¹¹ after which prior permission will be required but retains the notice and compensation requirements specified under the IDA 1947. While the increase is welcome, the question that arises is why have any requirement at all and instead why not insist on prior notification to workers – especially as the data does not indicate that the previous requirement of 100 workers did not affect firm size.

To promote the growth of smaller establishments, some states had amended their labor laws to increase the threshold of their application. For instance, Rajasthan increased the threshold of applicability of the Factories Act, 1948, from 10 workers to 20 workers (if power is used), and from 20 workers to 40 workers (if power is not used) and the law on threshold of hiring and firing without government permission from 100 to 300 workers in 2014. The Economic Survey (2018-19) noted that increased thresholds for certain labor laws in Rajasthan resulted in an increase in growth of total output in the state and total output per factory. But attribution of this growth to labor flexibility has been questioned by Maira and Mehta (2020).

According to Manish Sabherwal a well-known expert on labor issues- India suffers from labor inspector Raj and at the same time many labor codes and laws are not enforced, and corruption abounds. The Codes create enabling provisions for webbased inspections (which may be accompanied by randomized inspections) in some cases and third-party certification (for notified classes of establishments in some cases) and create some provisions for common registers and returns. However, details have been left to delegated legislation.

Further, in certain cases, such as Code on Social Security, compliance reporting on different aspects (such as provident fund and insurance) may continue to be required to be made to different authorities. The Codes also increase the quantum of fines and imprisonment in several cases and allows for compounding of offences in certain cases. The Industrial Relations Code removes the requirement for reference to the government and publication of award in the gazette and replaces industrial courts/tribunals with two-member labor tribunals (with one judicial and one administrative member). Whether this will reduce the labor inspector Raj remains to be seen.

¹⁰<u>"The Regulation of collective dismissal: Economic rationale and legal practice</u>", International Labour Organisation, ILO Working Paper No. 4, May 2020.

¹¹ This limit can be increased under the law.

The Code on Occupational Safety and Health increases the threshold for contract labor provisions from 20 to 50 workers. Further, it shifts from the contractor to the principal employer, the primary responsibility of providing welfare facilities. ¹² The Industrial Relations Code makes provisions for recognition of a negotiation unions with 51% membership.¹³ But, the Code weakens collective bargaining rights by requiring a two-week notice for strikes.

Whether these new codes will help re-shape India's employment intensity, improve wage and labor working conditions remains to be seen. The evidence so far is mixed. The Economic Survey of 2018-19 says that states like Rajasthan are already seeing the benefits of relaxation in labor market flexibility introduced in 2014. Others dispute these claims. It is probably too soon to make conclusive judgement. In some states instead of labor reforms, reservation for state subjects is gaining momentum. Haryana is the latest state to introduce "reservations" for state citizens in private sector jobs – following Karnataka and Madhya Pradesh. All these state laws have been challenged in courts and have not been implemented.

The best that can be done is to allow even further experimentation by states. The new laws allow that kind of flexibility with permission. But what is clear is that India must find much greater employment for a large mass of semi-skilled workforce the way China and many East Asian countries did it and now Vietnam and Bangladesh are showing that it can be done. Vietnam has seen the sharpest recovery from the pandemic on the back of exports of low technology products. India must realize that high -tech service sector alone will not solve its employment challenge.

"Schooling doesn't assure employment, but skill does." Says Amit Kalantri, in <u>Wealth of Words</u>. According to Shukla et al. (2019) the proportion of formally skilled workers in India is extremely low, at 4.69% of total workforce, compared to 24% in China, 52% in the US, 68% in the UK, 75% in Germany, 80% in Japan and 96% in South Korea. This situation can be attributed to 3 factors – poor education and learning, weak incentives to train workers (largely casual workers), and the limited number of jobs that require deep training. According to the latest India Skill Report (2019), only 45.6% of the youth graduating from educational institutions are employable.

Using ISCO-8 classification of occupations Shukla et al find that little above half (56%) of the labor market is dominated by people who are classified at Level 2 skills - - those who can operate machinery and electronic equipment, while 30% constitute skill Level 1 type – simple and routine manual and physical tasks. Nearly 11% of the population can be classified at skill Level 3 – who can record work, simple calculations, and have good communication skills in specialized fields, while the smallest share is that of skill Level 4 – who have decision-making capability and creativity. Slightly more than

¹² It also provides for automatic absorption of contract workers into the establishment of the principal employer where they are engaged through an unlicensed contractor.

¹³ In its absence a negotiating council maybe formed.

over half of skill Level 1 individuals are in the 15-35 years age group, whereas this group constitutes to about 40% for other skill level types.

On the flip side, the India Skills Report 2019 shows that 63% of employers across all sectors felt that only 'some job seekers' or 'no job seekers' meet the required skills. The job providers want people with acquired skills and experience. Newcomers to the job market do not have such skills. 84% of students surveyed cited interest in exploring internship opportunities however only 37% of employers offer internships to freshers. This mismatch must be addressed.

One state that has done well in getting its youth ready for the job market is Andhra Pradesh (AP). To enhance employability, the AP government's key mandates are training in domain-specific industry recognized courses, 'Modular Market' demand courses and soft skills training. This is well in line with the findings of the Skills Report that the top 10 Indian states with the highest employability registered not only high domain expertise but also high non-technical skills. Furthermore, when the survey asked employers to cite three highly desirable soft skills apart from technical knowledge, employers ranked communication skills in the first spot, followed by adaptability and learning agility to meet the challenges brought about by disruptive technologies and changing job environments.

5. Land Misallocation and Acquisition

"Buy Land, they are not making it anymore" Mark Twain

Some argue that in addition to labor laws a major reason why India remains uncompetitive is that it has mismanaged its most important and scarce underlying factors of production – land. This has affected use of capital, development of infrastructure that is needed for any modern economy to grow and prosper.

Ejaz Ghani (2018) argues that distortions in land markets are much bigger than those in labor markets. He attributes a huge decrease in output per worker in the manufacturing sector to factor misallocation. Most of this decline originates from the misallocation of land and buildings. He goes on to argue that if land misallocation has implications on capital allocation through financial markets. Because land is the best form of collateral due to its immobility (i.e., the debtor cannot run off with land) – land misallocation leads to massive capital misallocation. While borrowers can often pledge 80% of the land value against loans, for most other forms of fixed investment, the loanto-collateral value ratio is substantially lower.

Misallocation in labor market inputs had no adverse impact on the allocative efficiency of financial loans. The capital misallocation has worsened over time as large manufacturing firms have moved out from cities and into rural areas in search of more land. As a result, financial misallocation is far greater in the organized manufacturing sector than in the unorganized. Land appears to be a minor concern in services. Duranton et al (2018) compared the role of factor market distortions in services with the manufacturing sector. As most services tend to be less land intensive compared to manufacturing, they argue that land distortions have not constrained productivity growth in services. This is one factor that explains India's success in services relative to manufacturing.

Land acquisition also emerges as the major factor that owners of project's cite as the factor responsible for delays in infrastructure projects. According to Nallithiga et al (2017) besides land acquisition, environmental and forest clearance, need for alteration of project design and scope emerge as the major factor in delays. The top five important causes of construction delays in transportation infrastructure projects are mainly Land Acquisition, Environmental Impact of the project, financial closure, change orders by the client, Poor site management and supervision by contractor, are cited by Patil et al (2013) as key factors affecting project completion. The story is consistently the same in study after study. These delays are primary responsible for rising NPA's for loans given by the banking system to infrastructure projects discussed in the chapter on Banking and Finance.

In 2013 India passed a new land acquisition Act, with bi-partisan support to provide adequate compensation to landowners and define clearly for which purposes land could be acquired. These were defined as: for strategic purposes relating to naval, military, air force, and armed forces of the Union, including central paramilitary forces or any work vital to national security or defense of India or State police, safety of the people; or for infrastructure projects; or for building housing to resettle people affected by disasters and for poor families. The Act defines the following as land owner as including person who is granted forest rights under The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or under any other law for the time being in force; or a person who is entitled to be granted Patta rights on the land under any law of the State including assigned lands.

The bill included compensation for the land acquired but also landowner compensation for replacement housing and livelihood compensation for those working the land. These costs were set at very high levels making land acquisition very costly. It also introduced the clause that the law shall apply even when private companies willingly buy land from willing sellers, without any involvement of the government.

For a typical rural household that owns the average of 1 acre of land, the Act will replace the loss of annual average per capita income of ₹ 3700 for the rural household, with:

- four times the market value of the land, and
- an upfront payment of ₹ 45,000 for subsistence, transportation, and resettlement allowances, and
- an additional entitlement of a job to the family member, or a payment of ₹5,00,000 up front, or a monthly annuity totaling ₹24,000 per year for 20 years with adjustment for inflation – the option from these three choices shall be the legal right of the affected landowner family, not the land acquirer, and
- a house with no less than 50 square meters in plinth area, and

• additional benefits may apply if the land is resold without development, used for urbanization, or if the landowner belongs to SC/ST or other protected groups per rules of the Government of India.

Many have argued that with this law land acquisition for industry has become prohibitively costly. Before this law came into effect land zoning laws were used to exploit poor farmers. Their agricultural land would be acquired at cheap prices and rezoned industrial land when its market price would rise hugely. Politicians and corrupt officials in cahoots with industry made huge profits. And would often acquire far more land than was needed for industrial production and convert it into staff housing which would later be sold commercially. The landowners would be paid limited compensation, face displacement and often left poorer. This issue came to a head when Tata Motors wanted to acquire 1000 hectares of land to build a Nano car plant at Singur in West Bengal. When the Mamta Banerjee government denied them that option they moved the plant to Gujrat where then chief minister Narendra Modi offered them the land for a song.

When the BJP came to power it introduced a new Law in 2015 to water-down some of the provisions of the 2013 Law but land is such an emotive issue that even with considerable majority it has not been able to get this law passed. Instead, it is trying to remove the mandatory features of the law and then make it possible for individual states to modify the law.

One option is to lease land instead of selling it. Farmers have an emotional attachment to their land as it has often been in their family for generations. Leasing allows them to keep the title and get compensation for its use, including jobs for their youth and housing in the new real-estate developments. This option, the brainchild of Chandrababa Naidu was proposed for the new capital city for Andhra Pradesh Amravati on the banks of the Krishna River after it had to give up Hyderabad to Telangana. He had helped build Hyderabad- also called Cyberabad- into India's foremost IT city. Facing opposition by farmers to forced acquisition of fertile agricultural land he proposed a land-lease model. Unfortunately, the project ran into huge opposition and was subsequently abandoned by the new government of Jagmohan Reddy that came into power in 2019.

But while this project may have been abandoned for other reasons as well, the land -lease model does hold promise if it can be made to work with government leasing the land and on-leasing it for industrial and real-estate development. Further experimentation may be needed to see its potential. Since land is a scarce factor of production and its misallocation affects the structure of production and its employment intensity – much more attention must be paid to finding ways to make better use of it – including large tracts of land sitting with public sector undertakings. A new scheme to monetize land assets is planned but should not become a land grab by powerful cronies with connections – a transparent process will be needed.

There are also huge gender disparities in the ownership of land. According to Agarwal et al (2021) women's ownership of assets also remains low averaging 14% of landowners and 11% of the land. Despite the succession act which gives girls equal

rights to family assets, widows are more likely to inherit land than daughters as there is the fear that land inherited by them will transfer to the families they marry into. Without land access to credit and other benefits is also reduced.

6. Transport and Power Infrastructure: Improving but Remain Costly

"You and I come by road or rail, but economies travel on infrastructure" Margaret Thatcher

In a simulation exercise Chhibber and Kalloor (2016) show that if public infrastructure investment increases by 5% of GDP India's GDP growth rate will increase by 1%. Standard and Poor¹⁴ show that for every 1 % of GDP spent on infrastructure the multiplier effect on India's GDP is 2. The report argues that 1) Infrastructure development is critical for improving India's manufacturing competitiveness and achieving higher growth 2)Timely execution of projects within budgeted costs will be the key challenge, even if funding is available for economically viable projects.3)Power generation and transmission are improving, but transportation infrastructure capacity constraints continue to limit corporate performance and investments and 4)Successful infrastructure development can provide a boost to many sectors, including steel, cement, auto, real estate, and other.

In a country with poor infrastructure normally Say's law operates. Say's Law can be summarized as "supply creates its own demand". Build a road and commerce and business will follow. Das et al (2019) use the construction of India's Golden Quadrangle (GQ) central highway network, together with comprehensive loan data drawn from the Reserve Bank of India, to investigate the interaction between infrastructure development and financial sector depth. They identify a disproportionate increase in loan count and average loan size in districts along the GQ highway network. Importantly, however, results are concentrated in districts with stronger initial financial development, suggesting that while financing does respond to large infrastructure investments and help spur real economic outcomes, initial financial sector development might play an important role in determining where real activity will grow.

If we look at different components of infrastructure, we get a mixed picture on where India stands. Power generation and distribution is improving but distribution remains a big problem in India with state distribution companies DISCOMs in deep financial distress. Garg et al (2020) writing for the Institute of Energy Economics and Financial Analysis ascribe the problem to absence of competition, unsustainable crosssubsidies, economically inefficient tariff setting processes, expensive thermal power purchase agreements (PPAs), and a lack of modern technology and infrastructure development which add to discoms' losses. But even as power availability improves

¹⁴ The Missing Piece in India's Economic Growth Story: Robust Infrastructure | S&P Global

India's electricity prices for industry remain amongst the highest in the world for producers – but are very reasonably low for consumers and provided free for the agricultural sector. Electricity prices for consumers average US \$0.8/KWH or \$80/MWH as against \$117/MWH for industry (Figures 3 and 4).



Figure 3: India Has Low Electricity Prices for Consumers





Industry electricity prices, US Dollars/MWh, 2018 or latest year available

Programs like the Ujwal DISCOM Assurance Yojana (UDAY) were designed specifically to provide much needed reforms but while there was some initial success the problems of DISCOM's have resurged – especially during the COVID pandemic when electricity demand fell sharply, but guaranteed contracts with power generators had to be honored. The 15th Finance Commission has provided incentive allocations to states to improve the functioning and finances of its Discoms. In its report, the 15th FC has allowed an additional borrowing limit of 0.05% of GSDP for a state, for reduction in Aggregate Technical &Commercial losses as per targets and another 0.05% borrowing

space for reduction in the energy cost-revenue gap. Also, introduction of DBT to all farmers in a state in lieu of free electricity given to them will entail additional borrowing limit of 0.15%.



Figure 5: India's Petrol Prices Higher than Other Emerging Economies





Source for Fig 5,6: November 2020, https://www.globalpetrolprices.com/diesel_prices/

Very high petrol and diesel prices also add to the cost of doing business in India and work against the development of the manufacturing sector – where energy needs are the highest. India's petrol and diesel prices are higher than average world prices, about 1.5 times the US pump price and above prices in other emerging economies like Brazil, China, Mexico, and Turkey. They are high because of huge state and central taxes and cesses, mainly imposed for revenue reasons. As demand for energy is relatively price inelastic in the short to medium run high prices do not result in lower use but in higher costs which are passed on to producers and lower their competitiveness.

7. Cities and Urban Infrastructure: Higgledy-Piggledy Growth

"We will neglect our cities to our peril, for in neglecting them we neglect the nation." John F. Kennedy

In combination with demography, urbanization will define how India will prosper or not. Cities can be engines of growth, innovation, and better living but if not, well planned cities can breed greater inequality, insufferable air quality and huge waste of travel time and poor livability. India's major cities which are likely to generate GDP larger than many developing countries today have developed in an unplanned manner and therefore score very poorly on livability.

Urbanization also offers substantial opportunities to reduce poverty, in part because it is more cost effective to meet many basic needs in cities than in rural areas according to Coleander (2016). Her paper demonstrates that providing electricity to the 200 million urban residents who currently lack access would require only \$1.37 billion per year to 2045. Generating this electricity from low-carbon options (consistent with avoiding a 2°C temperature rise) would cost only 1% more. This shows that relatively small amounts of resources need to be mobilized to deliver basic services and infrastructure to the urban poor – an essential precursor to inclusive and sustained economic growth. And in many country's migration to cities; even to the periphery in slums has led to improvements in health and life expectancy as access to health care, water, and electricity even in very rudimentary ways has improved livelihoods. But they remain cesspools of poverty and huge inequality and more planned development and smarter cities could massively increase the benefits of urbanization for lives and livelihoods.

Oxford Economics' Global cities report estimates that 17 of the 20 fastestgrowing cities in the world between 2019 and 2035 will be from India.¹⁵ By 2030 Mckinsey Global Institute projects that Mumbai will generate a GDP of \$200 billion, Delhi \$150 billion, Ahmedabad \$95 billion, Hyderabad \$82 billion, Bengaluru \$70 billion – these are sizes of many developing countries today. But to make these cities more livable and productive will be a major challenge. In 2019, New Delhi and Mumbai ranked a low 118th and 119th respectively, on the Economist Intelligence Unit's Global Livability Index 2019 that covered 140 cities.

On a visit to Singapore in 1973 Mrs. Indira Gandhi was asked whether she was impressed by what she had seen. To which she reportedly responded, "It's a city, we can build 20 of these anytime". The reporter shot back "Madam, why don't you, it might transform the country". But nothing changed as the votes were largely in the rural areas. India's cities grew in an unplanned manner until 2005 when a central flagship program the JNNURM – Jawaharlal Nehru National Urban Renewal Mission was introduced to help guide and finance urban development. Since 2014 there was an

¹⁵ Oxford Economics' Global cities report.

even greater focus on urban development – the JNNURM was renamed AMRUT Atal Mission for Rejuvenation and Urban Transformation. This has been complemented by other programs like the Smart Cities Program, Swatch Bharat Mission, and a revamped Pradhan Mantri Awas Yojana – Housing for All which was largely a rural program earlier. But all these schemes, just like the JNNURM still reflect a very top-down approach to development. A Sagarmala scheme to build 20 cities (port-led development) along India's coastline has been on the anvil for some time now- but progress is slow.

City	FAR	
Sao Paulo	1.00	
Mumbai	1.33	
Chennai	1.50	
Delhi	1.20-3.50	
Amsterdam	1.90	
Venice	2.40	
Paris	3.00	
Shanghai, China	8.00	
Vancouver	9.00	
San Francisco	9.00	
Chicago	12.00	
Hong Kong, China	12.00	
Los Angeles	13.00	
New York	15.00	
Denver	17.00	
Tokyo	20.00	
Singapore	12.00-25.00	
Source: World Bank (2013)	

Table 2: City Center Floor Area Ratio (FAR) Values in Different Cities

India's third tier of government – the panchayats and urban local bodies (ULB's) remain very weak, both in their capacity and in their finances. According to Kapoor and Sinha (2020) the constitution allows 18 functions to be devolved to ULBs, but this must be granted by states who are reluctant to do so. More than that they can take away revenue generating jurisdictions from municipal authority by declaring them industrial townships. Municipal finance issues which need urgent attention particularly the issue of property taxation and user charges. India's real urbanization is much larger than shown by census data as many peri-urban areas are still run by panchayats so that they can remain classified as rural for tax purposes. But such structures do not allow for better professional management and they remain deprived of many services and facilities which an urban designation would provide them.

India's urban development is also very top heavy. Based on the 2011 census, Class I cities – those with population of 100,000 and above had only 26% of the population in 1901, 44.6 % in 1951 but now have 70.2 % of the population. 42% of the urban population now lives in 53 cities with size above 1 million. The Indian urban system—in terms of distribution of population in different size-class of cities—has clearly become more unequal. The small and medium cities' share in total urban population has consistently declined over the years. Megacities have become congested, clogged, polluted, and show significant social polarization. There is a gridlock situation for the cities, inhibiting their potential for becoming effective economic and social change sites. According to Shaban et al (2020) the top-heavy character of India's urban system also adversely impacts the balanced regional development of the country.

Land-use regulations and transport infrastructure also have a major impact on whether cities are efficient and reduce disparities. Harari (2016) shows that the shape and spread of Indian cities are hugely impacted by factors, such as floor-area -ratios (FAR's) which discourage compactness, very odd for a country with high population density. In India over time FARs have been reduced ostensibly to avoid congestion in the city-center and India now has the lowest FAR's in the world- resulting in huge city sprawl and very un-SMART cities (Table 2). The development and location of public transport – metro's bus lanes etc. also have a huge impact on mobility and spatial development. Some cities such as New York and Sao Paulo have used changes in FAR's as an incentive for urban rejuvenation.

Mumbai municipality has also tried them but has done so in an unplanned manner largely to raise revenue resulting in further problems, according to the Shenvi and Slagen (2018). Besides Floor Area Ratios, Bertaud (2002) argues that examples of regulations that are impacting the effectiveness of urban development are the Urban Land Ceiling Act, which has been claimed to hinder intra-urban land consolidation; rent control provisions, which prevent redevelopment and renovation of older buildings; regulations hindering the conversion of land from one use to another; and, more generally, complex regulations and restrictions in central cities, as opposed to relative freedom outside the administrative boundaries of cities. Many other aspects of efficiency are also affected by spatial development such as delivery of water, electricity, sewage.

Akbar et al (2018) find that there are huge variations in mobility speed across Indian cities. Mega cities like Calcutta, Bangalore, Hyderabad, Mumbai, Delhi, and Chennai have very slow mobility less than 15 mph – but so do much smaller cities like Varanasi, Patna, Gaya, Darbhanga and Ranchi. This they attribute to the fact that uncongested mobility is a key factor determining speed in India cities – so speed is slow most of the time – not only at rush hour. India traffic moves slowly as there is very poor infrastructure and all forms of transportation co-exist on the roads – from cycles, two wheelers, cars, truck, buses and push carts/pull carts, stray dogs, and cattle as well. Chandigarh which has the best roads and fastest mobility has average speeds slower than Chicago, the slowest city in the USA. There are no obviously good solutions other than building better public transport – metro, sky trains, bus lanes etc. But in mega cities rush hour congestion is a major issue and other methods to alleviate that – more metro trains, more buses and congestion pricing can be solutions.

8. Conclusion: Allow More Local Experimentation and Strengthen State-Centre Cooperation

What this paper has shown is that reforms of factor markets – especially labor and land will not be easy. Unlike the 1991 liberalization which was mainly in product markets, the reforms were relatively more straightforward. They were mainly in areas under the jurisdiction of the center. India is now entering reforms which have concurrent jurisdiction – the states must also come on board and in many cases must be applied and enacted to suit local conditions. This does not mean no national standards must be legislated. We do not want a race to the bottom, by competing states diluting land and labor laws to attract investments. But instead, it may be better to enact broader laws which protect the interests of the exploited – but enabling detail may be left to the state level laws and regulations.

Clearly some balance will have to be found. The land and city zonal laws are counter-productive to India's future development. India's FAR floor area ratio must be increased to avoid urban sprawl and inefficient urbanization. The land laws in general now make land prohibitively expensive to acquire. Land leasing may be a better way forward – where the land remains in the original owners' hands. India will have to experiment further, and this experimentation is best done by the states.

India needs to pay much greater attention to much smarter and better-planned urban development. India will urbanize, as people move from rural areas in search of better living conditions. But if it wants to grow at 7-8%, how its cities grow, how they deliver the benefits of agglomeration, how they take care of new entrants and whether they become centers of innovation or cesspools of social conflict, crime, bad air quality, sanitation and clogged traffic will be determined by how aggressively and smartly India meets these challenges. It will determine whether India's demography is a dividend or a disaster.

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