

National Spatial Planning focusing on Economic Infrastructure Development and Management systems

6TH Spatial Planning Platform (SPP), 2023, Balikpapan, Indonesia



Prof. Dr. Saswat Bandyopadhyay

7th November 2023

The Spatial Planning Platform (SPP) was established by the Government of Japan and UN-Habitat's Regional Office for Asia and the Pacific in 2018 as a network of stakeholders, is fast evolving as an important platform for sharing experiences, innovations and peer to peer learning



India@2022-2047- Urban Amrit Kaal

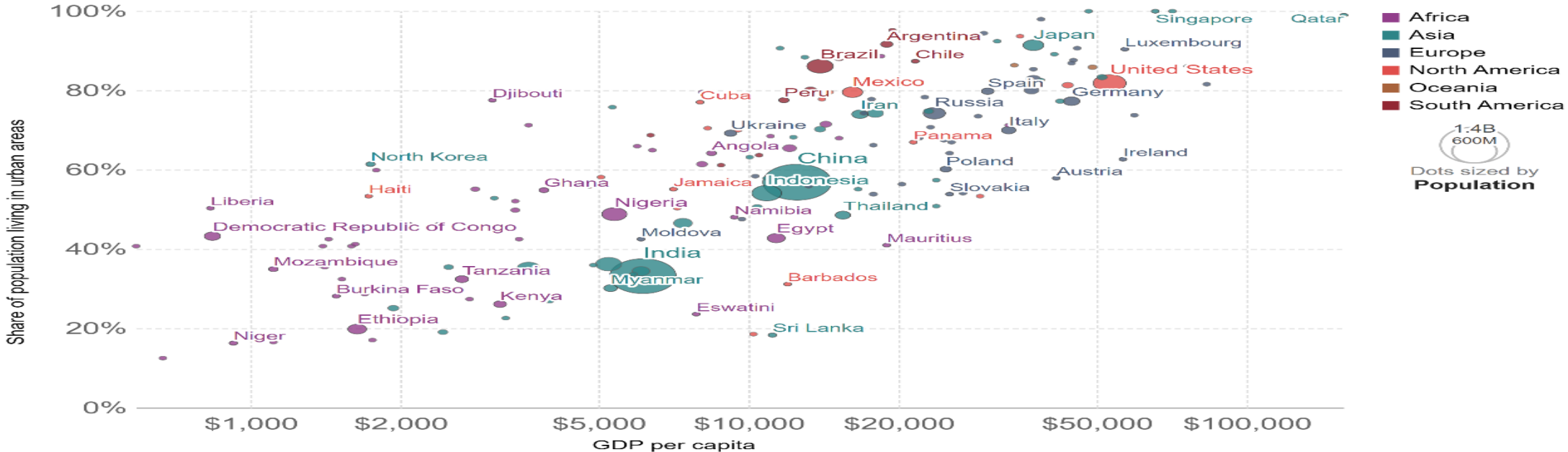
- India @ 2047 expected to double its urban population have over 800+ Million Population with over 10000+ Settlements in next 25 years*
- India @2047 expected to be an economy to the tune of around USD30-35 Trillion*80-85% of which is expected to be from the urban*
- India's High Pace of Economic growth is expected to trigger several urban industrial growth corridors- Safety and Sustainability of future Indian cities will be key
- In this urban transformations, the role National Spatial and Territorial Planning will be the key to leverage the potential of economic geographies of Indian cities



Urbanization Creates Wealth and Spatial Planning is a tool for rationalizing the wealth distribution for the Nation!

Urban population vs. GDP per capita, 2016

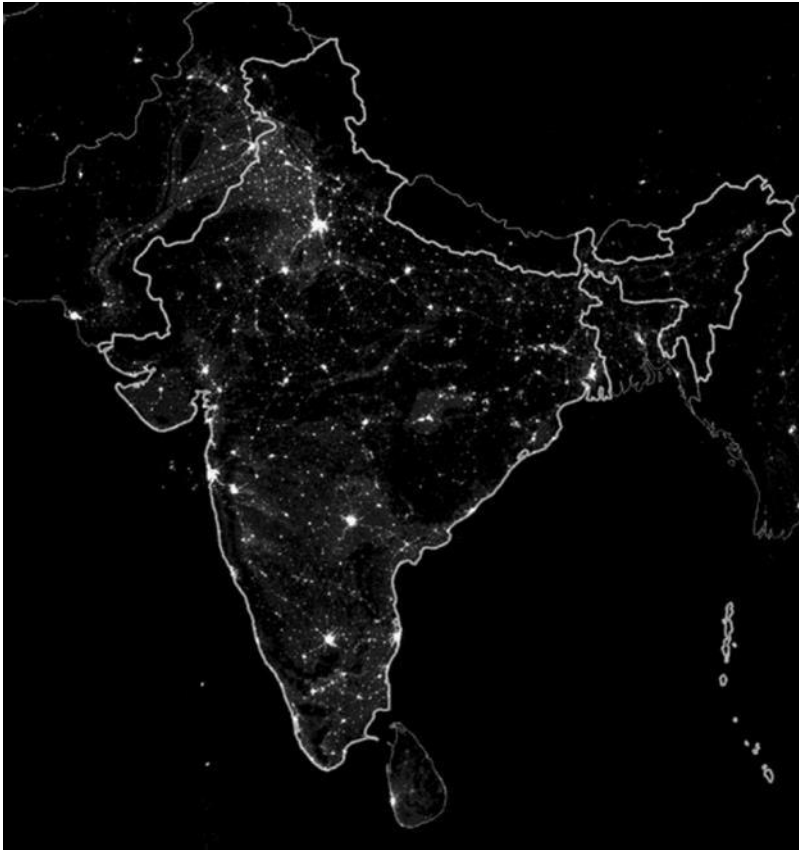
Share of the total population living in urban areas versus gross domestic product (GDP) per capita, measured in 2011 international-\$.
 Our World in Data



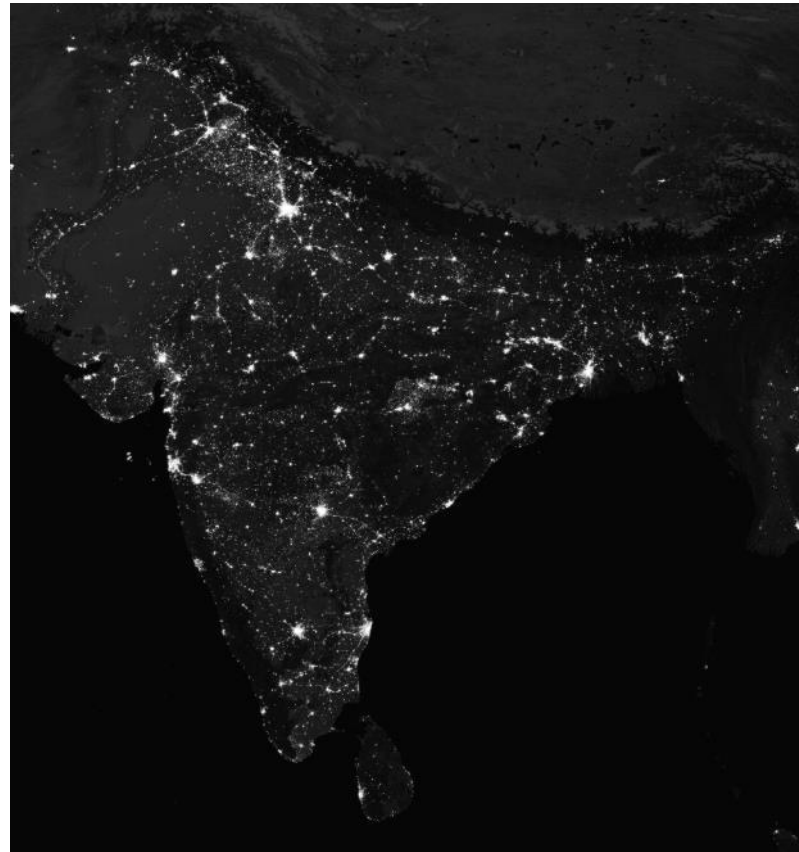
Source: OWID based on UN World Urbanization Prospects (2018), Maddison Project Database 2020 (Bolt and van Zanden (2020))
 OurWorldInData.org/urbanization • CC BY

Economic Geography of Indian Cities

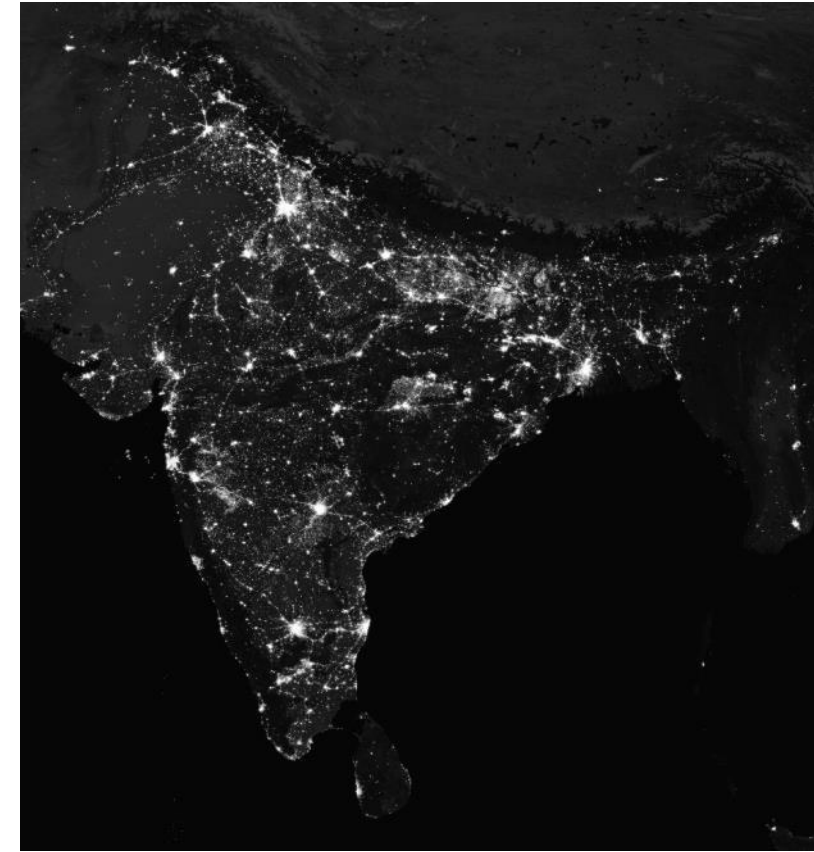
India's Urbanization through Night Light Data (NASA)



Night Light Map: 2005



Night Light Map: 2012

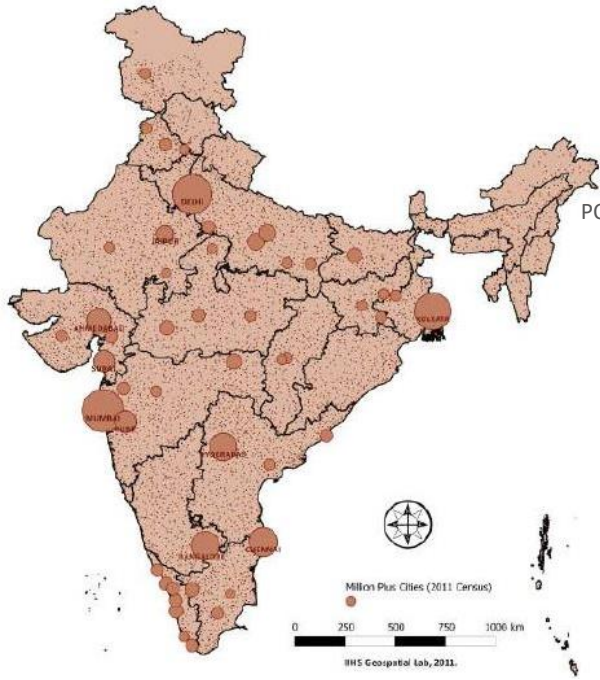


Night Light Map: 2022

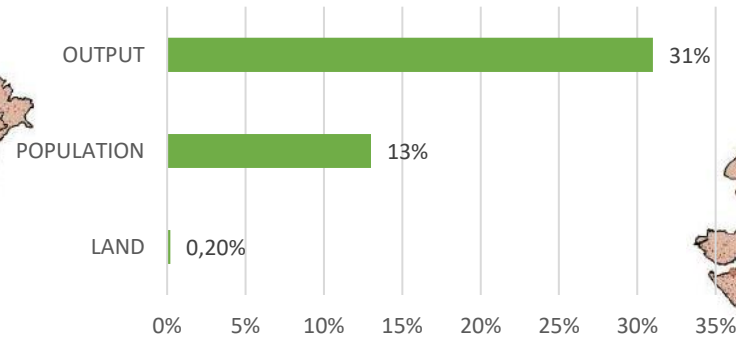
India@2011 was home to 377 million, about 11% of the Global Urban Population

GDP CONTRIBUTION OF TOP MILLION CITIES.

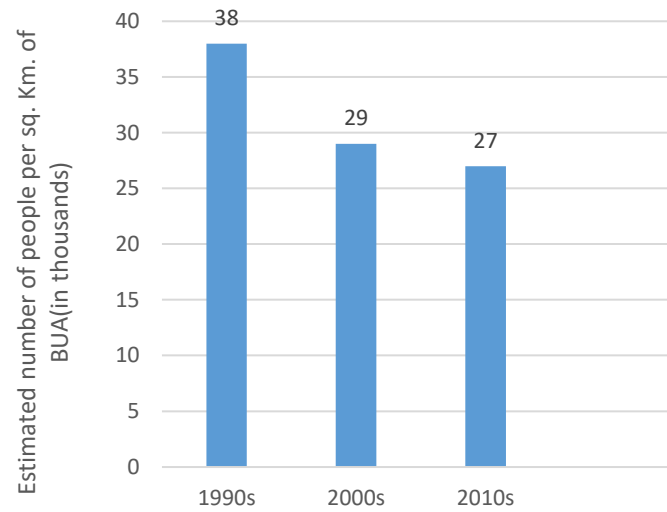
GDP CONTRIBUTION OF TOP 100 LARGEST CITIES.



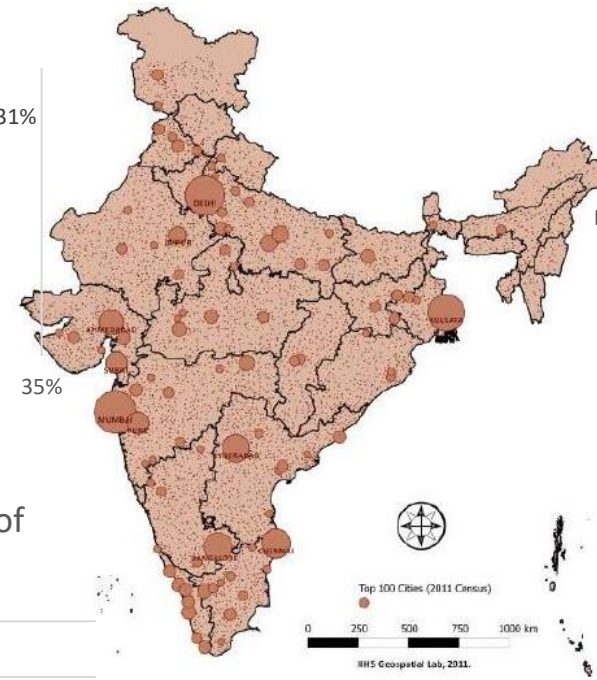
TOP 1 MILLION POPULATION CITIES



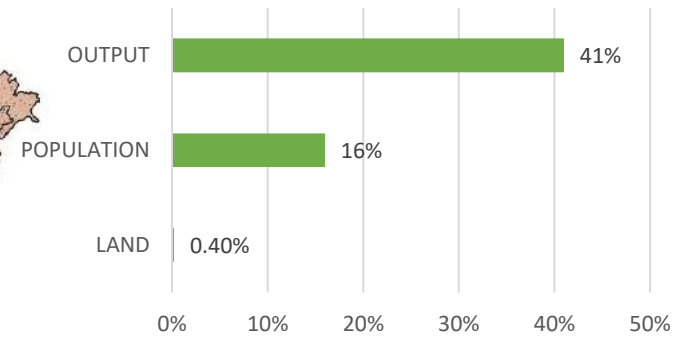
Average density in Built up areas of million plus cities



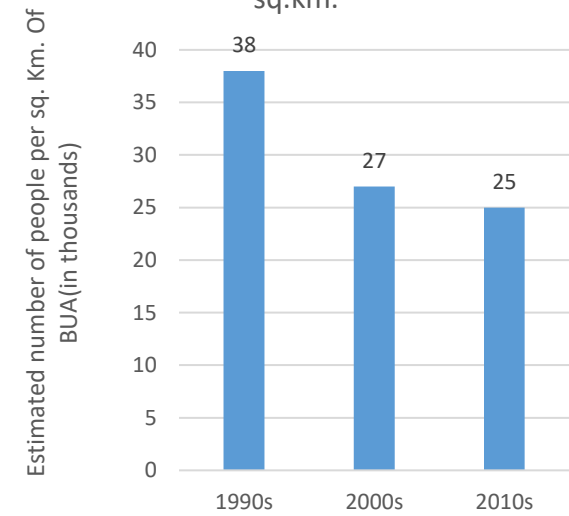
53 million plus cities are estimated to produce about 32% of the GDP, with 13.3% of the population and just 0.2% of the land area.



TOP 100 CITIES



Average density in Built up areas of top hundred cities, people per sq.km.



Top 100 largest cities are estimated to produce of about 43% of the GDP, with 16% of the population and just 0.4 % of the land area.

Clusters around 14 cities access 40 percent of the Indian market in 2030

INDIA EXAMPLE

★ Top 14 cities

● Other cities served

Criteria for creating clusters

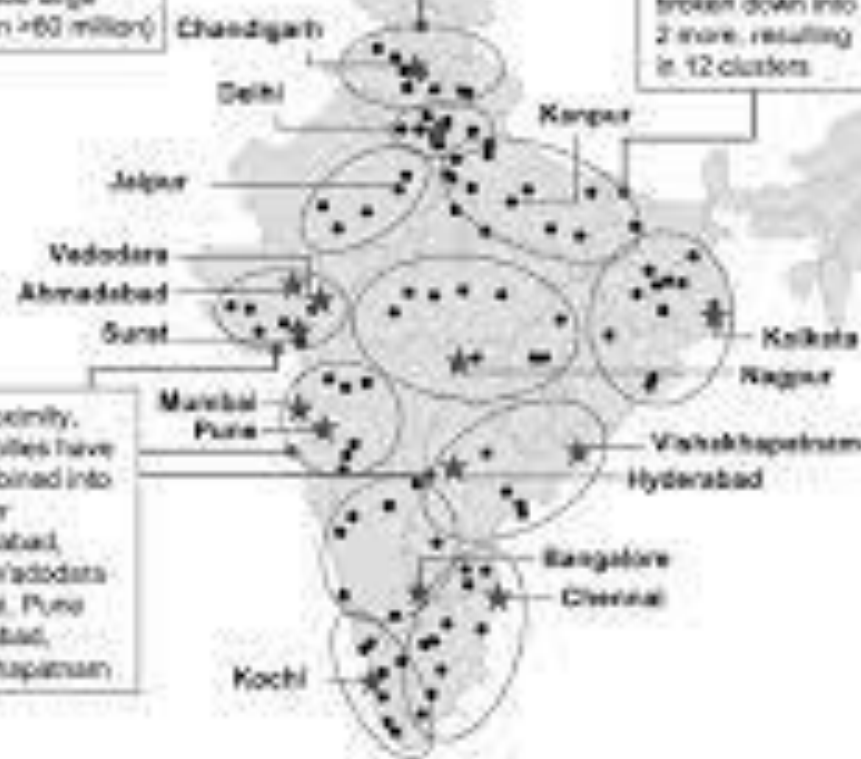
- Economic factors
 - At least one hub city with GDP > \$30 billion by 2030
 - Urban population in cluster not exceeding 50 million in 2030
- Efficiency factor
 - Distance radius of not more than 500 km
- Consumer demographics
 - Age
 - Education
 - Other product-category-specific demographics such as media preference and attitude toward pricing¹

10 clusters created around 14 cities. However, Delhi cluster becomes too large (population > 60 million)

Delhi cluster is broken down into 2 more, resulting in 12 clusters

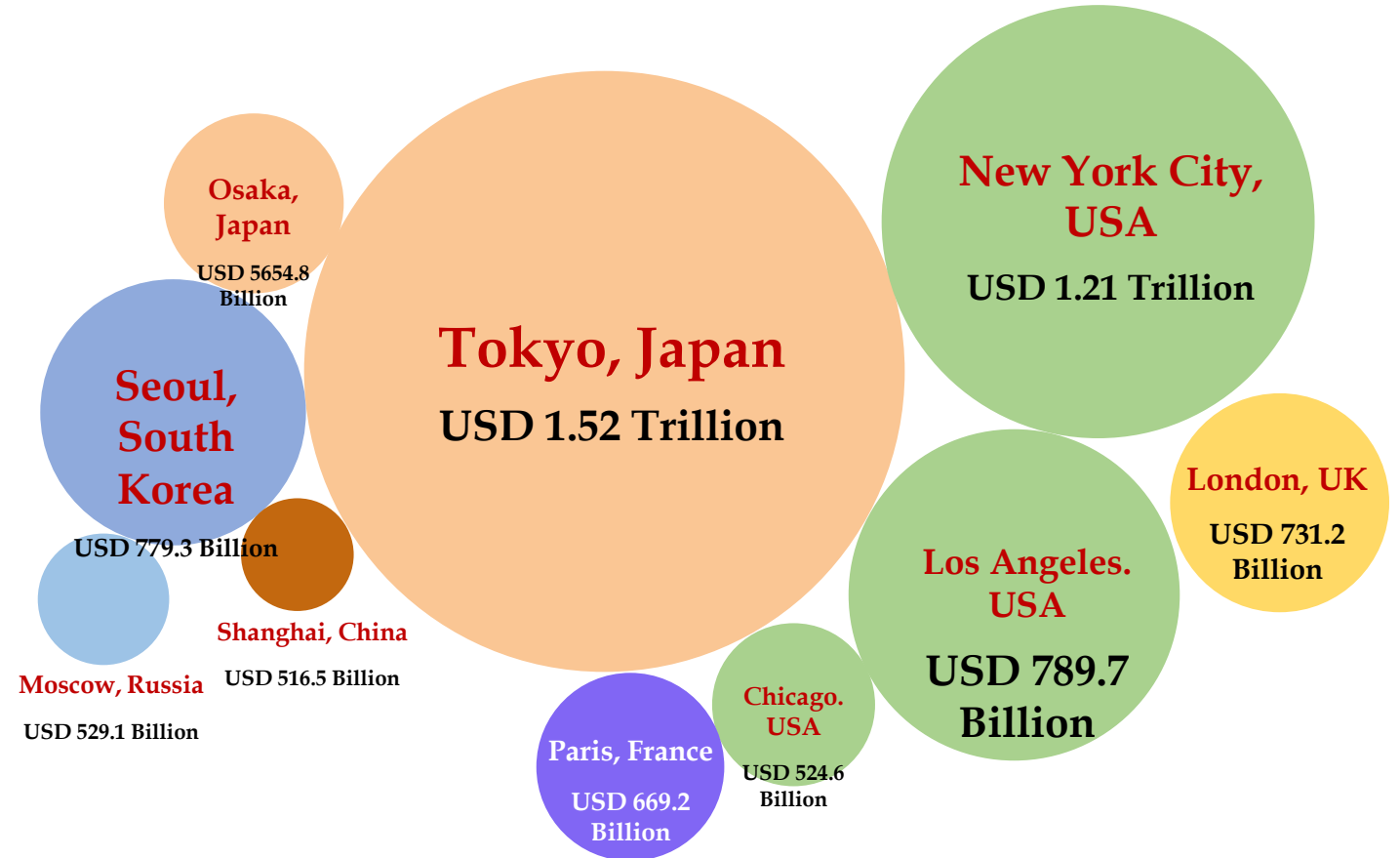
Due to proximity, following cities have been combined into one cluster

- Ahmedabad, Surat, Vadodara
- Mumbai, Pune
- Hyderabad, Visakhapatnam

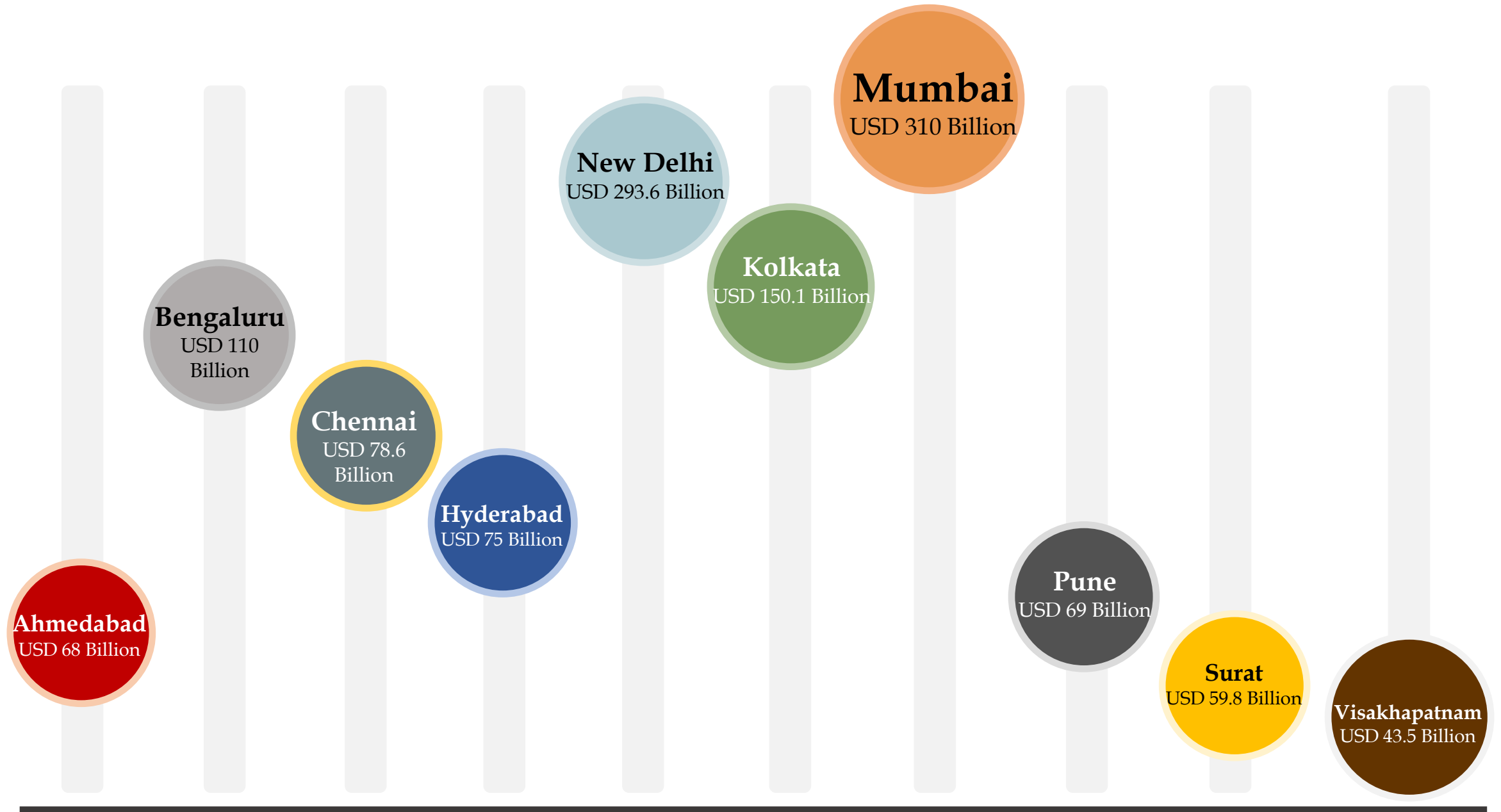


¹ Not included.

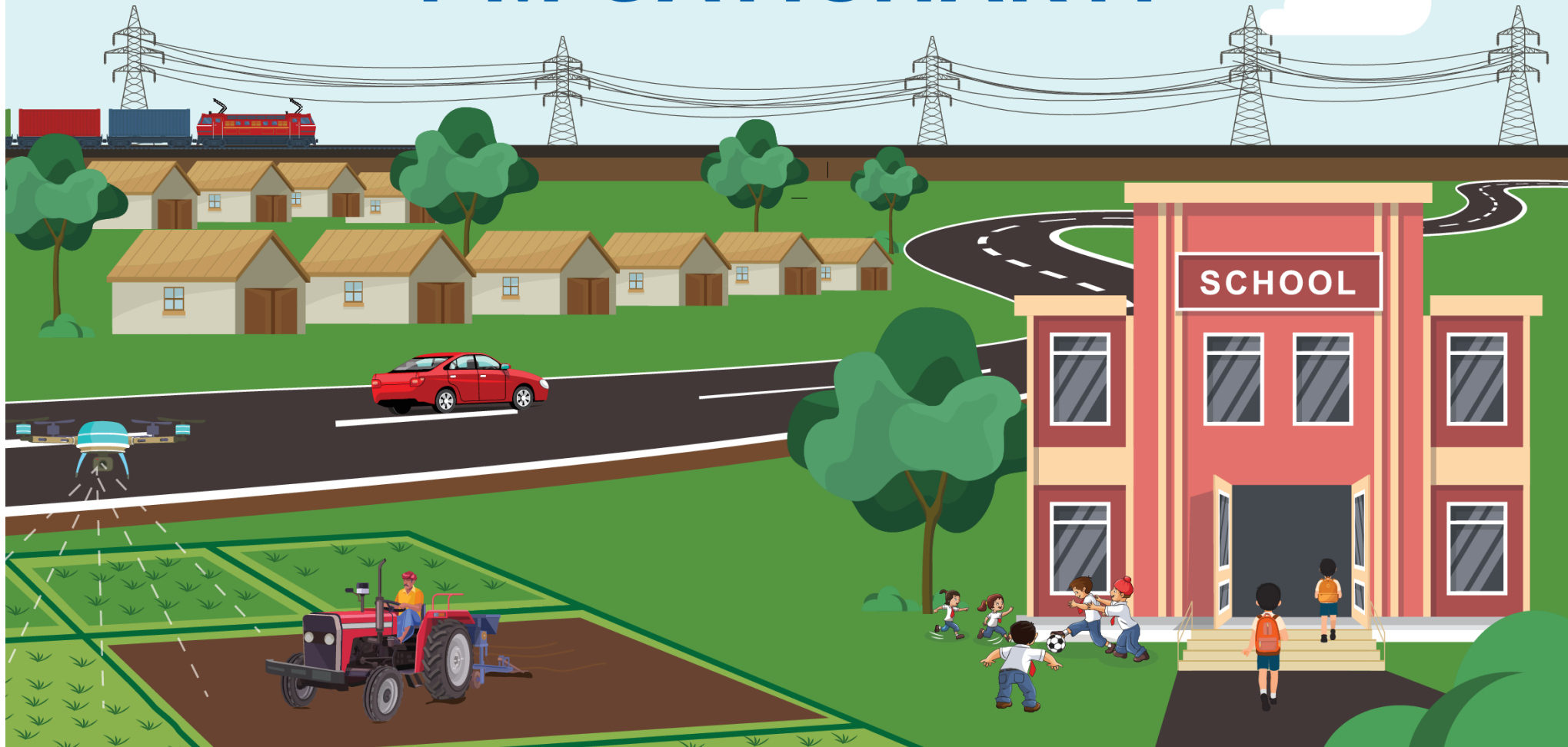
Economic Geography of Top Global Cities



Economic Geography of Top Indian Cities



Compendium of PM GATISHAKTI

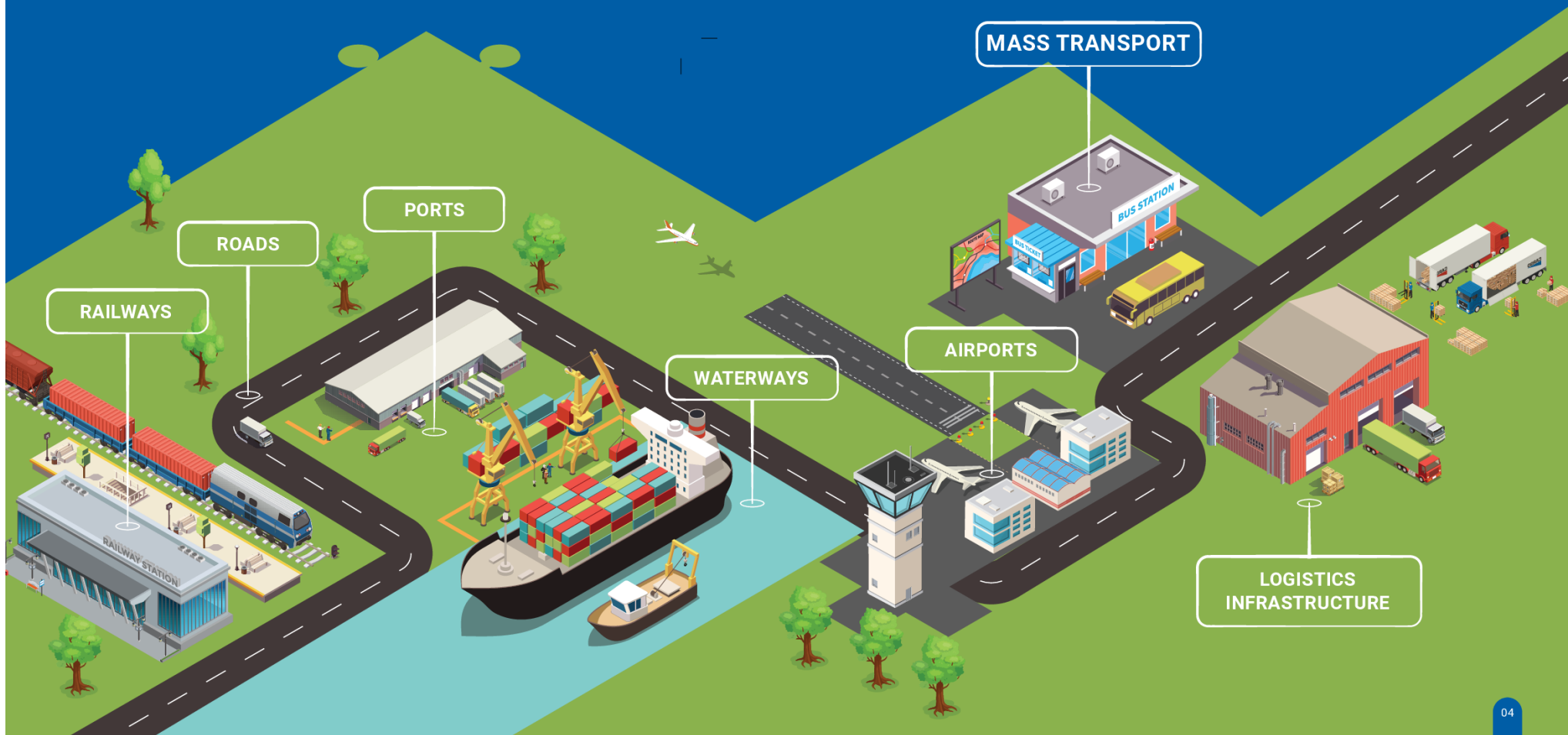


GATISHAKTI APPROACH

PM GatiShakti combines technology-enabled data driven decision support system with a collaborative, whole of government approach to integrate the journey of infrastructure development, from planning to implementation. This section details out the specifics of the GatiShakti approach which enables this holistic development.

Seven infrastructural engines propel the economic and social growth and progress of our country. These include railways, roads, ports, waterways, airports, mass transport, and logistics infrastructure.

PM GatiShakti, is engineering a game-changing, technology-led innovation to bring together these engines for a collective and seamless impact.



PRINCIPLES OF PM GATISHAKTI: ALIGNING FOR SUCCESS

PM GatiShakti is based on the **six core principles** outlined below to simplify the entire journey from planning to implementation. From an integrated development approach to planning connectivity, it looks at incorporating allied infrastructure such as laying utilities during the planning phase, enhancing additional connectivity to help seamless movement, ensuring ecological focus on conservation of forests, rivers, etc., and faster land acquisition and expedited clearances.

The outcomes planned through PM GatiShakti are made possible by focusing on each aspect of a project in granularity. The platform provides a comprehensive view of all projects on one platform, with visibility across stakeholders. This also helps drive faster prioritisation across Ministries and easier synchronisation to avoid delays. The detailed analysis from the data layer and the tools ensure better optimisation of projects and, through it all, keeps the process dynamic to ensure quick interventions for closure.

PM GATISHAKTI AT WORK

The sheer scale of infrastructural requirements in India is humungous, and

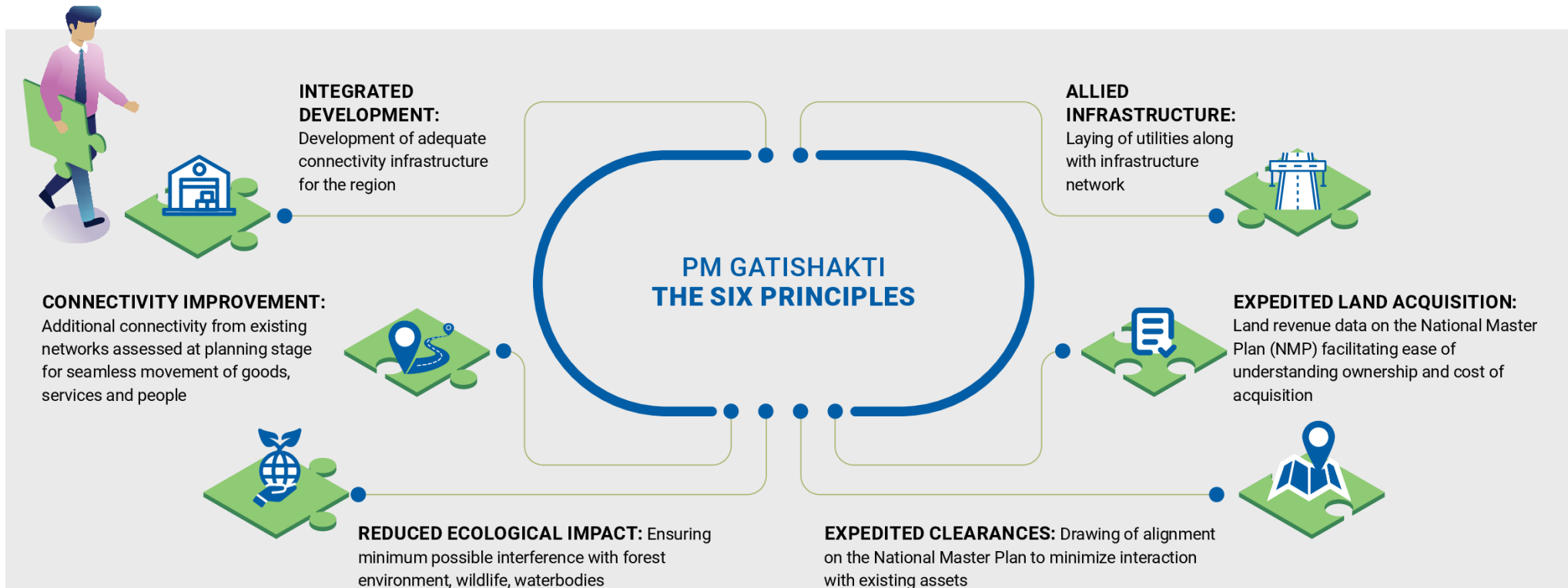
that requires collaboration at multiple levels.

Collaborative by design: GATISHAKTI's whole of government approach

The collaborative nature of GatiShakti starts right from the design. 8 Infrastructure Ministries, 16 Social Sector Ministries, 15 Economic Ministries, and 36 State and Union Territories have mapped GIS data layers of their individual Ministries/States/UTs, respectively, onto the National Master Plan. These layers of information have enabled the platform to become a trusted repository by bringing together 60+

Central and State portals onto one platform with 1,463 data layers integrated.

Using the 50+ planning tools on the National Master Plan and the clearance & approval mechanisms, the inter-Ministerial issues resolution has been streamlined significantly. Additionally, comprehensive institutional mechanisms have been established at both Central and State levels to sustain this progress.



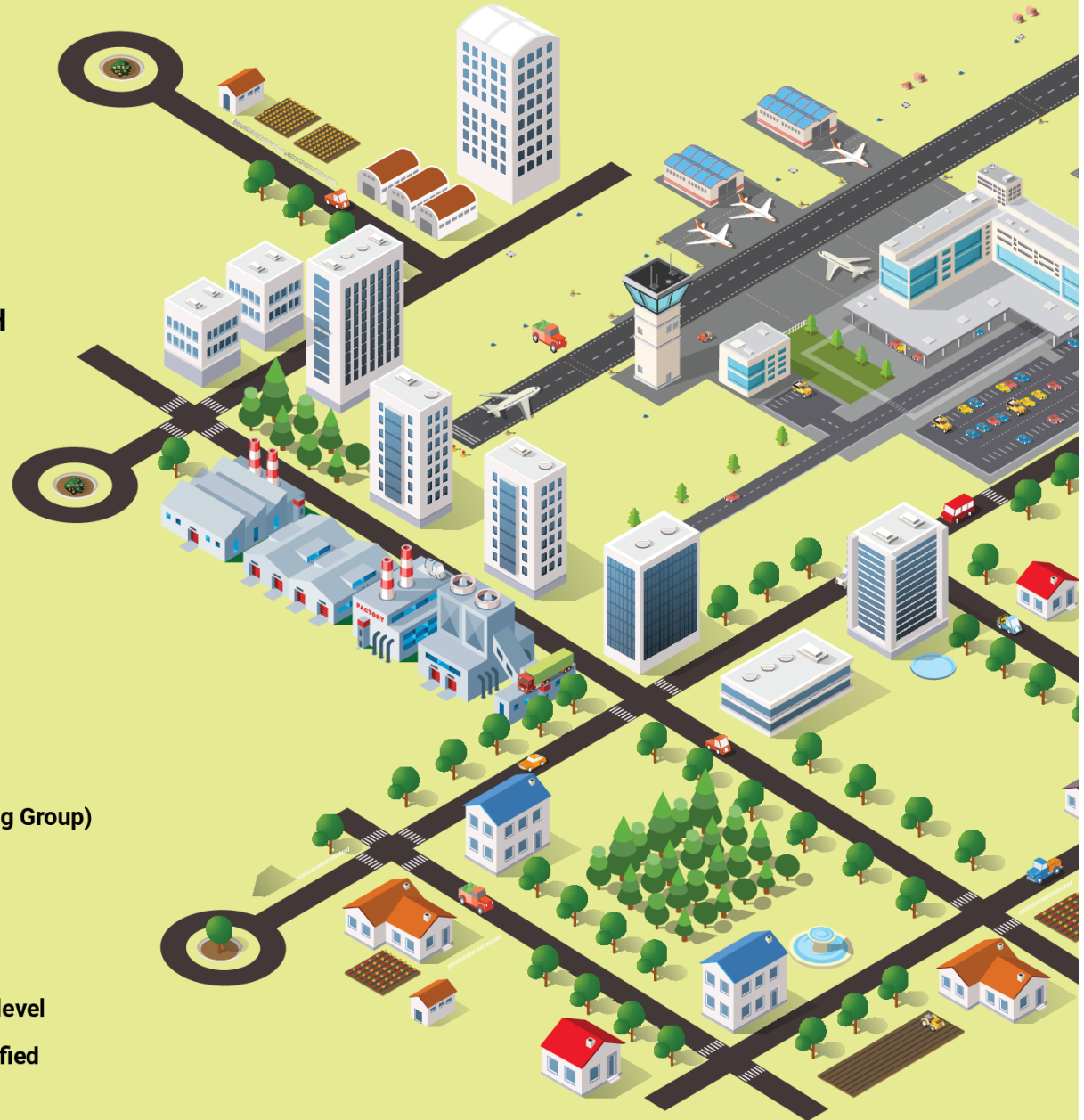
THE ONGOING IMPACT FROM PM GATISHAKTI

THE WHOLE OF GOVERNMENT APPROACH

- Indegenous Technology
- Optimised planning
- Digital surveys for possible alignments
- Faster and cost-efficient implementation
- Infrastructure gaps planning
- GIS technology-driven planning
- Detailed project report preparation expedited

ACHIEVEMENTS OF PM GATISHAKTI

- 1463 data layers integrated
- 100+ projects evaluated by NPG (Network Planning Group)
- 200 projects of states recommended
- 50+ planning tools
- 2000+ inter-ministerial issues resolved
- Institutional mechanisms at the Centre and State level
- 156 last and first-mile connectivity projects identified
- 60+ Central & State individual portals



Transforming Spatial Planning to Leverage Economic Geographies of Indian Cities

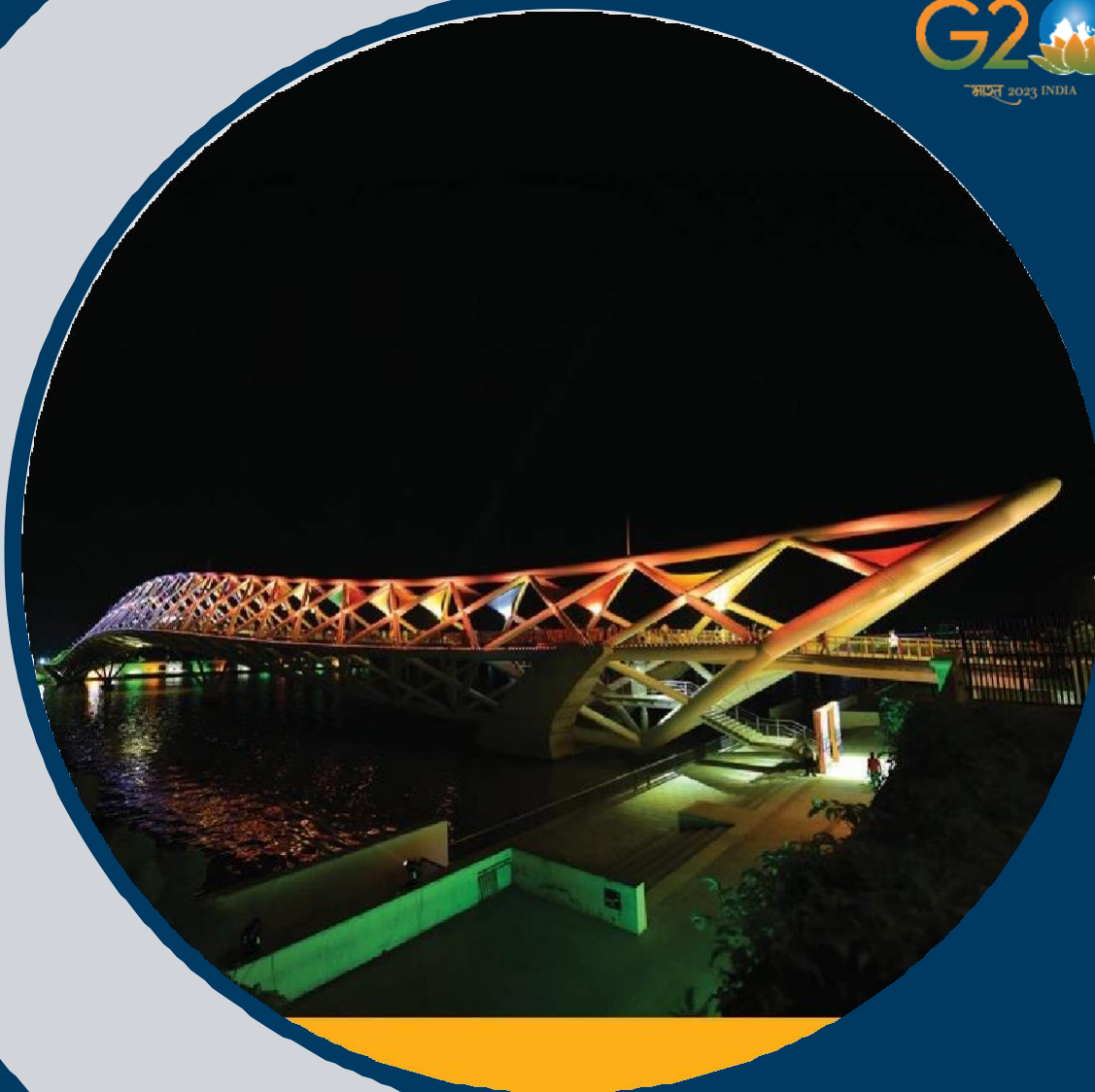


Government of India
Ministry of
Housing and Urban Affairs

Pathways to Amrit Kaal

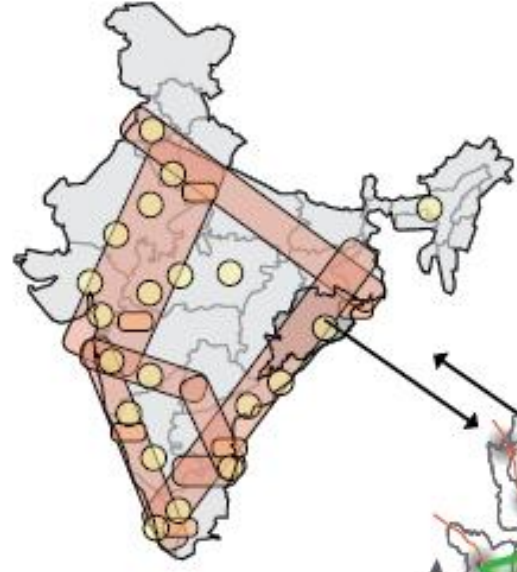
Envisioning and Realising a New Future for Indian Cities

**FIRST REPORT OF THE
HIGH LEVEL COMMITTEE ON URBAN PLANNING
JUNE 2023**



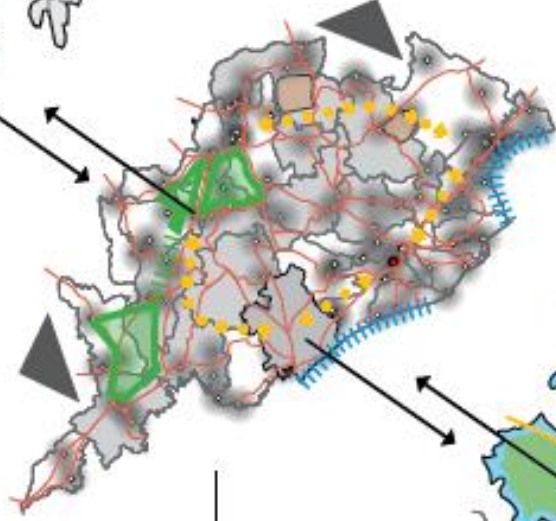
INDIA

National Territorial Planning



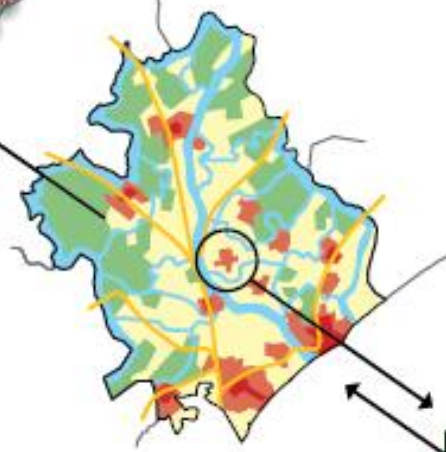
STATE

State Land Use Strategy



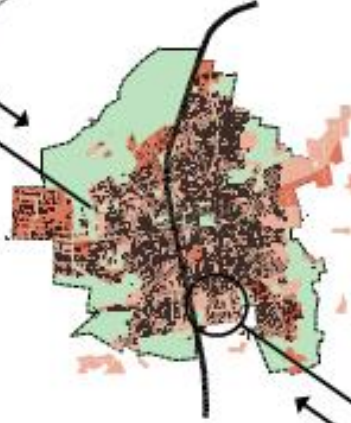
DISTRICT

Overall Land Use Plan



(URBAN) MASTERPLAN

Detailed Land Use Plan



CONSTRUCTION PLAN

concrete project approval



Plans at different scales

Regional Plan

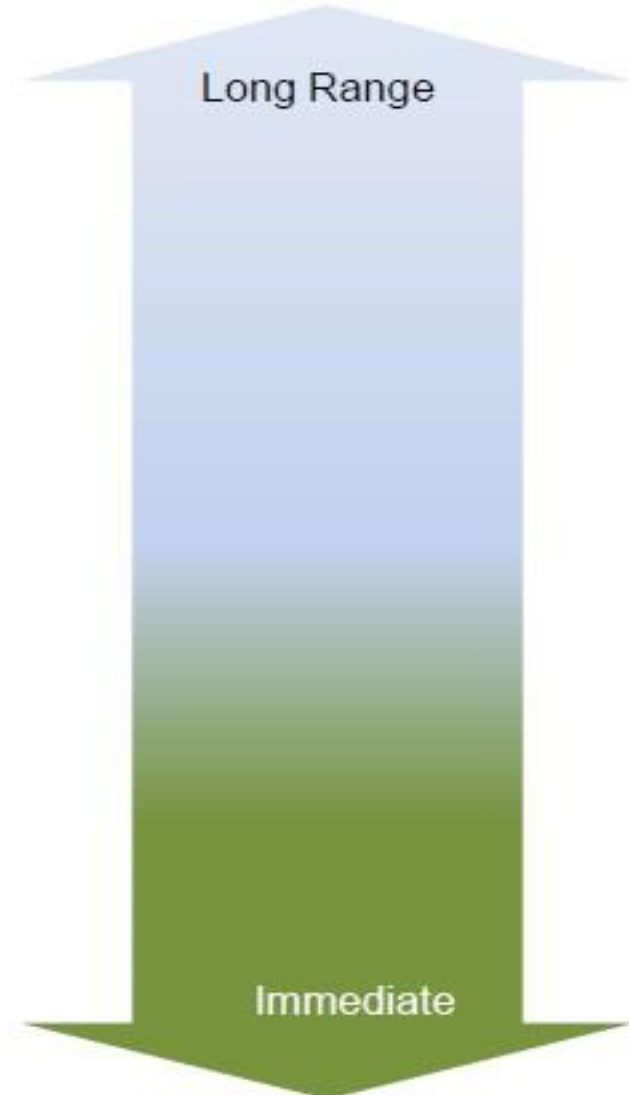
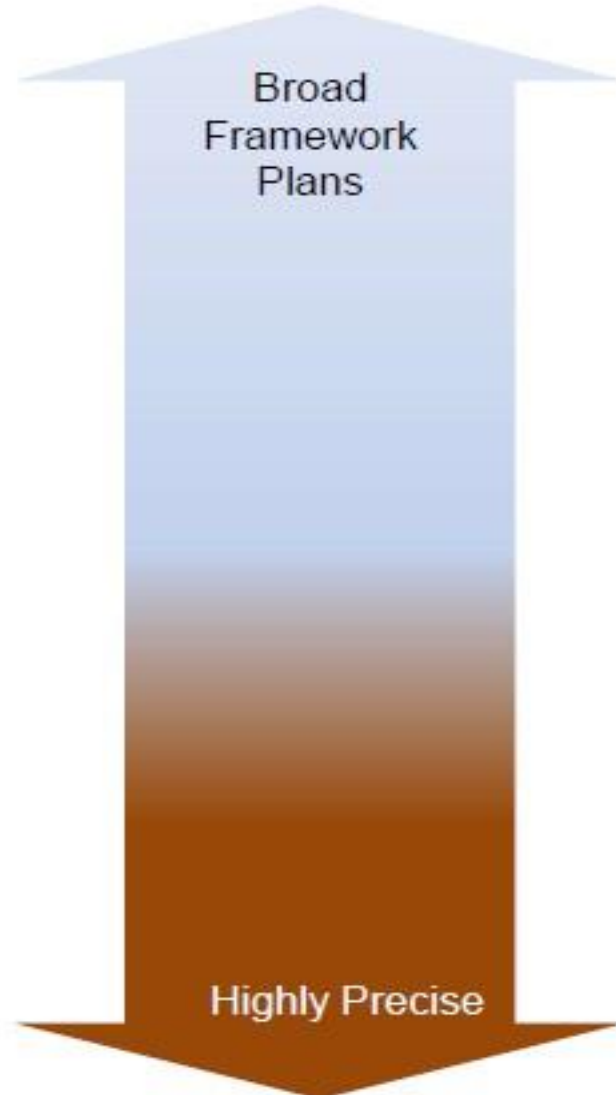
Urban Area Plan

Zonal Plan / Ward Plan

Local Area Plan / TP Scheme
/ Neighborhood Plan

Layout Plans

Projects



GATEWAY CITY REGIONS

Recommendations



GATEWAY CITY REGIONS...



Drivers of economic growth for the country

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Regions around coastal cities, mega city centres and other economic gateway cities could spearhead our economic potential towards the 10 trillion economy and beyond

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Cities in East Asia provide an excellent example of how regional approaches have drawn a major portion of the world foreign direct investments (FDIs), created skills and jobs and enhanced the quality of life of the citizens.

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Economic Development Process: Builds relationships between local government, civic organizations, and academia with the private sector to manage resources



Examples of impact of well-integrated, multi-dimensional regional development are available in China, Malaysia, Indonesia, Vietnam and Japan



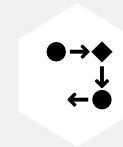
Enhancing the economic geographies would also ensure that the satellite cities emerge as centres of local economic development, employment, and skill integration.

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There is increasing integration of economies, people, and institutions in a globalized world, where cities and their regions, rather than nations and States, compete to attract both investments and talent.

.....



India has growth centres around mega cities some of which have economies larger than some medium sized countries

GATEWAY CITY REGIONS...



Global city- regions are proactively planning to enhance their **economic development and competitiveness**, and Indian cities must take advantage of such planning approaches.



Policies made at the National and State level while critical for economic development, **are insufficient** to meet the dynamic needs of city-regions that house the highest concentrations of jobs and are the dominant contributors to GDP



Only **landuse based master plans & regulatory control is insufficient** to harness the economic potential of cities to enable the key drivers of competitiveness such as strategic project coordination, economic actor networking, knowledge spill overs, investment compleme ntarity, re-employment and skilling, and the creation of enabling policies and institutions.



Mega multi-municipal regions in India such as those of Delhi, Mumbai, Bangalore, Pune and Hyderabad are hubs of innovation and productivity and connecting these cities to their satellites through **growth corridors** will result in larger labor market mobility, increased employment opportunities, and thereby make satellite cities more viable and liveable.



With national aspirations of reaching a **\$10 trillion economy** by the next decade, city-regions in India must transform themselves through effective integrated economic planning into **Regional and Global Gateways to propel the nation into economic prominence** in the global investment system driven by effective administrative frameworks.

- Thank you!
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