

Manufacturing Cities

Industrial Policy and Urban Growth

IIHS RF Paper on Manufacturing Cities

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The team would like to thank Oviya Govindan for her valuable research support.

First Published in Bangalore, 2015.

This paper is part of a series of policy papers made possible by the support of the Rockefeller Foundation to the Indian Institute for Human Settlements, Bangalore.

Draft for Review Only. Do not cite or quote.

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Abstract:

This paper examines the emergence of new forms of economic settlements such as Special Economic Zones, Special Investment Regions and Industrial Corridors and examines their role and relevance in contemporary urban India. These settlements, while not officially classified as towns or cities have distinct urban characteristics, but are products of economic and industrial policies rather than of planned urbanisation. The paper places this examination within multiple contexts by examining the policies and processes of the Indian government at the national and state levels in facilitating urbanisation and industrialisation in the country. It then discusses the development of new economic settlements such as SEZs and industrial corridors within the context of contemporary economic, urban and policy environments in India before addressing the assumptions, feasibilities and adaptabilities of this strategy. It concludes by making recommendations and observations in six arenas: integration with existing urban settlements; emphasising labour-intensive growth; addressing regional disparity; facilitating livelihood transitions; transitioning to urban governance and developing regional infrastructure.

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Executive Summary

This paper examines the emergence of new forms of economic settlements such as Special Economic Zones, Special Investment Regions and Industrial Corridors and examines their role and relevance in contemporary urban India. These settlements, although not officially classified as towns or cities, have distinct urban characteristics. They are typically products of economic and industrial policies rather than of planned urbanisation. This paper finds that there are several constraints that may hinder the successful development and implementation of these new economic settlements, and concludes with recommendations in six key areas.

The nature of Indian urbanisation is changing: nearly 30 per cent of urban growth during the last decade was due to reclassification of existing settlements and not rural to urban migration. Furthermore, there are a large number of settlements that are similar to cities in terms of census criteria such as population and density but are not classified officially as such (i.e. census towns). There has also been a renewed government focus on urbanisation over the last two to three decades, with the liberalisation of the Indian economy and the establishment of large funding programmes that focus explicitly on the urban like the Jawaharlal Nehru Urban Renewal Mission (JNNURM). These have also marked a definite **transition in the national government's approach to urban regions, especially in terms of finance and funding**. However, despite shifts in urban policy, a significant proportion of urban residents experience high levels of deprivation, fragmented governance opportunities and inadequate employment opportunities.

It is within this context that the Government of India has begun to develop specific types of industrial and economic policies that have led to the emergence of certain economic spaces such as Special Economic Zones (SEZs), National Industrial Manufacturing Zones (NIMZs), and industrial corridors. As these new spaces of production emerge, they will encounter challenges related to governance, and planning. As Indian policymakers push for an industrial transition primarily led by these spaces (lying outside existing urban centres and **jurisdictions**), they become, both in terms of economy and governance, 'spaces of exception', with little thought given to the implications of this transformation. There are also challenges related to questions of job creation, urban poverty, inclusion, and environmental sustainability.

This paper analyses current arrangements for governing these new economic settlements. It begins by looking at existing urban and industrial policy perspectives as well as two specific strands of academic literature: perspectives on urban planning, and writing on economic development. Focusing especially on the relationship between central and state governments in facilitating industrialization, the authors find that while state governments play an important role in industrialization, especially in the implementation of policy, the national government takes on the visioning and planning of certain types of industrial infrastructure as in the development of SEZs, NIMZs, and industrial corridors. However, there are severe constraints on the availability of supporting regional infrastructure such as transportation and power and little co-ordination between various line ministries that have important functional overlaps in planning these settlements.

The paper also investigates the assumptions, feasibilities and adaptabilities of this strategy of building new economic settlements and zones.

First, this proposed economic and industrial strategy draws heavily on East Asian successes, and may be difficult to apply in the contemporary Indian economic and political context as well as in light of the current global economic slowdown. A review of the SEZ experience in India also **highlights the limitations of India's ability to adopt export-oriented industrialisation**. Unless labour-intensive economic growth is prioritised, the assumption **that industrialisation will generate sufficient jobs for India's** largely unskilled workforce may not hold. Industrial and economic policy also needs to recognise the importance of micro, small and medium enterprises while simultaneously investing in large industrial estates and regions. Domestic demand will also be a key driver of future growth. Although the national **government's corridor policy is perhaps a more realistic strategy for economic development**, given its structure and its planning and implementation processes, it has the potential to reinforce earlier trajectories of regional inequality since it is planned around key **transportation corridors that currently carry most of the country's freight traffic**. There are however instances of states like Tamil Nadu that have used industrial policy to achieve regionally balanced growth.

The second issue is the lack of availability of land, which is perhaps one of the biggest constraints for industrial development in India. As the state, in various forms, appropriates land in and around Indian cities, it sanctions certain developmental agendas over others. With **India's population continuing** to grow, land is becoming increasingly scarce and there have been instances of social unrest and conflict in cases of land acquisition. Furthermore, the recent passage of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act of 2013 has made land acquisition much more challenging, especially for state governments and their agencies.

The third concern is that of how these new settlements are governed and managed. Newer forms of economic settlements such as SEZs and Special Investment Regions (SIRs) are spaces where usual norms and legislations of urban Indian settlements are relaxed to a large degree. It is important to ensure that residents in these emerging settlements have access to and are governed by the same set of policies and laws as existing cities. This also has implications for access to schemes and programmes, for instance, the recently announced DAY scheme for skills training is only applicable in statutory towns, and therefore will exclude these types of settlements. There needs to be a clear plan laid out for the eventual transition from development authorities to elected local government, which is currently lacking.

The paper also examines constraints imposed by natural resources noting that many of these settlements are located in water-scarce and climatically vulnerable regions, raising new questions on agricultural production and food security.

In conclusion, the paper makes recommendations in six arenas:

1. Integration with existing urban settlements
2. Emphasising labour-intensive growth
3. Addressing regional disparity
4. Facilitating livelihood transitions
5. Transitioning to urban governance
6. Developing regional infrastructure

1. Introduction

Until the late 1990s, urban India did not feature very prominently in national or regional government policy. The planned approach that the Government of India adopted after independence ignored urban requirements, for the most part. The Five-Year plans were framed around economic sectors, and outlined specific measures that the government could undertake to promote particular areas of the Indian economy: for example, agriculture and heavy industry formed a significant proportion of the earlier plans (Corbridge and Harriss, 2000). The first three of these National Five-Year plans concentrated almost exclusively on economic and financial planning while largely ignoring the relationship between economic development and spatial planning (Jakobson and Prakash, 1967). A review of the Five-Year plans shows that a large proportion of new urban settlements in India emerged as a result of the decision to promote industrialisation in backward regions of the country, and that urban planning and policy for these settlements followed much after industrialisation. Moreover, since the Five-Year plans had a sectoral outlook, the little that was granted to urban development fell through the cracks between different sectors (Chandrashekhar, 2010; Sivaramakrishnan, 1978).

The first two Five-Year plans did engage marginally with urban areas, focusing on specific issues such as housing for refugees after partition, and rising land values. However, urbanisation began to feature in a more focused and cogent manner only in the Third Plan (1961–66) resulting in the creation of a model town planning act (Ramachandran, 1989). The Third Plan provided funds for the development of city master plans (to be prepared by state governments), the enactment of key legislation to facilitate this process, and the increase of government control over urban land, its use and development (Shaw, 1996). We also see an **emphasis on ‘balanced spatial and demographic development’ in the Third Plan and the** adoption of the concept of a region in the planning of large industries, especially in backward regions, and the strengthening of urban-rural linkages (Planning Commission, 1961). Subsequent plans continued to pay some attention to urban development and policy although it ranked low in priority and most efforts undertaken were piecemeal in nature (Ramachandran, 1989).

Subsequent plans, however, placed considerable emphasis on urban development: the Fourth plan (1969–74) saw the establishment of the Housing and Urban Development Corporation (HUDCO), and the beginning of several large urban development projects such as new state capitals like Gandhinagar, Chandigarh, Bhubaneswar, and Bhopal; the Fifth plan (1974–79) emphasised the need for an urban land policy, building on the Third and Fourth plans, provided for financial assistance for metropolitan development, and also saw the passage of the Urban Land Ceiling Regulation Act (ULCRA) in 1976; the Sixth plan (1980–85) continued the funding provided for metropolitan development in earlier plans while also providing for the development of smaller towns through the establishment of the Integrated Development of Small and Medium Towns (IDSMT) scheme (Shaw, 1996). Interestingly, as Shaw (1996) demonstrates, while the 1960s and 1970s saw increasing centralisation of urban management, especially financial management, there was also a continued rhetoric in the Five-Year plans (beginning with the Third Plan) that emphasized decentralisation of urban government (Sami, 2012).

As a result of growing concerns around urbanisation and related issues, the Planning Commission established the National Commission on Urbanisation (NCU) in the late 1980s

to study various aspects of Indian urbanisation. The NCU published its final three-volume report in the late 1980s. The report focuses on several key areas, which remain concerns till today, such as the spatial structure of urbanisation, urban poverty, land and housing, and the planning, finance, and management of urban settlements (Mehta and Mehta, 1989).

Since the economic reforms of the 1990s, there has been a renewed focus on urban India. The majority of these economic reforms benefited urban areas in India (Shaw, 2007). As Indian economic policy encouraged privatisation, urban regions emerged as key sites for economic growth (Dupont, 2011; Sankhe et al., 2010). Following on the heels of the economic reforms, several fundamental legislative changes were implemented, particularly targeting urban regions: the 74th Constitutional Amendment Act (1992) mandating the devolution of power to local governments and municipal authorities, and the repeal of the ULCRA that regulated the amount of land individuals were allowed to hold and develop in urban areas. Continuing this trend of urban reform, in December 2005, the Government of **India also launched the country's most ambitious urban reform programme: the Jawaharlal Nehru National Urban Renewal Mission (JNNURM)**, which was committed to building urban infrastructure and **reforming urban governance in India's cities over a period of seven years**. Indeed in recent times, the urban has started to command a place of priority in policy and economic development.

The emergence of a large urban fund such as the JNNURM marks a shift in the financial practices of the Government of India. Most government funds until this point were grants, while the JNNURM is an incentive-based fund, essentially promoting a carrot-and-stick approach to urban development in India (Sami, 2012). It makes central subsidies for development available, contingent upon the implementation of a specific set of reforms, which is a marked departure from previous trends (Dupont, 2011; Benjamin, 2007). However, despite these shifts in urban policy, our cities continue to suffer from fragmented governance arrangements (Goswami et al., 2014), have poor levels of infrastructure and services (Balakrishnan et al., 2014), have residents experiencing high levels of deprivation (Anand et al., 2014a), and have not generated adequate employment opportunities for their low-skill workforce (Anand et al., 2014b).¹

The nature of Indian urbanisation itself is changing. Writing on the growing Indian urban population has often cited rural to urban migration as one of the primary causes for this growth (Sivaramakrishnan et al., 2006). During the last decade however, the largest increase in urbanisation was, in fact, due to the reclassification of existing settlements according to Census of India criteria, and not rural to urban migration, or growth in the larger Indian cities.² **Scholars have termed this phenomenon variously as 'in-situ' urbanisation** (Pradhan, 2013) **or 'subaltern urbanisation'** (Denis et al., 2012). As Figure 1.1 explains, nearly 30 per cent of urban growth in the last decade was due to reclassification of settlements from rural to urban.

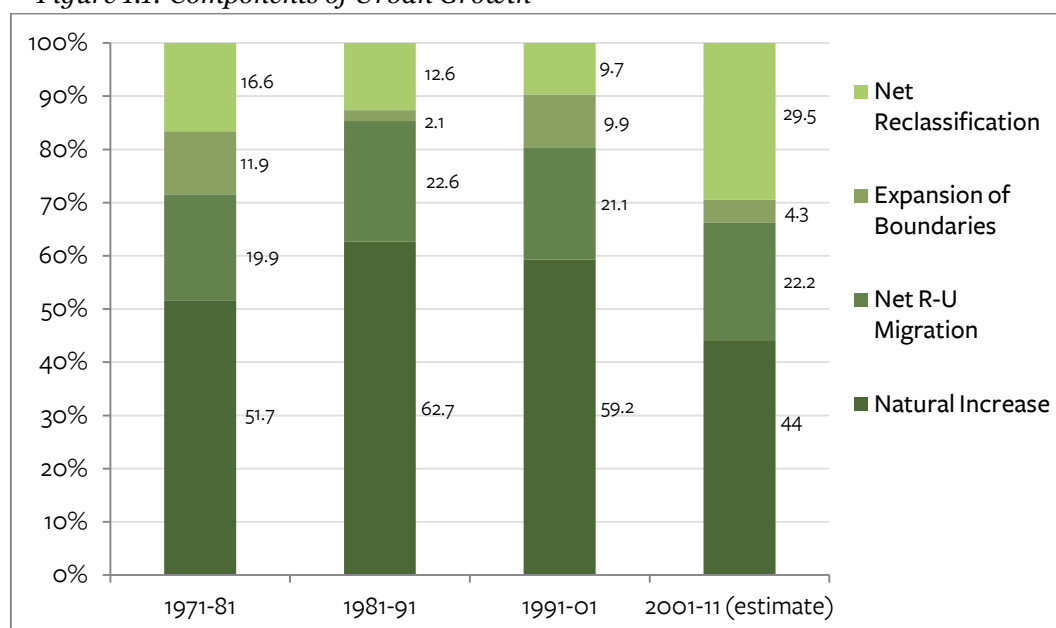
The share of migration in driving urban growth has stayed fairly stable, at around 22 per cent. However, the share of natural increase in urban growth dropped from 59 per cent

¹ There have been extensive debates on all of these issues. For more on these debates, please see the other papers in the IIHS-RF policy series. (Anand et al., 2014a; Anand et al., 2014b)

² The Census of India criteria for being classified as a town are that the settlement has population greater than 5,000; density greater than 400 persons per square kilometre; and at least 75 per cent of the male main workforce is engaged in non-agricultural pursuits.

between 1991 and 2001 to only 44 percent between 2001 and 2011.

Figure 1.1: Components of Urban Growth

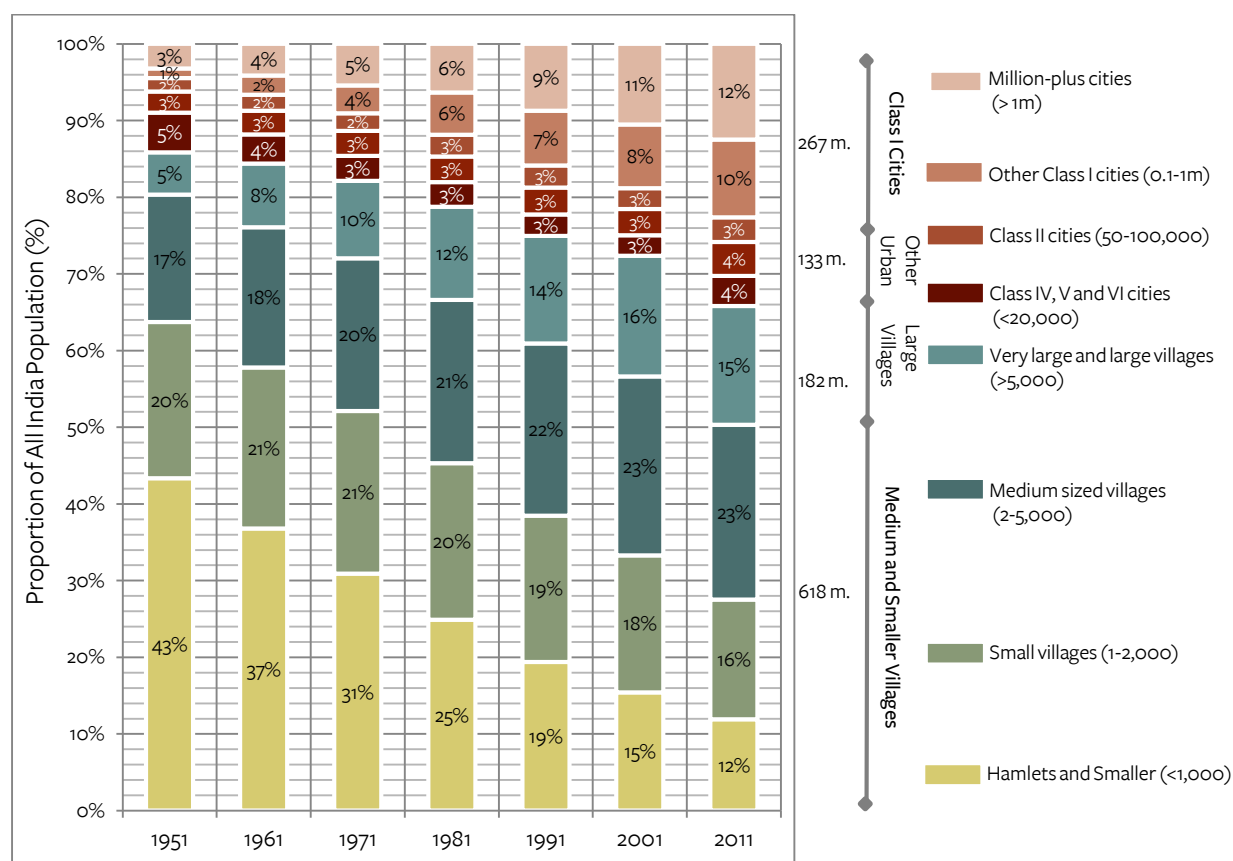


Source: (Anand et al., 2014b); Figures for 1971–81 to 1991–01 are from High Powered Expert Committee (HPEC) (2011), figures for 2001–11 are from Pradhan (2013).

The reclassification of these settlements as census towns has also raised issues; one in particular is that a large number of the settlements that have been reclassified are urban in character, but lack the governance structure that urban areas require.³ Moreover, the settlement structure chart below as well as recent work on census towns (Jana, 2013) shows that there is a large number of settlements that are similar to cities in terms of the population and density criteria, but are not officially classified as such. In particular, Figure 1.2 shows that 182 million people live in very large and large villages, which are similar in population terms to small towns. These settlements lack the physical infrastructure that is needed to support urban-like densities and populations.

³ The number of Census Towns increased from 1,362 in 2001 to 3,894 in 2011 (Pradhan, 2013).

Figure 1.2: Distribution of Population by Settlement Size (1951-2011)



Source: (Anand et al., 2014b); Census of India (1951-2011); Jana (2013)

The census towns are one kind of urban settlement that has emerged in India over the last decade. The Government of India has also begun to develop specific types of industrial and economic development policies over the last couple of decades that have led to the emergence of different kinds of settlements; the idea is that these will simultaneously meet the goals of industry-led growth and create alternative urban settlements which will help decongest existing cities. This model of growth draws heavily on the successes of other East Asian countries such as China and South Korea where particular zones were developed to facilitate export-oriented industrialisation. In the Indian case, this includes the development of Special Economic Zones (SEZs), National Investment and Manufacturing Zones (NIMZs), and new towns that focus on specific types of industrial and economic activities.

The most recent, and perhaps one of the most ambitious strategies, is the development of industrial corridors between major Indian cities, which the Government of India has embraced as a key development strategy. For example, work on the Delhi-Mumbai Industrial Corridor (DMIC) is already underway while a second corridor between Mumbai, Bangalore, and Chennai is being planned. This follows earlier government policies like the development of the Golden Quadrilateral and the North-South and East-West corridors which involved building transportation infrastructure (mainly highways) that connected the four major Indian metros (Delhi, Mumbai, Kolkata, and Chennai). The industrial corridor development policy, while primarily focused on building manufacturing and industrial centres, is the first time that the Government of India has explicitly attempted to link economic and industrial development to urbanisation (Anand and Sami, 2014).

As these new spaces of production (Brenner, 2004) emerge, challenges of governance, planning and policy arise with them. These spaces are often created through industrial policy mechanisms and governed by various industrial and economic agencies, instead of being governed as urban areas with elected local governments according to the provisions of the 74th Constitutional Amendment (CAA). As Indian policymakers prepare for an urban transition that is industry- and services-led, they increasingly believe that this transition will be driven by these settlements that lie outside existing urban centres as well as outside the purview of existing arrangements for urban governance, and government schemes and programmes targeting cities. Consequently, these settlements function as spaces of exception, economically (Ong, 2006), as well as in terms of governance, and there is little thought given to the implications of the transformation of these newer spaces into more urban-like settlements.

This paper aims to bring together work on urban governance with writing on economic planning and development. As the other papers in the IIHS-RF policy series have shown, urban settlements need to balance economic growth while also addressing questions of job creation, urban poverty, inclusion, and environmental sustainability. The development of new economic settlements like SEZs, and industrial townships is one way of addressing the question of growth and job creation. However, while this may be an attractive strategy, there are certain limitations to the feasibility of such an approach. Any such strategy needs to take into account the current and projected economic and demographic reality of India: data shows that most of the Indian urban economy is concentrated in small enterprises or in the informal services sector (Anand et al., 2014b). The development of integrated industrial corridors offers a potential opportunity to leverage this in order to integrate new, emerging settlements with existing economic and urban centres.

The scope of this paper is restricted to studying particular urban-like settlements that emerge as a result of industrial policy—therefore, we focus on instruments such as the creation SEZs and corridors which also involve the development of new industrial towns within their areas of influence. These types of emerging settlements and the policies associated with them are especially interesting because they display urban-like characteristics but are not currently governed as such. As the Indian government invests in developing such policy, it becomes important to understand the implications of the growth of such settlements.

The paper is organised as follows. Section 2 lays out the policy and institutional environment within which these instruments have emerged, and are governed and managed. We examine both the urban and industrial policy environment, discussing the details of both the SEZ policy as well as the newer industrial corridors. Section 3 focuses on the assumptions, risks, and adaptability issues with the implementation of these policies in the Indian context. The final section builds on lessons learned from earlier experiments, and suggests ways in which policymakers may move forward.

2. Policy and Institutional Environment

This section analyses the current policy and institutional arrangements for urban as well as industrial policy governing the types of economic settlements referred to above. This is not intended to be a comprehensive review of urban policy or industrial policy, but rather focuses on those aspects that are relevant to the creation of new economic settlements and **their implications for India's urban future.**

The executive branch of government at both state and national levels is organised into line ministries, each of which is responsible for a particular sector or area. In the case of industrial and economic planning, the responsibilities are shared by the Department of Commerce and the Department of Industrial Policy and Promotion, both housed within the Ministry of Commerce and Industry, and the Ministry of Finance. However, while there is potential overlap in planning and development of regions with other ministries such as the Ministry of Urban Development, there is little actual coordination between these. Consequently, policies are often implemented in isolation.

2.1. Urban Policy

While urban policy is largely directed by state governments, parastatal agencies, and urban local bodies (ULBs), the central government continues to exert considerable control over policy priorities and expenditure through centrally sponsored schemes, programmes, and missions. State governments are responsible for constituting municipal governments, approving master plans, and through their parastatal bodies, they also plan and finance urban infrastructure, housing, and transport. Urban local bodies are responsible for implementing plans and programmes as directed by higher levels of government, and carrying out municipal and administrative functions. However, this is despite the devolution of a wider set of functions and responsibilities through the 74th CAA.

The Government of India enacted the 74th CAA in 1992, which emphasised decentralisation and mandated the devolution of power to elected ULBs. The Act conferred constitutional status on ULBs, which were to function as the democratically elected third tier of government. It also transferred the responsibility of urban development to ULBs, and made them responsible for providing infrastructure and services and mobilising the required financial resources through user fees and taxes (Sami, 2012). In practice, however, city governments continue to play a limited role over these expanded functions, partly due to the fact that the allocation of functions and devolution of powers was left to the discretion of state governments (ibid.).

In 2005, the Government of India launched JNNURM focusing on urban infrastructure and **governance reform in India's cities over a period of seven years. At the time of the launch of the Mission, 63 million-plus cities, state capitals, and other cities of strategic importance were selected for prioritisation. It was estimated that an amount of Rs. 1,20,536 crore would be required over a period of seven years for basic infrastructure in the 63 selected cities (MoUD and MoUEPA, 2005). However, analysis of the amount approved and spent on projects shows that the total utilisation under the Mission has been Rs. 36,110 crore while the amount approved was Rs. 62,250 crore, as of 2012 (IIHS, 2012). State and city governments were required to implement reforms including implementation of the decentralisation provisions of the 74th CAA, and increasingly transferring functions to city governments, in exchange for funding from the central government towards urban**

infrastructure, transportation projects, and providing basic services and amenities to the urban poor. However, an appraisal of JNNURM shows that only a few state governments have transferred all the 18 functions of the 12th schedule to ULBs, and most have not built their capacities to take over these functions (Grant Thornton, 2011). In addition, while the Mission was later altered to include all towns, most of the funding under the programme was directed to the 63 selected cities (IIHS, 2012).

As mentioned earlier, despite these shifts in urban policy outlined here, a significant proportion of urban residents experience high levels of deprivation. Indian cities continue to suffer from fragmented governance arrangements, poor levels of infrastructure and services, and lack adequate employment opportunities. The latter is related to the fact **that India's** economic growth has been capital and skill intensive, and one of the recurring goals of the Five-Year Plans has been focused on promoting industrial growth in order to generate employment. Therefore, one of the government responses to this has been the creation of new economic settlements.

There are two key strands of literature that explore the emergence of these types of settlements. The first is writing on urban planning and policy, which focuses in particular on the nature of governance and planning in these areas. However, in the Indian context, there has been limited work on these issues. The second body of work on these emerging settlements comes from an economic development perspective. This paper makes an attempt to integrate both these strands to arrive at a more holistic assessment of the issues faced in developing these emerging urban-like settlements. The box below on new towns in India draws on the urban governance, planning and policy perspective, and highlights the problems and critiques of this urban form. The following section explores Indian industrial policy and related issues.

Box 1: The Indian Experience with Building New Towns

Here, we use the term 'New Town' to describe a town or urban settlement that is typically a greenfield site project, and is newly built. We would like to distinguish this type of new urban settlement from 'Census Towns' which are settlements that have, for the first time, fulfilled the Census criteria for urban areas, and can now be defined as urban.

There are multiple examples of new town development in post-independence India. New towns were built for a variety of reasons—the development of new capital cities (like Chandigarh, Bhubaneswar, and Gandhinagar), refugee resettlement towns (like Faridabad near Delhi, Gandhidham in Gujarat, and Asokenagar in West Bengal), and industrial towns (like Rourkela, Bokaro, and Durgapur) (Kalia, 2006; Sivaramakrishnan, 1976-77). More recently, new town development has also included the development of satellite cities like Navi Mumbai near Mumbai, Maraimalai Nagar near Chennai, Yelahanka and Kengeri near Bangalore, and Noida and Gurgaon in the NCR. The term New Town has also been used to describe large integrated townships like Lavasa near Pune and Rajarhat outside Kolkata that have emerged in the last two decades.

The development of large integrated townships like Lavasa or Rajarhat constitutes a departure from the way Indian urban development has been taking place between independence and the early 1990s. Earlier, government agencies like the Delhi Development Authority (DDA) and public sector companies like Hindustan Aeronautics Limited (HAL) in Bangalore were very active in building housing in Indian cities. This was supplemented by local private sector developers (Sami, 2012). However, recently, the demand for sanitised conditions, reliable infrastructure, and other amenities like schools and hospitals in close proximity have made gated communities and townships desirable residences (Chandrashekhar, 2010; Joshi, 2009; PTI, 2009).

The national and state-level governments also view integrated townships as a way of addressing the urban housing crisis (Joshi, 2009). The National Urban Housing Policy (2007) explicitly highlights the need to build integrated townships as a way of dealing with increasing urban population. Moreover, specific state governments (Gujarat, Maharashtra and Rajasthan, for example) have formulated integrated township development policies to help the government in creating urban infrastructure as well as with housing development (3iNetwork (India) and Infrastructure Development Finance Company (India), 2009). To encourage a greater rate of township development, the Indian national government also began to gradually liberalise the real estate sector in 2002 (Searle, 2010).

While part of the aim of developing new towns has been to decongest existing cities and urban centres, this has not always worked. Several studies on new towns in India have highlighted concerns that continue to be relevant today, especially in the face of the recent push to embrace the development of industrial townships as a means of employment generation and economic growth.

First, the basic premise for their creation was not always clear, especially in the case of industrial towns. The building of the industry itself was seen as the main objective with the settlement itself being more of an adjunct rather than a core activity (Sivaramakrishnan, 1976-77). As a result, new towns in India have shown themselves to be inadequate as long-term human settlements and have been **‘unable to cope with accelerating urbanization and the rapidly growing world of the urban poor’** (Mehrotra et al., 2006).

Second, developing new towns on greenfield sites have significant environmental impacts. Moreover, such projects also tend to disrupt the existing patterns of livelihood and economies in the region. New town projects are also expensive to develop and maintain—they require substantial capital investment at the outset and in the initial stages with very slow financial returns.

Third, a key concern is that of administration and governance, especially in the case of new towns that have been developed by the private sector, such as industrial and large integrated townships. The organisation and administration of these settlements must be independent and autonomous of particular interests such as specific industries or investors. As these developments grow more urban-like, they also need to be able to provide avenues for public participation. This is even more critical in the aftermath of the 74th CAA.

2.2. Industrial Policy

While there are aspects of industrial development that are controlled by the central government, including transportation infrastructure, and income and corporate taxation, much about industrial development trajectories is determined at the state level. Individual state governments have followed different developmental trajectories: in particular, Gujarat and Tamil Nadu have embraced industrialisation as an economic strategy. States are responsible for land acquisition, and planning and providing industrial infrastructure through parastatal agencies at the local level. However, there are certain instruments adopted by the central government such as industrial corridors, where the overall planning and vision comes from the national government, while implementation of projects rests with the states. This paper focuses on two such instruments: SEZs and industrial corridors.

2.2.1. Special Economic Zones (SEZs) The Government of India announced the SEZ Policy in 2000, and this was followed by the passage of the SEZ Act in 2005. This was a successor to the earlier Export Processing Zones (EPZs), which were similar in their objectives but much smaller than the proposed SEZs. The main objectives of the Act were to attract domestic and foreign investment, promote exports, create employment, and develop infrastructure. The assumption was that SEZs would act as engines of growth by triggering a large flow of investment for building infrastructure **and productive capacity, leading to generation of additional economic activity and employment opportunities** (Government of India, 2009). Under the SEZ Act, the government was to provide a set of tax and financial incentives within the zones, including duty-free import of goods, income tax exemptions, as well as tax incentives to SEZ developers. In addition, the government also assisted with land acquisition, and expedited the process of granting approvals through a single window clearance. The SEZ Act was premised on the assumption that these incentives would make these zones attractive to developers as well as to potential investors, thus allowing the government to rely on private sector developers to build the requisite infrastructure. Therefore, the responsibility for the planning, development, and financing of SEZs rests with private developers.

Following the passage of the SEZ Act at the Centre, some state governments also passed SEZ Acts and Policies: Gujarat, Tamil Nadu, Punjab, Haryana, Madhya Pradesh, and West Bengal passed such Acts while other states like Karnataka, Uttar Pradesh, Kerala, Maharashtra, and Jharkhand notified Policies. In order to obtain approval for establishing an SEZ, the developer submits the proposal to the state government, which is responsible for forwarding it to the Board of Approval, which consists of the relevant officers of the different ministries of the central government.⁴ The approvals regarding the functioning of SEZs are overseen by an Approval Committee at the zone level, which is chaired by the Development Commissioner who is appointed by the state government (Government of India, 2009). The Approval Committee is responsible for monitoring the performance of the SEZs periodically (ibid.).

⁴ This includes the Secretary, Department of Commerce; Joint Secretary (JS), Department of Economic Affairs, Ministry of Finance; JS, Department of Commerce; JS, Department of Industrial Policy and Promotion; JS, Ministry of Small Scale Industries and Agro and Rural Industries; JS, Ministry of Urban Development, along with others.

As of 2014, there are 196 operational SEZs in India (ibid.). While particular instances of SEZs have been successful, on the whole, they did not generate the anticipated levels of output, investment, exports, and employment. The empirical literature on the experience of SEZs in India is relatively limited, however, a key resource for this section is a recent report of the Comptroller and Auditor General of India assessing the performance of SEZs.⁵ In addition, the Ministry of Commerce & Industry commissioned a study of the impacts of the SEZ policy, which found that exports from SEZs have increased at 20–30 per cent between 2004 and 2006 and now account for 5 per cent of **India's total exports in 2005–6**, and that the growth and employment benefits obtained through multiplier effects will far outweigh the tax benefits provided under the SEZ policy (CUTS International, 2007). However, the performance of SEZs has been critiqued by other observers for multiple reasons:

- (i) Extent of revenue foregone: One of the critiques of the SEZ policy is whether the loss to the exchequer arising from tax exemptions and incentives to SEZs is indeed justified. There are disagreements over the amount of revenue foregone, with the Department of Revenue, Government of India, putting forward a much higher estimate of foregone revenue (Rs 1.76 lakh crore between 2005 and 2010) than that estimated by the Ministry of Commerce (Rs 33,065 crore) (CUTS International, 2007). However, the recent CAG report finds that the reality is somewhere in between, and that SEZs in India have availed tax concessions to the tune of Rs 83,105 crore between 2006–7 and 2012–13 (Comptroller and Auditor General of India, 2014). The critique is that this revenue loss has not led to commensurate gains in economic activity and investment that were predicted by the government. In particular, there has been a significant shortfall relative to the investment, exports, and employment targets that were set by developers in order to gain approvals for establishing SEZs (ibid.).
- (ii) Land acquisition: Much has been written about the question of land acquisition for SEZs, particularly on the process of compensation and the absence of alternative livelihoods for land losers, the diversion of land away from agriculture, and the transfer of ownership of land to private developers by the state. While the government has stated that the requirements of land for SEZs must be met through the use of wasteland, critics have argued that this has led to the taking away of land used by the most marginalised communities for cultivation or as common grazing land (Banerjee-Guha, 2008), **in a process termed as 'accumulation by dispossession'**. The SEZ case makes it clear that the question about redirection of land for industrial use, be it agricultural land or wasteland, is a complex one and needs to be addressed beyond the case of SEZs alone. There is evidence that the issue of land acquisition has arisen mostly in the case of large SEZs, which comprise a

⁵ This report is based on interviews conducted with developers, industrial units and zonal development commissioners from a representative sample of 187 notified, operational and non-functional SEZs across 13 states. In addition, information has been obtained from Commissionerates of Income Tax, State Pollution Control Boards and Industrial Development Authorities to assess the quantum of tax revenue foregone, the award of environmental clearances, and the process of land allotment. The Ministry of Commerce and Industry has responded to particular issues raised in the report; these responses are also included in the report.

small proportion of the total SEZs (Mukhopadhyay and Pradhan, 2009a). One of the reasons that the criticism has been more strident in the case of SEZs, even though the quantum of land acquired in their case has been lower than other large projects such as the building of state capitals, is because the ownership of land has been transferred to private developers. There have been several irregularities in the use of this land, and not all of it has been put to its stated use; the CAG report highlights specific instances of land being used by developers to raise finance or for purposes other than those approved in the SEZ application.

- (iii) Regional development: Multiple assessments have shown that SEZs were concentrated in more industrialised districts and closer to large metropolitan areas (Comptroller and Auditor General of India, 2014; Mukhopadhyay and Pradhan, 2009a). In fact, as of December 2014, 293 of the 352 SEZs notified so far were located in just eight states: Tamil Nadu, Andhra Pradesh, Telengana, Karnataka, Kerala, Gujarat, Maharashtra, and in and around Delhi (Government of India, 2009). Even within these states, SEZs were concentrated around existing large cities; for instance, in Andhra Pradesh, 20 of 36 operational SEZs are near Hyderabad (Comptroller and Auditor General of India, 2014). While it has been argued that promoting regional development in backward areas is not one of the goals of the SEZ policy, the assessment report commissioned by the Ministry of Commerce states that it is expected **that the setting up of SEZs will ‘trigger large-scale manufacturing in industrially backward states’** (CUTS International, 2007). There has so far been no evidence to support this claim, and critics argue that the policy has the potential to worsen trajectories of inequality by concentrating development further in coastal and industrialised regions.
- (iv) Driven by relocation: Recent data on SEZ approvals shows that about 60 per cent of the 388 notified SEZs as of April 2014 are in the IT/ITeS sector, and there are only 16 notified multi-product SEZs. The IT sector SEZs have limited employment-generation potential (Banerjee-Guha, 2008), and it has been argued that these SEZs were driven by relocation of IT firms to continue availing the tax holiday under the Software Technology Parks of India (STPI) policy that was set to end in 2009 (Palit and Bhattacharjee, 2008). Therefore, it is argued that these did not lead to the generation of additional economic activity or employment, nor did they help with diversification of economic activity into manufacturing (Mukhopadhyay and Pradhan, 2009a).

Further, the CAG report has highlighted several irregularities in the process of obtaining environmental clearances, as well the absence of an adequate monitoring framework for SEZs that are in operation (Comptroller and Auditor General of India, 2014). Several different reasons have been put forward for the inability of the SEZ policy to achieve its stated objectives: difficulties with land acquisition, and the relative openness of the rest of the economy, and the fact that private developers were unable to finance projects at this scale because they did not get preferential borrowing rates from banks (J. Bhagwati in Palit and Bhattacharjee, 2008; CUTS International, 2007). Further, there was evidence even before the launch of the SEZ

policy about the limited success of the EPZs which were in a sense the predecessors for the policy (Bajpai et al., 1997).

2.2.2. Industrial Corridors

The current push to develop industrial corridors follows earlier policies like the development of the Golden Quadrilateral and the North-South and East-West corridors. The Twelfth Plan also focuses on cluster and regional industrial development. Specifically, the Plan proposes the setting up of National Investment Manufacturing Zones (NIMZs) and connecting existing settlements through industrial corridors to expand manufacturing in the country. These industrial corridors are being planned around the Dedicated Rail Freight Corridors (DFCs) that are being developed by the Ministry of Railways. However, unlike SEZs, the corridor policy is relatively recent and therefore there is limited evidence about the impact, since most projects are currently in planning or implementation stage.

An early example of the industrial corridors is the Delhi-Mumbai Industrial Corridor (DMIC). Building on the DMIC experience, the Government of India is planning other similar corridors between Mumbai and Bangalore, Bangalore and Chennai, Amritsar and Kolkata, and the East Coast Economic Corridor. However, these are still in early stages of planning. Both the freight corridors as well as the industrial corridors have attracted a significant amount of international investment from agencies such as the World Bank, the Government of Japan, and the Government of the United Kingdom.

Similar to the SEZs, the development of these industrial corridors has multiple stated goals, which include improving infrastructure, enabling exports, generating employment, and linking fast-growing regions to relatively poorer regions. While there are several similarities with the SEZs, the industrial corridor policy does have some key differences. First, while land acquisition for both the SEZs and the corridors was carried out by the state governments and their agencies, in the case of the SEZs, the ownership of the land was transferred to private developers while this is not the case with industrial corridors. The responsibility for planning, selection of locations, and the development of these corridors lies with the governments (even if they hire private consultants to assist with planning), whereas in the SEZ case, private developers took on the responsibility of planning, financing, and building the zones. Second, the industrial corridors are making an explicit effort to provide connectivity to surrounding regions through the corridor itself as well as by building feeder road and rail networks. Third, the corridor policy is attempting to explicitly link industrial policy and urbanisation by developing industrial townships. A preliminary study of select locations along the DMIC shows that the planning of special investment regions (SIRs) is different from that of SEZs: unlike the SEZs, there is no requirement for SIRs to be built on contiguous land, which implies that the SIR plans incorporate existing villages and do not need to acquire land from the farmers in some cases. In addition, the SIRs are being built in a phased manner, which allows the government to experiment with the viability of such a region before building the entire infrastructure required.

As mentioned above, the industrial corridor development policy, while primarily focused on building manufacturing and industrial centres, is the first time that the

Indian national government has explicitly attempted to link economic and industrial development to urbanisation (Anand and Sami, 2014). These corridors will also bring together two different levels of government—the national, and the state—with the intent to work in coordination with each other.

In this section we focus particularly on the development and planning experiences of the DMIC, since it is at a more advanced stage than others in terms of both planning and implementation. The DMIC and its experiences will also be used as a model for the development of the other industrial corridors, making this very relevant for future policy as well.

The DMIC is being planned using the 1,483 km-long high-capacity Western Dedicated Freight Corridor (DFC) as the spine. The corridor will span six states: Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra. The development plan includes the creation of manufacturing cities, logistic hubs, and residential townships along the Western DFC that will promote manufacturing-led economic growth (Department of Industrial Policy and Promotion, 2014). The plan also includes the development of industrial areas and investment regions along the corridor like the planned Special Investment Region of Dholera in Gujarat. A total of 24 new cities are being planned as part of the DMIC project, with seven of these planned for Phase I of development.

The conceptualisation of the DMIC seems to have originated from two circumstances. The first was the decision of the Government of India in the mid-2000s to construct a Dedicated Freight Corridor (DFC) connecting the cities of Delhi and Mumbai, as part of a bigger project to build a national-level freight corridor network (Dedicated Freight Corridor Corporation of India, 2013). The Railway Ministry incorporated the Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL) to facilitate this project. The second is the international experience of industrial corridors and megalopolises as drivers of growth and employment, in particular the Japanese Taiheiyo Belt running roughly from Tokyo to Osaka (also known as the ‘Pacific Belt’ or ‘The Tokaido Corridor’) (Nikkei Asian Review, 2014; Sanjai, 2013; Mangaonkar, 2009; Dhaliwal, 2008; The Hindu, 2007).

The Delhi-Mumbai Industrial Corridor Development Corporation (DMICDC), created in 2007, is the nodal agency responsible for the execution of the DMIC project at the national level. It is a Special Purpose Vehicle constituted as a public corporation with the Government of India represented by the Department of Industrial Policy and Promotion (DIPP), as the single largest shareholder (with a stake of 49%).⁶ Other shareholders include the Japan Bank for International Cooperation or JBIC (26%), the Housing and Urban Development Corporation Ltd or HUDCO (19.9%), the India Infrastructure Finance Company Ltd or IIFCL (4.1%) and

⁶ The DIPP was established in 1995 and is responsible for the formulation and implementation of promotional and developmental measures for growth of the industrial sector, keeping in view national priorities and socio-economic objectives. The DIPP is responsible for the overall Industrial Policy while individual Administrative Ministries look after the production, distribution, development and planning aspects of specific industries allocated to them.

the Life Insurance Corporation of India or LIC (1%) (Delhi-Mumbai Industrial Corridor Development Corporation, 2014).

While the DMICDC is the nationwide nodal agency for the DMIC, the overall **institutional framework for the project's execution is much more complex. The key stakeholders** that the DMICDC interacts with regularly are representatives of the state governments. The governments of all states that fall within the DMIC Project Influence Area have appointed nodal agencies to oversee the execution of the DMIC within their jurisdictions; for example, in Gujarat, the nodal agency for the DMIC is the Gujarat Infrastructure Development Board. All state nodal agencies are required to interact on behalf of their state governments with the DMICDC on the details of execution.

The DMIC presents an opportunity for us to emphasise planning and coordination between different agencies of the government and between different levels of government at an early stage in the implementation of a large megaproject. Since the DMIC is meant to be a model for many other such planned corridor projects in the country, this will have important lessons for the direction of industrial and urban planning in the years to come.

Both the SEZ policy as well as the industrial corridor policy are inspired by a model of export-oriented industrialisation building on the East Asian experience. The box below highlights some relevant aspects of the China experience. The section following the box is a detailed analysis of the assumptions underlying these policies and their relevance in the Indian context.

Box 2: Building Economic Settlements: China's Experience

SEZs were established in the late 1970s as a means of opening up the hitherto closed Chinese economy to foreign investment and attracting FDI through special financial incentives. China followed a policy of gradually opening up to foreign investment, beginning in 1979 with the establishment of one Export Processing Zone in the Shenzhen region (Bajpai et al., 1997). This was followed by the establishment of four SEZs in 1980, the opening up of 14 coastal cities in 1984, the Yangtze River Delta, the Pearl River Delta, and the Southern Fujian Delta as economic development zones in 1985, and the fifth SEZ Hainan Province in 1988 (ibid.).

Meanwhile, between 1985 and 1987, the State Council announced that 14 economic and technological development zones (ETDZs) in 12 of the 14 coastal open cities would have similar preferential policies as in the SEZs. In 1990, the State Council set up 26 new technology development zones with similar preferential policies to the SEZs. Then, five border cities were opened in 1992, and a growing number of ETDZs were authorised by the State Council or the provincial governments. By the end of 1994, most interior capital cities and major industrial cities were also opened. Since then, the open areas in China have spread so fast that it is almost impossible to keep track of the number of zones, area coverage, and population affected (Bajpai et al., 1997).

The Chinese government financed the development of the SEZs, and also provided the land for their development as well as basic infrastructure. The establishment of SEZs provided laboratories where the government, being inexperienced in such reforms, could experiment with these policies before implementing them at a larger scale (Knoth, 2000). It also insulated the rest of the economy from the potentially negative impacts of a capitalist system. Local governments in the Chinese SEZs also have more power in making regulations and approving projects with foreign investment (Bajpai et al., 1997). However, as the rest of China opened up to foreign capital, the importance of SEZs declined (Gopalakrishnan, 2007).

While the geographic regions where the SEZs were located did experience rapid economic growth initially, this success has been varied across the different zones with only Shenzhen being an outright success (ibid.). There have also been issues with large-scale displacement of residents, labour abuse, speculation and land loss.

There were several differences between the Chinese model and its application in India. First, the Chinese SEZs were limited to six locations. India, on the other hand, did not limit the number of SEZs that could be set up. The scale of the Chinese SEZs was also much larger than that of its Indian counterparts. Second, the Chinese government undertook the financing and infrastructure provision within these zones, while continuing to maintain ownership of the land; in India, the entire development of SEZs, including infrastructure provision, was the responsibility of private developers. Third, India did not focus only on bringing in international capital, as in the case of China, but encouraged domestic investment as well. Fourth, the Indian economy as a whole was already opening up to FDI, reducing the attractiveness of the special economic zones.

3. Assumptions, Feasibilities and Adaptabilities

The establishment of settlements and zones to promote industry-led growth and decongest cities is based on certain assumptions regarding the feasibility of these types of policies and their projected outcomes. We discuss these below.

As mentioned earlier, there is little coordination between the various line ministries like the departments within the Ministry of Commerce and Industry and the Ministry of Urban Development that have important functional overlaps in the planning of these emerging economic settlements. For example, the spatial implications of economic planning are rarely taken into account. In addition, there are severe constraints on the availability of supporting regional infrastructure which includes transportation infrastructure as well as power. There is limited capacity within the Indian government to create this infrastructure at the pace and scale required. Much of this depends on the ability of central and state governments to finance the quantum of investment required. The corridor model largely draws upon international sources of finance such as the Japan Bank for International Cooperation (JBIC), and the World Bank. While financing is a serious constraint for large-scale projects of this nature, however, a more detailed discussion is outside the scope of this paper.

3.1. Adaptability and applicability to the Indian context

The industry-led model of growth that is being embraced in India draws heavily on the successes of other East Asian countries such as China and South Korea, which was based on export promotion, attraction of Foreign Direct Investment (FDI), encouraging domestic savings, and extensive education and skill formation programmes (Wim, 2010). However, a similar set of industrial policies were also adopted in Latin America and Sub-Saharan Africa and met with limited or mixed success (Wim, 2010; Pack and Saggi, 2006). There is no consensus on whether developing countries today can replicate the East Asian model, and even more disagreement on how they should go about doing so. Therefore, it is unclear whether this approach will meet with success in the Indian case, given that these come from very different economic and political contexts.

One of the reasons for the scepticism about whether such an approach of export-oriented industrialisation is feasible in India is the current slowdown in the global economy which will mute demand for manufacturing exports (Rajan, 2014). In addition, policies aimed at attracting FDI are usually premised on the argument that export-oriented firms can have beneficial spillover impacts for the rest of the economy in terms of technology transfer and backward linkages, an assumption that has not held true in multiple contexts (Rodrik, 2004). **Therefore, ‘developing countries actively compete with each other to provide generous incentives to attract foreign firms, even though such incentives tend to play at best a marginal role in the location decisions of multinational firms’** (ibid.).

One of the ways of administering the instruments of industrial policy referred to above is through the creation of zones such as EPZs or SEZs, which allow governments to provide high quality infrastructure along with a set of tax subsidies and other incentives within a limited area, usually because it is difficult or expensive to provide these across the entire country (Palit and Bhattacharjee, 2008; Collier and Venables, 2007). This approach was

very effective in the context of China because the rest of the economy was relatively closed, and the relative importance of SEZs in the Chinese context declined as the rest of China opened up to foreign capital (Gopalakrishnan, 2007) (see box on the China experience). In India, as highlighted in Section 2.2.1, the SEZs which were replicated on the East Asian model were relatively unsuccessful, for many reasons. The fact that more than half of the SEZs established in India were in the IT/ITeS sector calls into question the ability of the incentives provided under the SEZ Act to generate new economic activity, rather than just relocation of existing firms.

In addition, the review of the SEZ experience confirms theoretical predictions about the **limitations of India's ability to adopt export-oriented industrialisation** through a similar set of policies as those followed in the East Asian countries. The corridor policy that is now being adopted by the government shares a similar set of assumptions as the SEZ policy, but also departs from this in significant ways which will have implications for its potential success or failure. While it shares the assumption about the importance of industry-led growth, unlike in the case of the SEZ, the corridor model involves state provision of infrastructure and no special tax subsidies or tariffs. The government will play a more central role in determining the location of transport infrastructure and industrial estates as well as in planning these relative to the SEZ model in which the private sector carried out the planning and determined the location. It has been argued that investing in transportation infrastructure is more effective than subsidies and tax breaks, because this has the potential to **'improve quality of life for the resident population, even if it fails to attract firms'** (Deichmann et al., 2008).

Therefore, while the government might need to rethink its assumption about export-oriented industrialisation, we argue that the corridor policy is a more realistic strategy for economic development than the SEZ policy.

3.2. Labour or capital intensive growth

Another assumption behind the focus on industrialisation is that this will provide **sufficient employment opportunities for India's large unskilled workforce**. However, these policies might not lead to labour-intensive economic growth unless this is explicitly prioritised. The current policy on SEZs and corridors is not explicit about the types of industries it will promote. One of the risks with this approach is that if past trends continue, these zones might lead to growth in the services sector or capital- and skill-intensive manufacturing. This may not lead to significant job creation, continuing the trend of jobless growth witnessed over the past decade, and exacerbating already existing inequalities in the Indian economy. There needs to be an explicit focus on promoting labour-intensive industry in these planned industrial areas.

In addition, these policies need to recognise the importance of micro, small and medium enterprises alongside investing in large industrial estates and regions. In 2005, 84 per cent of employment in the industrial sector was concentrated in enterprises with less than 50 workers (Hasan and Jandoc, 2010 in IIHS Policy Brief on the Urban Economy, 2014). Besides promoting exports, industrial policy also needs to recognise the importance of domestic demand as a key driver for future growth (IIHS Policy Brief on the Urban Economy, 2014). In order to facilitate this, the government should focus on

improvements in physical transportation infrastructure, reduction of transaction costs across states, and promoting domestic savings (Rajan, 2014).

One of the stated goals of the SEZ policy was the generation of employment. However, there is considerable evidence that this has not happened. An assessment of the performance of SEZs carried out by the CAG found that they fell short of their targets for employment generation by about 90 per cent. This points to the importance of explicitly focusing on labour as a criterion when selecting or inviting particular industries to these industrial areas. An important aspect of this is the need to focus on locally relevant skills training and education initiatives, as people transition from rural areas to jobs in industry. For instance, how would schemes like the recently announced Deen Dayal Upadhyaya Antyodaya Yojana (DAY) be implemented in industrial areas, particularly given that it is currently only applicable in statutory towns?

3.3. Regional Disparity

Economic growth in India during the past couple of decades has been marked by an increase in inequality, both between rural and urban areas as well as between states (Jayadev et al., 2007). This is partially driven by the fact that since liberalisation, the share of private capital in total investment has increased, and private capital tends to be concentrated in coastal and metropolitan districts (Chakravorty and Lall, 2007). This leads to further concentration of wealth in regions that are already more prosperous. An assessment of the performance of SEZs shows that most of them were established in districts that were more industrialised than the national average, and close to metropolitan cities (Mukhopadhyay and Pradhan, 2009b). The corridor policy also has the potential to reinforce trajectories of inequality, since it is planned around key transportation corridors that currently carry most of the country's freight traffic, starting with the Western Dedicated Freight Corridor. The potential of these policies to exacerbate existing inequalities in the Indian economy has not received enough policy attention.

While there are aspects of industrial development that are controlled by the central government, including transportation infrastructure such as railways, highways, particular industries, and income and corporate taxation, much about industrial development trajectories is determined at the state level.⁷ States are responsible for all other industries, land, and planning and providing industrial infrastructure, thus leading to divergent experiences between states on industrial performance. This is partly due to differential access to natural resources, different historical trajectories of institutional development, and different socio-cultural realities, but is also partly explained by policy choices. In Box 3, we use the case of Tamil Nadu to explain how a state government utilised industrial policy to achieve a regionally balanced trajectory of urbanisation and industrial development.

⁷ Those that are declared by law to be expedient in the public interest (Seventh Schedule, Article 246 of the Constitution of India).

Box 3: Balancing regional development: The Tamil Nadu story

There are few states in India that have managed to combine regionally dispersed economic growth and urban development. Tamil Nadu is perhaps one of the most successful examples of such an integrated approach to economic development and urban growth. The Tamil Nadu state government and agencies such as the Tamil Nadu Industrial Development Corporation Limited (TIDCO) and State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT) developed industrial and economic development policy in conjunction with each other, and also with national-level economic and industrial policy initiatives.

A review of the state's industrial policy over the last decade shows a consistent focus on the development of backward regions, emphasis on a mix of manufacturing and services-led economic growth, provision of basic infrastructure, and the creation of urban centres across the state. The state government identified key thrust areas for investment, which included biotechnology, information technology, telecommunications, pharmaceuticals, garments, leather, and food processing. Various state agencies then focused on activities and policies that would enable them to achieve the objectives of developing these sectors. The Tamil Nadu state government also emphasised the development of infrastructure that would be internationally competitive, drawing on both public and private sector financing. Recognising changing economic realities both globally and in India, as well as taking into account the evolving national policy environment, the state of Tamil Nadu emphasised the creation of infrastructure and development of industrial land in backward regions in order to attract industry to locate there.

As of 2010, Tamil Nadu is ranked third among the States in India in terms of number of approved SEZs. The State has a total of 49 notified SEZs and the total area under these 49 SEZs is 3972 hectares. The state emphasised the building of Special Economic Zones (SEZs) and Industrial Parks to encourage the development of industries in key thrust areas as identified by state policy. Most of these were set up away from Chennai, thereby promoting a regional approach to growth. The State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT) was also instrumental in developing sector-specific SEZs, and industrial parks in addition to assisting private manufacturers and developers to obtain land to set up their own SEZs.

Over the next 10 years, the state plans to develop 10 new cities as nodes of industrial growth to facilitate regional development. In order to support these, the state also has plans to develop knowledge institutions, and world-class infrastructure (focusing on transport, power, and water).

3.4. Land

One of the major impediments to economic development in India (as in most developing countries) is the availability of serviced land: according to the India Infrastructure Report (2009), problems relating to land and its acquisition were responsible for about 70 per cent of delayed infrastructure and other development projects in India (Sarkar, 2009; Sivam, 2002). In a competitive economy, state and city governments are becoming more entrepreneurial and are constantly striving to make their region or city attractive to businesses (Xu and Yeh, 2005), using land as a key resource to facilitate economic **development. As the 'state' in its various forms appropriates land in and around Indian** cities, it sanctions certain developmental agendas over others. For example, state governments have been assisting large corporations to acquire large parcels of land on the urban periphery for various uses ranging from developing Special Economic Zones (SEZs) and industrial plants to large integrated townships and business campuses (Searle, 2010).

Moreover, as India's economy and population continue to grow, land is becoming increasingly scarce as competing claims are made on a finite supply. In addition, land acquisition for industrial projects and urban development also triggers an economic transition from a primary sector agrarian-based economy to one that is increasingly dominated by secondary or tertiary sector industries, which is a difficult shift for the bulk **of India's population that is still dependent** on land for their livelihood. The outcome of land acquisition in these areas without a clear plan to help those affected by transition to alternative non-agriculture-based occupations has often led to social unrest. Another related issue that has garnered considerable public support and has been the cause of several social protests is the ecological impact of land acquisition and development. Moreover, as agricultural land continues to be converted to non-agricultural uses, it also raises food security concerns for India.

With the recent passage of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (2013), the process of land acquisition has become more challenging for state governments and their agencies. Given the new provisions for compensation and rehabilitation in the Act, the cost of land acquisition has risen dramatically. Consequently, many state governments are now unable to purchase or acquire land. As the national government continues to embrace a place-based approach to economic development, the difficulty of acquiring and assembling land is emerging as a key constraint to the successful completion of projects such as the industrial townships that are being planned along the Delhi-Mumbai Industrial Corridor. As a result, states that have land banks, or alternative means of assembling land (like through the Town Planning Schemes in Gujarat) are at an advantage.

3.5. Spaces of exception/governance

India has a three-tiered government system: the national- or the federal-level government, followed by the state- or regional-level government and finally city- or municipal-level government. The governance structure in India combines a loose federal structure with a bicameral legislative system. While this political system created a strong national government and offered considerable autonomy to the state governments, local government has suffered. In the Indian governmental system, administrative power and decision-making authority is concentrated at the top of the hierarchy: with the Prime Minister, his cabinet and the higher level bureaucracy at the national level and with their respective counterparts in regional governments at the state level, thereby weakening local government in India (Weinstein, 2009; Kochanek and Hardgrave, 2008).

Larger Indian cities like Mumbai (Bombay), Delhi, Chennai (Madras), Kolkata (Calcutta), Bangalore, and Pune are governed by a municipal corporation comprising of a democratically elected municipal council and a mayor.⁸ The state government also appoints a municipal commissioner who heads the executive. Moreover, state governments have the right to overrule decisions made by the municipal corporation, should the corporation be considered inadequate to the demands of maintaining the city. As a result, the state governments or the officials that they appoint wield significant power and control over local urban governments. Consequently, city governments tend to be weak and largely incapable of (or prevented from) exercising independent decision-making.

Acknowledging this issue, the Parliament passed the 73rd and 74th amendments to the Indian constitution in 1992 that required decentralisation of government and decision-making. These constitutional amendments enable both local rural and urban governments to take decisions with regard to their jurisdictions. However, there are few incentives offered to state governments to implement the reforms, or indeed few negative repercussions of not implementing them (Sami, 2012). The Government of India attempted to link the implementation of urban reform with financial incentives through the JNNURM programme, however this too did not succeed. In spite of legislation that requires decentralisation of governmental authority at the local level, state governments, and the parastatal bodies that they appoint, continue to control most of the decision-making processes with little or no input from municipal governments (Baud and de Wit, 2008). The governmental reaction to a rapidly weakening municipal management structure was to attempt to find substitutes for municipal institutions, often in the form of development authorities (Buch, 1987). These developmental authorities are parastatal statutory institutions responsible for the developmental aspects of planning in urban settlements, while maintenance and service provision is left to the elected municipal councils.

The newer forms of economic settlements like SEZs, industrial townships, and large SIRs along industrial corridors are emerging as spaces of exception (Ong, 2006) where the

⁸ Since the passage of the 74th Constitutional Amendment Act, Urban Local Bodies (ULBs) in India are categorised into Municipal Corporations, Municipalities and City Councils depending on the size of the urban area being governed, with municipal corporations being in charge of the largest and city councils, the smallest. Municipal corporations and municipalities are fully representative (i.e., elected) bodies whereas city councils may fully or partially comprise nominated members. For more on this issue, see: (Government of India, 1992), <http://urbanindia.nic.in/>, <http://panchayat.gov.in/>

usual norms and legislations that apply in most other urban settlements are relaxed to a certain degree. These spaces are being planned and governed by specially created institutions like development authorities established under Article 243Q of the 74th CAA, which provides an exception for the establishment of locally elected bodies for areas designated as industrial townships. While there is always the possibility that these new urban-like economic spaces may one day have an elected government, it is important to ensure that their residents have access to and are governed by the same set of policies and laws as other urban settlements.

3.6. Natural resource constraints

The building and development of these newer settlements significantly impacts the carrying capacity of the regions in which they are located. Several of these emerging settlements (especially those associated with the newly announced industrial corridors) are among the most water scarce regions of India (such as Rajasthan, and Gujarat). Lack of a reliable supply of water is a serious concern. Moreover, the potential cost of transporting water or building new infrastructure to provide water supply has a significant environmental cost, especially in terms of energy.

In addition, some of the land for these new industrial townships is fertile and agriculturally productive. The development of new industrial settlements therefore also raises questions about agricultural production and food security. Several of these new townships are also located in coastal areas increasing their vulnerability to climate-related extreme weather events such as floods and cyclonic storms as well as sea-level rise, and in areas that are prone to other natural disasters such as droughts, and earthquakes.

In addition, there are several sensitive natural habitats in close vicinity of proposed industrial townships that will be affected as the townships are built and they grow.

4. Conclusion/Recommendations

1. Integration with existing urban settlements:

Much of the focus of the SEZ and corridor policy involves building greenfield industrial townships and infrastructure. While this is necessary, it also needs to be accompanied by an increased integration of existing urban settlements into industrial planning. The **reality of India's urban demographic structure as elaborated earlier in this paper shows** that much of the incremental urban population is concentrated in small and medium towns and transitioning settlements. Therefore, the generation of employment opportunities in these emerging settlements becomes increasingly important. This will require an explicit focus on Micro, Small, and Medium Enterprises (MSMEs) since these employ the majority of the urban workforce. In particular, more research is required to understand employment dynamics in small and medium towns and the impacts of these megaprojects on employment transitions, migration, and rural to urban commuting.

2. Emphasise labour-intensive growth

During the past decade of rapid growth in the Indian economy, growth has largely been capital- and skill-intensive and not labour-intensive (Anand et al., 2014b), despite growth in the industrial sector. Employment is expanding largely in the informal services and the construction sectors, which has particular implications for the welfare of workers. If past trends continue, policies to create SEZs and industrial corridors might not lead to job creation unless this is explicitly prioritised. The current policy on SEZs and corridors does not specify the types of industries it will promote, and multiple assessments have showed that SEZs failed to generate employment in line with their targets. Employment in the formal sector represents only a small fraction of total employment; in 2005, 84 per cent of the manufacturing workforce was concentrated in micro and small establishments with less than 50 workers (Hasan and Jandoc, 2010). Therefore, any attempt to foster labour-intensive economic growth needs to incorporate an explicit strategy for informal enterprises and MSMEs.

3. Address regional disparity:

Despite repeated emphasis on balanced regional development in successive Five-Year Plan documents, the recent push towards economic and industrial corridors is not explicit about measures to mitigate regional disparity. Since the corridors are currently **planned around key transportation corridors that carry most of the country's freight** traffic, this has the potential to reinforce trajectories of inequality. In addition, the transportation infrastructure provided by the Government of India through the corridor policy will allow industrially advanced states to further develop their economies, while posing a challenge for less developed states. The central government needs to focus on reducing regional disparity by linking these policies with development in small and medium towns, and economically lagging regions. As the SEZ experience demonstrated, most SEZs were established in districts that were more industrialised than the national average, and that were close to metropolitan cities (Mukhopadhyay and Pradhan, 2009b). An explicit focus on regional disparity and inequality is essential for the success of Indian industrial policy.

4. Facilitate livelihood transitions:

Since these policies are predicated on the transition of the economy from agrarian to industrial, this will involve a shift in employment patterns away from agriculture and into the secondary and tertiary sectors. While this has already started happening in India, there is a severe shortage of education, skills and training to allow workers to make this transition. There are several identified issues with the current framework for vocational training and skill development, some of which are being addressed through the recently announced Deen Dayal Upadhyaya Antyodaya Yojana (DAY). However, DAY is only applicable in statutory towns. This implies that it will not be applicable in newly created industrial settlements as well as in census towns where a majority of the incremental urban population resides. Policies specifically targeting the creation of industrial settlements will need to integrate plans to address the skills shortage. Further, land acquisition, especially of farmland, also needs to be accompanied by a clear plan to help those affected by transition to alternative occupations. In particular, there needs to be a focus on developing specific manufacturing-related skills which take into account local demand for labour.

5. Transition to urban governance:

It is important to ensure that residents in these emerging settlements have access to and are governed by the same set of policies and laws as existing cities. The implementation of the corridor policy is taking place through a set of parastatal institutions and new settlements will be planned and governed by specially created agencies such as development authorities. These are constituted through appointment by state governments and are not democratically accountable to local residents. Article 243Q of the 74th CAA allows for these areas to bypass the requirement of creating urban local governments as mandated for urban settlements. This also has implications for access to schemes and programmes, for instance, the recently announced DAY scheme for skills training is only applicable in statutory towns, and therefore will exclude these types of settlements. There needs to be a clear plan laid out for the eventual transition from development authorities to elected local government, which is currently lacking.

6. Develop regional infrastructure:

There are constraints on the availability of supporting infrastructure to provide local connectivity to enable spillover benefits for broader regional development. This includes transportation infrastructure such as highways, railways, ports, and airports, as well as power. There is limited capacity within the Indian government to create this infrastructure at the pace and scale required. Operation and maintenance of this infrastructure is also a concern. Much of the development of this infrastructure depends on the ability of central and state governments to finance the quantum of investment required, as well as build capacity within government agencies for its delivery and management. In the future, it will be important to expand connectivity beyond the corridor influence area.

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