

# Appendix

## City Cluster Development in India

India has 1.13 billion people (2007 estimate), 29% of whom live in urban areas, with the percentage of urban residents expected to increase to 50% by 2030. Six of the world's largest metropolitan areas are in India, and the number of cities with 1 million or more inhabitants grew from 23 in 1991 to 40 in 2001. This is projected to increase to 70 by 2021. The contribution of cities to India's GDP increased from 29% in 1951 to 55% in 1991 and to approximately 60% in 2001. Despite the wealth created by urbanization, India continues to struggle to meet the infrastructure and services needs of its urban citizens. Although planned development of the country's urban areas has been a policy since its independence in 1947, towns and cities have grown in an uncontrolled and haphazard manner (Tewari 2007). Thus, India is an excellent candidate for CCD. The situation in India is analyzed, using the conceptual framework for CCD proposed in this study, to examine the possibility of setting up planned city clusters in various parts of the country to help contribute to the country's overall development.

Although some demographers claim that India is "under-urbanized" in light of its state of economic development, the country's cities and towns are so beset with serious problems that the issue of whether urban growth is good for the country's rural areas or not has been questioned (Purushothaman, Bandyopadhyay, and Roy 2008). India's 2001 census indicated that in 607 towns with populations of more than 50,000, the total



slum population was more than 40.6 million. In 2002, a study reported that only 58% of town and city dwellers in India had access to sanitation facilities and about 158 million people (more than half of urban residents) lived in slum conditions (Mathur 2006). The World Bank's 2006 *India Country Review* estimated the poverty level of the whole country at 35% using the criterion of \$1 per day (purchasing power parity in 2000). About 86% of the total population had access to improved water sources, but only 30% had access to improved sanitation facilities (World Bank 2006a).

In past decades, ADB has focused on the rural sector in India by supporting projects like the rural roads development program, irrigation schemes, and rural cooperatives. In recent years, however, ADB has started to support urban infrastructure projects, among them, the \$85 million Karnataka Urban Infrastructure Development Project. For the 2007–2009 India country program, ADB has earmarked 34% of lending to transportation, 22.6% to urban projects, and 19.5% to the energy sector. The India program is also considering support for projects such as intermodal transport systems and provision of infrastructure in cities with tourism potential (ADB 2008).

ADB's shift to urban issues in its India program is most welcome because the country's urban problems have been building up since independence in 1947. The turmoil caused by Partition saw millions of refugees flock to the cities, straining urban infrastructure facilities and greatly expanding slums and squatter colonies. To cope with the country's urban problems, the Government launched a two-pronged development strategy consisting of a rural community development program designed to encourage people to stay in villages and an urban slum improvement and clearance program to deal with uncontrolled settlements. To put the strategy into effect, the Government established the national Department of Community Development, with corresponding state and local level offices. To carry out the rural development program, groups of about 100 villages with populations of 60,000 to 70,000 were designated as building blocks of the community development structure. Later, urban community development programs were started in a number of cities. Slum improvement and sites and services schemes were tried; they were designed to enable the urban poor to solve their problems themselves with the support of the Government and nongovernment organizations. The Government also started a tenement housing program for low-income households, but because of a lack of resources, the tenements housed less than half a percent of the total number of families in the slums (Sivaramakrishnan 2007).

Other Government efforts to cope with urban problems included an infrastructure development program for small and medium-sized towns, an accelerated water supply program, and the establishment of growth centers and growth poles. In the infrastructure development of small and medium-sized towns program, the Government contributed from 36% to 48% of the cost of infrastructure development in towns with populations of less than 500,000. For large cities with populations of 4 million or more, the Government contributed 25% of infrastructure development costs, the states 25%, and the cities 50%. The accelerated urban water supply program was confined to small towns with populations of 20,000 or less. In the growth centers and growth poles program, the central and state governments provided infrastructure development to urban settlements on the outskirts of big cities. However, many growth centers and growth poles were located so close to the large cities that they were eventually overtaken by urban sprawl and became satellites or bedroom towns instead of alternative poles of development.

In 2005, the Government launched the Jawaharlal Nehru national urban renewal mission to

- improve and augment the economic and social infrastructure of cities;
- ensure basic services to the urban poor, including security of tenure at affordable prices;
- initiate wide-ranging urban sector reforms; and
- strengthen municipal governments and their functioning.

The program, initially intended to run for 7 years and to cover 63 cities, had two sub-missions: to provide urban infrastructure and governance and to extend basic services to the urban poor (Tewari, Raghupathi, and Ansari 2007).

A recent review of the Jawaharlal Nehru National Urban Renewal Mission program indicated that the choice of the cities covered was balanced and reasonable in the light of India's ethnic and cultural diversity. However, it was noted that the program does not include a scheme for cities with populations between 500,000 and 4 million. It was also noted that difficulties in the program's efforts to pursue local governance reforms, land and property reforms, and environmental reforms were experienced, although it attempts to achieve financial sustainability and improve the plight of the urban poor. The program has limited provisions for comprehensive development

of city regions. All master plans in India, as well as zoning codes, housing standards, and land use regulations, are confined to formal city boundaries.

One limitation of the Jawaharlal Nehru National Urban Renewal Mission is that funds allocated to the program are insufficient for the magnitude of tasks it sets out to achieve. Estimates of costs for urban infrastructure and services range from \$100 billion to \$320 billion by 2010 (October 2006, Infrastructure Conference in Delhi). Expenditures for all types of infrastructure in India have been estimated at \$21 billion per year, which is only about 3.6% of GDP. About 2.8% of GDP devoted to infrastructure and services comes from the Government, and only 0.8% from the private sector (Vats 2007).

### **Barriers to City Cluster Development in India**

Now that the Government recognizes how serious the country's urban problems are, the time is ripe to adopt a development strategy that uses urban centers as engines of economic growth and social transformation. Such a strategy may consider a CCD approach to spark development in a number of regions. To pursue a strategy focused on CCD, however, India has to confront four barriers. First is India's cultural and ideological commitment to rural development as the primary objective of governance. Second is the rural residents' strong attachment to land, which makes its conversion to urban development extremely difficult. Third is the tradition of local autonomy, which is reflected in the decentralization measures embodied in the 73<sup>rd</sup> and 74<sup>th</sup> amendments to India's constitution. Fourth is the country's political objective of fostering development in all parts of the country rather than concentrating it in a few urban areas with limited resources.

**Commitment to rural development.** India's strong commitment to rural development is an integral part of the country's history. The policy can be traced to Mahatma Gandhi's ideal of developing the country's villages through local initiative and self-help. The pro-rural and anti-urban bias held by many Indian officials may also be related to India's bitter experience with colonization, when cities became the exclusive base of Western colonizers and served as the ports from which the country's wealth was shipped. Finally, more than two thirds of India's population makes its living from agriculture, and the rural vote is assiduously courted by politicians.

For various reasons, many Indian officials adhere to the belief that the problems of the cities can be solved only by developing the countryside. They argue that improving conditions in villages by providing jobs, clean water, electricity, schools, and health services will encourage people to stay down on the farm. Conversely, providing infrastructure and housing in cities will only make them more attractive to rural–urban migrants, who will swell already congested slums and squatter communities. These officials propose that if India were to pursue a development policy, it should focus on the development of small towns that will serve the needs of India’s rural inhabitants (Ganapathy 1984).

The persistence of strong pro-rural and anti-urban sentiments in India is surprising because research shows that rural and urban sectors in the country are closely interlinked in a complementary economic and social relationship. For example, a recent study of urban consumption and production patterns affirmed the “integration between urban and rural India” and warned against “falling back on traditional myths about the urban–rural divide.” Using an econometric approach, the study found that an increase of Rs100 in urban consumption could lead to an increase in rural household incomes of up to Rs39. The study also projected that a sustained urban household’s consumption growth rate could lead to 6.3 million new nonfarm jobs in rural areas and \$91 billion additional real rural household income over 10 years (Purushothaman, Bandyopadhyay, and Roy 2008).

**Strong attachment to land.** In India, which is still largely agricultural, most people have an almost-mystical attachment to land. The pursuit of an urban-led development strategy, therefore, has to contend with strong objections from farmers and their political supporters to converting agricultural land into urban uses. In recent years, farmers have raised strong objections to the establishment of special economic zones (SEZs) in greenfield areas. There have been violent incidents, including a police killing some farmers who were protesting against “land grabbing” for the establishment of an SEZ in Nandigram, West Bengal. In January 2007, farmers in Midnapur, near Kolkata, barricaded the roads leading to their village to protest the establishment of an SEZ spearheaded by the Salim Group of Indonesia. In October 2007, some 25,000 farmers marched more than 320 km to Delhi to protest their displacement from their lands for Chinese-style SEZs. The marchers were supported by top Government officials, including a minister who said

that it is not right to break “the sacred right between the tiller and the land” (Chakraborty 2007).

**Local autonomy.** An urban-led strategy demands area-wide cooperation among local government bodies within a city cluster. However, policies on decentralization and local autonomy are enshrined in the 73<sup>rd</sup> and 74<sup>th</sup> amendments to the Indian constitution. Urban local government bodies are strongly attached to a corporate structure that vests a great deal of power in local councils, mayors, and commissioners. Local officials jealously guard their autonomy and resist the setting up of economic projects, such as special economic zones, that may undermine their authority. As a journalist who observed that India cannot just follow the Chinese example of setting up special economic zones wrote: “Unlike China, democratic India cannot raze down townships and evict citizens just so foreign investors can set up manufacturing units on the cheap” (Sharma 2007).

**Fostering development in all parts of the country.** Because the resources for urban development in India are limited compared to the huge demand, some economists and urban specialists have proposed an approach that focuses on just a few city clusters. However, as the world’s largest democracy, India has traditionally focused on meeting the demands of local political leaders throughout the country rather than concentrating investments in a few areas. Thus, the Government has invested heavily in a national road network that in 2002 reached 3.31 million km and a national rail system that had 63,122 km of rail lines. India has also improved access to improved water sources in rural and urban areas, making clean water accessible to 86% of its citizens.

The Indian urban development approach is in sharp contrast with that of the People’s Republic of China (PRC), which, unlike India, has pursued a selective urban-led strategy since 1979. Heeding the observation of Deng Xiaoping (general secretary of the communist party, and later chairman of the Central Military Commission of China Communist Party) that “it is all right for some people to become rich faster than others,” the PRC has concentrated infrastructure and other investments in 6 special economic zones, 14 coastal cities, 15 trade zones, 32 economic and technological zones, and 53 high-tech industrial development zones in medium-sized cities. This concentrated urban strategy has contributed to the country’s double-digit rate of economic development during the past

28 years. On the negative side, it has widened the gap between urban and rural areas, coastal and inland cities, and the rich and the poor. It has also contributed to the PRC's serious cases of environmental pollution. The main policy issue facing India's leaders, therefore, is whether they are willing to accept similar costs as the price of a higher rate of economic development.

### Mitigating and Overcoming Barriers to City Cluster Development

With the adoption of the Jawaharhal Nehru national urban renewal mission in 2005, India signified its intention to use an urban-led strategy to enhance its economic and social development. A CCD approach can be a key component of such a strategy provided some of the barriers noted above are effectively dealt with. Measures for dealing with the barriers include

- concentrating infrastructure investments in a few selected urban areas to achieve economies of scale and agglomeration;
- providing infrastructure investments in city clusters;
- picking cities whose governments have proven track records of managing projects efficiently, effectively, and in an accountable and transparent manner;
- making private sector participation a key component in projects;
- including capacity building in each project, especially in the areas of comprehensive planning, resource mobilization, and project management; and
- focusing on inclusive development approaches that improve the living conditions of poor people and disadvantaged groups.

**Concentrating infrastructure investments in a few city clusters.** The limited resources in India for pursuing an urban-led development strategy require concentrating urban infrastructure in only a few selected city clusters instead of attempting to cover the whole country. While a democratic system demands a policy of "growth with equity," spreading meager resources too thinly (as reflected in the plan to set up 764 special economic zones [SEZs] over the whole country) will not create the economies of scale, location, and agglomeration that are necessary for rapid economic growth.

This is one of the key lessons learned from the urban-led strategy of the PRC, in which the Government concentrated investments in only a few sites along the eastern coastal region, then moved on to the west interior territory. This concentration helped ensure that the SEZs and other development enclaves would have sufficient infrastructure and services to make them function well. Political leaders in India may respond to requests to set up small SEZs in local areas to ensure political support, but if resources are insufficient to adequately finance these SEZs, they may never become viable.

**Providing infrastructure and services in area-wide initiatives encompassing city clusters.** As a corollary to concentrating urban investments in a few selected areas, it may be useful for the Government to focus on city clusters that can be developed in an area-wide way to achieve maximum synergy in the provision of urban infrastructure and services. In choosing city clusters for planned development, the Government of India may use the following criteria:

- the population of the various local government units within a cluster;
- the geographical scope of a city cluster (ideally, the size of the cluster's territory should not exceed the distance covered by a vehicle traveling along a radial artery for 1 hour from the center of the main city);
- the development potential of the local economies in the cluster, with emphasis on the presence of high-tech industries, manufacturing, cultural heritage, and tourism sites;
- the presence of institutions of higher education and research centers that can enhance CCD;
- the availability of urban infrastructure and services that can support CCD;
- the availability of financial, material, and human resources to support CCD;
- the commitment of local leaders to sustainable economic, social, and environmental development; and
- previous experience of leaders in formulating and executing a comprehensive development plan. If a city cluster has a positive rating in all the criteria mentioned above, it easily qualifies as a CCD site.

**Picking local government units with good potential for city cluster development.** City clusters selected as urban-led develop-

ment sites may include a range of local government units. Such clusters may have a megacity at one end and a small city surrounded by towns, districts, and villages at the other. A cluster located close to a megacity can benefit from the development momentum generated by a large city, while a cluster surrounded by smaller urban settlements might help spark development in surrounding rural areas. It is important to choose city clusters in which local leaders are fully committed to development, possess the professional and managerial capabilities to run complex projects, and have a solid reputation for honesty and transparency. Because of the important role foreign and domestic investors play in urban development, the project sites must have features that are attractive to them, including good location, reliable and sufficient supplies of energy, efficient urban services, and a competent and reliable workforce. The presence of projects funded by various donors (by both bilateral and multilateral agencies) in the cluster is important because funds invested in the projects can be leveraged to attract more resources.

The application of modern information technology is an excellent indicator of the potential of an area for CCD. For example, Hyderabad and surrounding districts in Andhra Pradesh have set up E-Seva Model,<sup>1</sup> which make it possible for people to transact business services with some 13 state and local government agencies, 3 central government agencies, and 9 private organizations. Started as a pilot project in the Hyderabad–Secunderabad cluster in 1999, the project is now expanded to 43 one-stop service centers in the two cities in 2000 and to another 220 centers in 117 municipalities in 2004. By going to any one of these service centers, people can pay their utility bills, get birth and death certificates, pay property and local taxes, make train and bus reservations, file and receive passport applications, and even transfer shares of stocks (World Bank 2006b). The existence of such a network of service centers, of course, can serve as an initial basis for area-wide operations in a city cluster.

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<sup>1</sup> Integrated citizen service centers are one-stop shops using information technology. It is worth noting that the E-Seva Model in Andhra Pradesh is the result of a public–private partnership, which gives it sufficient financial resources to rapidly expand its services. The public–private partnership arrangement has also provided good management skills and technical capacity, including the use of information technology that has contributed to E-Seva’s efficiency. E-Seva is so efficient that paying a utility bill takes only 1 minute and getting a license or certificate takes 3 minutes. Run as a private–public enterprise, the project has signed service agreements with local government bodies and client agencies, which has increased accountability and transparency in the local government bodies.

**Building private sector participation into city cluster development schemes.** Most local government bodies in India are heavily dependent on fund transfers and grants-in-aid from the states and the central government for both capital investment funds and current operating expenditures. In the mid-1990s, an expert group on the commercialization of infrastructure projects was formed by the Government to study and make recommendations on how the private sector might be tapped for financing infrastructure development. In the fiscal year 2002/2003, the Government announced the establishment of two incentive funds for urban reforms at the state and city and municipal levels, the urban reform incentive fund and the city challenge fund. Urban local bodies were allowed to raise funds through methods such as the issuance of tax-free municipal bonds and public-private collaboration in running pooled financing schemes. The Ministry of Urban Development adopted administrative measures to encourage public-private partnerships in financing and managing urban infrastructure and services. The Government also allowed local governments to provide incentives such as tax exemptions, tax holidays, unlimited repatriation of profits abroad, and exemption from customs duties and other charges for the importation of equipment and other resource inputs. These were designed to attract higher levels of foreign direct investment in infrastructure development for special economic zones and other development enclaves. An important reform measure designed to encourage private sector participation was granting to local government bodies and private entrepreneurs the authority to collect user charges on urban infrastructure and services.

**Enhancing capacity building and institutional development.** Assistance from the Jawaharhal Nehru national urban renewal mission has been tied to the promulgation of administrative and governance reforms that would enhance the capacity of local government bodies (LGBs) to manage urban development projects. Among these reforms are efforts to improve the revenue-raising capacity of LGBs by computerization of land registers; the shift from single-entry, cash-based accounting systems to double-entry accrual systems; and the preparation and distribution of an accounting manual to be followed by LGBs. A number of LGBs have been trained in the use of geographic information systems and provided with equipment to improve the collection of data for comprehensive planning and collection of real estate taxes. In 2004, a national urban information

system was launched to improve LGB capabilities in planning and urban management. To improve the capacity of LGBs in land management, the Urban Land Ceiling and Regulation Act was abolished at the state level. The rent control law was amended to remove rent controls and stimulate private investment in rental housing. The law on the real property tax system was revised to make real property taxes the main revenue source for LGBs, setting the target that collection efficiency should reach 85% by the end of the Tenth Five-Year plan period.

An aspect of the Government of India's reforms with special significance for CCD is the requirement that all LGBs prepare formal city development plans. At present, all city development plans for the 63 LGBs covered under the Jawaharhal Nehru national urban renewal mission scheme are available as public documents. LGBs are also required to prepare regular progress reports on their development activities, and the Government has made the submission of such reports a prerequisite for receiving funds from the Jawaharhal Nehru national urban renewal mission. Institutional arrangements have also been set up to monitor and evaluate the performance of LGBs.

**Integrating inclusive development in city cluster development projects.** The 74<sup>th</sup> amendment to the Indian constitution mandates that all states in the country should have elected municipal bodies and specifies that at least one third of the positions in the elected government staff should be allocated to women and disadvantaged groups. It also stipulates that in formulating city and municipal budgets, specific funds should be earmarked for the urban poor and requires that 20–25% of all developed land should be devoted to housing that is affordable to poor and disadvantaged citizens.

### Potential Sites for City Cluster Development Initiatives

Using the selection criteria proposed in the study, the following city clusters in India are proposed for CCD initiatives:

- the Bangalore–Tumkur–Mysore cluster in Karnataka state,
- the Pune–Pimpri–Chinchwad cluster in Maharashtra,
- the Coimbatore–Tirupur cluster in Tamil Nadu, and
- the Dehradun–Haridwar–Rishikesh cluster in Uttarakhand state.

### **The Bangalore–Tumkur–Mysore City Cluster**

The Bangalore–Tumkur–Mysore city cluster in Karnataka State is one of the fastest-growing urban regions in India. Bangalore (or Bengaluru) has an estimated population of 6.5 million, which is projected to increase to 7.9 million by 2015. Tumkur, with 248,592 inhabitants (2001 census), is about an hour-and-a-half drive from Bangalore. It is the capital of Tumkur district, which has a population of 2.5 million. Mysore, the second-largest city in Karnataka, has a population of 799,208 (2001 census) and is about 140 km from Bangalore. It is a popular tourism center and has evolved into an information technology hub. The city also has excellent academic institutions, including Mysore University, which has 53,000 students in 127 colleges on campuses in the city and four other districts. With the acceleration of economic development in the Bangalore–Tumkur–Mysore city cluster, the state of Karnataka has invested heavily in infrastructure and services. The Bangalore–Tumkur highway is the first access-controlled road in the region. Using a public–private partnership funding approach, the expressway has reduced the travel time from Bangalore to Nelamangala to an hour.

Bangalore has become world famous as a center of information technology (IT). In 2006–2007, its IT companies accounted for one third of India's \$32 billion in IT exports. Bangalore's economy in 2002–2003, worth \$60.5 billion, was the fourth-largest in the country, and its average per capita annual income of \$1,160 in 2003 was the highest among Indian cities. In fact, Bangalore is home to about 60,000 individuals who are classified as super rich in India. Despite the city's wealth, however, its rapid growth has created serious urban problems. The city suffers from traffic gridlock and severe air pollution. Although it has an adequate supply of water, shortages occur, especially during the summer months. The city generates about 3,000 tons of solid waste per day, but only 1,139 tons (37.9%) are collected and the rest are dumped in open spaces or on roadsides outside the city. Roughly 10% of Bangalore's population lives in the slums, and the sharp contrast in the lifestyles of the abject poor and the super rich spoils the developed image of the city.

One factor that makes the Bangalore–Tumkur–Mysore a good candidate for CCD is Karnataka State's good record in conducting successful urban reforms. For example, the Karnataka State Road and Transport Corporation (KSRTC) has conducted management reforms since 1996 that broke up the former monolithic transport organization into smaller units to make it more manageable and efficient. KSRTC was divided into four corporations, starting with

the Bangalore Municipal Transport Corporation in 1997. KSRTC modernized its fleet of buses (Volvo air-conditioned vehicles) that served the important Bangalore–Mysore corridor. Although the company increased fares four times in 3 years, the public continued to patronize it because of the added efficiency, comfort, and convenience it offered. A computerized reservation system was expanded to include some 115 private agents who work on a revenue-sharing basis, and reservation counters were opened even in remote districts. (World Bank 2006b). ADB’s North Karnataka urban investment program project (Loan 2312) is ongoing.

### **The Pune–Pimpri–Chinchwad Cluster**

The Pune–Pimpri–Chinchwad cluster in Maharashtra state has great potential for CCD because it is near the megacity of Mumbai, which is only about 150 km away. Pune, with an area of 700 km<sup>2</sup> and a population of 4.5 million, is the eighth-largest agglomeration in the country and the second largest in the state. The Pune urban area consists of a cluster of cities, including Chinchwad and Pimpri, that are managed by their own municipal corporations. The cluster also includes three cantonments and adjoining semi-urban areas. Pune is a major industrial center and is sometimes called the “Detroit of India” because it is home to one of the world’s largest manufacturers of two-wheeled vehicles (Bajaj). Tata Motors, India’s largest manufacturer of passenger cars and commercial vehicles, and DaimlerChrysler which makes Mercedes Benz vehicles, have plants in Pune. In recent years, Pune has developed a strong presence in the software industry with the establishment of high-tech parks. In this, it benefits from the presence of several well-known universities that has earned it the nickname the “Oxford of India.”

Maharashtra state has an excellent reputation for urban management that can be tapped for CCD initiatives. One of the most successful reforms carried out in the state was the transformation of the Stamps and Registration (S&R) Department from a reputedly corrupt and inefficient agency into an efficient and responsive one. In India, the registration of high-value land transactions still follows the antiquated Indian Stamp Act (1899) and Registration Act (1908). The implementation of the provisions of the two acts was traditionally linked to corruption, for example, the use of fake stamps, the undervaluation of amounts involved in land transactions, and widespread bribery of S&R officials. In Maharashtra, the reform of S&R operations started in 1998 with computerization of department transactions. A detailed and transparent property valuation

table was formulated to reduce the discretionary authority of land registration officers that provided opportunities for rent seeking. Well-defined standards on what constituted a completed land registration transaction were instituted, and a limit of 24 hours was set for completing and returning a land registration transaction to a customer. A public-private partnership venture was set up for the training of S&R staff and for the installation of computers, scanners, printers, and other equipment in 360 S&R offices across the state. In 2002, the service was decentralized to eight divisions, and a computerized land registration system was simultaneously opened in 360 S&R offices throughout the state (World Bank 2006b).

### **The Coimbatore–Tirupur Cluster**

The Coimbatore–Tirupur cluster is a rapidly developing city region in the state of Tamil Nadu. Coimbatore, also known as Kovai, is a major industrial center; it covers 105 km<sup>2</sup> and has a population of 1.9 million. It is mainly known for its textile factories, engineering firms, and automobile parts manufacturing. Located about 50 km east of Coimbatore is the city of Tirupur, which has a population of 800,000. Tirupur is also a center of textile manufacturing; it specializes in hosiery, knitted garments, casual wear, and sportswear. The reputation of the two cities in the field of textiles manufacturing makes the area an excellent candidate for CCD.

Tamil Nadu is one of the most progressive states in India; it ranks third among the country's states in terms of its human development index. The state has a literacy rate of 73.4% compared with 65% for all of India. Its educational system is also excellent; 99.8% of the teachers in its primary schools are trained; there is one teacher for every 37 pupils. Health services in Tamil Nadu are better than in other states; 79.3% of mothers give birth in health care facilities, and 88% of children between the ages of 1 to 2 years having received the required vaccinations. The state has run a universal cheap food program through a public food distribution system since 1977, a nutritious midday meal program for preschool and primary school children since 1982. It also runs the Tamil Nadu integrated nutrition project and the integrated child development scheme, both of which greatly contribute to children's welfare. A World Bank study attributes the accomplishments of Tamil Nadu to a reformist ideology among state officials, open and transparent politics, a willingness and ability to use information and communication technology in government operations, and an active civil society that exerts pressure on the government for social and economic reforms (World Bank 2006b).

### The Dehradun–Haridwar–Rishikesh Cluster

Tourism development at a number of sites in India offers a good opportunity for CCD. The city of Agra, for example, with its fabled Taj Mahal, can be further developed for tourism along CCD lines. In fact, a bilaterally funded scheme is already implementing a water supply project in the city that will improve its tourism capabilities. Varanasi (Benares), a religious pilgrimage site considered holy by Hindus, Buddhists, and Jains, is another excellent site for CCD initiatives. The city has been a cultural and religious center for thousands of years, and an estimated 1 million pilgrims visit it each year. Unfortunately, both Agra and Varanasi are located in states that many regard as poorly governed. Evaluations of two internationally funded projects in the state of Uttar Pradesh (the Ganga river action plan and the Yamuna river action plan), for example, showed that they have been largely unproductive.

A city cluster worth developing as a religious pilgrimage and tourism center is the Haridwar–Dehradun–Rishikesh cluster in the new state of Uttarakhand (formerly known as Uttaranchal) some 230 km north of Delhi. According to Hindu mythology, Haridwar is one of four sites where drops of the elixir of immortality (Amrita) were accidentally spilled by the celestial bird Garuda. Because of this myth, millions of pilgrims and devotees flock to Haridwar, especially during the celebration of the Kumbha Mela, when they take ritualistic baths in the river Ganges. Haridwar covers 2,360 km<sup>2</sup> and has a population of 1.4 million. Another religious center in the cluster is Rishikesh, 24 km from Haridwar, which has been called the “Yoga Capital of the World.” It is the gateway to the upper Garhwal region and the starting point for pilgrim routes to the four *dhams* (sacred shrines) of Uttarakhand. Aside from being a religious center, Rishikesh is a popular starting point for Himalayan treks.

Dehradun (also spelled Dehra Doon), the capital city of Uttarakhand, is where the sacred Ganges and the Yamuna pass as they flow down from the Himalayas. It has a population of 447,808 and one of the highest levels of per capita income in India (\$1,800 per year compared with \$800 for the whole country, 2001 census) because of remittances from former residents who now live abroad. The city is a center of education and learning, which has sparked the establishment of special economic zones and information technology parks. With the construction of the Delhi–Dehradun four-lane highway, the economic development of the city region has been taking off. Infrastructure investments in water and sewerage, energy generation and distribution, roads and transport, and solid waste collection

and disposal will greatly accelerate the city cluster's development in the near future. Most important, since the creation of the state of Uttarakhand and its separation from Uttar Pradesh in 2000, the new state leadership has been energetically pursuing a development strategy for the state.

### **Using Special Economic Zones for City Cluster Development**

As has been discussed, special economic zones (SEZs), industrial parks, export-processing zones, bonded customs zones, and other high-tech development enclaves have been used as effective instruments for pursuing CCD. India has used SEZs and other schemes to generate development in specific areas. In fact, SEZs had been set up in India long before they were launched in the PRC. As early as 1965, at a time when the PRC was still caught up in the turmoil of the Cultural Revolution, the Kandla export processing zone opened near Ahmedabad. Between 1965 and 2000, a total of 19 SEZs were established in India: five in Tamil Nadu, three in Gujarat, three in West Bengal, two in Rajasthan, two in Uttar Pradesh, and one each in Andhra Pradesh, Kerala, Madhya Pradesh, and Maharashtra. In April 2000, the Government of India adopted an SEZ policy designed "to provide an internationally competitive and hassle-free environment for exports." The zones were designated "duty-free enclaves" and were deemed to be "foreign territories" for the purposes of trade operations, duties, and tariffs.

By the end of 2007, the Government of India had formally approved 404 SEZs in 23 states. Another 167 received approval in principle, and 193 were notified that their schemes were under consideration. This amounts to a total of 764 SEZs for the whole country. Some SEZs that have been formally approved are the Navi Mumbai SEZ in Maharashtra state, which covers 10,000 hectares (ha), including 1,850 ha earmarked for a regional park zone; the Positra SEZ in Gujarat State, which covers an area of more than 20,000 ha; and the Dronagiri SEZ in Maharashtra, with 4,337 ha. In all of the SEZs, master plans and feasibility studies have been or are in the process of being prepared; in some cases, detailed project reports are also being prepared. Of the SEZs that have received formal approval, 62% are devoted to information technology and its trade and engineering applications. The rest of the SEZs are devoted to biotechnology, pharmaceuticals, textile manufacturing, and other fields. Of those approved in principle, about 35% are focused on multiple products.

Despite the Government's approval of the SEZ policy, a number of political leaders are committed to a rural-oriented ideology and have expressed strong objections to SEZs. For example, in West Bengal, some Communist Party leaders have objected to the setting up of SEZs because they would displace small farmers. Organized peasant groups have also demonstrated, at times violently, against what they referred to as "land grabbing" by the Government and foreign investors. The high-tech nature of most Indian SEZs can create problems for rural people who will be displaced when their farms are converted to urban use. Even if the farmers are well compensated for their land, because of their low levels of education and lack of technical skills, they will not be qualified for jobs in the SEZs, unless massive retraining and education programs are incorporated into the development schemes of the SEZs.

Strong objections to converting rural land into SEZ have forced the Government to change its SEZ policies. In 2007, the Government put a moratorium on the approval of new SEZs. In addition, a ceiling of 5,000 hectares was set as the maximum size for SEZs. State governments in India were prohibited from entering into joint ventures with private SEZ promoters, often the most important sources of capital, managerial expertise, and technological know-how in other countries, and were prohibited from assisting private SEZ promoters in acquiring land. Finally, those who object to SEZs have questioned what they called "exorbitant and unjustified tax concessions" to developers investing in SEZs. They argue that SEZs should not be regarded as mere earners of foreign exchange, that the monetary value of their exports should be limited to an amount equal to that of the goods they purchase from local economy (Sharma 2007).

India's difficulties in setting up SEZs do not bode well for the adoption of an urban-led strategy for developing the country. The strong objection to the conversion of agricultural land for setting up SEZs is a major drawback because in most successful SEZs, for instance, those set up in the PRC, land has been the main input of local governments in establishing the SEZs. Because of the limited amount of land allocated to SEZs in India, it has been proposed to limit the size of Indian SEZs to 5,000 hectares. Such small SEZs will most likely not be viable because they will not benefit from the economies of scale and agglomeration so necessary for sustained urban development. In addition, limited financial resources will make it difficult to provide the urban infrastructure and services to so many small SEZs.

Probably the most serious problem in India's SEZ policy is the large number of zones scattered all over the country. Most of the 764 SEZ projects approved or under consideration are small-scale enclaves located in villages. Most of them involve one developer and are focused on a specific industry (only 5% of formally approved projects and 35% of those approved in principle are multiproduct ventures). In contrast, SEZs in the PRC are few, and are very large undertakings. The large scale of the SEZs in the PRC, mostly located along the eastern coastal region, and their location adjacent to very large cities, makes CCD possible; these are considered the main reasons for their success. Because of the small scale of the SEZs in India, the volume of such infrastructure and services as energy generated, roads built, and water and sanitation systems provided will most likely not have a significant enough impact to spark economic development. Allocating small amounts of funds to a great number of SEZs and responding to the demands of local leaders may be good strategies for getting political support, but it is unlikely to spark CCD in India.

## Conclusion and Recommendations

The Jawaharhal Nehru national urban renewal mission urban reforms carried out in India since 2005 provide opportunities for launching CCD as part of the country's urban-led development strategy. While not all of the state and municipal governments in India are ready or able to pursue CCD initiatives, some state governments, notably those in Gujarat, Karnataka, Kerala, Maharashtra, and Tamil Nadu, have achieved significant success in implementing urban reforms. Since the leadership of and financial support from state governments are necessary to carry out an urban-led strategy, choosing cities and city clusters in these progressive states will enhance the prospects for successful CCD initiatives.

Among the guidelines proposed in the study for choosing potential CCD sites, a record of successful implementation of urban sector reforms by state and municipal officials should be accorded top priority. Strong leadership provided by at least one local official is a key to success, particularly if such leadership reflects entrepreneurial capabilities that can energize the whole governance system to experiment with creative programs. Collaborative government efforts such as the provision of water and sanitation on a regional level or the existence of road and transportation networks that serve all cities in a cluster are excellent indicators of CCD potential. The financial capabilities of local government bodies in a city cluster are

also important factors to be considered in choosing a CCD site. The existence of a vibrant economy, as reflected in industry clusters, high-tech development enclaves, tourism activities, and trade and commerce, is a necessity for CCD. The presence of renowned academic and research institutions that can provide professional and technical inputs to industrial and commercial activities is also an important element to be considered when choosing CCD sites.

As ADB pursues its newly adopted long-term development strategy, it should consider setting up CCD-type projects in India. In doing so, it should consider the following recommendations:

- ADB efforts to pursue CCD in India should be carried out in close collaboration with the Jawaharhal Nehru national urban renewal mission, which has the official mandate, financial resources, and leadership, personnel and technical capabilities to carry out urban development initiatives.
- In collaboration with Jawaharhal Nehru national urban renewal mission and other urban development institutions in India, ADB should mount a number of observation and study tours and substantive workshops so that selected high-level Indian officials can visit countries such as the PRC, Singapore, Malaysia, and Viet Nam to see CCD-type projects.
- ADB should conduct in-depth seminars and workshops in India on CCD and such related issues as private sector participation, comprehensive development planning, and intersectoral provision of urban infrastructure and services. Such seminars and workshops may take the form of actual project development efforts through which high-level officials from India are introduced to the concept of CCD, instructed in specific planning and financing methods, and encouraged to formulate and develop projects and programs for pursuing CCD in a specific city cluster.
- ADB should provide technical assistance funds for carrying out in-depth studies of city clusters with the potential for CCD. Such studies may be conducted by international consultants, but they should also be carried out with the active partnership of local academic and research institutions and local planning and consulting firms that have in-depth knowledge of local situations.
- A particularly important study that may be supported by ADB is an evaluation of SEZ policies, programs, and

projects in India, with a view to assessing their usefulness as instruments for pursuing CCD initiatives. It would also be useful to compare SEZs as instruments of development in India and the PRC, to assess the advantages and disadvantages of each country's approach.

- ADB should carefully document the process of formulating and implementing CCD schemes and publish and disseminate the results of monitoring and evaluating such efforts. The published reports should highlight lessons learned in pursuing CCD, for the information and guidance of others interested in CCD processes.