Cities of the Future: Reimagining and Rejuvenating India's Top 50 Urban Ecosystems

FEBRUARY 2023

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India's economy has achieved substantial growth over the past 25 years. Our national GDP has grown approximately 6-fold, from US$0.5 trillion in 1996 to US$2.8 trillion in 2021. Much of this progress was driven by the economy's transition from one being based on agriculture to one based on services. This shift also led to the emergence of the economic powerhouses of our country: Indian Megacities.

According to some estimates, India's urban population contributes 63% to GDP, which by 2030 is expected to rise to 75%. However, growth has not been equitable across cities. The metros and a few tier-1 cities have grown rapidly, while other smaller towns and cities have languished behind or even declined in their relative importance to our economy. This model of growth has created extreme pressure on Megacities, making them increasingly unlivable. With Indian youth from smaller cities finding themselves disfranchised from access to quality economic opportunities and social infrastructure, India has over the years witnessed unprecedented migration from urban-to-urban areas. As per the last Census, 81% of new migrants in the top six metros were from other cities[1].

In this context, we have identified three critical areas that need to be addressed going forward

1. **Economic and social inequity across cities:** A lack of structured planning has led to the concentration of wealth in megacities. While Delhi's per capita income was Rs 355,000 in 2020, smaller cities like Bareilly and Patna were below the Rs 100,000-mark. India's smaller cities have witnessed huge social inequity too such as, for example, an acute lack of access to healthcare and education infrastructure. Even private sector investments have shied away, favoring the mega and metro cities. On one hand while Delhi accounted for 16% of the national FDI equity inflow[2] in 2020, Uttar Pradesh received only 1.2%[3].

2. **Deteriorating 'quality of life' conditions:** Our megacities have not been able to keep pace with the rate of migration and this has led to uncontrolled development, which in turn has created acute shortages in housing, congestion, and long commuting times. This has led to poor standards of living, forcing especially many low-income workers to reside in slums and other informal settlements. Today, nearly 42% of Mumbai's population live in slums[4] and more than 750 slum clusters[5] are present in New Delhi. No wonder that New Delhi, and Mumbai rank 118th and 119th out of 140 cities, according to the Economist Intelligence Unit's Global Livability Index 2019[6].

1. https://www.livemint.com/news/india/migrant-flows-to-delhi-mumbai-ebbing-1568981492505.html
2. Between October 2019 and June 2020 for Delhi and UP
3. https://dipp.gov.in/sites/default/files/FDI_Factsheet_June20_23Sept2020.pdf uptatur?
4. https://timesofindia.indiatimes.com/city/mumbai/with-42-living-in-slums-virus-casts-long-shadow-across-mumbai/articleshow/75798141.cms
5. https://timesofindia.indiatimes.com/city/delhi/headcount-to-start-in-750-slums-from-june/articleshow/69419330.cms#:~:text=According%20to%20officials%2C%20there%20are,agencies%20of%20the%20state%20government.
6. Mint

3 **Climate change and sustainability:** Toxic air, decrease in forest cover, depletion of water tables, increase in GHGs (Greenhouse gases) and poor waste management go hand in hand with rapid urbanization. The impact of extreme weather and global warming has already started affecting large cities in India. The eight tier-1 cities in India produce 12% of India's CO2 Emissions[7]. Chennai's temperature, for instance, has risen by nearly 1°C[7] since the 1960s, which has made it more prone to severe monsoons, flooding, and the risk of submergence in the future[8].

While the economic revolution of the last 25 years has indeed moved India towards a development paradigm that focuses on urban development, one that helped create mega urban centers, it is evident now that India must develop solutions that prioritize a more equitable and sustainable growth for its NextGen cities.

So where could India's next-gen cities lie? While building new infrastructure assets or establishing greenfield settlements rank high in any urban development agenda, it is important that we make the most of existing cities. Apart from Megacities, India has nearly 50 cities with a population of 1 million and above[9]. Having been developed over decades our cities fortunately already have basic systems and institutions such as municipalities, utilities, schools, hospitals, and parks, among others in place. Moreover, these cities are not only diverse and unique but also have space for expansion, be it state capitals like Bhopal and Raipur, industrial towns like Kanpur and Vishakhapatnam, historical cities like Madurai and Jodhpur or well-planned towns like Chandigarh or Bhubaneswar. Thus, interventions for our NextGen cities must primarily focus on their rejuvenation, efficient utilization, and repurposing of existing resources.

Envisioning the key characteristics of India's new urban ecosystems and 50 NextGen cities

Before we delve deeper into the solutions for the rejuvenation of these 50 urban ecosystems, it is important to identify the key features or characteristics that would define these cities.

7. https://www.downtoearth.org.in/dte-infographics/61005_emission_cities_india.html
8. https://timesofindia.indiatimes.com/city/chennai/global-warming-to-make-city-monsoons-severe/articleshow/77792766.cms
9. https://statisticstimes.com/demographics/country/india-cities-population.php

There is no doubt that the focus must be first and foremost on livability, wherein a citizen-centric ecosystem would revolve around the needs of every resident. Consider the world's most livable cities, which provide relevant economic opportunities; quality Infrastructure: health, education, utilities, and entertainment; well networked transit and digital systems; foster community well-being and help develop a sense of identity. In fact, every year several surveys are conducted to assess and compare the livability of global cities. Vienna, which often tops the EIU's Global Livability Index, excels in all these parameters.

Sustainability and resilience should be another priority for these urban ecosystems. Canberra, named the world's most sustainable city, not only has 87% of green transport infrastructure but has implemented several initiatives that have led to its capital territory being powered by 100% renewable energy.

Further, these cities should focus on building self-sustained and accessible microcosms. Idea should be reduce commute distance and time by ensuring that all the needs of a citizen, i.e., housing, work, education, health, amenities, entertainment, and daily essentials are accessible within few minutes of active mobility. Through prudent planning and sound investments, our cities can tap into new age concepts such as Polycentric cities (which has multiple city centers) or 15-minute cities, which minimize travel and ensures all amenities are optimally distributed across the city.

India's 50 NextGen cities: How can we achieve this urban development vision?

I. Reimagining Urban Design and Masterplans

Any effort to make cities livable must keep current and future needs of citizens and sustainable living at the center of city design and masterplan.

There is an urgent need to rethink how we approach urban design and masterplans. We must begin by equipping urban local bodies to prepare and maintain a rolling 10- and 30-year masterplan for each of these 50 NextGen cities. These masterplans should consider not just development initiatives by the Centre and state governments, but also welcome inputs from citizens and civic groups.

Singapore, for instance, has had a very planned approach to city district development. This has not just helped in the very efficient use of space, important for a land-constrained city-state, but more importantly it has enabled the creation of a more livable and sustainable city ecosystem.

II. Building Distributed Economic Growth Engines

As India aspires to accelerate economic growth and become a US$5-trillion economy, it will need to spur growth across all the three key pillars of the economy, manufacturing, services, and agriculture, and build capabilities and scale across multiple sectors.

The Government of India's effort to build India's capabilities in new areas such as electronics, APIs, furniture, technical textiles among others, through the PLI scheme, for instance, is a step in the right direction. Combining such measures with an urban development national masterplan that also lays the focus on specific sectors could help create several distributed economic growth engines. This will also help tap into India's much larger talent pool and thus accelerate scale up across sectors and create sector-specific deep ecosystems. More importantly, this will also ensure that wealth and growth spreads equitably across all regions of the country.

There could be three distinct models of development depending on the industry and sector in focus.

The **first model** is the 'City Cluster' model of development. It is undeniable that large and expansive metropolitan regions have their own advantages. In many situations where significant capex investment is required to build a core infrastructure (e.g., Port, DFCs), or where a network effect is critical to build an ecosystem (e.g., Media & Entertainment Sector, Startup Ecosystems), scale plays an important role in building competitiveness. In such situations, a Cluster City model where regions are centered around one large city and many smaller towns nearby could be the desired development approach. A good example is the Pearl Delta Region, a cluster of nine Chinese cities that constitutes merely 0.4% of land area but account for nearly 10% of China's GDP.

The **second model** is to focus on a specific USP of a city. This could be driven by availability of a specific natural resource or geographic advantage (e.g., Jamshedpur), or because of unique manpower and skill availability (e.g., Jodhpur for furniture).

To attract investments, it is pertinent for city leaders to think out of the box. Mimicking Bangalore's or Hyderabad's success and implementing solutions that worked in the past (such as setting up software hubs, SEZs and research parks) may fail to attract investments in future. Indeed, steps must be taken to invest in innovation districts and to identify future growth industries that suit local needs today. For instance, by focusing on its strengths, the Turkish city of Gaziantep has emerged as the world leader in carpets production. and now gives tough competition to Belgium and China[10].

Finally, building cities as 'Distributed Hubs of Talent' enabled by a robust digital infrastructure could emerge as a very successful third model for city economy development.

Even before the COVID-19 pandemic, a survey suggested that most people living in India's metro cities are willing to take a pay cut of up to 40%[11] to move to smaller towns, where the comparable quality of life is better. Today, in the wake of the pandemic, Indians are already embracing new ways of work.

Indeed, many companies, including India, recognize today that virtual employment is not just possible but it could offer cascading benefits for employers and employees alike.

Virtual work does not only lower operations cost, but it has limited negative effect on employee productivity. No surprise then that leading tech majors such as Facebook, Twitter, Google and TCS are testing either a complete virtual or a hybrid working model.

Cities too are experimenting with this idea. Venywhere, launched in Venice, Italy, is an initiative aimed at remote workers and freelancers where the city creates attractive platforms for work-from-anywhere programs.

10. https://www.dailysabah.com/business/2019/10/22/turkish-carpet-makers-aim-to-outdo-china-in-exports

11. https://economictimes.indiatimes.com/wealth/personal-finance-news/et-survey-why-people-are-willing-to-take-40-pay-cut-move-to-non-metro-city/articleshow/71771233.cms?from=mdr

III. Developing Robust Transport Connectivity

Robust public transport networks deter the use of cars and private vehicles, decongest roads, reduce carbon emissions, and lower property price escalations near city centers and business hubs.

Globally, several cities have prioritized solving for urban mobility by developing last mile ecosystems and a dense network of public transportation. Lisbon, for instance, in its 2030 mobility vision plans to introduce 12,000 e-scooters to embrace micro mobility as a last mile solution.

Yet, mobility solutions cannot have one-size-fits-all approach, with different solutions, for instance, for satellite cities, industrial cities, or tourist hubs. Consider satellite towns which often benefit from the development of high-speed transit connectivity to a large city.

In China, the completion of the **Wuhan-Guangzhou** HSR cut the transport time between the two cities from 11 hours to 3 hours. India's own Regional Rapid Rail System (**RRTS**), which was launched to connect the National Capital Region of Delhi with Meerut, Alwar and Panipat will reduce travel time by third in comparison to driving by road.

IV. Enabling Multi-faceted Private Participation in Governance

Private participation in governance: Urban governance needs a paradigm shift to breathe new life into our cities. While many agree that a large-scale shift is needed to decentralize planning and empower local bodies, it is not a sufficient solution on its own.

Building a progressive governance model requires the active involvement of all important stakeholders and a combination of **first**, an empowered local government with a strong municipal leader and self-sufficient finances; **second**, a private sector focused on generating wealth and employment but in a sustainable manner by investing back into the city ecosystem that enables it to operate efficiently, and, finally, **third**, a civic society that fosters meaningful dialogue, takes joint accountability, and promotes the needs of various interest groups[12].

12. https://mirror.unhabitat.org/downloads/docs/WG_B_Background_Urban_Governance&the_PrivateSector_draft0.pdf

For a resource scarce economy such as India, it is critical that the resources and expertise of private sector are leveraged optimally. As per UN-HABITAT, the private sector can engage in good urban governance via standalone initiatives, PPP projects, private sector associations and guiding stakeholders in policy decisions. Indeed, PPP models that incentivize the private sector to participate in both capex and O&M models can be instrumental in accelerating efficient city infrastructure development, while also improving service delivery to citizens.

Take the example of Shenzhen, which embraced the private sector since the early days of its boom from establishing tech companies in the eighties or raising municipal bonds and finances. In India, Jamshedpur is an excellent example of the role private sector can play in a range of areas of city development.

V. Developing Compelling Resilience Plan

Our cities are facing unprecedented vulnerability today owing to climate change, from hurricanes and cyclones to earthquakes and tsunamis. Loss of life and property, increase in unemployment, chronic food shortage and health scares are just the tip of the iceberg. Any adverse event not only alters a city's safety net, but it takes decades to recover from the shock.

We can no longer rely on reactive planning and decision making to tackle climate change. We must strengthen the resilience of our cities with urban ecosystems that can swiftly recover to normal following a disaster.

To achieve this, we must **first** empower city municipalities and enable them to become the first line of response. After the 1995 earthquake, Japanese city Kobe developed a long-term restoration and disaster management strategy that focused on developing preventive measures and risk communication activities. Today, it is a model for disaster risk management[13].

Second, cities need to develop a disaster risk resilience and funding plan that prioritizes specific budget allocations for disaster recovery. For example, in the Philippines, cities allocate 5% of their local budget to a calamity relief fund, while 70% can be allocated for relief and rescue equipment. Third, we must build disaster-resilient critical infrastructure such as

13. https://www.oecd.org/cfe/regionaldevelopment/resilient-cities-kobe.pdf

hospitals, schools, and network infrastructure such as roads, rails, sewerage, electrical and communication systems. Although costly, it is the resilience of our networks and connectivity that can help bring back a city to its pre-disaster levels.

Conclusion

The planned economic and physical development of our 50 NextGen cities will be pivotal in achieving accelerated, equitable and sustainable development. The adverse impact of centralized uncontrolled organic growth is already visible to us with many of our large cities struggling with pollution, congestion, and poor quality of life. The time to act is now before it gets too late for the next 50 cities.

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