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ABSTRACT

The pace and growth of urbanization in India poses enormous challenges to urban governance. This article examines the institutional features and devolution mechanisms of the federal framework within which cities have to deliver better quality of life for their residents and generate an investment climate that is capable of sustaining the rapid growth. It argues that though planned urbanization is needed for the industry and services sectors and also for rural rejuvenation, the lack of empowerment of cities is constraining their ability to translate the urban development agenda into action. The article emphasizes the importance of bridging the urban infrastructure deficit and argues that institutional reforms are crucial for reaching out to the private sector for sharing the financing burden and ensuring that it results in improved service delivery. The experience of a pioneering national mission for urban renewal and the design of new national missions are reviewed to highlight the importance of strengthening reforms and capacity for planning and management at the local level. Though the Government of India will have to provide strategic leadership, some funding, and assistance in building capacity for urban planning and management, state governments will be the principal players in creating an environment in which city governments can discharge the responsibilities assigned to them by the constitution.

India has been among the fastest growing economies in the world for close to 2 decades. Faster growth has obvious implications for the pace and nature of urbanization. The combination of rising aspirations and growing middle classes on the one hand and inadequate planning for the inevitable increase in urbanization on the other is creating a situation that is socially, financially, and environmentally unsustainable (Gore & Gopakumar, 2015). The challenge facing India's planners and policymakers is how to radically improve the quality of life in cities so that they can continue to accommodate future growth while ensuring better living conditions for their residents and synergetic development of the rural sector. This article argues that reform in the institutions of urban governance is crucial in addressing this challenge.

There are three overwhelming roadblocks to better urban governance in India: a federal framework that has not empowered its third tier despite amending the constitution in 1992 for doing so, a missing link in the institutional framework for metropolitan planning and governance, and a political system that is heavily biased toward the rural sector (see, e.g., Kazmin [2016] and the section "Anti-urban bias in the political regime," below). Unless institutional reforms are put in place to address these challenges effectively, the process of urbanization cannot be taken forward to support the twin objectives of improving the quality of life of India's rapidly growing urban population and transforming Indian cities to play their role as engines of growth in India's current stage of development (Corbridge, Harriss, & Jeffrey, 2012).

This section presents the basic framework of urban governance in India, highlighting the challenges posed by the federal framework within which cities operate, including the missing institutions for metropolitan governance and the anti-urban bias of the political system. The following section documents the major features of India's growth experience of 2003–2016, highlighting some of the fault lines and spelling out their implications for the role of cities and the need for planned urbanization. The next section presents the urban scenario with its extremely poor state of service delivery. It also analyzes the role of national urban missions in addressing the challenges of urbanization. The final section sums up the main conclusions from the analysis.

Cities not empowered

Indian cities are not empowered within the Indian federal framework to take on the challenges of urbanization with rapid growth. The Constitution of India originally placed the responsibility for urban development on state governments. In 1992, the 74th Constitutional Amendment formally recognized urban local bodies as the third tier of government and mandated that state governments transfer to local governments a set of specified functions under the 12th Schedule, assigning to them the responsibility for functions such as urban planning, including town planning; regulation of land use and construction of buildings, roads, and bridges; the provision of water; public health; and sanitation and solid waste management. As a result, accountability now rests with the urban local bodies but it is not backed by either adequate finances or the capacity for planning and management (a well-known problem; e.g., see Meloche & Vaillancourt, 2015). State governments have an important role to play not only in transferring functions, funds, and functionaries but also in providing an enabling environment through legislative and institutional reform, whereas the Government of India can only provide strategic leadership.

A number of functions under the 12th Schedule have been devolved by many but not all state governments over the past 2 decades or so. However, a number of very important functions such as town planning continue to be held by most state governments (Panagariya, 2014). Town planning is significant because it can be a powerful instrument for mobilizing finances in a transparent manner to help meet the growing investment needs for urban infrastructure. In addition, some states include a peculiar provision in their municipal legislation stipulating that specific functions may be assigned to the local governments by the state government from time to time, thereby precluding unambiguous assignment. There has also been little action on transferring functionaries to the local governments. Municipal functionaries in most cases are employees of the state governments and are posted by the state government to individual cities.

On funding, the 74th Constitutional Amendment had required that state finance commissions be set up by the state governments to spell out the principles for sharing/devolving a part of the revenue of the state government to local governments (Mathur & Peterson, 2006). The expectation was that states will follow the example set by the Government of India in appointing highly reputed members and chairpersons to the Central Finance Commission, providing technical support to the commission, and accepting its recommendations (Rangarajan, 2005). However, state finance commissions did not meet the standards set by the Central Finance Commission. They have not challenged the state level political resistance to devolve and urban local governments have remained hamstrung by the lack of funds and are having to function with unfunded mandates.

The latest available data show deterioration in almost all of the major financial indicators of empowerment for urban local governments in India from their already very low levels (Mohanty, 2016). Total municipal revenues constituted only 1.08% of gross domestic product (GDP) in 2007–2008 and declined further to 1.03% of GDP in 2012–2013. By comparison, this ratio was 4.5% in Poland, 6% in South Africa, and 7.4% in Brazil (Mohanty, 2016). Municipal own revenues accounted for 53% of the total municipal revenues in 2007–2008 and declined further to 51% in 2012–2013. Much the same is true of revenue from municipal taxes and property tax revenue between 2007–2008 and 2012–2013. India also fares poorly in ensuring predictability in the transfers

from state governments to urban local governments. The disempowerment has reached levels such that for several states, staff salaries of the urban local governments are being paid by the state governments.

In South Africa, the transfers are determined and announced at the annual budget time, and for the period from 2008–2009 to 2010–2011, local governments received revenues in the range of 7.5 to 8.2% of the total revenues raised nationally (Mohanty, 2016). The central government also funded 40–50% of infrastructure investments in large cities and 60–70% in small cities through grants and loans. China allows its cities to retain 25% of value-added tax, which, for example, is equivalent to US\$4.5 billion per year for Shanghai (Mohanty, 2016). Local governments receive 35% of value-added tax in Nigeria and in the Philippines municipalities receive 34% of national internal revenues (Mohanty, 2016).

In addition to the lack of financial devolution, there is a lack of financial autonomy both in mobilizing resources and in setting user charges to cover costs (Panagariya, 2014). Property tax rates and exemptions are typically set by the state government; this is a major source of revenue for the local government, and the urban local bodies are at the mercy of the state government. There have been instances of exemption limits raised and/or tax rates lowered before state elections; for example, in Punjab, Haryana, and Rajasthan. In addition to the need for reforming the property tax regime through setting up a property tax board and better methods of assessment, valuation, and collection of property tax with the help of geographic information systems and other information technology (IT) tools, there is a general need to add a municipal finance list in the constitution that should specify taxes that are exclusively the domain of local governments. Any increase in user charge, even if it is to cover costs in the delivery of public services, also typically has to be approved by the state government. The local governments do not have effective power to set user charges.

As mentioned earlier, assigning town planning to municipal governments could be a major instrument through which urban local governments can unlock land value so that they can go about the business of land zoning and developing urban infrastructure within a framework of self-financing (Moonen, Moir, & Clark, 2014). In addition to generating revenue, unlocking land value can potentially act as an incentive for more efficient land use, which would result in compact cities. But town planning function has not been transferred to urban local governments in most of the states.

A new opportunity for financial devolution was offered by the recent negotiations between the Government of India and the state governments on the introduction of goods and services tax (GST) that requires an amendment of the constitution. However, as the political system in India traverses the last mile to bring forth a constitutional amendment for GST, there is little inclination on the part of state governments to devolve even a small part of the revenue from GST to the third tier (Ahluwalia, Kanbur, & Mohanty, 2014).

Inadequate capacity at the local government level to respond to the challenges of urban planning and management in a rapidly evolving urban scenario is the other crucial challenge faced by Indian cities. Urban local bodies have come to acquire a host of functions that are new if not unprecedented. These include preparation of a city development plan, city mobility plan, city sanitation plan, e-governance, and meeting the numerous benchmarks set by the Government of India for service delivery. The experience of the 2005–2014 period under Jawaharlal Nehru National Urban Renewal Mission (JNNURM), a national mission for urban renewal and rejuvenation, clearly highlighted the lack of capacity at the urban local government level as a major constraint in planning and implementing the projects for urban development (see, e.g., Grant Thornton [2011] and the subsection on JNNURM later). State governments will have to develop and strengthen their municipal cadres and support their training in contemporary tools of urban planning and management, in financial management through accrual-based, double-entry financial bookkeeping and regular audits, and in use of e-governance tools. A major capacity-building program involving institutional support through schools of urban planning and management was recommended by the High Powered Expert Committee on Urban Infrastructure and Services (HPEC, 2011), which was set up

by the Government of India in 2008 under the chairmanship of the present author to determine the investment requirements over a 20-year period, 2012–2031. Serious efforts at building capacity at the urban local government level will have to be made by the Government of India as well as state governments.

Missing metropolitan planning and governance

A significant development in India's structural transformation is that metropolitan regions are being created by default and not by design. The Constitution of India provides considerable discretion to state governments in determining the administrative boundaries of metropolitan regions, and these have not typically been set keeping in mind the need to create a unified market forging strong economic linkages between the core city and the periphery of the region. The constitution also requires that metropolitan planning committees (MPCs) and district planning committees (DPCs) prepare development plans for their respective areas, although there is lack of clarity on how these plans will fit into a larger picture and how they will be financed. Though MPCs and DPCs have been formed in some states, even there they have not forged links with city planning authorities. They have also not been effective as regional planning agencies (Sivaramakrishnan, 2015).

Anti-urban bias in the political regime

The existing distribution of power in the Indian political system is such that urban population is underrepresented in both national and state legislatures (Burdett, Rode, Shankar, & Vahidy, 2014; Mohanty, 2016; Rao & Bird, 2014). The last time parliamentary and state legislative constituencies were redefined to reflect population changes within the country was in 2008. This was done by the order of the Delimitation Commission of India (Election Commission of India, 2016), which determined the delimitation of constituencies based on the population as in 2001. The general elections of 2014 were therefore conducted with urban and rural constituencies distributed on the basis of the 2001 census that showed only 28% of India's population as urban. A political agreement was also reached whereby this proportion will remain frozen until 2031 so the significant underrepresentation of urban areas will continue (Ahluwalia, 2014a).

The political economy of development in India has remained dominantly concerned with the development of rural areas implicitly assuming that urban areas can take care of themselves. Quite apart from the fact that the urban areas have been generally neglected in carving out a development strategy for the economy, the emerging urban areas have also been denied the basic statutory framework for demanding governance. For example, even though the Census of India declared that the number of towns increased by over 2,750 between 2001 and 2011, towns with statutory local governments (which are notified by the concerned state government) increased by only 242 over the same period. The remaining 2,500 or so areas remain unacknowledged as towns even when the census declares that they fulfill the criteria to graduate from a village to a town.¹ Not only is there political resistance at the state government level to empower these towns with a statutory urban local government that could articulate and deliver their demand for urban infrastructure and services but often the rural local governments themselves are reluctant to “go urban” because local politicians are apprehensive that they would lose large amounts of funds for rural development schemes and they also fear the regulations that urbanization brings with it.

Political empowerment is also weakened by infrequent elections for local governments and limited tenures of mayors. More important, the executive power by and large is vested in municipal commissioners, who are appointees of state governments. A suggestion for direct elections of mayors is often put forth as an instrument for better governance. Only very few states such as Tamil Nadu, Rajasthan, Uttar Pradesh, and Himachal Pradesh currently have directly elected mayors. The functioning of a directly elected mayor in a parliamentary system poses a number of challenges. Where the council of locally elected representatives is controlled by a political party antagonistic to

the party from which the directly elected mayor comes, the decision making can become tortuous, although the council could be a counterbalance to the mayoral position. However, such checks and balances become meaningless because in most states the mayor has virtually no executive powers. Where powers are vested in the mayor-in-council, an indirectly elected mayor may well be in a better position to ensure smoother functioning. More important than the mode of electing the mayor is the issue of the powers of the city government relative to the state government. The enormity of these challenges of governance can be better appreciated when juxtaposed with the fast-changing urban scenario in the rapidly growing Indian economy.

India's rapid growth and the role of cities

Rapid growth: 2003–2016

India's growth performance during the period from 2003–2004 to 2015–2016 was among the highest among developing countries. An unprecedented average growth rate of 7.6% per annum during the period from 2003–2004 to 2013–2014 was followed by somewhat slower growth rate of 7.4% in the subsequent 2 years (Figure 1, Central Statistical Office, 2016).² In 1991, reversing course from a heavily protected and highly regulated policy regime, the Government of India had launched a process of wide-ranging economic reforms with a view to provide larger room to market forces and to open the economy to foreign trade and investment. The incremental approach to reform and the long legacy of regulation/control and protection from foreign competition meant that it took time to establish the credibility with private investors that the new policy regime was here to stay. This meant that the private investment response to the reforms was slow to emerge. A pickup in private investment started only after 2001.

The significant acceleration in GDP growth after 2003–2004 has been driven dominantly by non-agriculture sectors with the private sector playing a major role in the acceleration. Although growth had begun to falter in 2011–2012, the latest data suggest that by 2013–2014, the Indian economy was on a path to recovery, and the growth of GDP in 2015–2016 was 7.6% (see Figure 1).

The relatively much faster growth of services meant that between 2004–2005 and 2012–2013 (the 2 years for which comparable data are available), services increased their share from 53 to 58.7% of GDP. The global competitiveness of IT, business process outsourcing, and financial services was derived from a strong knowledge base that had been developed through institutions of higher education in many states of India that had been established several decades ago. Telecommunications was another sector that grew very rapidly and contributed in a major way to the global competitiveness of the Indian economy (Mukherjee, 2013). The service sector firms were able to exploit the opportunities of buoyant external demand because they were much less dependent on physical infrastructure that had been a major drag on the competitiveness of Indian industry. The restrictive regime of the Industrial Disputes Act (1947) was also not applicable to firms in the services sector.

The share of agriculture in GDP declined from 19% in 2004–2005 to 14% in 2012–2013.³ This was to be expected as resources moved to the higher productivity non-agriculture sectors. But what was unusual in the Indian experience was the fact that the share of industry in GDP also declined somewhat from 28% in 2004–2005 to 27.4% in 2012–2013. However, some knowledge-based parts of manufacturing—for example, pharmaceuticals, auto components, and automotive sectors—participated in the growth momentum but were again largely concentrated around a few urban centers in the southern and western states of India.

The manufacturing sector in India generally continued to be constrained by the inadequacy and poor quality of physical infrastructure, a restrictive industrial policy regime, and labor laws that severely limited the flexibility in the hiring and firing of labor. The few cities that acted as engines of growth—for example, Mumbai, Bengaluru, Chennai, Hyderabad, Delhi, Pune, and Ahmedabad—experienced the stresses and strains of unplanned urbanization that were reflected in growing traffic congestion, a worsening situation with regard to water scarcity and its quality, and

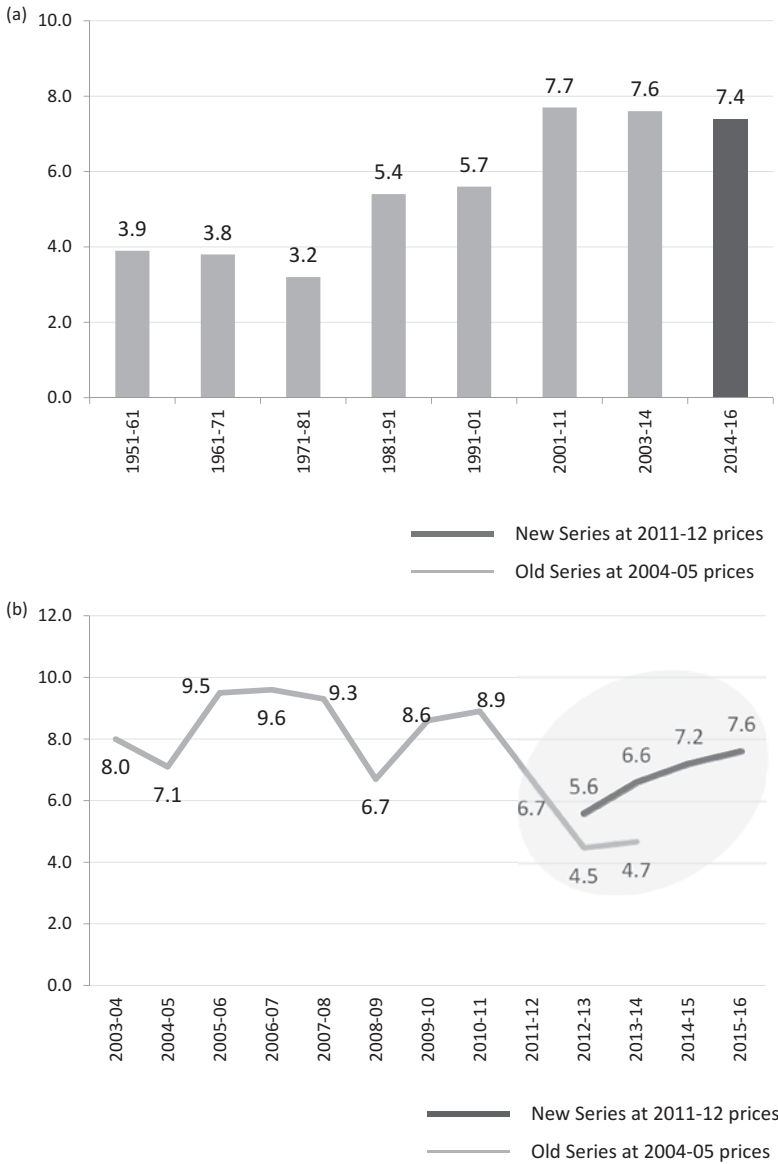


Figure 1. A snapshot of India's GDP growth. Source: Central Statistical Office, Ministry of Statistics Program and Implementation. Note: Advance Estimate for 2015–2016; First Revised Estimate for 2014–2015.

environmental degradation in general. This added to the adverse investment climate, which was already suffering from an overload of high transactions cost of doing business because of restrictive regulations and the complicated procedures of obtaining government clearances (Ahluwalia et al., 2014).

As the metropolitan regions around these cities are being highly integrated with the economic and financial global economy and the cities aspire to become globally competitive and, at the same time, expansion of the city boundaries and surrounding large villages grow into towns in situ, these forces call for urban planning to promote and accommodate rapid growth and inclusive development. In Venables' (2009) words,

Because new urban centres are hard to establish, existing cities grow well beyond their optimum scale, possibly to the point at which, at the margin, diseconomies such as congestion outweigh positive economies of scale. Such an outcome is clearly inefficient. The policy question is, how should the growth of new cities or the de-concentration of existing ones be promoted? (p. 58)

Hard as it may be, it is important to develop new cities wherever growth potential of a region so warrants. This is certainly important in the long run. Thus, since the Western Dedicated Freight Corridor from Delhi to Mumbai is expected to be completed by the end of 2017, and the Delhi–Mumbai Industrial Corridor is being planned for manufacturing-led urbanization, a number of greenfield cities are being planned along the corridor. For example, Amaravati, the upcoming capital of Andhra Pradesh, is a greenfield city that can be a model of urban planning and management (Government of Andhra Pradesh, 2016). But there is no denying that for the 8,000 or so existing cities and towns of India, urban development and urban rejuvenation has to involve a significantly better service delivery and improved governance, together with better and expanded urban infrastructure.

Rising urbanization

Rapid growth is necessarily associated with an increase in the share of urban GDP. For India's rapid growth phase, such estimates are available for 1999–2000 and 2009–2010. They indicate that the share of urban GDP in the total has increased from 52% in 1999–2000 to 63% in 2009–2010 (Planning Commission, 2011). However, India's urbanization is much lower than that of most countries that are its natural comparators. In 2015, 33% of India's population was urban, compared to 54% in Indonesia, 56% in China, 79% in Mexico, 83% in Korea, and 87% in Brazil (United Nations, 2014). There is reason to believe that the urban population share is underestimated in India (HPEC, 2011); the absolute numbers are staggering nevertheless. India is home to the second largest urban population in the world. Its urban population increased from 286 million in 2001 to 377 million in 2011; it was estimated at about 420 million in 2015 and is projected to increase to close to 600 million by 2031.

As investments in industry and services look for urban space to garner economies of agglomeration, both market forces and the government have to play an important role in generating these economies. Because there was no integrated planning of transport and land use, investors faced congestion diseconomies and environmental degradation and in the process themselves contributed further to the deterioration in the standards of urban living.

Planned urbanization is needed as much for the industry and services sectors as it is for rural rejuvenation because it fosters the synergy between rural and urban sectors. For example, the quantity and quality of water available for agriculture is significantly affected by water use in urban areas. Similarly, modernization of the retail sector in urban areas including foreign direct investment encourages investments in logistics and back-end infrastructure, offering opportunities for high-value agriculture. Punjab in the post-1991 period clearly shows that without an industrial policy and an urbanization strategy in place, a rich agricultural base cannot continue to deliver rapid economic growth. Punjab failed to invest in urban infrastructure to develop its cities as engines of growth, which would also have provided fillip to agricultural modernization. The result was that industrial growth was slow and agricultural growth also stagnated (Ahluwalia, Chaudhuri, & Sidhu, 2008). From being the state with the highest per capita income until the late 1980s, Punjab was 15th among India's states and union territories in 2014–2015 (Central Statistical Office, 2015).

Creating employment and generating skills

Expanding employment opportunities in the industry and services sectors to provide scope for high-productivity jobs in urban areas continues to be the principal challenge for India's policymakers. The share of agriculture in GDP has declined to less than 14%, but almost 50% of the total employment

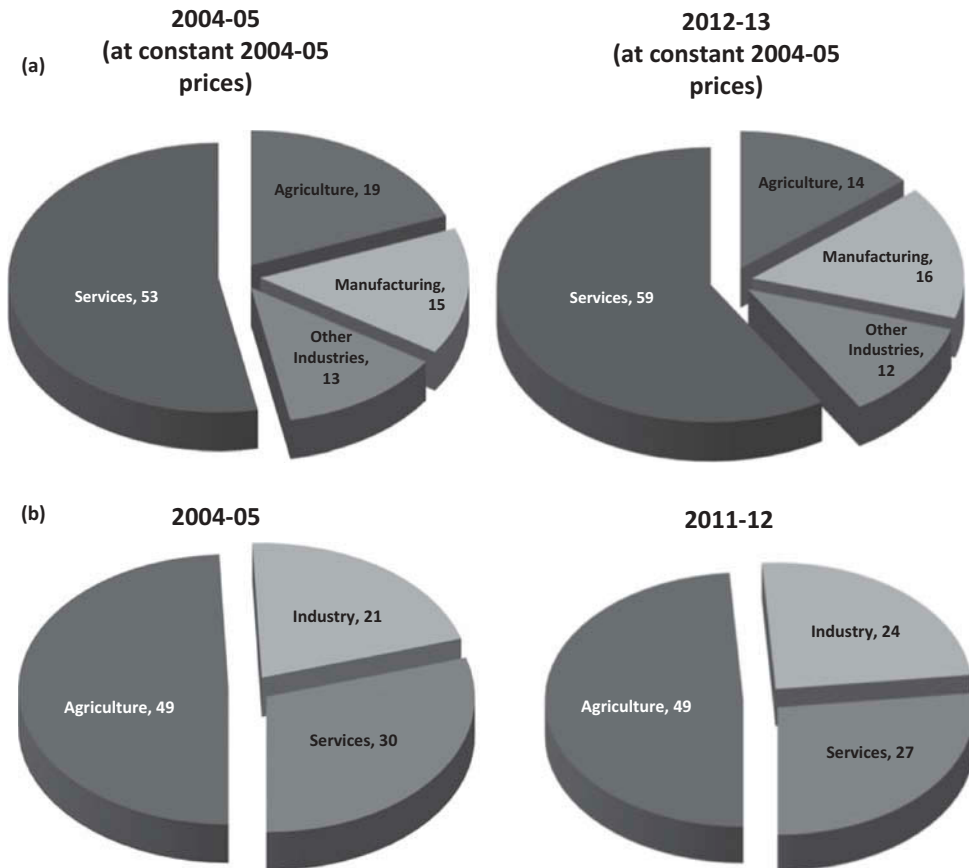


Figure 2. (a) Share of major sectors in GDP and (b) share of major sectors in employment. Source: Central Statistical Office, Government of India; NSSO Employment and Unemployment Survey, 61st and 68th rounds.

generated in the economy is still in agriculture (see Figure 2). Growth of employment did not keep pace with the growth of output in the nonagriculture sectors. This has serious implications for a growing pool of the unemployed in urban areas.

Scarcity of skills emerged as a major challenge as the rapid growth of GDP showed how unprepared India was and still is with respect to the demand for skilled manpower. India's working-age population as a proportion of the total population will continue to rise until 2040, unlike that in China, where a decline began in 2010, and Brazil, where it will begin in 2020 (Figure 3). This demographic opportunity for India can be converted into a demographic dividend if the youth are empowered with the necessary skills and higher education. The urgency of this arises from the fact that 50% of the population is below the age of 25, and aspirations are rising faster than incomes.

Increasing numbers of people move from rural to urban areas in expectation of employment in higher productivity jobs and find that they have neither the skills to match demand nor employment opportunities and that the overall economic environment is not conducive to innovation and enterprise, which creates a pool of frustrated youth and makes the task of planning and managing urbanization that much greater. Vocational education helps to prepare workers for simple, low-skill jobs. A skill development program works toward developing skills in areas that are in demand.

The Government of India launched a National Skill Development Initiative in 2007 and followed this up with the setting up of a National Skill Development Corporation in 2008 that works within the framework of public-private partnership with active engagement of the private sector so that

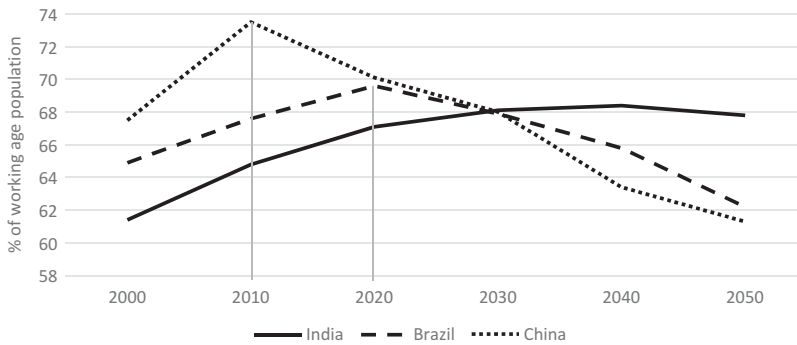


Figure 3. Demographic transitions: India, China, and Brazil. Source: Population Estimates and Projections, World Bank.

mismatches between demand and supply of skills can be minimized.⁴ More recently, a Ministry of Skill Development and Entrepreneurship has been created in the Government of India with a view toward driving a number of initiatives, including the Prime Minister's Skill Development Program.

In addition to skill development, a receptive environment for entrepreneurship is necessary for addressing the challenges of creating employment in urban areas. Start Up India and Make in India initiatives are designed to create such an environment. A good investment climate would require much better ease of doing business, including greater flexibility in the labor market together with greater social security for labor, better living conditions in the cities to generate agglomeration economies, better infrastructure, and macroeconomic stability. Such an ecosystem will encourage innovation and enterprise in the form of new ventures including startups, which in turn will create employment.

Infrastructure development: New challenges

The inadequacy and poor quality of physical infrastructure—for example, roads, transport, electricity, and telecommunications—has been a longstanding major factor holding back Indian industry from attaining global competitiveness. Though breakthroughs in mobile telephony and the penetration of mobile phones in the Indian economy have revolutionized telecommunications, rapid growth of the economy has brought to light some gaping holes in basic physical infrastructure for industrial development, including that needed for planned urbanization.⁵

The urban infrastructure investment deficit was estimated at \$827 billion at 2009–2010 prices for the period 2012–2031 by HPEC (2011).⁶ The estimate was based on the assumption that GDP at constant prices would grow at 8% per annum, the norms for service delivery set by the Ministry of Urban Development in 2008 will apply universally, and all of the unserved, underserved, and additional population between 2012 and 2031 will be covered. Water and sanitation infrastructure accounted for about a fourth of this total, and a large part (about two thirds) was for urban roads and transport, because the backlog in these sectors is very large (see [Tables 1 and 2](#)). The committee spelled out how this investment deficit can be bridged if investment in urban infrastructure (at constant prices) were to increase by 15% per annum for the first 5 years, 10% per annum for the next 5 years, and 8% per annum (the same rate as the assumed growth in GDP) for the following 10 years. This implies that the total expenditure on the urban sector would have to increase from 1.59% of GDP in 2011–2012 to 2.16% in 2031–2032.

Funds for infrastructure compete with the ever increasing demand for subsidies. In 2011–2012 the Government of India spent about 2% of GDP as subsidies on fertilizer and petroleum products. In the same year, state governments' budgets absorbed losses of close to 1% of GDP arising from the losses of state electricity boards. Larger public investment in both general physical infrastructure for economic development and urban infrastructure will require purposefully cross-subsidizing where

Table 1. Standards for urban public services.

Water supply	100% Piped water, 24/7 flow, and 135 lpcd consumption per capita	
Sewerage	Underground sewerage with 100% collection and treatment of wastewater	
Solid waste	100% Collection, transportation, and treatment	
Urban roads	Area under roads (%)	11 for cities 7 for towns
	Road density (km/km ²)	12.25 for cities 7 for towns
Stormwater drains	Network covering 100% road length on both sides of the road	
Urban transport	Rail-based and road-based mass rapid transit system for cities with population 1 million and above, city bus service for smaller cities and towns	
Street lighting	Illuminance: 35 Lux for all cities and towns; 40 m spacing for major roads, 45 m for collector roads, and 50 m for access road spaces	
Traffic support infrastructure	Type of infrastructure	For cities with population (over)
	Intelligent transport systems and area traffic control	500,000
	Vehicular and pedestrian underpass	100,000
	Parking systems	100,000
	Bus terminals	50,000
	Bus depots	20,000

Source. From Ministry of Urban Development, Government of India (2008).

Table 2. Investment requirements in urban sector: 2012–2031.

Sectors	\$ billion (at 2009–2010 prices)	Relative share (%)
Urban roads	364.4	44.1
Urban transport	94.7	11.5
Traffic support infrastructure	20.7	2.5
Water supply	67.6	8.2
Sewerage	51.2	6.2
Stormwater drains	40.3	4.9
Solid waste management	10.2	1.2
Other sectors	69.6	8.4
Renewal and redevelopment (including slums)	86.4	10.4
Capacity building	21.1	2.6
Total	827.0	100.0

Source. High Powered Expert Committee on Urban Infrastructure and Service Delivery, Government of India; Financial Year Exchange Rates, Reserve Bank of India.

possible, targeting subsidies to the poor, and plugging leakages in order to find financial resources for public investment in infrastructure (Haldea, 2011).

In recent years, with the opening of the infrastructure sector to private investment, there is a growing expectation of private finance supplementing public funds in the development of infrastructure for cities as well as for industrial development. For a number of reasons, this has happened only to a limited extent. In the case of urban infrastructure, the principal reason for this is the absence of a revenue model with the urban local governments that would enable repayment of the borrowed funds with interest and/or ensure a reasonable return on private investment in public–private partnership. Inadequate capacity for planning and negotiating at the urban local government level to enter into public private partnerships and inadequate support from state governments in creating an enabling environment are other reasons for private financing not coming forth.

Two new major challenges—that is, land acquisition problems and inordinate delays in obtaining environmental clearances and forest clearances—have emerged as major roadblocks for infrastructure development; for example, highways, ports, airports, and urban infrastructure.

Land acquisition. Until recently, acquisition of land for infrastructure development was governed by the Land Acquisition Act of 1894, which allowed private land to be acquired for the purpose of industrialization, development of infrastructure (High Level Committee, 2014), or urbanization if a modest compensation was paid (Ahluwalia et al., 2014). This was permissible even for private projects if they were deemed to serve a public purpose.

It is generally agreed that the compensation payable under the colonial-era act was very low and that the rehabilitation and resettlement of those affected was far from adequate. Though land acquisition was contentious even when it was done for public sector projects, the entry of private sector into mining and infrastructure through public–private partnerships heightened the resentment against acquisition. As protests mounted, the Government of India passed a new Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act in 2013 with tough provisions to correct for the biases.⁷ There was some rethinking on this issue by the new government that came into power after the general elections of 2014, and it was felt necessary to make the provisions for land acquisition less onerous. An ordinance was issued by the Government of India in 2014 in anticipation of an amendment in the act, and it was repromulgated a second time, but the ordinances faced stiff political opposition. Subsequently, the Government of India introduced a new bill that can potentially make land acquisition less onerous. It was passed by the lower house of parliament but could not get through the upper house (Raghuram & Sunny, 2015).

The difficulties in land acquisition make it extremely difficult to expand cities by acquiring agricultural land in the vicinity. Disputes over land are central to the politics of urban transformations around the world (Roy, 2014). In India, land owned and/or acquired by the state that is developed for urban use with public or private funds is seen as providing an opportunity to real estate developers to appropriate the value generated in the process of development. A more focused policy of appropriating a share of the value generated for the public exchequer would have ameliorated this resentment, but it has generally not been done. The fact that the rules and regulations for redeveloping land and property are highly nontransparent and property rights are ill defined and the enforcement of contracts is poor contributes to the problem. Ananya Roy (2014) refers to this as “urban informality: complex arrangements of tenure, ownership and shelter that cannot be easily converted into neat and tidy sales” (p. 13).

Some states like Gujarat, Maharashtra, and Andhra Pradesh have found ways of overcoming this challenge through instruments such as town planning schemes (Ahluwalia & Mohanty, 2014). This was accomplished by innovative legislative reforms at the state level. Difficulties in land acquisition also make it difficult to plan and implement major infrastructure development projects including slum redevelopment within cities. A very stringent requirement of consent of those affected can play into the hands of political forces who want to obstruct a specific infrastructure project.

The environmental regulation process. A second challenge to growth in recent years came from the system of environmental clearances that left large scope for corruption and delays. More recently, an official high level committee (High Level Committee, 2014) appointed by the new government under the chairmanship of T. S. R. Subramanian has found that there are too many different laws governing environmental regulation and the clearances are being given in a nontransparent manner by officials in different departments of the government without adequate scientific basis for the decisions. The committee has recommended a unification of these laws into a single legislation and setting up a statutory authority, the National Environmental Management Agency, which would lay down the scientific criteria for clearances and will be suitably staffed by experts to make recommendations. This would give the process a degree of transparency and legitimacy and would establish credibility of the government on environmental regulation, while also significantly reducing the scope for corruption and delays.

The urban scenario in India

As the discussion in the preceding sections makes clear, India has been facing a major transformation of its urban landscape. Because urbanization is not only a consequence of faster growth and development but also an instrument in promoting development through the economies of agglomeration which characterize cities, the cost of unplanned urbanization is borne by not only the cities but the whole economy.

State of service delivery and shelter

With regard to the state of public service delivery in Indian cities and towns, unsafe water, poor sanitation, and heavily polluted air have come together to create an urban environment that is a major health hazard (HPEC, 2011). The challenges of mobility and shelter add further to the litany of urban woes. It affects both the quality of life of those living in the cities and the investment climate for rapid, sustainable, and inclusive growth of the economy.

Only about 62% of the urban population has access to treated tap water and only 53% is directly connected to piped water connections (Ministry of Urban Development, Government of India, 2012). The average duration of water supply is approximately 2 h per day across the cities and towns of India. Only 33% of the urban population is connected to a sewerage network; close to 40% is dependent on septic tanks, and 13% still defecate in the open. The capacity to treat sewage or wastewater is only 37% of the total need, and actual treatment capacity is even less; that is, 30%. In addition, the uncontrolled discharge of industrial effluents leads to chemical pollution of water, posing a further challenge to public health, because provision of clean drinking water is intimately dependent on the success in treating wastewater. Nagpur, in its attempt at integrated water management, and Surat, with its focus on expanding drainage network and wastewater treatment, are following the example of Navi Mumbai and Chandigarh, which treat almost all of their wastewater, but they still remain part of a very small set of Indian cities in which wastewater treatment is receiving the attention it deserves (Ahluwalia, 2014b).

The very poor state of municipal solid waste management in Indian cities also adds to their poor sanitation conditions; the largest cities are the worst culprits in waste generation. With little emphasis on either waste reduction or segregation of dry waste from wet waste at the source, the system is largely struggling with collection of unsegregated waste mainly at the community level rather than door to door, and the latest available data suggest that only 82% of the 143,449 metric tons of waste generated per day in 2013–2014 was collected (Central Pollution Control Board, 2015). Very little is being done regarding processing and safe disposal. A few cities/towns like Pune, Rajkot, and Pammal are attempting collection through partnership of urban local bodies with nongovernmental organizations and partial processing/disposal through public–private partnership and/or municipal efforts.

Another major urban challenge is that of mobility. Inadequacy and poor quality of urban roads and traffic support infrastructure in the face of multiple modes of transport competing for space on city roads creates heavy traffic congestion and generates air pollution. The effect on productivity is significant because lack of integrated planning of land use and transport forces long commutes for people working and living in the cities. Air quality also suffers from the irrational pricing of energy, which encourages the use of diesel not only for buses but also for private vehicles.⁸ For 63 cities, the emission norms for motorized vehicles are at BS-IV, which is equivalent to Euro-IV standard stipulating a limit of 50 sulfur parts per million emissions from the exhaust. The rest of the cities and towns are at BS-III, which stipulates a limit of 350 sulfur parts per million emissions in the case of diesel and 150 for that of petrol from the exhaust (Central Pollution Control Board, 2010). Exposure to even 100 sulfur parts per million is considered immediately dangerous to life and health.⁹

For quite some time now, the rich and the middle classes in Indian cities have tried to get around the deteriorating condition of public services by finding private solutions. They use cars for their

unnecessarily long travel needs within the city (caused by poor land use planning with little regard for transport planning) because public transport is either nonexistent or of poor quality. They rely on water storage tanks and booster pumps to convert an intermittent supply of water into a 24/7 supply scenario. To some extent, the availability of these private solutions has been responsible for their apathy to the deteriorating physical environment around them. But more recently, the deterioration appears to have crossed the threshold where private solutions can suffice and the overall deterioration in the physical environment is impinging on their ability to continue in a healthy way. Delhi's recent 2-week experiment (January 1 to January 15, 2016) allowing odd- and even-numbered cars to run only on odd- and even-numbered dates, respectively, to cope with traffic congestion is an indication of the desperate nature of the situation ("Delhi's Odd Even Rule Ends Today: A Look-Back at the Last 15 Days," 2016). It is much more common to see urban crises on newspaper front pages than before. However, policy responses tend to focus on crisis management rather than sustainable solutions.

There is often political resistance to raising tariffs for public services even when the cost of delivering a service rises. It is important to find appropriate financing models so that financial sustainability is ensured. A fundamental problem with assuring urban service delivery is that the cost of the service should be covered by some combination of user charges and budgetary subsidy. The present position in India is that user charges are inadequate and typically not adjusted as costs rise and the subsidy is inadequate and not assured. State governments and municipal governments may not be able to afford subsidies, but this would require that user charges must be raised with appropriate cross-subsidy to protect the poor. With underpricing of water (water tariffs not covering even operating and management costs), for example, not only is service delivery not financially sustainable but there is also no incentive for users to conserve. The rapidly growing middle classes suffer because they are denied access to services that they need and are often willing to pay for. The poor suffer the most because of their inability to afford high-priced substitutes and/or supplements but having to cope nevertheless; for example, water bought from private tankers.

In addition to the challenges of public service delivery, those living in slums face the challenge of living in extremely dense environments with little to show as shelter. There has been a proliferation of slums, particularly in the large metropolitan cities of India. Factors that have contributed to slum proliferation include a heavily distorted market for land and housing, a highly inadequate regulatory regime of protecting property rights, multiple regulations pertaining to rent control, and absence of a well-crafted strategy for providing housing for the economically weaker sections of society, which is financially sustainable within an overall framework of urban planning (Patel & Phatak, 2014). The result is that 25% of India's urban population (the poor and also not so poor) lives in slums and the share is as high as 50% in Mumbai.

A considered view was taken by the HPEC (2011) to bifurcate the challenge facing the slums into service delivery and shelter solutions. The committee adopted the principle of same standards for all citizens in a city/town in providing universal access to services that meet the stipulated norms that should address the service delivery challenge for the unserved and/or underserved populations of the slums (Ahluwalia et al., 2011). The challenge of affordable housing is more complex. The committee was of the view that the solution lies as much in removing the distortions in the land and housing markets as in planning and designing slum rehabilitation programs and affordable housing projects for economically weaker sections of society (Ahluwalia et al., 2011).

National missions on urban renewal

The Government of India has taken a number of proactive steps toward urban rejuvenation in the past decade. The first step was taken in December 2005 by launching the JNNURM, which was designed to help urban renewal with partial investment support from the Government of India (JNNURM, 2005). The mission ran its course until April 2014. Subsequently, a number of new initiatives were announced by the Government of India in 2014 and 2015; that is, Clean India

Campaign (*Swachh Bharat*), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), the Smart Cities Mission, and Housing for All, which are currently at different stages of planning and implementation.¹⁰

In a federal framework, the challenges in the implementation of the national missions arise both from the resistance on the part of state governments to devolve functions, finance, and power to the local governments and from weak local government capacity to plan and manage new projects and programs. Because the metropolitan regions are becoming increasingly more important in the economic geography of India in its current stage of development, the missing middle of a functional metropolitan institutional framework poses an additional challenge for implementing projects with due regard for metropolitan and regional connectivity (Matkin & Frederickson, 2009). An assessment of JNNURM is presented below with a view to highlighting the lessons that must be incorporated in the design and implementation of the new urban missions.

Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

The JNNURM was launched by the Government of India in December 2005 in partnership with the state governments and urban local governments (JNNURM, 2011).¹¹ The Government of India committed Rs 660 billion as its share in a total investment pool of over Rs 1 trillion. For the 65 mission cities, the urban local body was required to prepare a city development plan (CDP) and identify a specific infrastructure project for funding. The state government would approve both the CDP and the project, and the project would be taken to the Government of India for approval and part financing. The state government and urban local governments also made financial contributions. The investment support from the Government of India in installments was conditional on a set of reforms by the state government and the urban local governments.

The design of the JNNURM made it very difficult to enforce the conditionality of reforms. It was politically difficult for the Government of India to withhold disbursements on a project that was being implemented well just because reforms were not carried out by the state and/or city governments. Because most city governments did not cross the threshold of reforms that would generate a credible revenue model, private finance did not come through. The expectation about leveraging limited government funds with substantial private financing for urban infrastructure investment therefore did not materialize. The funding remained limited to the amounts set aside by the Government of India and contributions from state Governments and urban local governments. By July 2014, Rs 521 billion was disbursed by the Government of India for urban infrastructure projects which had a total cost of Rs 1.292 trillion. More than 50% of the amount was disbursed for projects in water and sanitation (Ahluwalia, 2016).

JNNURM served as a catalyst for the urban sector, which had for long been starved of funds since the urban local governments were financially much too weak to make the necessary investments in infrastructure (Sivaramakrishnan, 2011). It generated a lot of action on the ground; for example, preparing CDPs, identifying and proposing infrastructure projects for funding, and joining in competitions sponsored by the Government of India for being recognized as best urban projects in different sectors. The state of Maharashtra even set up its own mini-mission on water and sanitation, *Maharashtra Sujal Nirmal Abhiyan*, supported by the World Bank, to nudge urban local governments to carry out reforms and receive funding for projects in the water and sanitation sector from the state government, which, however, was subsequently abandoned.¹² The focus of JNNURM on bridging infrastructure deficit through project funding meant that the final link from infrastructure to improving service delivery was neglected. In addition, capacity for urban planning and management at the local government level to rise to the occasion proved to be a major challenge. Even though funds were set aside in the mission for capacity building, this aspect was neglected, with the result that the quality of the urban renewal effort suffered.

Notwithstanding the multiple challenges of enforcing reforms and struggling with limited capacity for urban planning and management on the ground, JNNURM played a very important role in energizing urban local governments. Some examples of amazing transformations at the city level

emerged during this period. In *Transforming our Cities* (Ahluwalia, 2014b), the present author documented a number of case studies showing how Indian cities in some sectors were able to transform the state of service delivery within a very short period. For example, it took Malkapur, a small town with a population of 40,000, only 5 years (from 2008 to 2013) to provide continuous water supply from a treated source for all. Alandur, a town outside of Chennai with a population of 164,000, moved from zero underground sewerage networks in 2000 to complete coverage and treatment of sewage in 2005. Nagpur has taken an integrated approach to water by investing both in a piped network for distribution of drinking water and in treatment of wastewater. Surat has successfully responded to its major challenges of flooding through expansion of its drainage network and putting in place the infrastructure for wastewater treatment. More recently, Surat has prepared a city resilience strategy that is being implemented to ensure sustainable development. Rajkot was one of the first cities to work on integrated solid waste management successfully, and Pune is experimenting with a range of solutions in addressing the challenges of integrated solid waste management. Bus Rapid Transit System in Ahmedabad has significantly transformed the public transport scenario in the city, and differentiated modern bus services for different income groups in Bengaluru present a partial solution to a city choking with traffic. The public service delivery revolution through e-governance can also be seen in Hyderabad, Kalyan-Dombivli, Pune, Pimpri-Chinchwad, Surat, Bengaluru, and some other cities. IT was a major game changer in these cities because a robust network and computing infrastructure was combined with back-end integration of the software modules, and a conscious effort was made to switch over to a new way of doing business.

New initiatives for urban renewal

Following a 6-month hiatus after the end of JNNURM in April 2014, the Government of India announced a number of new initiatives directed at urban rejuvenation. The first of these was a broad-based Clean India (*Swachh Bharat*) campaign launched in October 2014 with an urban component. This was followed by the announcement in June 2015 of three major national urban missions: AMRUT, Housing for All by 2022, and Smart Cities Mission.

The objective of the Clean India campaign is to eliminate open defecation and manual scavenging through raising public awareness, constructing toilets, and achieving 100% collection and scientific processing and disposal of municipal solid waste (Ministry of Urban Development, Government of India, 2011). The estimated cost for covering all statutory towns is estimated at Rs 620 billion, of which the Government of India would contribute only Rs 150 billion, and the rest is expected to be financed by state governments, urban local bodies, and private sector contributions. In addition to the enormous challenges of financing, there is also the question of ensuring that *Swachh Bharat* incorporates the crucial element of expanding the sewerage network and enhancing the sewage treatment capacity, which is far short of what is needed even to meet the current needs. A significant determinant of success for the Clean India campaign is behavioral change on the part of people for maintaining good sanitary conditions. The reduction in the budget allocation for behavioral change from 15 to 8% of the total in 2015–2016 does not augur well for the success of the *Swachh Bharat Abhiyan* (Srivastav & Gupta, 2015).

AMRUT is effectively the successor to JNNURM. It covers infrastructure for water, sewerage, drainage, transport, and green spaces in 500 cities with a total outlay of Rs 500 billion over a 5-year period (AMRUT, 2015). Unfortunately, municipal solid waste management is not in the ambit of AMRUT (but is part of *Swachh Bharat*), although an integrated and coordinated effort on solid waste management within the same program—that is, AMRUT—would be much better for addressing the challenges of sanitation. Another major weakness of AMRUT is that the urban improvement efforts of the mission are disconnected from any CDP. Though an urban local body is required to prepare a service-level improvement plan and a state annual action plan, the absence of the requirement to work within the framework of a CDP is a step backward even though the concept of CDP was much abused under JNNURM. As in the case of JNNURM, disbursements under AMRUT are linked to a set of reforms, although clarity is yet to emerge on exactly which reforms are to be

part of the conditionality. The challenge for AMRUT will lie in enforcing the conditionality of reforms, precisely where JNNURM failed.

The Housing for All mission aims to create 20 million houses in the urban sector by 2022 (Government of India Cabinet, 2015). The total housing need by 2022 has been estimated at about 110 million houses (KPMG, 2014). Housing for All will cater only to the demand from the economically weaker sections.¹³ This is estimated to require a grant of Rs 150,000 per house plus an interest subsidy on bank loans. Moreover, the success of the scheme will depend critically on whether state governments are able to make land available at low cost and banks are willing to lend in the absence of government guarantee of the loan. The alternative of rental housing, which has the potential to cater to very low-income groups, has not been explored.

Smart Cities is an ambitious mission that relies on technology-based smart solutions for enhancing the quality of urban life and providing a clean and sustainable environment in 100 selected cities (Ministry of Urban Development, Government of India, 2015). It is inspired by a worldwide trend in favor of “smart cities,” although there is no precise definition yet of what constitutes a smart city. The Government of India has committed Rs 480 billion over a 5-year period for the 100 selected cities. The state governments are expected to contribute about the same amount so that the total fund envisaged is about Rs 1,000 billion. The mission has a broad remit of retrofitting and/or redevelopment of certain pockets of existing cities or developing greenfield smart cities. Intelligent transport solutions with city-wide impact are also on the agenda. A special purpose vehicle will be set up to drive the Smart Cities mission, unlike AMRUT, which will be driven by urban local governments. This raises issues with regard to democratic governance for urban transformation.¹⁴

A reasonable definition of smart cities would be where residents demand good governance and the government, through better administration or high technology, is able to deliver high-quality services in a transparent and accountable manner. This would require spelling out the dimensions of institutional reform together with the high-tech infrastructure plans. No smart technology can deliver in the absence of smart governance. For example, technology can inform us on how clean the air is in different parts of the city. But air pollution cannot be controlled by technology alone. It requires a complex combination of integrated planning for transport and land use, rational energy pricing, and behavioral change.

The funding offered by the Government of India for all of the missions is a very small part of what is needed. The rest is expected to come from the state governments and also from the private sector under public–private partnership projects. The Government of India’s reasoning is that the state governments have received a substantial increase in transfers based on its acceptance of the recommendation of the 14th Finance Commission (Jagannathan, 2015).

The devolution to states has increased from 32% of the center’s net tax receipts to 42%. Though this looks like a substantial financial enhancement of capacities in the state governments, the Government of India has simultaneously reduced the transfer to the states under various centrally sponsored schemes so the net effective transfer is much lower than it seems. In addition, the transfers under the finance commission awards are not earmarked to any particular sector. The state governments are free to use these funds for whatever purpose they wish, and it remains to be seen whether they will choose to put the funds into the urban sector.

State budgets are also likely to be burdened because the Seventh Pay Commission submitted its report in November 2015 and although its recommendations for increase in salaries apply only to central government employees, there will be pressure on state governments to raise salaries in the state sector to a comparable extent (Government of India, 2015). For all these reasons, the implementation of the new urban schemes/missions that have been announced could run into difficulties due to underfunding. The situation is likely to vary from state to state depending upon the financial strength of the state and the priority accorded to the urban sector.

The most important challenge is for the Government of India to use cooperative federalism to impress upon the state governments the importance of sharing power with the third tier of the federal structure, which was formally recognized by the Constitution of India in 1992. If city

governments are empowered through effective devolution and capacity building and state governments provide an enabling environment, cities will be in a position to translate the ambitious urban development agenda into action.

With regard to private finance under public–private partnership, as mentioned earlier, the JNNURM experience clearly shows that private finance is attracted only if there is a revenue model that ensures a reasonable return on their investment. Moreover, capacity of urban local bodies needs to be strengthened for them to enter into public–private partnership in a transparent and accountable manner. There is also need for a clear and transparent assignment of risks for both partners and an effective dispute resolution mechanism if public–private partnerships are to play a supportive role in urban infrastructure investments and public service delivery. In the absence of basic reforms at the state and urban local government levels, public–private partnerships will not bring in complementary funds from the private sector.

A summing up

The analysis in this article has highlighted the central importance of strengthening urban governance in India, especially in its current stage of development when the economy is going through a major structural transformation. It has argued that for India, as one of the largest and fastest growing economies in the world, and one in which urban population is only 33% of the total population but gathering momentum, planned urbanization is crucial for the sustainability of rapid growth and for improving the quality of life of the 420 million people living in Indian cities and towns.¹⁵

Though investing in urban infrastructure to bridge the infrastructure investment deficit and upgrading its quality is very important, the analysis clearly suggests that institutional reforms are crucial both for reaching out to the private sector for sharing the financing burden of infrastructure and for ensuring that the expansion of infrastructure results in improved service delivery.

The article argues that Indian cities are not empowered to take on the enormous challenges of delivering public services and planning and managing the process of urbanization, which is inevitably associated with rapid economic growth. The opportunity provided by GST has not been used to ensure that a small proportion of the state government's share of GST is earmarked for transfer to local (rural and urban) governments. Guaranteed financial transfers, together with a degree of financial autonomy and building capacity for urban planning and management, will help the cause of empowerment of the cities. In addition, institutions of metropolitan and regional planning need to be strengthened to address the challenges arising from structural transformation of the economy (Matkin & Frederickson, 2009). The constrained powers of cities to make decisions and the generally greater responsiveness of the polity to rural interests are not apparent only in India. Other (federal) polities have been known to have similar features (for the case of the United States, see Frug, 1999; Frug & Barron, 2008). However, the pressures of growth in India make these institutional challenges more extreme.

The national urban missions have raised great expectations. But as JNNURM showed, it is when state governments are proactive in coming forth with necessary legislative reforms, institutional framework for financial and regulatory support, financial devolution, and helping build capacity at the urban local government level that the impact can be seen in significant improvement in service delivery (Frug & Barron, 2008). To the extent that these missions provide strategic focus on urban planning and management and succeed in nudging the state governments into action to decentralize, devolve, and build capacity at the urban local government level, they will make a difference. But the heavy lifting will have to be done by the states. The technology focus of the national missions seems to have caught the fancy of many. It is for this reason that the Smart Cities mission has attracted greater investment than *Swachh Bharat*. However, the technology focus must be supplemented with heavy emphasis on institutional reforms if Indian cities are to deliver a better quality of life and improve the investment climate for business.

Notes

1. Census towns are areas that have population of 5,000 and above and population density of at least 400 per square kilometer and at least 75% of the population of the area is engaged in non-agricultural activity.
2. Because of significant revision in the national accounts data, a consistent continuous series for the whole period is not available.
3. The share of agriculture is higher at 18% in 2012–2013 in the new GDP series, but the decline is manifest from 2011–2012 onwards, the year when the new series began.
4. For more information on the National Skill Development Corporation see <http://www.nsdindia.org>.
5. India's telephone subscriber base expanded between 2007 and 2015 at a compound annual growth rate of 19.5%, reaching over 1 billion in 2015 (Telecom Regulatory Authority of India, 2015).
6. Not including the investment requirement for primary education and primary health and electricity distribution.
7. Not only was the rate of compensation increased but the act required the consent of 70% of those affected for a public sector project and 80% for a project under public private partnership. The act also makes it mandatory to carry out a social impact assessment. Department of Land Resources, Government of India (<http://dolr.nic.in/>).
8. In Delhi, the National Green Tribunal has imposed a ban on all diesel-powered vehicles that are more than 10 years old and on new diesel cars with an engine displacement of more than 2,000 cc.
9. Europe has moved on to Euro-VI standard, which stipulates a limit of 10 sulfur parts per million emissions from the exhaust (see European Commission, 2017).
10. For a list of schemes and programs see Ministry of Urban Development, Government of India (2017).
11. JNNURM had four components: (a) urban infrastructure and governance and (b) basic services for the urban poor, each covering 65 cities known as mission cities; and (c) urban infrastructure development in small and medium towns and (d) integrated housing and slum development program, covering other cities and towns.
12. Though the World Bank (2012) analysis showed that *Maharashtra Sujal Nirmal Abhiyan* could bring about measurable improvement in water service delivery and revenue potential, the mission was discontinued in 2015 and replaced by a broad-based urban development program, *Maharashtra Suvarna Jayanti Nagarothan Maha-Abhiyan*.
13. *Economically weaker section* is defined by the Ministry of Housing and Urban Poverty Alleviation as an urban poor with an annual household income of up to Rs 100,000.
14. A special purpose vehicle is a company set up primarily for the purpose of carrying out a well-defined and well-focused plan. For more information on the Smart Cities mission, refer to Ministry of Finance, Government of India (2016).
15. Even though agriculture contributes less than 15% to India's GDP, the persons dependent on agriculture for their principal means of livelihood are still as high as 50%. Accordingly, the importance of planned urbanization for rural rejuvenation also emerges from the analysis in this article.

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