

INVESTING IN FUTURE CITIES

Building Inclusive, Resilient, and Sustainable Urbanscapes

In 2007, for the first time in human history, more people lived in urban areas than rural ones. Fast forward to today, and growing urbanisation patterns show few signs of abating. An estimated 3 million people move to cities every week. By 2050, **city dwellers are expected to outnumber their rural counterparts by a ratio of 2:1**. Saddled with legacy infrastructure and limited budgets, many urban areas are struggling to keep pace with such rapid growth. The result is increased congestion, reduced quality of life, lost economic potential, and negative health outcomes.

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I. What is the need for scaling investment in quality infrastructure in cities?

Infrastructure is crucial to a country's economic development and prosperity. While the demand for infrastructure development, especially in cities, is relatively high, its financing hasn't been able to keep pace. **The necessity of financing quality infrastructure can be highlighted through the following points:**

- ▶ **Accommodate rapidly increasing urban population:** Massive investment in infrastructure will be needed to accommodate the growth of cities. Infrastructure investment needs between 2016 and 2040 are forecasted at USD 94 trillion (Global Infrastructure Hub, 2018).
- ▶ **Address climate change:** Extensive investment is required in cities to mitigate and adapt to climate change as cities are not only one of the largest emitters but also suffer major infrastructural impediments in dealing with the impacts of climate change.
 - ▶ **Cities need at least USD 29.4 trillion between 2018 and 2030,** according to the International Finance Corporation (IFC), to mitigate and adapt to climate change.
- ▶ **Appropriately train Human resources:** There is a lack of skilled manpower and clear demarcation of work at the city level, particularly for effective land management, urban planning, project preparation, and financial management.
 - ▶ Indian cities do not have adequate skilled staff, with an estimated average **vacancy figure of 35%**.
- ▶ **Limited capacity of public resources:** The capacity of governments to finance infrastructure has become even more challenging in the wake of monetary policy tightening in key markets, fiscal policy challenges worldwide, and the recent pandemic.
- ▶ **Formulate Long-term solution for urban issues:** Investment in infrastructure is required to resolve important agglomeration costs faced by cities, such as traffic congestion, crowded public transport, unaffordable housing, pollution, biodiversity loss, and exposure to disaster risks.
- ▶ **Strengthen cities' role as centres of economic growth:** Cities in India occupy just 3.0% of the nation's land, but their contribution to gross domestic product (GDP) is a massive 60.0%.
 - ▶ Further cities are expected to generate up to **70% of new jobs** in India and drive a nearly **four-fold increase in per capita income by 2030**.
- ▶ **Build inclusive infrastructure:** Investment is needed in cities to address the varied needs of its citizens, including vulnerable populations, irrespective of, but not limited to gender, race, age, and physical ability.
- ▶ **Utilise the potential of Tier-II and Tier-III cities:** A special emphasis will have to be placed on the development of the country's tier-2 and 3 cities for the Indian economy to gain traction.

Box I.1. Tier-II and Tier-III Urban Hubs: The Future of Investments

Tier 2 and Tier 3 cities in India denote cities with a population in the range of 50,000 - 100,000 and 20,000 to 50,000. These cities represent untapped potential and growing ecosystems that can drive inclusive growth, job creation and sustainable development. The unique characteristics that make these cities alluring destinations for future investments include:

- ▶ **Lower Operating Costs:** Tier 2 and Tier 3 cities have a favourable business environment with lower operating costs and affordable real estate.
- ▶ **Skilled workforce:** These cities are witnessing a surge in digitally skilled workforce as well as unskilled people, that too at a lower cost in comparison to tier 1 cities.
- ▶ **Growing entrepreneurship:** More and more emerging start-ups and IT hubs are operating from these cities, with growing innovative and entrepreneurial aspirations of the youth.

However, investment is still needed in critical areas such as traffic management, public transportation, intercity connectivity, etc. Recognizing the importance of these cities, the setting up of the **Urban Infrastructure Development Fund (UIDF)** was announced in the Union Budget 2023-24. It will be used by public agencies to create **urban infrastructure in Tier 2 and Tier 3 cities**. By amplifying their impact and empowering their growth, the country can unleash its full potential to move towards a prosperous future.

The urban governance has to undergo a shift from a supply-driven to a demand-driven process. Serving performance in the administration and people's satisfaction are the basic premises to build in people centricity to regularly improve access to services & infrastructure, etc.

2. How can we accelerate investment in quality infrastructure in cities?

G20 Members, recognising the importance of urban infrastructure development, developed a set of **voluntary and non-binding 'Principles on Financing Cities of Tomorrow'**. The set of guidelines acknowledge the inherent heterogeneity across cities and the many country-specific circumstances cities are embedded in. Key elements of the principles have been stated below:

2.1. G20 Principles on Financing Cities of Tomorrow

Transforming Planning processes and mechanisms

- ▶ **Building economically, socially, and spatially inclusive infrastructure:** It includes promoting affordable housing development and improving access to education, healthcare, and cultural facilities.
- ▶ **Generation of new strategic plans:** National Urban Policies and Support Initiatives should be updated to address 21st-century challenges, like promoting circular economy approaches to minimise waste generation.
- ▶ **Making cities resilient to disaster:** Cities need

to develop **risk assessment frameworks** that would guide consequent risk monitoring and mitigation and need a comprehensive, evidence-based understanding of disaster risks to assist in risk avoidance, risk reduction, and management of residual risk.

Maximising investment efficiency

- ▶ **Changing funding pattern:** To address future requirements, cities should adopt strategies that leverage alternative financing sources and a stronger enablement of **public-private collaboration** to bridge the growing infrastructure financing gap.

Box 2.1. Balancing Public funding and Private funding in cities

The development of cities has been undertaken substantially through public funding. Since the capacity of cities to invest through own source revenues and capital transfers in a tight fiscal environment, is limited, there is a significant funding gap for meeting current and future infrastructure needs. Hence there is a need for **a balance between public and private funding in cities depending on local priorities, needs, and resources.**

Public funds can be channelized into projects that are **economically important but financially less viable and essential for economic development**, such as schools and hospitals, etc. Additionally, they may be leveraged for projects that focus primarily on **reducing economic losses through mitigation of negative externalities** (e.g., climate adaptation/ social or green infrastructure).

Projects with commercial potentials, such as convention centres, tourism infrastructure, etc. can tap private investment. Further, projects with high revenue-generating capabilities can be financed using a mix of loans, transfers, and private financing instruments such as equity finance.

In this scenario, creating a conducive environment for attracting private investments is extremely important. **Clear and transparent regulation** and enabling private investors to **evaluate the viability and financial feasibility of infrastructure projects** can help to provide certainty and stability for private investors. Also, **de-risking instruments** such as insurance, hedging, guarantees, provision of contingencies and deployment of credit enhancement techniques can be used to protect the interest of investors and lenders.

- ▶ **Diverse and innovative financial solutions:** Cities should explore market-based solutions such as public-private partnerships (PPPs), standalone and pooledbonds, blended finance, institutional funds, asset monetisation, long-term debt issuances, innovative land-based financing, etc.

Different land-based solutions



Transit-Oriented Development: It is a planning concept to promote compact, mixed-use, and pedestrian-friendly development organized around a transit station.



Land Value Capture: It is a policy approach that enables communities to recover and reinvest land value increases that result from public investment and government actions.



Transferable Development Rights: It refers to the zoning technique used to protect plots of land that have a conservation value on a permanent basis.

- **Increasing own source revenue (OSR):** Given the significant role of city Governments in financing urban infrastructure, their OSR needs to be maximised by increasing existing revenue streams and creating new revenue opportunities.
 - Measures like GIS-based technology

interventions, **congestion pricing** and linkages of vehicle type-road tax for incentivising greener transport, **betterment levies, adequate water pricing, property tax reforms** with increased land and property registrations, etc., can be helpful in this regard.

Box. 2.2. In Conversation! Role of City Governments in financing urban infrastructure

Vinay: Hey Vini! Have you ever thought about how cities manage to finance all their infrastructure projects

Vini: Well, I was reading about it recently, and it turns out city governments play a significant role in that.

Vinay: Really? How so?

Vini: Well, for starters, they're the ones who identify what the city needs because they're right there, on the front lines, delivering services to us.

Vinay: That makes sense. Their control over development and land use decisions would also give them incredible power to shape infrastructure in cities. But how can they attract investments?

Vini: That's the interesting part. They can engage with potential investors early on, creating the right incentives to stimulate future investments in urban projects.

Vinay: That's great! So, if city governments plan smartly, they can transform how our cities look and function and ensure that they are equipped to meet the challenges of the future.

- **Making Carbon Finance more accessible to Cities:** Urban projects may leverage suitable financial mechanisms such as impact investing and sustainable financing instruments such as **climate bonds, sustainability bonds, transition**

bonds, and green and blue bonds.

- For this purpose, cities should prepare a pipeline of investible sustainable projects, preferably on a searchable online platform.

Table 2.1. Sustainable financing mechanisms for the cities

Municipal bonds	Green, social, and sustainable bonds	Green, social, and sustainable loans	Sustainability linked bonds	Catastrophe bonds
A type of debt security issued by the local government.	Fixed-income debt instruments with a use-of-proceed mechanism with a focus on activities with a sustainable purpose.	Dedicated loans for green, social, and sustainability projects of the City Governments.	Aligns financing with long-term policy objectives while supporting budget flexibility and reducing compliance costs.	Debt security to build resilience to insure against disasters like fire, flood, etc.

Improvement in investment climate and leverage private investment

- ▶ **Enhancing city creditworthiness to leverage debt financing:** Cities can tap wider funding options and derive considerable leverage in the capital markets, along with securing concessional & non-concessional assistance from Development Financing Institutions.
 - ▶ National governments can specify prudent principles for city borrowing through the specification of **uniform audit standards, debt management, fiscal marksmanship, city-relevant multi-year expenditure frameworks**, etc.
- ▶ **Greater standardisation of sector-specific contractual documents:** Guidance frameworks like model concession agreements made context-relative would ensure transparency and consistency in procurement processes.
- ▶ **Investment in Research and Development:** A certain percentage can be earmarked towards R&D and technology.
- ▶ **Utilising Lending Facilities by Multilateral Development Banks (MDBs):** Assistance from multilateral institutions would additionally help cities address their social and environmental needs.
- ▶ **Enhanced Coordination:** Vertical and horizontal coordination across levels of government helps to strengthen the efficiency, effectiveness, and complementarities of infrastructure investments.

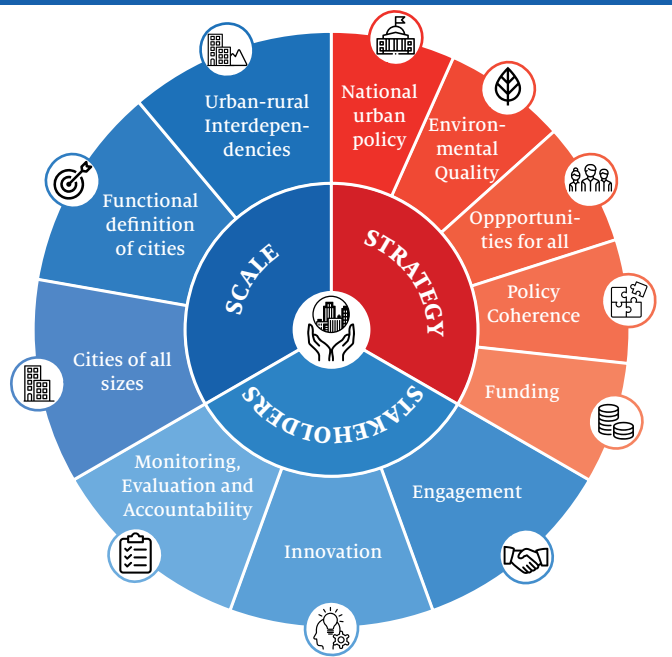
Augmenting institutional preparedness and capacity of city administrations

- ▶ **Data-driven insights in project and policy development:** Data must be leveraged in keeping with the tenets around data privacy, protection, and use in accordance with national and international regulations.
- ▶ **Technical and financial capacity building of city administration:** Enhanced collaborations with multilateral development banks, national investment and development banks, international organisations, academia, industry, etc., are required to address the capacity-building needs of city administrations.
 - ▶ For instance, **City-to-city exchanges (e.g., Sister City concepts)** can be encouraged to benefit from mutual exchange of ideas.
- ▶ **Embracing digital technologies:** Digital connectivity should be fostered to ensure equitable access to digital infrastructure and services and adopt tech interventions in infrastructure.
- ▶ **Sharing of successful experiences and development trends among cities in developing and developed countries:** Access to relevant data on infrastructure and associated public, especially on digital intelligence and technology services, should be made more widely available.

Box 2.3. OECD Principles on Urban Policy (2019)

Adopted by all OECD countries in March 2019, it offers a framework to guide national and subnational policymakers in building smart, sustainable, and inclusive cities in responsibility shared between the public, private, and non-profit sectors. **The 11 principles are organised around the “3S” framework of Scale, Strategy, and Stakeholders:**

- **Adapt to the scale** where people live and work in real life, beyond administrative perimeters drawn on a map.
- Align all policy sectors that play a key role in cities – from economic development and education to housing, transport, and land use – **into a coherent strategy.**
- **Engage stakeholders** from all segments of society to put people at the centre of urban policy.



2.2. Initiatives undertaken by the Indian government to facilitate making cities more resilient, Inclusive, and sustainable

The Government of India has been striving to develop futuristic cities and address ongoing issues in urban conglomerations, especially in terms of inclusivity and sustainability. Some key measures have been stated below:

- **Sustainable Cities India program:** It intends to enable cities to decarbonise in a systematic and sustainable way that will reduce emissions and deliver resilient and equitable urban ecosystems.
- **City Investments to Innovate, Integrate and Sustain 2.0 (CITIIS 2.0):** The framework supports competitively selected projects promoting circular economy with a focus on integrated waste management at the city level, climate-oriented reform actions at the State level, and institutional strengthening and knowledge dissemination at the National level.
- **Infrastructure Investment Trust (InvITs):** It is like a mutual fund, which enables direct investment of small amounts of money from possible individual/institutional investors in infrastructure to earn a small portion of the income as a return.
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT):** It aims for the development of basic infrastructure in the selected cities and towns in the sectors of water supply, sewerage and septage management, green spaces and parks, and non-motorized urban transport.
- **Prime Minister Awas Yojana (PMAY Urban):** Under the scheme, a basket of options has been adopted to ensure affordable housing for a greater number of people depending on their income, finances and availability of land.
- **National Clean Air Mission (CAM-INDIA):** It is a cross-sectoral initiative for air pollution mitigation involving the Ministries of Transport, Power, Construction, Agriculture, Rural Development, Environment, and the States.
- **Smart Cities mission:** To promote cities that provide core infrastructure and give a decent quality of life to its citizens by applying digital solutions.
- **India’s National Urban Policy Framework (NUPF), 2018:** It outlines an integrated and coherent approach towards the future of urban planning in India. The States develop their respective State Urban Policies, including Implementation Plans based on this framework.

Cities today have land and resources. However, there are parcels of underutilised land and locked-up decaying urban areas that weaken a city’s image, liveability, and productivity. These land parcels in cities offer a great opportunity to start a chain of developmental activities that can be explored through ‘creative redevelopment’.

3. Solution for Cities of Tomorrow: Creative Redevelopment

To build future cities, creatively reimagining and repurposing urban spaces and communities needs to be done in a way that fosters innovation, creativity, and a sense of community pride. In this regard, the idea of creative redevelopment is pitched as a solution.

3.1 What is creative redevelopment?

- ▶ **Creative redevelopment** refers to a policy and planning approach that is based on the continual process of urban regeneration through the use of innovative mechanisms, which enables the reorganisation of land in terms of its utilisation and revenue generation potential.
 - ▶ It involves repurposing a building for a new use, like converting an old factory into a mixed-use development with residential, commercial, and cultural spaces or transforming a vacant land into a community garden or park.
- ▶ **Benefits:** It leads to improved efficiency in land management within existing cities while also enhancing the region's attractiveness vis-à-vis economic development.
- ▶ **Steps under creative redevelopment:** It would include adaptive planning through citizen consultation, land readjustment (revocation of occupancy rights), displacement, and relocation of existing development.

Box 3.1. Challenges for creative redevelopment

Unregulated urban sprawl and fragmented land ownership.

Increasing challenges around inclusivity and inequality.

Large parcels of land locked up in underutilized and decaying urban areas.

Limited resources in the face of growing urban demand.

3.2 What can the policymakers do at different levels of government to ensure it?

Policymakers can leverage creative redevelopment to enable standard quality of urban life, such as:

- ▶ **Removing regulatory barriers:** These can be removed through periodic review and updating of regulations such as restrictive zoning laws or cumbersome permitting processes.
- ▶ **Reforms in Statutory law:** Formulating statutory frameworks for urban land titling and record management.
- ▶ **Conducive legal environment:** Building a conducive legal environment for landowners, tenants, and contract rights to be recognised and enforced.
- ▶ **Enhance community participation:** Ensuring that projects reflect community needs by meaningfully engaging and involving citizens in the planning and implementation of creative redevelopment projects and ongoing urban management.
- ▶ **Incorporating Sustainable designs:** Promoting sustainable design practices such as promoting energy efficiency, green roofs, and urban agriculture.

4. Conclusion

Cities of Tomorrow can be visualised as action-oriented spaces that focus on bringing a positive and lasting impact on the lives of their citizens and maximising the creative potential of their resources. Cities in developing and developed countries are at different stages of evolution. Therefore, each city would need to undertake a unique vision setting and robust and transparent project preparation to arrive at its preferred direction of growth. The global goal should be to boost the growth of new and retrofitted cities that will emerge as equitable, energy-efficient, climate-resilient, socially and financially sound and environmentally sustainable economic spaces.

TOPIC AT A GLANCE

Investing in future cities

- ⊕ In recognition of impact of cities on billions of people, a set of voluntary and non-binding 'Principles on Financing Cities of Tomorrow', was prepared during G20 Indian Presidency in 2023.



Need for financing quality infrastructure investment in cities

- ⊕ Accommodate the rapidly increasing urban population.
- ⊕ Cities are emerging markets to mitigate and adapt to climate change.
- ⊕ Lack of skilled manpower and clear demarcation of work at the city level.
- ⊕ Limited capacity of public resources.
- ⊕ Formulate Long-term solutions for urban issues such as traffic congestion and crowded public transport.
- ⊕ Strengthen cities' role as centres of economic growth.
- ⊕ Build inclusive infrastructure.
- ⊕ Utilise the potential and Tier II and Tier III cities.



G20 Principles on Financing Cities of Tomorrow

Transforming Planning processes and mechanisms

- ⊕ Building economically, socially, and spatially inclusive infrastructure.
- ⊕ Generation of new strategic plans.
- ⊕ Strengthen stakeholder collaboration.
- ⊕ Making cities resilient to disaster.

Maximizing investment efficiency

- ⊕ Changing funding pattern to enhance private participation.
- ⊕ Diverse and innovative financial solutions.
- ⊕ Increasing own source revenue (OSR) of city govts.
- ⊕ Making Carbon Finance like sustainability bonds, green and blue bonds etc. more accessible to cities.

Improvement in investment climate

- ⊕ Enhancing city creditworthiness to leverage debt financing.
- ⊕ Greater standardization of sector-specific contractual documents.
- ⊕ Investment in R&D.
- ⊕ Utilizing Lending facilities by Multilateral Development Banks (MDBs).

Augmenting institutional preparedness and capacity of city administrations

- ⊕ Data-driven insights in project and policy development.
- ⊕ Intra-city acceptability.
- ⊕ Technical and financial capacity building of city administration.
- ⊕ Embracing digital technologies.
- ⊕ Sharing of successful experiences and development trends among cities in developing and developed countries.



Initiatives undertaken by the Indian government

- ⊕ Sustainable Cities India program.
- ⊕ City Investments to Innovate, Integrate and Sustain 2.0 (CITIIS 2.0).
- ⊕ Infrastructure Investment Trust (InvITs).
- ⊕ Atal Mission for Rejuvenation and Urban Transformation (AMRUT).
- ⊕ Prime Minister Awas Yojana (PMAY Urban).
- ⊕ National Clean Air Mission (CAM-INDIA).
- ⊕ Smart cities mission.
- ⊕ India's National Urban Policy Framework (NUPF), 2018.



Potential Solution: Creative Redevelopment

- ⊕ It refers to a policy and planning approach that is based on the continual process of urban regeneration.
- ⊕ **Steps under creative redevelopment** include adaptive planning through citizen consultation, land readjustment, etc.
- ⊕ **Policymakers can leverage creative redevelopment to enable standard quality of urban life, such as:**
 - **Removing regulatory barriers.**
Formulating statutory frameworks for urban land titling.
 - **Conducive legal environment** for landowners, tenants, and contract rights to be recognized and enforced.
 - **Community participation.**

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