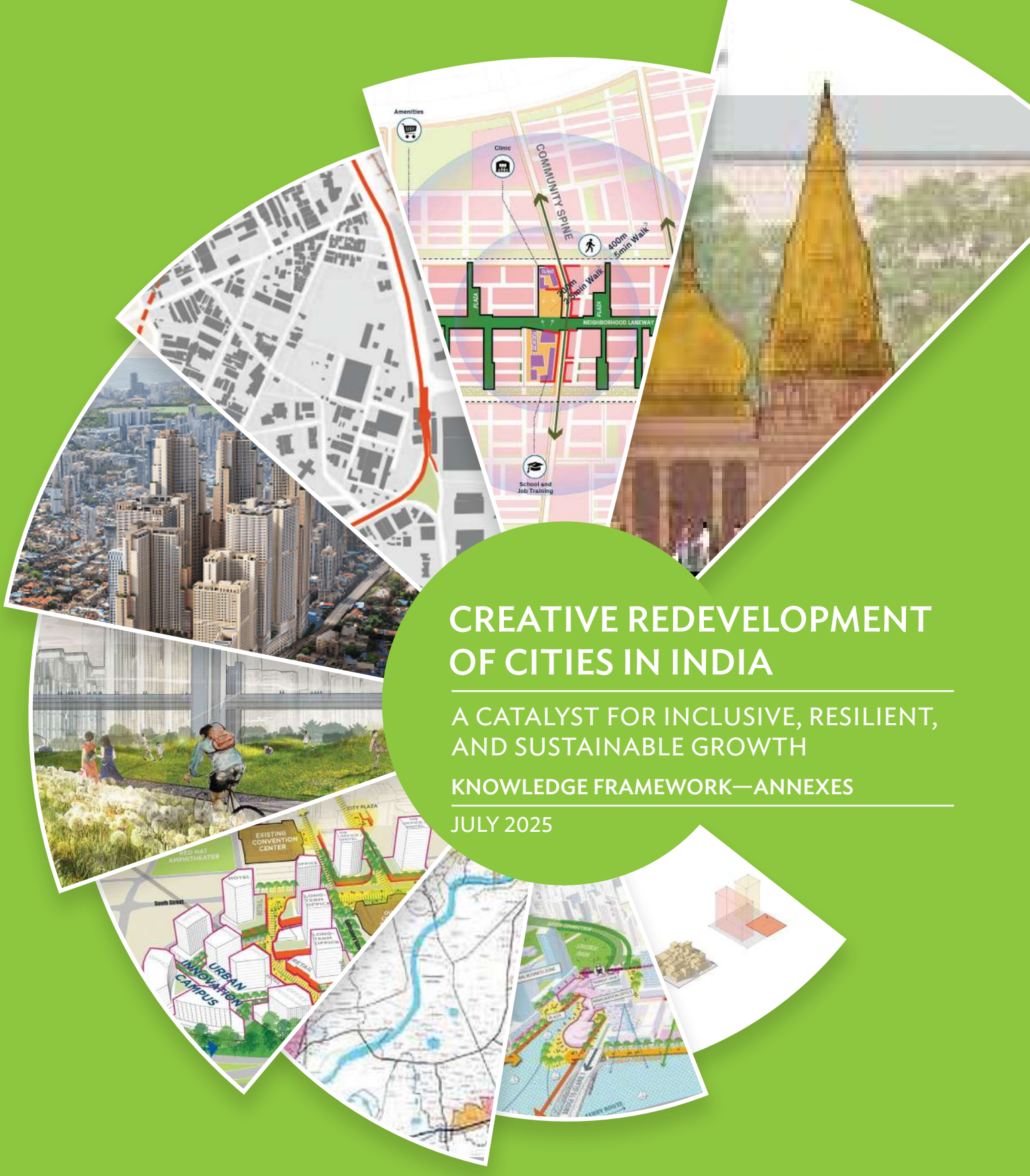




# CREATIVE REDEVELOPMENT OF CITIES IN INDIA

A CATALYST FOR INCLUSIVE, RESILIENT,  
AND SUSTAINABLE GROWTH

KNOWLEDGE FRAMEWORK—ANNEXES

JULY 2025



## CREATIVE REDEVELOPMENT

Creative redevelopment is a concept that aims to transform city cores through a judicious densification and repurposing of underutilized assets, while delivering better economic, social, and environmental outcomes for the city and its communities. This publication complements the vision and framework for developing cities as growth hubs as economic drivers for growth. It offers the tools to unlock the potential of creative redevelopment and to foster inclusive, resilient, and sustainable urban growth, aligning with India's "Viksit Bharat" vision of becoming a developed nation by its centennial year of independence. The publication is a joint effort of the Asian Development Bank and the World Bank Group, in close collaboration with the Government of India.





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JULY 2025

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# Annex 1

## Typology of Creative Redevelopment

This annex provides an outline of the nine typologies developed for the creative redevelopment knowledge framework. The typologies are interconnected and can be combined strategically to achieve comprehensive and sustainable urban regeneration. For instance, a waterfront redevelopment could incorporate slum rehabilitation, environmental improvement, and public space enhancement, creating a cohesive plan that addresses multiple urban needs simultaneously.

- i. **Waterfront Development.** Urban waterfront developments boost economic outcomes, create quality public spaces, and enhance social well-being, making them vital to modern urban redevelopment strategies. Previously underutilized or degraded waterfront areas are transformed into vibrant, economically productive spaces that improve the city's image. These projects significantly enhance property values, attract businesses and residents, and generate a sense of pride and belonging among citizens, strengthening community identity. Additionally, they create dynamic public spaces that foster social interactions and cultural engagement, while also delivering substantial economic value generation.

The Sabarmati Riverfront Development Project in Ahmedabad is a notable example of successful urban waterfront redevelopment. It revitalized the neglected Sabarmati riverfront, addressing severe pollution, flood risks, and restricted public access while boosting the city's economic and social vibrancy. Key outcomes included advanced flood management infrastructure, increased quality of life through promenades and parks, and significant economic gains from reclaimed land sales, tourism, and new business opportunities.

Examples: Sabarmati Riverfront, Ahmedabad, India; Anacostia Waterfront, Washington DC, United States.

- ii. **Inclusive, Resilient, and Affordable Housing.** Affordable housing projects play a critical role in urban redevelopment by revitalizing distressed neighborhoods, improving living conditions, and fostering economic growth. These programs help stabilize or increase property values, reduce blight, and attract new residents and businesses. Furthermore, they create opportunities for inclusive, mixed-income communities, ensuring long-term social benefit and economic vitality.

Johannesburg Inner-city Revitalization project in South Africa, prioritized provision of affordable housing units in the central business district and the inner-city as the need for rental housing increased dramatically. This occurred due to office buildings being rented out to low-return residential accommodations for tenants moving to inner-city for low-paying jobs. Establishment of the Trust for Urban Housing Foundation (TUHF), a financial institution to fund the refurbishment of inner-city buildings and support residential conversions. Better Buildings Program, by the mayoral committee of Johannesburg, complements TUHF's mission by promoting

the refurbishment of dilapidated buildings into quality, affordable housing. This initiative encourages property owners to upgrade their properties, enhancing living conditions and safety standards.

Examples: Johannesburg, South Africa; Santiago, Chile; Tamil Nadu, India.

- iii. **Slum Rehabilitation.** Slum rehabilitation is an urban redevelopment approach focused on improving living conditions of informal settlements through upgraded housing, essential services, and infrastructure. This approach fosters social inclusion, addresses overcrowding, enhances quality of life, and drives economic growth in urban areas.<sup>1</sup>

Examples: Jaga Mission, In situ Slum Rehabilitation, Ahmedabad and Bhubaneswar, India.

- iv. **Inner-city Densification.** Inner-city densification focuses on increasing population density in urban cores to optimize land use and revitalize underused areas. Depending on context, densification aims to reduce urban sprawl and enhance service delivery, and/or focus on rejuvenating shrinking neighborhoods by attracting new residents. Challenges include infrastructure strain and mitigating displacement risks, while benefits involve improved infrastructure efficiency and economic regeneration.<sup>2</sup>

In Johannesburg, the city implemented strategies to attract new residents by promoting affordable housing, refurbishing abandoned buildings, and improving urban infrastructure and services through fiscal and regulatory innovations. Key outcomes included a significant increase in population density within the inner-city, reduction of urban decay, and stimulation of local economies. This densification effort enhanced infrastructure efficiency, reduced urban blight, and fostered economic regeneration, contributing to a more vibrant and inclusive urban environment.

Examples: Johannesburg, South Africa; Kidwai Nagar, Delhi.

- v. **Historic-city Revitalization.** Revitalizing historic urban centers supports economic growth by attracting commerce, tourism, and job creation while fostering civic pride. Engaging public and private sectors through small, incremental projects builds momentum and trust, ultimately leading to broader urban regeneration. This typology maximizes impact, stimulates local economies, and enhances cultural value.<sup>3</sup>

Examples: Dashashwamedh Plaza, Varanasi, India; Shanghai, PRC.

- vi. **Business District Revitalization.** Business districts or central business districts (CBD) are impactful areas for urban redevelopment as they allow for enhancing economic vitality, fostering social resilience, and encouraging sustainable growth. Revitalizing CBDs can attract businesses, residents, and tourists, while integrating green spaces and pedestrian zones supports environmental health and community engagement. This typology of creative redevelopment boosts economic resilience and quality of life.<sup>4</sup>

Examples: Bhendi Bazaar Redevelopment, Mumbai, India; El Poblenou, Barcelona, Spain.

---

<sup>1</sup> Development Monitoring and Evaluation Office (DME0), Niti Aayog. *Urban Transformation: Slum Redevelopment in India*. Case Study 36, 2021.

<sup>2</sup> R. Amirtahmasebi et al. 2016. *Regenerating Urban Land: A Practitioner's Guide to Leveraging Private Investment*. The World Bank.

<sup>3</sup> F. Steinberg. 2008. *Revitalization of historic inner-city areas in Asia: the potential for urban renewal in Ha Noi, Jakarta, and Manila*. Asian Development Bank.

<sup>4</sup> C40 Knowledge Hub. 2023. [How to revitalise city centres for social, economic and environmental resilience](#).

- vii. Urban Extensions/Peri-urban Development.** Planned urban extensions are strategic urban growth areas designed to optimize land use, support economic growth, and enhance climate resilience, creating sustainable assets, income, connectivity with public transport and improved living conditions.<sup>5,6</sup>

Examples: Town Planning Schemes, Ahmedabad, India.

- viii. Station Area Redevelopment and Improving Accessibility (TOD linked).** Station area redevelopment, linked with transit-oriented development (TOD), optimizes land around transit hubs to promote accessibility, economic growth, connectivity, benefiting communities with efficient transit, reduced sprawl, and vibrant, walkable neighborhoods.<sup>7,8</sup>

Examples: Bangalore MRT, India; Curitiba, Brazil.

- ix. Environmental Improvement.** Environmental improvement or regeneration projects enhance urban ecosystems by incorporating green infrastructure and nature-based solutions. These initiatives effectively reduce pollution, manage stormwater, and restore habitats, while also boosting economic vitality and property values. By addressing environmental challenges, such projects improve public health, enhance climate resilience, and engage communities in urban transformation. Such efforts not only mitigate environmental degradation but also instill a sense of pride and ownership among residents, making cities more livable and equitable.<sup>9,10</sup>

The Cheonggyecheon Restoration Project in Seoul exemplifies environmental improvement through urban regeneration. It transformed a hazardous elevated highway into a 16.3-hectare green space, reducing air pollution, lowering urban temperatures, and restoring biodiversity. Innovative flood management systems enhanced resilience, while the revitalized area attracted businesses, increased property values, and doubled the downtown financial sector's activity.

The Jilin Yanji Low-Carbon Climate-Resilient Healthy City Project, in the People's Republic of China (PRC),<sup>11</sup> provides multiple cross-benefits from an integrated solution provided to improve the urban livability of a medium-sized city limiting out-migration. The first bus rapid transit (BRT) line in the city connected major urban functions and areas following “compact-city” and “transit-oriented development” (TOD) principles. The project improved the bicycle and pedestrian networks, created new small streets and green links and implemented linear green parks. Nature-based solutions (NbS) and green infrastructure was integrated for improved drainage network. A Health impact assessment and healthy and age-friendly city masterplan was developed during implementation. The project will improve health outcomes, environment and healthy lifestyles and safe links to schools and hospitals.

Examples: Cheonggyecheon, Seoul, Republic of Korea; Jilin Yanji, the People's Republic of China.

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<sup>5</sup> UN-Habitat. [Planned City Extensions](#).

<sup>6</sup> J. Clos. 2014. [Addressing climate change through planned city extensions](#). Climate Action.

<sup>7</sup> Shakti Sustainable Energy Foundation. 2022. *Local Area Plan for Transit-Oriented Development Handbook*.

<sup>8</sup> Global Platform for Sustainable Cities. *Transit-Oriented Development Implementation Resources*.

<sup>9</sup> E. Collaton and C. Bartsch. 1996. *Industrial Site Reuse and Urban Redevelopment—An Overview*. Cityscape, Vol. 2, No. 3, pp. 17–61.

<sup>10</sup> U.S. Environmental Protection Agency. 2014. *Enhancing Sustainable Communities with Green Infrastructure*.

<sup>11</sup> ADB. 2019. [Jilin Yanji Low-Carbon Climate-Resilient Healthy City Project](#).

# Annex 2

## Case Studies

### Case Study 1. Waterfront Development: Sabarmati Riverfront Development, Ahmedabad

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Ahmedabad, State Capital of Gujarat | Population: 55,77,940 (Census 2011) |
| Ahmedabad Municipal Corporation     | Area: 11,948 square kilometers      |

#### Context and Background

The Sabarmati Riverfront Development Project in Ahmedabad aimed to transform the neglected riverfront area into a public space that would enhance both the city's infrastructure and social amenities. Historically, Ahmedabad had close ties to the Sabarmati River, which bisected the city and supported various industries and cultural sites. However, rapid industrial growth led to pollution, and informal settlements emerged along the banks, contributing

**Figure 1. Sabarmati Riverfront Development, Ahmedabad**



**Photo credit:** Authors.

to environmental degradation and flood risks. Access to the river was largely restricted to bridges, as private developments occupied the riverfront.

In 1997, the Ahmedabad Municipal Corporation (AMC) established the Sabarmati Riverfront Development Corporation Limited (SRFDCL) to oversee the project. Objectives included improving flood management, relocating informal settlements, creating accessible public spaces, and generating economic resources through the sale of reclaimed land. The initiative also aimed to integrate both sides of Ahmedabad, providing new parks, promenades, and cultural amenities, enhancing the city's identity, and boosting its social and economic vitality.

## Need for the Project

The Sabarmati Riverfront Development Project was needed to address severe pollution, flood risks, and restricted public access along Ahmedabad's riverfront. Rapid industrialization had degraded the river environment, while informal settlements increased flood vulnerability. The project aimed to restore ecological health, improve accessibility, and boost economic and social opportunities for residents.

## Project's Unique Features

The project was envisioned as a multidimensional environmental improvement, social uplifting, and urban rejuvenation project with several key pioneering initiatives.

**Spatial Planning.** Multi-functional, accessible open spaces of various types such as riverfront parks, continuous promenades, and ghats (steps leading to the river) to be connected visually and physically with the river were created.

**Regulatory Innovations.** Innovative institutional setup between the Ahmedabad Municipal Corporation (AMC) and the Sabarmati Riverfront Development Corporation Limited (SRFDCL) established SRFDCL as a special-purpose vehicle. This allowed AMC to retain riverbed landownership, enabling SRFDCL to leverage the land as collateral for project funding, while ensuring that SRFDCL focused solely on development and planning functions.

**Fiscal Planning.** Leveraged land as a key resource by selling portions of the reclaimed land for revenue generation, with prime riverfront plots expected to cover project costs. This land also served as collateral for loans from HUDCO, illustrating strategic land-based financing to enable large-scale public infrastructure investment.

**Inclusion.** Affected informal settlement residents were relocated to new housing sites by leveraging central housing schemes for economically vulnerable populations. This approach ensured both improved living conditions and minimized project relocation costs by using municipally owned land for resettlement.

**Resilience.** Enhanced climate resilience through a continuous public embankment to control seasonal flooding, reducing erosion risks and stabilizing neighborhoods near the riverbanks.

## Project's Outcomes and Impacts

**Economic Gains.** Sale of reclaimed riverfront land generated revenue for the city, attracting new businesses, boosting tourism, and supporting long-term financial sustainability. New revenue models such as user fee and lease revenue from urban spaces established for AMC.

**Quality of Life.** Developed promenades, parks, and cultural spaces increased public accessibility and recreational options, enhancing residents' quality of life.

**Infrastructure Improvements.** Advanced flood management infrastructure, including interceptor sewers, effectively mitigated flooding and improved overall urban resilience.

**Institutional Strengthening.** The unique AMC-SRFDCL partnership model facilitated efficient planning, enabling the project to leverage municipal land as a financial resource and focus on strategic urban revitalization.

### **Learnings**

- i. A diverse board with strong and vocal members enabled balanced decision-making.
- ii. Project positioning as a civic improvement project with no political affiliations
- iii. Collaboration across political parties to ensure continuity through elections.
- iv. Strategic use of external managerial, professional and technical support in early project stages.
- v. Benefit of a well-prepared municipal team with prior successful projects.
- vi. Community engagement and outreach could have been more comprehensive with greater mutual trust building efforts
- vii. Community relocation could have been implemented in a more equitable manner

## Case Study 2. Inclusive, Resilient, and Sustainable Housing for Urban Poor People, Tamil Nadu

|                                                     |                                      |
|-----------------------------------------------------|--------------------------------------|
| Tamil Nadu                                          | Population: 72 million (Census 2011) |
| Tamil Nadu Urban Habitat Development Board (TNUHDB) |                                      |
| Tamil Nadu Shelter Fund (TNSF)                      |                                      |

### Context and Background

The large shortage of housing for economically weaker section (EWS) and the low-income group (LIG) households resulted in limited housing options for urban poor people in Tamil Nadu. Where housing is available, it failed to meet the needs of urban poor people including access to jobs and urban services. Unplanned urbanization and housing deficits have contributed to informal settlements and intensification of slums. Slum areas are exposed to natural hazards with impacts that are exacerbated by climate change, environmental degradation, and health risks. Many housing units built to relocate slum households were not planned with beneficiary input; in addition to being located far from economic opportunities and infrastructure, they also suffered from inadequate operation and maintenance. The result was that limited resources were wasted on units that remain unoccupied. These failures result from a combination of inadequate urban and regional planning and site-specific design failures that did not adequately consider the environmental, social, and economic context.

The ADB and World Bank supported projects aimed for increased and sustainable access to affordable housing.<sup>12</sup>

### Need for the Project

Providing housing for urban poor people is critical to ensure sustainable growth. The affordable housing projects were needed to make inclusive and resilient housing accessible to slum communities at risk of hazards that require relocation, low-income migrant workers, working women, and low-income households headed by women.

### Projects' Unique Features

**Inclusive, Resilient, and Sustainable Housing for Vulnerable Communities:** The housing unit design and site layout adopt improvements to the current housing units constructed by TNUHDB. The design minimized the carbon footprint by prioritizing pedestrian networks over vehicular circulation in layout design; ensuring appropriate orientation of buildings to maximize natural ventilation, sunlight, and enhanced privacy; promoting landscapes that prioritize native vegetation and green spaces; improving visual quality and amenity through convenient access of onsite social infrastructure, such as ration shops and community hall livelihood centers; promoting diversity through design elevations and creation of nodes; incorporating safety by adopting the principles of crime prevention through environmental design; and enhancing the functionality of housing design for occupants by maximizing living areas within space constraints. Supporting policies were put in place before the implementation. The approach allowed successive site level interventions to adopt successful changes from previous ones as well as introduce incremental changes and redesign less-successful elements. The project also introduced maintenance planning and asset management, piloting long-term maintenance contracts and schemes, and involving beneficiaries in operation and

<sup>12</sup> [ADB. 2021. Inclusive, Resilient, and Sustainable Housing for Urban Poor People Sector Project in Tamil Nadu](#); World Bank. 2020. [First Tamil Nadu Housing Sector Strengthening Program Development Policy Loan](#); World Bank. 2020. [Tamil Nadu Housing and Habitat Development Project](#).

maintenance (O&M). Currently about 3,000 such housing units are at an advanced stage of construction at three locations in the State.

**Graduation Program for Urban Poor People.** A graduation program to lift vulnerable relocated households from poverty is under implementation. It is a holistic, time-bound, and carefully sequenced set of interventions to lift households from poverty through (i) social assistance to support immediate needs, such as subsistence and health services during transition in the relocation site; (ii) livelihood promotion through localized market assessment and household-level enterprise and/or employment matching; (iii) financial inclusion through financial literacy and improved access to savings and financial services to promote economic resilience; and (iv) social empowerment by improving social dynamics, including gender relations, in families and communities.

**Affordable Housing for Urban Poor People and Migrant Workers.** ADB and World Bank's financing were deployed as the state government's equity into the Tamil Nadu Shelter Fund (TNSF) which was created as a state level fund to leverage private sector investment and increase the supply of quality assured affordable housing. TNSF provides risk capital, in the form of equity investment or participating instruments investment, to specific special purpose vehicles (SPV) or other entities undertaking affordable housing subprojects. Coverage includes industrial rental housing and working women's hostels (WWHs) for low-income and migrant workers, affordable housing by private real estate developers for the LIG segment. To be eligible for financing, projects must be financially and economically viable affordable housing projects that increase the supply of housing for households within EWS and LIG segments that are currently underserved by the housing market. One such example is the Vidiyal Residency Pvt. Ltd. which has developed 14,000 units of rental housing facilities for female migrant workers in Shoolagiri near Hosur. In another instance, the Tamil Nadu Industrial Housing Pvt Ltd (TNIHPL), an SPV promoted by State Industries Promotion Corporation of Tamil Nadu (SIPCOT) with equity contribution by SIPCOT and TNSF is developing a 800 bedded facility, catering to the housing needs of women workers in the SIPCOT campus. The Tamil Nadu Working Women's Hostel Corporation Pvt Ltd., a 100% state government owned SPV launched the Thozhi brand of hostels and currently runs 10 hostels which provide affordable rental housing facility for about 1,100 women. This model is currently operating as a self-sustainable model and is bridging the affordability gap in the market and providing a solution for short term housing needs for women.

**Regional Planning.** A functional regional plan for the Madurai and Thoothukudi district nodes supporting regional economic development with resource mobilization, and through a development framework, make provisions for affordable housing for migrant workers and working women considering regional disparities, infrastructure development, environmental protection, and disaster risk management.

## Project's Outcomes and Impacts

**Impact:** Affordable, Inclusive, Resilient and Sustainable housing with appropriate housing infrastructures and services provided for urban poor people.

**Outcome:** Increased access to inclusive, safe, and affordable housing infrastructure and services for urban poor people in Tamil Nadu.

## Learnings

- i. There is a need to balance socio-economic priorities while designing affordable housing projects.
- ii. Integrate regional and spatial perspectives in development and economic planning of housing projects.

- iii. Improve delivery processes through design changes that address O&M and beneficiary needs, ensuring social protection, livelihood promotion, financial inclusion, and social empowerment for vulnerable communities.
- iv. Affordable housing demand cannot be solely supplied by government, with enabling financing instruments government's funding can catalyze private sector financing for affordable housing projects and bring estate management expertise.

### **Rental Housing for Working Women**

Vidiyal Residency Pvt Ltd., a special purpose vehicle (SPV) promoted as a 100% subsidiary of Tata Electronics Private Limited (TEPL) is developing 14,000 units of rental housing facilities in Shoolagiri near Hosur in Tamil Nadu for the shop floor women workers of the Tata Electronics manufacturing plant. The well-secured facility is environmentally-friendly with features such as sewage treatment plant, water recycling, rainwater harvesting and use of renewable energy for common services, partially subsidized by the Tata Electronics, and easy to commute to the nearby Tata manufacturing plant. The target beneficiaries are the shop floor women workers (junior technicians and senior technicians) of the Tata manufacturing plant. These women workers are mainly from the economically weaker section and Tata Electronics would be charging ₹800 and ₹1,600 per month from them. The project is financed by the TEPL, Tamil Nadu Industrial Development Corporation Limited, and the Tamil Nadu Shelter Fund (TNSF). The project also obtained grant support from the "Housing for All" Scheme of the Central Government.

In another instance, the Tamil Nadu Industrial Housing Pvt Ltd (TNIHPL), an SPV promoted by State Industries Promotion Corporation of Tamil Nadu (SIPCOT) with equity contribution by SIPCOT and TNSF is developing a 800-bed facility, catering to the housing needs of women workers in the SIPCOT campus. The Tamil Nadu Working Women's Hostel Corporation Pvt Ltd., a 100% state government owned SPV launched the Thozhi brand of hostels and currently runs 10 hostels which provide affordable rental housing facility for about 1,100 women. This model is currently operating as a self-sustainable model and is bridging the affordability gap in the market and providing a solution for short term housing needs for women.

### Case Study 3. Dashashwamedh Street Revitalization and Plaza, Varanasi

|            |                                                              |
|------------|--------------------------------------------------------------|
| Varanasi   | 2,571,256 (estimated population for 2021 in Masterplan 2031) |
| Urban area | 738 square kilometers (VDA area)                             |

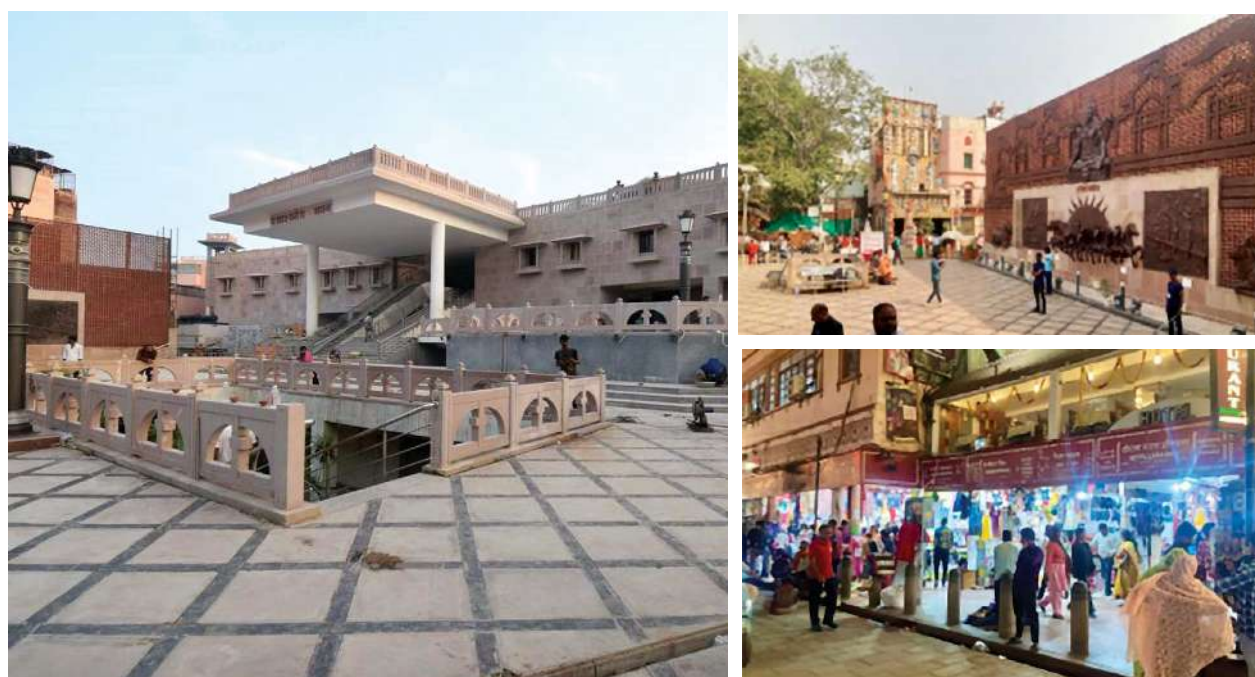
#### Context and Background

The Dashashwamedh Plaza and Street Revitalization project was initiated to address the declining urban environment at a key religious and tourist hub in the city. The project included pedestrianizing the street leading to the iconic Dashashwamedh Ghat, relocating the fish market from Dashashwamedh Bhavan to Ratnakar Market, and transforming the former market building into a commercial complex and public plaza, now known as Dashashwamedh Plaza. The initiative also involved rehabilitating older shops, creating additional commercial spaces for new businesses, and enhancing the street's urban aesthetics through improved shop facades and standardized signage. Serving as a receiving zone for the large crowds visiting the Ghat daily, the plaza also introduces an open public area to an otherwise congested street. Specifically for the development and implementation of the plaza, a Special Purpose Vehicle (SPV) was created between Varanasi Smart City Limited (VSCL) and Varanasi Development Authority (VDA).

#### Need for the Project

The project was envisaged to address significant inefficiencies in pedestrian movement and commercial activities along the stretch from Gowdowlia Chowk to Dashashwamedh Ghat. This busy commercial street leads to Dashashwamedh Ghat – one of Varanasi's most prominent ghats, attracting thousands of tourists and locals daily for the evening Ganga Aarti. Given the high pedestrian footfall, the street was deemed unsafe for walking and was

**Figure 2. (Clockwise) Refurbished Dashashwamedh Bhawan, Dashashwamedh Plaza, Pedestrianized Dashashwamedh Ghat Street**



**Photo credit:** Varanasi Development Authority.

further congested by a vegetable and fish market at Dashashwamedh Bhavan, an incompatible land use that added to the crowding.

### Project's Unique Features:

- **Institutional Framework for Implementation and O&M:** The project is managed through an innovative institutional setup under a Special Purpose Vehicle (SPV) named Dashashwamedh Area Development Foundation (DADF), established under Section 8 of the Companies Act. The SPV has a shareholding structure where 49% is held by the Varanasi Development Authority (VDA), representing land value, and 51% by Varanasi Smart City Ltd. (VSCL), reflecting the project cost. The SPV is responsible for operation and maintenance, funded through revenue generated from leasing/renting shops and restaurants in the food court.
- **Place-making Elements.** The Godowlia-Dashashwamedh street was converted into a pedestrian-only path, featuring heritage street furniture, stone paving, bollards, refurbished facades, and uniform signage under the Government of India scheme of Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD) scheme and VSCL funds. The plaza includes large seating areas, public art, and murals, while the ghats are designed to enhance pedestrian flow and views of the evening Ganga Aarti.
- **Commercial Space Development.** The commercial complex includes 186 shops and restaurants available for long-term lease or rent, generating revenue for DADF's operational expenses. It features 14 food courts, 1 restaurant, a reserved multipurpose area, and 2 open terrace restaurants, spanning a total built-up area of 5,167 square meters.

### Project's Outcomes and Impacts

**Enhanced Pedestrian Management.** The project has improved pedestrian flow and experience by creating refuge spaces and seating areas in the plaza, ensuring efficient use of core city land for better services.

**Revenue Generation.** Since its opening in 2022, the complex has generated approximately ₹110.00 million from shop/unit sales and ₹8.3 million in rent, supporting the operation and maintenance of the complex and plaza.

**Relocation of Existing Shops.** Some existing shops at the site were relocated to affordable rental spaces in the basement, designed with ample light and ventilation.

### Key Learnings

- i. Efficient Urban Land Reorganization was successfully achieved through strategic planning and institutional coordination, showcasing strong leadership.
- ii. Revenue-driven model integrates design principles with revenue-generating elements to ensure sustainable operation and maintenance.
- iii. Navigating a complex multi-stakeholder environment—including shopkeepers, tourists, temple authorities, and Dashashwamedh Bhawan owners—through extensive consultations demonstrates largely successful stakeholder management.
- iv. Areas for Improvement:
  - Deeper consultations with existing vendors, as seen in the Sarnath (UP Pro-Poor Tourism Development Project), could have enhanced inclusivity in a project of this scale.
  - Conducting diagnostic studies on commercial space demand could help boost shop unit sales and improve financial outcomes.

Case Study 4. Bhendi Bazaar

|                                        |                                                                                                        |
|----------------------------------------|--------------------------------------------------------------------------------------------------------|
| Bhendi Bazaar in Mumbai                | Rehabilitating 3,200 families and 1,250 commercial establishments, affecting almost 20,000 individuals |
| Saifee Burhani Upliftment Trust (SBUT) |                                                                                                        |

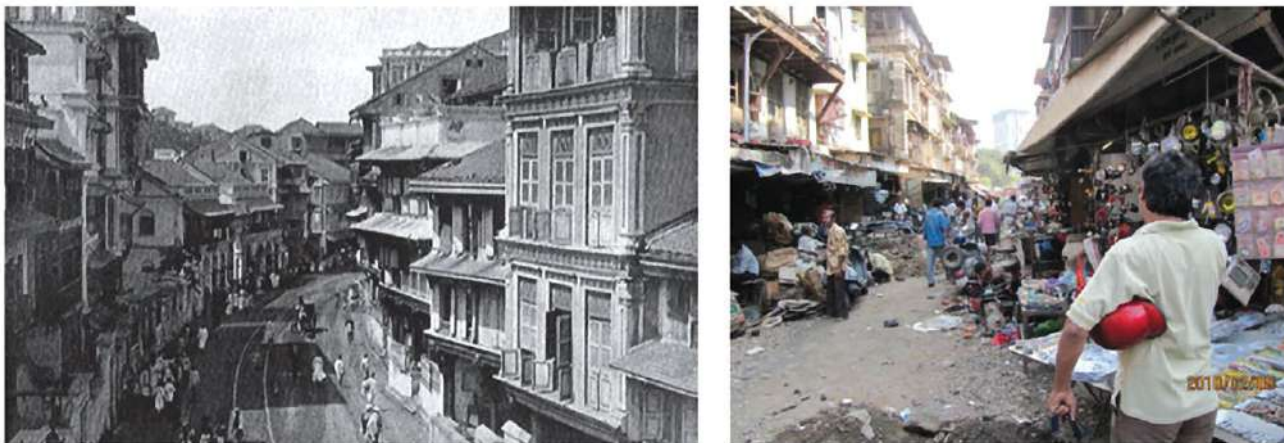
Context and Background

The 150-year-old historic neighborhood of Bhendi Bazaar, located along Muhamad Ali Road in South Mumbai, is known for its specialized bazaars and flea markets (Figure 3). The area is predominantly home to the Dawoodi Bohra community with mosques and mausoleums of Bohra leaders, drawing the religious community to live nearby. Over the years, it became one of the most underdeveloped, congested, and neglected areas in Mumbai. Open spaces disappeared as residents moved in, basic infrastructure and sanitation became obsolete, and the building stock fell into disrepair, with most of it unfit for living. Nearly every monsoon season brought death from the collapse of dilapidated buildings that could not withstand the heavy rains.

Need for the Project

The Bhendi Bazaar Redevelopment project aims to improve the dilapidated housing stock and commercial development in the south of Mumbai, which was around 150 years old. It was dilapidated owing to a complicated historical tenure structure that deterred any attempt at renewal and locked up the land values in prime areas of Mumbai. Bhendi Bazaar is a large redevelopment project that will add significant built space in Mumbai, which is facing a shortage of built space given the growth pressures. The newly redeveloped area is much improved with infrastructure, amenities, and new housing and commerce space.

Figure 3. Bhendi Bazaar, Old and Recent Views



Old view of Bhendi Bazaar area (left). Street scene from Chor Bazaar, the main market area in 2009 (right). Photo credit: Saifee Burhani Upliftment Trust (left) and Leonora Enking (right) from source: S. Ballaney et al. 2024. Rejuvenating the City: Case Studies in Urban Redevelopment and Renewal. ADB Sustainable Development Working Paper Series No. 103. Asian Development Bank

## Project's Unique Features

The Bhendi Bazaar Redevelopment Project was first proposed in 2008 by the 52<sup>nd</sup> Dawoodi Bohra community leader. In the same year, the Saifee Burhani Upliftment Trust (SBUT) was established as a not-for profit specifically to undertake the redevelopment project, with the objective of improving the quality of life for residents and preserving the area's cultural heritage. The visionary project aimed to “provide residential and commercial tenants with an environment that fosters human growth in all aspects—spiritual, intellectual, social and financial.”

The site was home to more than 20,000 people or around 3,250 families and 1,250 commercial enterprises, as well as a concentration of community religious structures, including mosques and tombs, which were to be preserved. The initial intent was to keep the community intact during the redevelopment phases and allow for residents and businesses to occupy space in the new development free of cost for as long as they chose to stay. Planning for the first phase commenced in 2008 and was ready for construction in 2014.

## Project's Outcomes and Impacts

At about 6.68 hectares, the Bhendi Bazaar Redevelopment Project is the largest urban redevelopment project undertaken in India to date (Figure 4). Construction is carried out in phases by each cluster. At present, two clusters

**Figure 4. Bhendi Bazaar Redevelopment Project**



Site boundary before redevelopment (left) and planned new block configuration (right).

Photo credit: Saifee Burhani Upliftment Trust in source: S. Ballaney et al. 2024. Rejuvenating the City: Case Studies in Urban Redevelopment and Renewal. ADB Sustainable Development Working Paper Series No. 103. Asian Development Bank.

have been completed and one is already occupied. Four new clusters will be developed in later phases to be sold by SBUT.

With a redevelopment plan for 16 acres of area, the project is rehabilitating 3,200 families and 1,250 commercial establishments, affecting almost 20,000 individuals. New sewer lines, storm water drains, and ducts for electricity and other utilities are being laid out. Sustainable practices, such as rainwater harvesting, sewerage recycling, and solar panels for lighting common areas have been integrated into the design.<sup>13</sup>

### Learnings

- i. The redevelopment project initiated to transform Bhendi Bazaar into a vibrant residential and commercial space with modern civic amenities and open spaces under the state cluster redevelopment scheme of Development Control Right (DCR).
- ii. Working with various stakeholder backgrounds and ownership tenancies was also complex. SBUT gave all residents and owners options to opt in or out of the redevelopment; those who opted out were compensated.
- iii. SBUT acts as the site developer, contracting the site redevelopment master planning and design to private companies and coordinating with the Mumbai Corporation to obtain statutory clearances.
- iv. The driving force was the planning incentives under Mumbai's Cluster Redevelopment Mechanism, which is defined in the regulations accompanying the Development Plan 2034 of Mumbai. "Cluster development" is based on capturing the land value through incentive FSI to serve the social welfare objective of providing safe, reconstructed dwelling units to the existing low- to moderate-income households.<sup>14</sup>

Source: S. Ballaney et al. 2024. Rejuvenating the City, Case Studies in Urban Redevelopment and Renewal. ADB Sustainable Development Working Paper Series No. 103. Asian Development Bank.

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<sup>13</sup> The existing FAR of the site was already 4 to 5, as the area historically had small studio apartments, with the original residential units ranging from 14 square meters (m<sup>2</sup>) to 186 m<sup>2</sup>; about 30 different unit sizes needed to be accommodated. As per regulations, the minimum unit size is 35 m<sup>2</sup>; the exact size of larger units had to be determined. Commercial units ranged from 9 m<sup>2</sup> to 279 m<sup>2</sup> and as per regulation, a unit of the same size had to be provided.

<sup>14</sup> The regulation provides for the redevelopment of a cluster of buildings of at least 0.4 hectares in Island City and 0.6 hectares in the suburbs and incentivizes larger amalgamations of land through FAR incentives, which get incrementally larger based on the cluster's total area

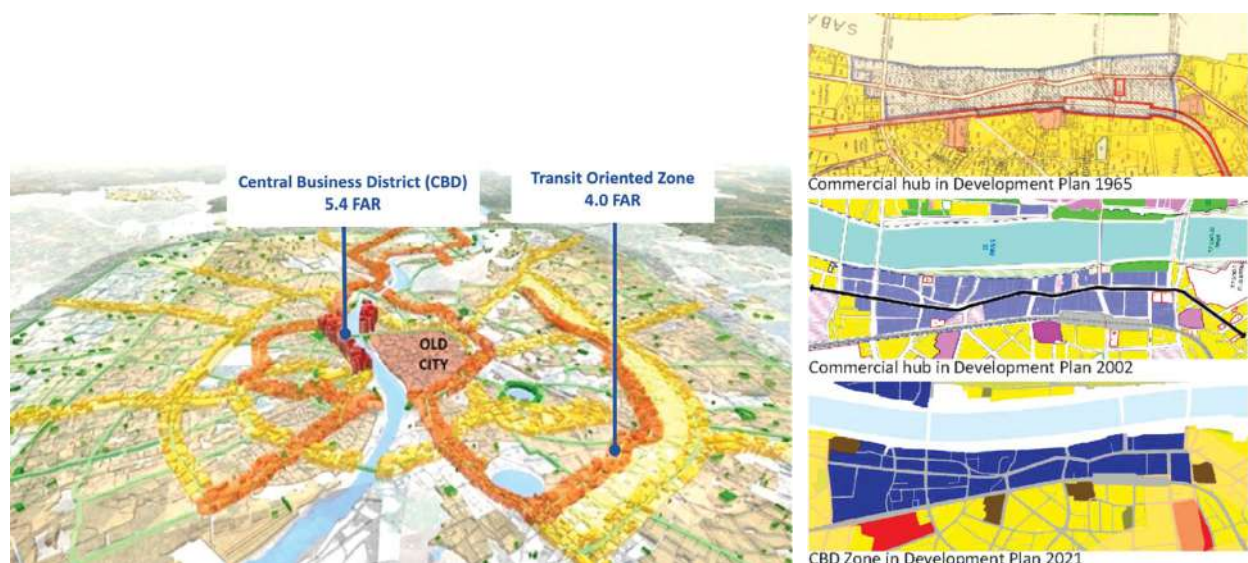
## Case Study 5. Local Area Plan, Ahmedabad

|                                                                             |                                                                                                |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Name of the city:                                                           | Ahmedabad, Gujarat, India                                                                      |
| Population: 55,77,940 (Census 2011)                                         | Density: 11,948 persons per square kilometer (within Ahmedabad Municipal Corporation boundary) |
| Status/function: Largest city of Gujarat; Trade and Industrial hub of India |                                                                                                |

### Context and Background

- Cities get redeveloped as old buildings are torn down and replaced by new ones. In the normal course, redevelopment takes place based on demand for space in locations that become commercially attractive, replacement of dilapidated or unsafe building stock etc. Provisioning of a higher floor space index (FSI)/ floor area ratio (FAR), upcoming large public infrastructure projects such as metro systems, bus systems, riverfront developments, investments in certain activities etc., usually serve as a “trigger” to the redevelopment processes.
- The typical redevelopment process is usually parcel or a group of parcels based. It cannot be predicted and results in patches of high-density developments gradually without an increase in infrastructure of the area or increase in land in the public domain. This eventually leads to a lower quality of life and unsustainable urban growth.
- It is crucial to ensure that this process of redevelopment/renewal is managed well—land is obtained for additional right of ways, there is widening of right of ways so that modern infrastructure can be brought in, transportation systems can function well, and some land is obtained for open spaces and amenities. If left unmanaged or unplanned, the outcomes will be disastrous—areas become dense but without commensurate infrastructure and become vulnerable to disasters and pandemics.
- To address this unsystematic manner of redevelopment an “area-based approach to redevelopment” was conceptualized in around 2013–2014 in Ahmedabad with a local area plan being prepared to ensure planned

**Figure 5. Central Business District in Development Plan of Ahmedabad**



Source: Presentation by HCP Design Planning and Management, Ahmedabad.

densification of its Central Business District (CBD). Simultaneously to enable this, legislative provisions were introduced in the GTPUDA, 1976. Gujarat had a well-functioning planning system in place with the development plan (DP) and town planning scheme (TPS) mechanism. The third tool to deal with orderly redevelopment—local area plan (LAP)—was introduced.

- Since the 1960s, successive Development Plans of Ahmedabad viewed the 1.5 square kilometer area in the city's center, between Nehru Bridge and Usmanpura Village; and the river and the railway line, as Ahmedabad's commercial hub. It was always marked as the central commercial zone but it never emerged as such (Figure 1).

### Need for the CBD LAP

The CDB area delineated in the Development Plan of Ahmedabad since the 1960s was never developed as such and remained a low density and highly congested area. New developments such as the Sabarmati riverfront project, proposed metro line etc began to trigger the redevelopment in the area. Hence the LAP was prepared to enable orderly redevelopment.

### Project's or City's Unique Features

*List innovative spatial planning, fiscal, regulatory, inclusive and resilience approaches/tools that the project employed, and were responsible for its success.*

- Covering of about 1.5 square kilometers of the area comprised of commercial as well as low rise low density residential developments.
- The FSI was raised for the area in the Development Plan to 5.4.
- A very detailed local area plan was prepared for the CBD area which would while giving a spatial framework to the process of redevelopment, greatly improve and expand the public realm by taking into account— plots, buildings, streets, amenities, trees and infrastructure. Block sizes are reduced to make the area more walkable, and the area under streets is increased by proposing the addition of new links and widening of existing streets. New progressive building regulations were drawn up. These regulations allow street widening in sync with redevelopment of existing buildings and allow more efficient use of precious center city land. They will also require developers to provide public arcades, like those in Connaught Place in Delhi, and many other modern build features.
- Developers will have to pay for the additional FSI. This will provide resources for infrastructure development.
- The Revised Draft Development Plan 2021 prepared by Ahmedabad Urban Development Authority (AUDA) also identified high density corridors along the BRTS and Metro Routes—the FSI for an approximate distance of 200 meters on both sides was raised to 4. AUDA also embarked on the task of preparing LAPs along these corridors to ensure better planned densification.

### Project's Outcomes and Impacts

#### Structured and Comprehensive Framework for Redevelopment

The LAP framework takes an “area-based approach” to redevelopment—a wider area is delineated for preparing a LAP instead of a “parcel-based approach” to redevelopment. Most importantly the process is based on the functioning of “land markets”—redevelopment will occur as and when there is demand within a set of rules to ensure

a better building stock and increase the land under public domain. The first key outcome is a street improvement plan which is prepared to include widening existing links (wherever required) and creating new links as the process of redevelopment occurs. The proposed street network plan guides the redevelopment—the plots coming up for redevelopment need to adhere to this plan and there is a certainty of the improvements by the Planning Authority. Secondly as the plan is prepared for the area, the overall FSI increment is factored, and infrastructure improvements are also estimated and implemented by the planning authority. And thirdly some public amenities and public open spaces are carved out in the process, thus taking a comprehensive approach to the development of the area.

This approach has clear advantages with respect to “parcel-based approach” to redevelopment as there are street improvements, infrastructure improvements and amenities added in the process.

### **Compact City Form**

An expected outcome of systematic and planned densification in the CBD and along the transit corridors is the possibility of provision of more than adequate built space that is needed. Such built space is available along transit corridors implying that it is accessible. Mixed use development is permitted making the walk to work or accessibility to work by transit possible. This may reduce the demand for space in the periphery leading to a more compact city.

### **Learnings**

*List project’s risks and how it overcame them, opportunities seized, and implementation and sustainability achieved. List any failures as well as learnings.*

While there is legislation in place, the rules are yet to be published. The tool is new and will take some time to permeate within the system. Some of the issues are:

### **Assembly of Plots Within the New Blocks**

In order to consume the high FSI in most cases amalgamation of plots becomes essential. This assembly is left to the private sector. A nuanced FSI structure as in case of cluster regulations of Mumbai perhaps can be deployed to encourage assembly.

### **Absence of Special Regulations and Urban Design Guidelines**

Currently Gujarat follows uniform bylaws / building regulations for the entire state. In order to create a good urban form envisioned there is a need to shift form-based bylaws which need to be specific to a local area. For example, they would be different for a CBD as compared to say LAP for a heritage area or a LAP around a water body. Further urban design guidelines also need to be created specifically for the context.

## Case Study 6. Town Planning Scheme, Ahmedabad

### Context and Background

Urban planning in Gujarat began in 1915 with the enactment of the Bombay Town Planning Act. At this stage the BTPA only included the tool of TPS introduced to improve portions of the city. The 1915 Act was replaced by the Bombay Town Planning Act, 1954 wherein, in view of the growth of the cities, the tool of “development plan” was introduced. The notion of planning comprehensively for the city was in by now. After India’s independence in 1947, the states of Maharashtra and Gujarat remained as one state—Bombay—till about 1960. Post this Maharashtra enacted its own planning legislation, the Maharashtra Town Planning and Urban Development Act (MRTPA) in 1966 and Gujarat enacted its own planning legislation, the Gujarat Town Planning and Urban Development Act (GTPUDA) in 1976. In both the acts there are provisions to create larger planning areas (regions) around the cities/ towns and development plans are prepared for these. Further town planning schemes provisions were continued.

In the GTPUDA the TPS mechanism was continuously amended in response to the growth of the urban areas. Notable amendments included allocating up to 10% of the area for EWS housing and 15% land as land bank which could be leveraged to finance infrastructure. The process was divided into three major stages to facilitate quicker implementation.

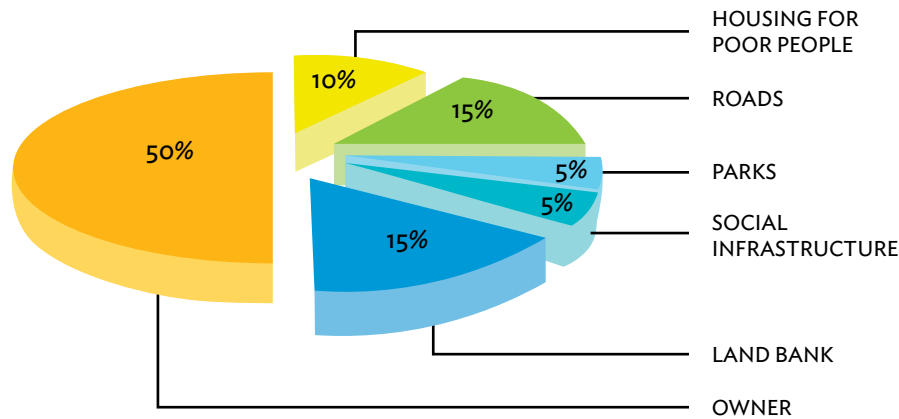
Most large cities of Gujarat have effectively used the TPS tool. In all, about 665 TPS have been undertaken in Gujarat and 900 square kilometers per hectare of land has been transformed (Ballaney, 2013. UN-Habitat Report).

**Figure 6. Construction of Roads After Approval of Draft TPS**



Source: Presentation by HCP Design Planning and Management, Ahmedabad

**Figure 7. Percentage of Land Reallocation in Town Planning Scheme**



Source: Presentation by HCP Design Planning and Management, Ahmedabad.

## Need for the TPS

Cities in Gujarat have used the TPS mechanism for a wide variety of objectives. While the primary objective of the TPS mechanism is to manage peripheral urban growth, they have been used creatively to realize specific objectives—a 60-kilometer long Sardar Patel Ring Road was created, about 150 hectares of land was created for housing educational institutions between Ahmedabad and Gandhinagar, large quantum of housing for poor people was the focus in one of the TPS and an entire historic core city was rebuilt after the earthquake in Bhuj to name a few examples.

## Project's or Mechanism's Unique Features

- It is a fair and an equitable mechanism for development—landowners are not displaced and benefit from the process of city growth. Every owner contributes land in the same proportion and the locational inequities are dealt with the differential betterment charges.
- It is a transparent and participatory in nature—the process has several points of public disclosure and engagement stipulated in the act. In addition, while making the draft plans the authority often consults landowners.
- The mechanism is simultaneously one of planning and implementation. Not only does it allow the Development Authority to plan on paper, but also provides it tools to raise finances, distribute cost, appropriate land and implement its proposals. Moreover, it provides considerable flexibility since costs and benefits can be valued and allocated in the form of land, location, money, or development rights.
- The mechanism is a spatial planning tool that promotes a comprehensive approach. When developing a spatial plan, a planner is forced to simultaneously deal with all the complexities of an urban area—roads, variety land uses, buildings, infrastructure, traffic, rights-of-way, and so on. Thinking in a sector-based engineering fashion in the urban context and not anticipating how one piece of infrastructure is linked with the rest and how all the infrastructure connects with living environments in an area is often the main reason why projects fail.
- The mechanism is relatively inexpensive for planning if one compares it with the other methods of land supply. For example, the cost of acquiring land for a physical and social infrastructure by the planning authority is

reduced to zero because land is appropriated from each landowner as each plot is reconstituted. Other costs, such as for providing the infrastructure and the administrative and technical surveys costs for preparing a town planning scheme can be realized from the increments in the land value that accrue to the landowners due to the implementation of the scheme. The development authority can also be simply a “no-profit-no-loss” facilitator. All that is required is a pool of skilled planners, urban designers, social experts, economists, surveyors, land record experts and engineers with the development authority.

## Project Outcomes and Impacts

### 1. Land for Social Infrastructure, Open Spaces, Streets and EWS Housing Made Available Across the City

Land is made available for social infrastructure, open spaces, streets, EWS housing and a land bank. Land has been available to redevelop slums and accommodate displaced residents in case of large-scale urban projects.

### 2. Planned Expansion and Compact Development

The city has grown in a planned manner and is relatively compact in size as it accommodates a larger population in a smaller area.

## Learnings

While there is the legislation in place, the rules are yet to be published. The tool is new and will take some time to permeate within the system. Some of the issues are:

### 1. Layout Design Needs Improvement, Urban Design Needs to be Introduced

The TPS are being seen as a mechanical exercise of reconstituting land and allotting final plots over original plots. In this process opportunity is lost to creatively use water bodies, provide greens in a more effective way, appropriate public parcels for amenities and land bank in a strategic way and think about street network to create value. Groups of schemes need to work together. Urban design and urban form concepts are yet to be introduced consciously in the design process. An opportunity to create better and livable cities with well design urban form is lost and eventually the areas grow in a lackluster manner.

### 2. Land Records and Data Base Creation

The process of collating land records and getting the Revenue (land) Department to approve the base maps is long drawn. This occurs as the process of coordination between the Urban Department and Revenue Department is weak or non-existent. A lot of time is lost in trying to correct the base map plots to match the ground. Next this map has to be approved by the respective Revenue Departments, which takes more time. The process of approval of the base map which at present is too focused on plot shapes needs to be questioned, as in land readjustment process it is the area that is important. As there is no ban on sales, the TPS documents often need to be updated several times in the entire process. While this cannot be stopped, technology can help save time lost in making changes.

### 3. Insufficient Institutional Capacities and Staffing Issues

There are severe staffing issues at the TPVD and DAs. They are usually understaffed, there is a vacancy rate of about 30% at any given time. The staff is made to handle multiple duties—elections, special campaigns, etc. and are not able to dedicate time to planning tasks. Further a wide range of staff is required to undertake LR/LP schemes viz., urban planners, urban designers, landscape planners, social safeguard specialists etc. Most staff are inadequately qualified engineers, diploma holders etc., who have negligible / low understanding of planning issues.

## Case Study 7. Bengaluru TOD

Bengaluru is India's fourth-largest gross domestic product contributor and is responsible for 11% of the country's foreign direct investment, next only to New Delhi and Mumbai. Approximately, 33% of the city's population is engaged in the secondary sector, with the remaining 67% employed by the service sector. With one of the youngest and most efficient tech workforces among all global start-up hubs and one of the four largest technology clusters worldwide, it has emerged as the IT start-up capital of India. It is also the leading IT exporter of the country, with more than 30% of the national share and is expected to become one of the world's fastest-growing economies between 2019 and 2035.

Rapid urban growth, however, has led to multiple challenges arising from sprawl, ad-hoc development, and the inability of the city to provide for the necessary infrastructure and amenities in a timely manner. Inefficient and inadequate means of mobility for both goods and people, leading to severe congestion, failing infrastructure, environmental damage, and unaffordability are some of the issues Bengaluru and its residents are facing. This has further led to reduced productivity, inhibiting the efficiency of the economy and leading to a much larger crisis of consistently lowering the quality of life.

As a strategic response to the above challenges, the Government of Karnataka (GoK) is currently expanding the metro rail, introducing suburban rail, and upgrading the existing bus transport system, to enable a shift toward more sustainable modes in Bengaluru city. As part of this initiative, the Government of India (GoI) has requested the Asian Development Bank (ADB) support for the construction of new metro lines, Phase-2A and Phase-2B, with a total length of 56 kilometers, including 30 stations and 2 depots. Phase-2A will provide interconnectivity with other metro lines at two junction stations along the Outer Ring Road (ORR) and Phase-2B of the metro will connect the city with the Kempegowda International Airport, Bengaluru.

Through these initiatives, the GoK aims to:

- Create an integrated, safe, reliable, efficient, affordable, inclusive and environment-friendly public transport system that enables a strategic shift toward low carbon modes to meet the mobility needs of the city.
- Empower women and other vulnerable groups, including older people and differently abled through safe, convenient, and equitable access to the benefits of public transport.
- Enhance livability and economic productivity of the city.

In tandem, the GoK has also set out key urban and transport planning priorities for Bengaluru, which include:

- Managing city growth sustainably, catalyzing strategic renewal of the city core, and enhancing competitiveness and inclusiveness of the city through integrated and systemic urban planning.
- Creating a ridership base that improves the economic and financial viability of mass transit investment.
- Using land as a revenue source to finance the long-term investment needs of the city.
- Addressing complex and intertwined economic and technological needs to aid the implementation of sustainable development and mobility. To meet the above-stated aims and priorities, the GoK requested Technical Assistance (TA) support from ADB for the following:
- Preparation of urban development plans and implementation frameworks, based on the Transit Oriented Development (TOD) principles.

- Creation of a framework and administrative provision for seamless integration of different modes of public transport, to provide efficient, accessible, convenient, and safe mobility options for all commuters.
- Strengthening of institutions and building capacities of line agencies and stakeholders at all levels to enable effective planning and designing for, and the implementation and management of, comprehensive urban mobility solutions and TOD-based urban development projects and programs.
- Implementation of a communication strategy and participatory planning initiatives to aid the delivery of TOD and sustainable urban mobility solutions. Additionally, the GoK has designated the Bangalore Metro Rail Corporation Limited (BMRCL) and the Directorate of Urban Land Transport (DULT) as the Implementing Agencies (IA) for the TA.

Source: ADB. 2023. *Strategic Moves: Creating an Enabling Eco-System for the effective implementation of Transit Oriented Development and Multimodal integration in Bengaluru*. Preparatory Activities for the Technical Assistance for Integrated and Sustainable Urban Development Along Mass Rapid Transit Corridors in Bengaluru.

### **Principles for Adopting Differential Zoning Regulations for TOD**

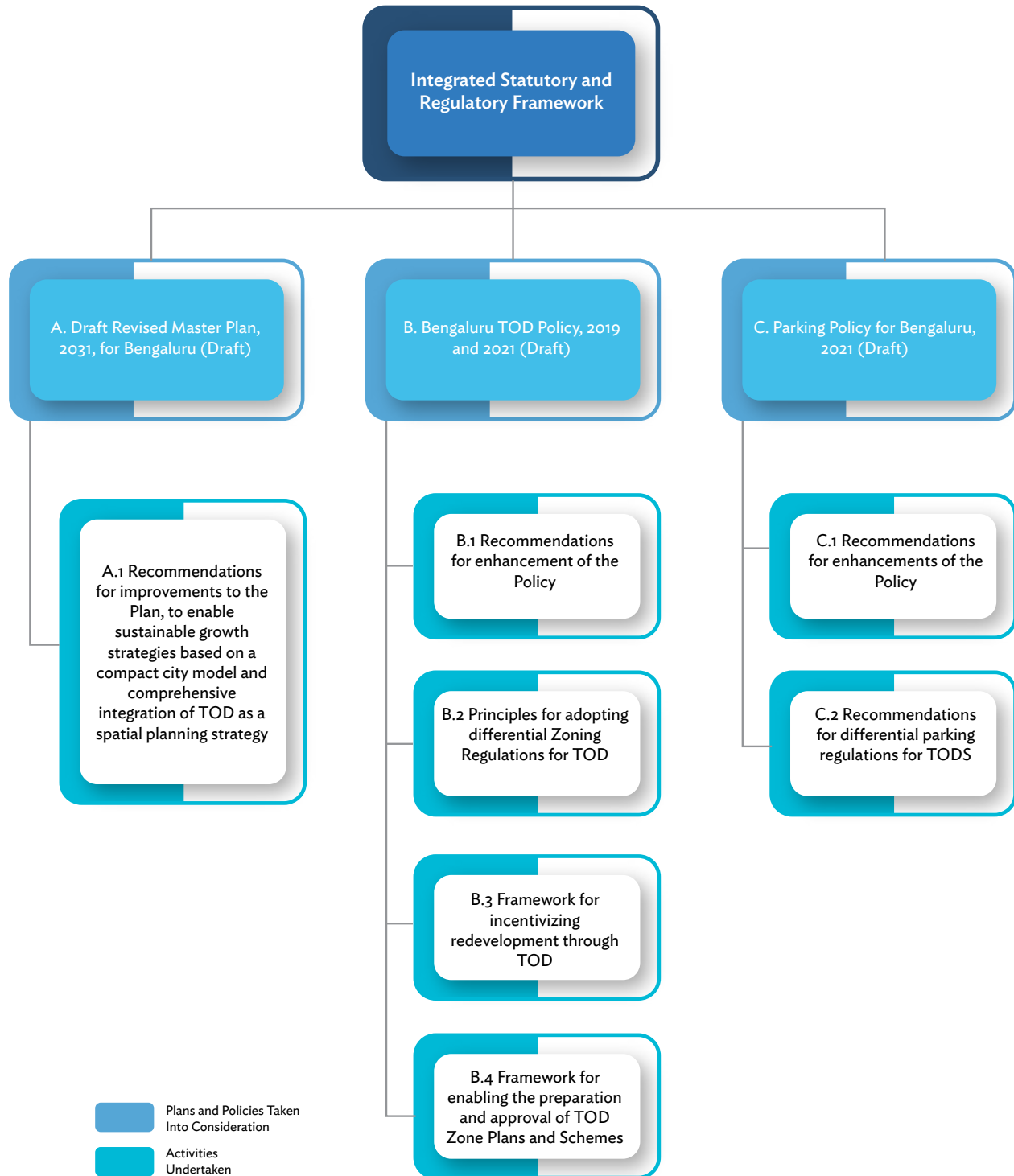
TOD envisages higher-density, mixed use, and mixed income neighborhoods with improved accessibility around mass transit stations, supported by adequate infrastructure and amenities. The implementation of TOD, however, requires differential, enabling building regulations that would:

- Promote high-density development through different building typologies-low-rise, mid-rise, high-rise, and mixed-appropriate for an urban context.
- Promote mixed-use perimeter type urban blocks (where buildings are placed along the perimeter of plots facing public roads) with street-oriented buildings and active frontages that enable passive surveillance of the public realm with direct physical and visual access from the street and ensure on-plot parking provisions do not hamper pedestrian access and activity.
- Ensure fire safety in all buildings.
- Make sure there is access to light and air in habitable spaces.

### **Proposed Framework**

Accordingly, principles for differential regulations were established for developments within TOD Zones. Alignment with city-level provisions of the RMP, particularly with the Proposed Land Use (PLU) was taken into consideration. Additionally, it was important to integrate recommendations of the framework for enabling preparation and approvals of TOD Plans and Schemes, and the framework for incentivizing plot amalgamation, to ensure coordinated and effective planning and delivery of TOD through appropriate provisions across scales, i.e., at the TOD Zone, TOD Scheme and Building levels. The recommendations for differential Zoning Regulations for TOD are included in Table 6.

**Figure 8. Activities Undertaken as part of Creating an Integrated Statutory and Regulatory Framework**



## Case Study 8. Anacostia Waterfront Initiative, Washington, DC, United States

|                                          |                         |
|------------------------------------------|-------------------------|
| Washington, DC, United States            | 6,89,545 (Census 2020)  |
| Capital of the United States             | 4,357 square kilometers |
| District of Columbia, Office of Planning |                         |

### Context and Background

The Anacostia Waterfront Initiative (AWI) emerged as a response to the deteriorated condition of the Anacostia River and the social divide it symbolized in Washington, DC, United States.<sup>15</sup> Flowing through one of the most densely populated sub-watersheds in the Chesapeake Bay, the river had long suffered from pollution and was classified as a toxic hotspot. Much of the land along the river was federally owned and used for industrial and government facilities, which limited public access and neighborhood connectivity. Historically, the area had been marked by economic and racial segregation, with communities east of the river experiencing poverty and limited development compared to the affluent west side of the city.

In the mid-20<sup>th</sup> century, urban renewal projects displaced many local residents, leading to a concentration of public housing and social challenges along the waterfront. The AWI was envisioned by Mayor Anthony Williams as a transformative project to restore the river's environmental quality, create accessible public spaces, and encourage economic revitalization without displacing existing communities. The initiative aimed to bridge the socioeconomic divide, making the Anacostia River a unifying element rather than a boundary.

### Need for the Project

The AWI was launched to address critical social, environmental, and infrastructural issues along the Anacostia River in Washington, DC, United States. Historically, the river had symbolized the city's economic and racial divides, with communities east of the river experiencing high poverty levels, degraded housing, and limited opportunities. Federal landownership along the river's banks limited public access, and previous urban renewal efforts had led to social disruption rather than improvement.

### Project's Unique Features

**Spatial Planning.** The AWI Framework Plan addressed river wide goals while integrating neighborhood-level and target area plans. Six target areas, each with unique redevelopment strategies, aligned with the overarching themes: environmental restoration, transportation, public space enhancement, cultural destination creation, and neighborhood economic development.

**Regulatory Innovations.** The AWI introduced regulatory and legal innovations by empowering the District of Columbia to use its creative financing tools, establishing a district-chartered corporation, Anacostia Waterfront Corporation (AWC) as a semi-autonomous municipal entity facilitating collaborations with federal agencies, enhancing project feasibility and attracting private investment. The National Capital Revitalization Corporation Land Transfer Clarification Act of 2006 also facilitated transfer of 200 acres of federal land to the DC for the waterfront.

**Fiscal Planning.** AWI employed several fiscal tools to secure funding from the federal government through grants (HOPE IV for public housing and urban renewal), bonds to for the infrastructure investments (roads, parks, and sewers), public private partnerships with manifold stakeholders such as the historic preservation groups, the GSA, the DOT, the Navy Department, the NCPC, DC Water, and the AWC (the Yards project). The Capital Riverfront Business Improvement District was also created to fund for the upkeep, beautification and branding of the waterfront.

**Inclusion and resilience.** A key objective of the AWI was to address long-standing social disparities. The area around the Anacostia River had experienced concentrated poverty, deteriorating public housing, and predominantly African-American communities, starkly contrasting with the wealthier, predominantly white neighborhoods in the city's western wards. AWI's vision sought to bridge these divides, enhancing environmental quality while fostering equitable growth and improved living conditions.

### Project's Outcomes and Impacts

**Economic Gains.** Property tax revenue rose by 211%, and Capitol Riverfront added 10 million square feet of residential, office, and retail space.

**Quality of Life.** Population grew by 40%, while significant investment revitalized parks like Yards Park and Marvin Gaye Park, enhancing recreational spaces.

**Infrastructure Improvements.** Completed \$300 million 11<sup>th</sup> Street Bridge project, improved streetscapes, and advanced Anacostia Riverwalk Trail with 10 miles completed and additional segments in design..

**Environmental Improvements.** Reduced sewer overflow by 36%, cut nitrogen and sulfur pollution by 50%, and created five acres of new wetlands.

### Learnings

- i. Bold vision as foundation challenging the status quo and setting a long-term plan to withstand political shifts
- ii. A clear understanding of market position, landownership, and current conditions is essential
- iii. An integrated, adaptable framework that considers physical, social, economic, and environmental factors is paramount
- iv. Imperative for community to “own” the project and be co-partners.
- v. Strong political and municipal leadership to steer the project through various phases; identify anchors and seize opportunities by effective planning and action
- vi. Leverage public and private resources, using public investment to unlock private capital initially, and scaling back as market confidence grows

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<sup>15</sup> Anacostia Waterfront Initiative. [Overview of AWI](#).

Case Study 9. Johannesburg Inner-city Upgrading

|                                    |                                |
|------------------------------------|--------------------------------|
| Johannesburg                       | 6,324,350 (2024) <sup>16</sup> |
| Most populous city in South Africa | 4,357 square kilometers        |
| Johannesburg Development Agency    |                                |

Context and Background

The Johannesburg inner-city revitalization project emerged in response to the severe economic and social decline driven by apartheid-era segregation policies and subsequent urban disinvestment. Established as a mining town in 1886, Johannesburg grew into Africa’s commercial hub. However, spatial segregation under apartheid marginalized black communities and polarized the urban core. By the 1980s, political transition further exacerbated decline, as businesses relocated to suburban areas, reducing the inner-city’s tax base.

Key challenges included rising crime, deteriorating infrastructure, and abandonment of buildings. Initial revitalization efforts were sporadic until the 1990s, when stakeholders proposed integrated strategies, including private sector participation. The 2004 Inner City Regeneration Business Plan synthesized earlier initiatives, focusing on urban management, infrastructure upgrades, and economic development. Subsequent frameworks like iGoli 2030 emphasized long-term growth, leveraging urbanization, and addressing inequalities.

Despite challenges like limited coordination and social displacement, projects fostered economic recovery, increased property investments, and reduced crime through mechanisms such as City Improvement Districts (CIDs) and the Johannesburg Development Agency (JDA). This multifaceted approach highlights the complexity and ambition of urban regeneration in a historically divided city.

Need for the Project

The project was essential to address the severe economic decline, social fragmentation, and infrastructural degradation caused by apartheid-era segregation and subsequent disinvestment. Rising crime, abandoned buildings, and deteriorating public services necessitated a coordinated effort to restore economic vitality, reduce inequalities, and re-establish the inner-city as a thriving urban hub.

Project’s Unique Features

**Spatial Planning.** focused on integrating stakeholder inputs through the 2007 Inner City Summit and Charter, aligning goals across public and private sectors. The plan emphasized infrastructure improvements, public space upgrades, residential development, and the creation of a Spatial Design Framework to guide future urban development. Precinct for Public Art program helped build social cohesion and quality public spaces.

**Regulatory Innovations.** Institutional and administrative measures included establishing the Johannesburg Development Agency (JDA) to coordinate and manage revitalization projects, fostering public-private partnerships, and implementing City Improvement Districts (CIDs) for local urban management. Additionally, the city’s political governance system enabled alignment between municipal, provincial, and national initiatives to ensure cohesive implementation through the Inner City Regeneration Office with dedicated staff.

<sup>16</sup> [World Population Review. World Population Prospects \(2024 Revision\) – United Nations population estimates and projections.](#)

**Fiscal Planning** included introducing Urban Development Zone (UDZ) tax incentives, Area-Based Initiatives (ABI), crime prevention measures, public arts and public space upgrades to stimulate private investment, facilitating CIDs for localized management. Since 2001, for every Rand 1 million (approximately \$63,000) invested by the JDA, private investors have contributed Rand 18 million to the inner-city revitalization. A significant outcome of the JDA's ABI investments was a sharp reduction in property vacancy rates, dropping from 40% in 2003 to 17% by 2008.

**Inclusion and resilience** incorporated inclusivity by engaging diverse stakeholder groups, including residents from various income levels, businesses, and interest groups, through participatory frameworks like the Inner City Summit and Charter, promoting equitable urban development and accommodating mixed-use spaces.

## Project's Outcomes and Impacts

**Economic Gains.** From 2002 to 2007, Johannesburg's inner-city emerged as the leading economic contributor, accounting for 20.5% of the city's gross geographic product (GGP) growth.

**Quality of Life.** Through the efforts of Business against Crime South Africa (BACSA), crime rates fell by 80%.

**Infrastructure Improvements.** The CIDs provided supplementary services and improvements of the urban environment.

**Affordable Housing.** The Trust for Urban Housing Foundation (TUHF), a financial institution dedicated to revitalizing inner-city areas by providing accessible financing to emerging property entrepreneurs was set up. The TUHF financed over Rand 4 billion in inner-city residential rental property, including 22,000 residential units in South African cities from 2003–2015.

## Learnings

- i. Building a consensus driven vision is critical, especially in a socially polarized context.
- ii. Visions should translate into plans with definite outcomes, projects backed by a funding sources.
- iii. The creation of an independent agency played a crucial role in the revitalization of Johannesburg's inner-city.
- iv. International exchange proved vital, as South African officials adapted the concept of City Improvement Districts (CIDs) after studying their effectiveness during visits to the United States and Britain.
- v. Achieving equitable regeneration requires effective strategies to address gentrification and adequate support for displaced residents.
- vi. Urban regeneration efforts in Johannesburg were not fully integrated into the city's planning system, as initiatives like the Integrated Development Plan and the charter lacked the detailed granularity required to function as local plans.

Case Study 10. São Paulo Redevelopment

|                                                       |                                                      |
|-------------------------------------------------------|------------------------------------------------------|
| São Paulo                                             | 22.8o million<br>(São Paulo Metropolitan Area, 2024) |
| <i>Outorga Onerosa do Direito de Construir</i> (OODC) |                                                      |
| Urban Development Fund (FUNDURB)                      |                                                      |

Context and Background

With 22.5 million residents as of 2022, the São Paulo metropolitan area is Brazil’s most populous and the country’s economic and financial center. In the 1930s the urbanized area was concentrated in the heart of the city but rapidly expanded outward in all directions with the pace accelerating from 1960 to the 1990s. The city core densified, but growth in the outer suburbs happened more rapidly. During the expansion of the metropolitan area, much of the growth happened in favelas, or informal settlements created as people-built shelters in marginal areas such as steep hillsides or floodplains. Rapid growth, much of it unplanned favelas, in part led to São Paulo’s heterogeneous spatial structure: the city’s high income inequality is starkly visible as informal settlements appear directly adjacent to modern high-rise office and residential towers as well as expanses of unplanned development in the surrounding suburbs.

Need for the Project

Starting around the mid-1970s, the city government first started to explore Land Value Capture (LVC) policies as a means to enable infrastructure improvements in certain areas with potential for higher urban development based on their existing location and surrounding land-use patterns, as well as restrain informal housing and guide vertical development in a holistic and sustainable manner that would generate economic, urban, and social benefits.<sup>17</sup> “Urban Operations” perimeters (*Operações Urbanas Consorciada*—OUC) are areas within which the municipality wants to attract private development, through density bonuses in exchange for development fees. The development fees paid by private landowners are required to be reinvested within the OUC perimeter for public goods such as transport and road infrastructure and social housing.<sup>18</sup>

Project’s Outcomes and Impacts:

**São Paulo’s air rights mechanisms have successfully incentivized redevelopment and captured land values for reinvestment in public goods.** Starting with legal adoption of the “onerous grant of the right to build” (*Outorga Onerosa do Direito de Construir*—OODC<sup>18</sup>) charges as well as approval of the master plan in 2001, the city not only had a clear regulatory framework for densification but a legal mechanism to earn revenues from it that was earmarked for the public’s interest. Certificates of Additional Construction Potential (*Certificados de Potencial Adicional de Construção*—CEPACs<sup>19</sup>) are another LVC mechanism that are distinct but a derivative of the OODC. These were also nationally enacted through the City Statute in 2001, and then locally regulated.

<sup>17</sup> A. Friendly 2017. [Land Value Capture and Social Benefits: Toronto and São Paulo Compared](#). IMFG Papers 33, University of Toronto, Institute on Municipal Finance and Governance.

<sup>18</sup> L. Stohr. 2020. [The Brazilian Experience of Financialization Through Urban Redevelopment: The Case of “Urban Operations”](#). Metropolitica.

<sup>19</sup> OODC was São Paulo’s first LVC tool and introduced by the Statute of the City, a national law regulating the Brazilian Constitution’s articles on urban policy, and legislated at the local level through the city master plan and regulations.

<sup>16</sup> While the OODC charges are applied across the entire São Paulo metropolitan area, CEPACs are designed to incentivize large-scale redevelopment projects specifically within the defined OUC perimeters that are established in the master plan.

**While uptake of CEPACs was initially modest, since 2004 the mechanism has delivered upward of \$3 billion in revenues.**<sup>20</sup> Within just one Urban Operation area, the Águas Espariada OUC, between 2004 and 2012 revenues totaled \$806 million.<sup>21</sup> Funds were used to construct two cable-stayed bridges connecting both sides of Pinheiros River and six social housing buildings, drainage channels, and open spaces. Overall, CEPAC's have improved the municipality's efficiency and significantly increased the city's revenue per square meter (Footnote 20).

**The revenues from OODC and CEPACs, through being deposited into FUNDURB, have played a pivotal role in creating a source of revenues for land redevelopment and public investments.**

## Learnings

- i. **São Paulo has used land value capture (LVC) concepts to drive a hybrid approach to urban redevelopment since the 1970's.** Private sector developers then have had an instrumental role to play, which the city incentivizes to drive densification, redevelopment of favelas, and finance social goods such as infrastructure improvements and social housing.
- ii. **Ensuring the public benefits from redevelopment has been built into the LVC paradigm,** but this required policies that would create a fundamental shift in mindset that higher land values and additional density belong to the city and should benefit all of society – not just private landowners and developers.
- iii. **The city's land use regulations limited new building supply,** which together with a booming real estate market at the time provided a favourable environment for revenue generation from building rights in the early 2000s.<sup>22</sup>
- iv. **The revenues from OODC and CEPACs, through being deposited into the Urban Development Fund (FUNDURB), have played a pivotal role in creating a source of revenues for land redevelopment and public investments.** The regulation provides for the redevelopment of a cluster of buildings of at least 0.4 hectares in Island City and 0.6 hectares in the suburbs and incentivizes larger amalgamations of land through FAR incentives, which get incrementally larger based on the cluster's total area.<sup>23</sup>
- v. **São Paulo's LVC mechanisms have been adapted to sustain private sector involvement.** While OODC was an effective way for the city to collect revenues from redevelopment, fixing a price with maximum benefit to the city that was attractive to developers was a challenge.<sup>24</sup>
- vi. **While CEPAC's are designed for socially inclusive benefits, in practice ensuring equitable outcomes for low-income households has had mixed results.** First, only 4 of 13 OUCs have been executed, and most development by the private sector has occurred in wealthier areas. Second, displacement of residents in CEPAC areas has been a concern.<sup>25</sup> Due to these shortcomings São Paulo is contemplating ways to better use the CEPACs mechanism in low-income areas and housing developments.

**Source:** S. Ballaney et. al. 2024. Rejuvenating the City: Case Studies in Urban Redevelopment and Renewal. *ADB Sustainable Development Working Paper Series No. 103*. Asian Development Bank.

<sup>20</sup> I. Amigo. 2021. Building Value. *Land Lines*. Quarterly Magazine of the Lincoln Institute of Land Policy. January/April 2021, Volume 33, No. 1 and 2.

<sup>21</sup> P. Sandroni. 2009. A New Financial Instrument of Value Capture in São Paulo: Certificates of Additional Construction Potential. a

<sup>22</sup> The master plan introduced a "basic" Floor Area Ratio (FAR) of 1 for the entire city, which is a free developable right. Landowners wanting to build above the basic FAR up to the maximum allowable FAR (1.0 to 4.0, depending on the area) pay an impact fee which is generated from the value of land developed. This is fundamentally the difference between the residual values of their respective highest and best uses.

<sup>23</sup> This approach ensures that the funds generated from redevelopments are channeled back into the city's infrastructure, fostering sustainable growth and long-term improvements for the benefit of its residents.

<sup>24</sup> The auctioning process of CEPACs on the stock exchange creates opportunities for developers to acquire these rights through a transparent and regulated system as well.

<sup>25</sup> In the case of the Águas Espariada OUC, while 21% of the revenue raised in the area was dedicated to public housing that has directly benefitted low-income households, only 778 social housing units were built and at least 8,000 families were still displaced due to construction—as of 2019 many had returned to the area and were living in substandard conditions.

## Case Study 11. Environment Improvement: Cheonggyecheon Stream Restoration, Seoul

|                                              |                               |
|----------------------------------------------|-------------------------------|
| Seoul                                        | 9,619,861 (2024) <sup>b</sup> |
| Capital, Republic of Korea                   | 15,900 square kilometers      |
| Seoul Metropolitan Government, Elected Mayor |                               |

### Context and Background

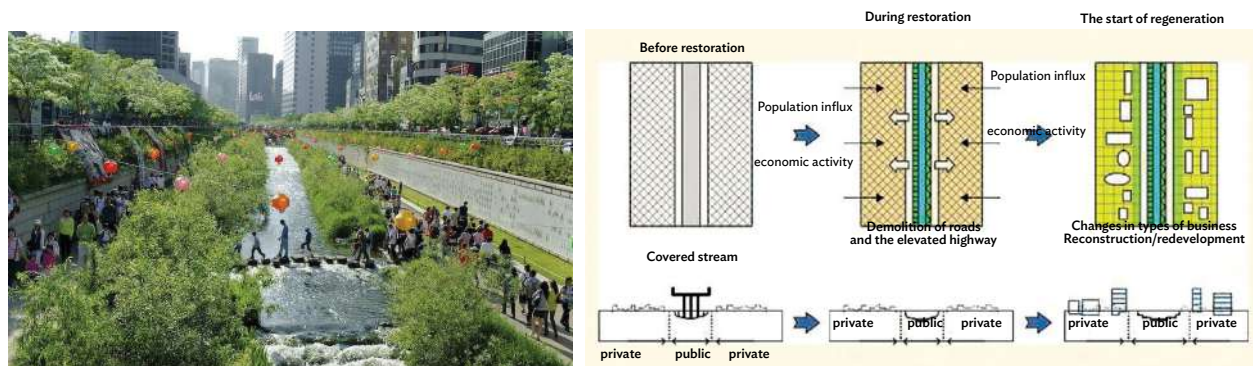
The Cheonggyecheon Restoration Project aimed to address several urban challenges in Seoul. Initially, the Cheonggyecheon stream had been a central feature, but with rapid industrialization, it was covered to support a major elevated 18-lane highway and roadway system. Over time, this infrastructure became unsafe, polluted, and unsightly, highlighting the need for restoration. Additionally, central Seoul had suffered economically and socially, with declining population and economic activity in its downtown neighborhoods. The project sought to revitalize downtown Seoul, restore ecological balance, improve flood management, and enhance civic spaces to create a more vibrant, accessible urban core. This initiative, driven by urban regeneration goals and concerns over aging infrastructure, established Cheonggyecheon as a model for sustainable and people-centered urban planning.

The project faced several challenges including technical issues such as sewage treatment and flood control, as the Cheonggyecheon area was prone to flooding due to its low-lying position and high urban density. Businesses along the stream opposed the project due to potential disruptions during construction, fearing impacts on their revenue. Political debate also surrounded the project, as it became a focal issue in the mayoral election, with opposing views on the feasibility and cost-effectiveness of restoration versus maintaining the highway.

### Need for the Project

The project addressed pressing needs in Seoul's downtown area of aging and hazardous elevated highway which required significant repairs due to structural flaws, economic decline and rising unemployment, which impacted the

**Figure 9. Cheonggyecheon: Public Space and Phases of Development**



Source: WWF. 2012; Amirtahmasebi, Rana; Orloff, Mariana; Wahba, Sameh; Altman, Andrew. 2016. *Regenerating Urban Land: A Practitioner's Guide to Leveraging Private Investment*. Urban Development. World Bank, Washington, DC.

<sup>b</sup> Seoul Metropolitan Government. [City Overview: Population](#).

area's vitality. By restoring the Cheonggyecheon as a central public space, the project aimed to attract investments, stimulate local businesses, and improve urban ecology. It was also expected to mitigate frequent flooding in low-lying areas, enhance public space accessibility, and boost the city's environmental and cultural assets.

## Project's Unique Features

The project was envisioned as a multidimensional environmental improvement, social uplifting, and urban rejuvenation project with several key pioneering initiatives.

**Spatial Planning and engineering design** pioneered innovative spatial planning and engineering through "fit-for-purpose" solutions such as the double-box sewer system, which separated initial polluted rainfall for treatment and managed overflow efficiently. The project also involved advanced flood prevention infrastructure designed to withstand a 200-year flood interval.

**Regulatory Innovations.** The project introduced an innovative triangular implementation setup that included a project headquarters, a research group, and a citizens' committee. This structure combined government officials, experts, and citizens to streamline project execution, gather public input, and promote effective community engagement.

**Fiscal Planning.** The project was positioned as a public initiative, enabling the government to secure budgets and prioritize phases for public infrastructure first, which attracted subsequent private sector funding. This phased approach aimed to enhance urban infrastructure and stimulate further economic investment in the area.

**Inclusion.** The project team held 4,200 meetings with stakeholders, addressing disruptions with alternative parking, shuttle services, and relocation incentives to foster cooperation and reduce opposition.

**Resilience.** Enhanced environmental quality by reducing air pollution, cooling the urban area, restoring ecosystems, and improving flood resilience through innovative water management systems.

## Project's Outcomes and Impacts

**Environmental Improvements.** Reduced air pollution and urban temperatures created 16.3 hectares of biodiversity-supporting public green space, and strengthened flood resilience through innovative water management systems.

**Economic Gains.** Boosted real estate values and attracted new businesses, increasing economic activity around the restored area by doubling the downtown's financial and professional services sector.

**Community Strengthening.** Engaged citizens in sustainable urban planning, raising environmental consciousness through various forums for public involvement, allowing residents to voice concerns, participate in decision-making, and foster a sense of community ownership over the revitalized area.

**Institutional Strengthening.** Triangular implementation setup allowed for consistent, quick and thorough project progress with a fast-track, design-build system to expedite construction, allowing the project to reduce time-cost overruns.

**Political Stewardship.** Consistent commitment to the project goals and fostered public trust through transparency and engagement in the decision-making process.

## Learnings

- i. Visionary Leadership is Essential. A strong and imaginative vision helped overcome practical challenges and opposition, turning a forgotten river into a vibrant public space
- ii. Effective political leadership facilitated partnerships with expert groups and citizens, creating a collaborative project environment
- iii. Linking Long-term Vision with Short-term Action Plans. Translation of an ambitious vision into manageable, phased action plans, maintaining momentum toward broader goals
- iv. Technical Expertise and Interdisciplinary Coordination are Vital. Coordinating across engineering, urban planning, and social domains ensured that technical, environmental, and social goals were met.
- v. Public–Private Partnerships Enhance Project Viability. Strategic easing of height regulations for private properties allowed the city to secure public space and encouraged private sector participation.

## Case Study 12. Land Value Capture, Ahmedabad BRTS

### Proposed LVC Mechanisms

The Ahmedabad BRTS project led to a rise in land and property values in proximity to transit corridors, stops and stations. The proposed mechanisms for capturing land value included the sale of land parcels from Town Planning Schemes (TPS), Public–Private Partnerships (PPP) for public spaces and advertising, leasing/renting/fees for retail spaces, on-street parking, and vending, guidance value property tax with regular updates, impact fees, transfer of development rights (TDR), and sale of premium Floor Area Ratio (FAR) city-wide.

### Use of Revenue from LVC

The revenue generated through LVC mechanisms was utilized for various purposes, such as part-financing transit improvements and operational deficits by AJL through viability gap funding from the Urban Transport Fund. Additionally, the Ahmedabad Municipal Corporation (AMC) and Ahmedabad Urban Development Authority (AUDA) could utilize the revenue to implement Transit-Oriented Development (TOD) plans, enhancing urban mobility and sustainable development in the city.

This comprehensive finance and revenue generation framework for the Ahmedabad BRTS project highlights the collaborative efforts between different levels of government and institutions to ensure the financial sustainability and success of the public transport system in Ahmedabad.

### Enabling Factors

The success of the Ahmedabad BRTS was underpinned by several critical factors. The Gujarat state government's focus on urban infrastructure development provided essential policy and financial backing for the project. The Centre for Environmental Planning and Technology (CEPT) University in Ahmedabad played a pivotal role in providing technical expertise and conducting feasibility studies, ensuring the project's viability. The close alignment of the BRTS project with the city's land use and urban development plans ensured strategic coherence, integrating the public transport system with the overall growth and development strategy of Ahmedabad. Furthermore, the Gujarat Infrastructure Development Board facilitated funding coordination and approvals, fostering collaboration among various stakeholders.

### Outcome and Impact

The Ahmedabad BRTS has yielded significant benefits for the city. With daily ridership exceeding 150,000 passengers, the BRTS has become a preferred mode of transport for many commuters. The efficient service and dedicated lanes have reduced travel times and improved access to various parts of the city, enhancing overall mobility. The BRTS has also catalyzed a shift toward sustainable transportation, contributing to reductions in congestion, pollution, and emissions. The rise in property values and economic activity along the BRTS corridors underscores the system's role in driving urban development and serving as a model for other cities.

## Case Study 13. Leveraging Land Value Capture for Bangalore Metro Development

### Description of the Project

Bengaluru, known as India's Silicon Valley, faces significant urban transportation challenges due to rapid population growth and increasing congestion. To address these issues, the Bangalore Metro Rail Corporation Limited (BMRCL) has undertaken ambitious metro projects aimed at providing efficient and sustainable public transportation solutions for the city. The development of the Bangalore Metro has involved the construction of an extensive rail network, with multiple phases of expansion planned to enhance connectivity and accessibility across the city.

### Institutions

The successful implementation of the Bangalore Metro project and its financing strategies involve the coordination of various institutions at different government levels:

- **Central Level (Government of India):** The Ministry of Housing and Urban Affairs (MoHUA) provides policy support and guidance for the metro project.
- **State Level (Government of Karnataka):** The Bangalore Development Authority (BDA) is responsible for the Revised Master Plan 2031 and Station Accessibility Plans with Development Control Regulations for 14 metro stations. The Directorate of Urban Land Transport (DULT) and the Urban Development Department, GoK, are involved in the planning and coordination of the Bangalore Metro project.
- **Local Level (GOI and GOK Partnership):** The Bangalore Metro Rail Corporation Limited (BMRCL) is the primary agency responsible for the planning, implementation, and operation of the Bangalore Metro system.

These institutions, along with supportive policies and regulations at the state and local levels, have created an enabling environment for the successful implementation and financing of the Bangalore Metro project.

### Finance and Revenue Generation

In terms of transit funding and financing for the Bangalore Metro project, a combination of sources is proposed. Equal equity contributions from both the Government of India (GoI) and the Government of Karnataka (GoK) ensure a balanced financial commitment to the project. Furthermore, domestic, and foreign bank loans, along with the issuance of metro bonds, serve as additional avenues to raise capital for the development and expansion of the metro network.

### Proposed LVC Mechanisms

Building metro stations led to real estate development and value creation in the vicinity of the metro corridor. To ensure the financial sustainability of the Bangalore Metro, the BMRCL has explored innovative land value capture (LVC) mechanisms. These include:

- **Additional Cess and Surcharge.** Under Section 18A of the Karnataka Town and Country Planning Act, a cess and surcharge of 5% on the market value of land or buildings in future developments will be imposed. The revenue generated will be credited to the Metro Infrastructure Fund and shared among the BMRCL, Bangalore Water Supply and Sewerage Board (BWSSB), and Bangalore Development Authority (BDA).

- **Cess on Additional FAR.** A cess of 10% for residential buildings and 20% for commercial buildings will be levied on the additional Floor Area Ratio (FAR) granted for the Bangalore Metro project. The revenue will be shared among the BMRCL, Bruhat Bengaluru Mahanagara Palike (BBMP), BWSSB, and BDA.
- **Impact Fees.** The BMRCL will also charge impact fees on the additional FAR granted for the metro project.
- **Transfer of Development Rights (TDRs).** The BMRCL will issue TDRs as compensation for the acquisition of land for the metro project, providing an alternative mechanism for land acquisition.

## Enabling Conditions

At the state level, the Government of Karnataka has played a crucial role in enabling the implementation of land value capture (LVC) mechanisms for the Bangalore Metro. The state government introduced legislative provisions, such as Section 18A of the Karnataka Town and Country Planning Act, which allowed for the imposition of a cess and surcharge on new developments to generate revenue for the metro infrastructure fund. This policy support from the state government provided the necessary legal and financial framework to leverage LVC for the metro project.

The Bangalore Metro Rail Corporation (BMRCL), as the implementing agency, has been proactive in exploring and adopting innovative financing techniques beyond traditional government funding and loans. The BMRCL has utilized strategies like metro bonds, rupee-denominated foreign loans, and various LVC methods, such as increased development charges and transfer of development rights, to mobilize resources for the metro's capital and operational expenses.

Additionally, research institutions like the World Resources Institute (WRI) India and the PEAK Urban program have provided valuable insights and recommendations through their studies on leveraging LVC and transit-oriented development (TOD) to support the Bangalore Metro project. Their research has informed the planning and implementation of the LVC strategies adopted by the state government and the BMRCL.

The coordination and collaboration among different government agencies, including the Bangalore Development Authority, Bangalore Water Supply and Sewerage Board, and the Urban Development Department of the Government of Karnataka, have also been crucial in ensuring the effective implementation and revenue sharing of the LVC mechanisms for the Bangalore Metro.

These enabling conditions, comprising supportive state-level policies, innovative financing strategies by the implementing agency, and the contributions of research institutions, have collectively facilitated the leveraging of land value capture to fund and sustain the development of the Bangalore Metro system.

## Outcome and Impact

The Bangalore Metro project, leveraging innovative land value capture mechanisms, has the potential to significantly improve urban mobility and drive economic development in the city. The steady stream of revenue generated through the proposed LVC strategies will ensure the financial sustainability of the metro system, enabling the BMRCL to expand the network, enhance service quality, and provide efficient and reliable public transportation for Bangalore's residents. Additionally, the integration of the metro with transit-oriented development and improved accessibility to public transport is expected to catalyze urban regeneration and foster sustainable growth in the city.

## Case Study 14. Leveraging Land Value Capture for Hyderabad Outer Ring Road (ORR) Project

### Description of the Project

The Hyderabad Outer Ring Road (ORR) is a transformative 158-kilometer, eight-lane expressway encircling Hyderabad, aimed at enhancing connectivity and urban development. It connects over 30 radial roads, reducing traffic congestion and pollution in the city center. The Growth Corridor around the ORR integrates land use and transport planning, fostering mixed land use and planned satellite townships. The Hyderabad Metropolitan Development Authority (HMDA) prepared Comprehensive Plans and Special Development Regulations for this corridor, envisioning well-planned urban settlements and satellite townships.

### Institutions Involved and Their Functions

Key stakeholders include the Hyderabad State Government, banks, Hyderabad Urban Development Authority (HUDA), local authorities, private developers, and individuals. Hyderabad Growth Corridor Limited (HGCL), a Special Purpose Vehicle (SPV) established through Public-Private Partnership (PPP), executed the ORR construction. HMDA oversees urban development, while local authorities manage real estate development and collection of development charges. Research institutions and academics provide insights and expertise to strengthen institutional capabilities and legislation.

### Finance and Revenue Generation

Funding for the ORR project came from various sources, including loans from commercial banks, PPP financing, and development charges. The project's total cost was evaluated to be ₹66.96 billion (around 8.4 billion USD), with the first phase financed through loans from a consortium of commercial banks led by the Bank of Baroda. PPP financing supported the second phase. Revenue was generated through Special Development Charges (SDCs) and Development Deferment Charges (DDCs) imposed on real estate development around the ORR.

### Proposed LVC Mechanisms

LVC mechanisms utilized included:

1. Special Development Charges (SDCs). Charged up to 1.5 times the regular fee for building permissions based on proximity to the ORR. These charges were managed by the city government and directed toward public infrastructure requirements.
2. Development Deferment Charges (DDCs). Levied on landowners who keep lots vacant, encouraging development and contributing to infrastructure funding.
3. Betterment Levy. Aspirational in nature, aiming to bring revenue for the city and promote equitable development.

### Use of Revenue from LVC

Revenues from SDCs and DDCs from 2011 to 2015 were lumped under HMDA's development charges revenues. In 2016, SDC receipts were 3–4% of total development charges and contributed 1.5% to net revenues of HMDA. However, detailed data on revenue outflows and allocations were lacking, highlighting the need for improved transparency and accountability in revenue management.

**Enabling Factors.** Institutions such as HMDA and HGCL, along with supportive policies and research institutions, facilitated the implementation of LVC mechanisms. Researchers and academics provided valuable insights, strengthening institutional capabilities and legislation for successful LVC implementation. Collaborative efforts among government agencies and stakeholders were essential for the effective execution of LVC strategies.

### Outcome and Impact

The ORR project has had a significant impact on Hyderabad's urban development, enhancing connectivity, reducing congestion, and spurring economic growth. While the Betterment Levy remains aspirational, the project serves as a starting point for strengthening institutional capabilities and fostering equitable development.

## Case Study 15. Leveraging Land Value Capture for Delhi Metro Development

### Description of the Project

The Delhi Metro project is a collaborative effort between the Central Government, the Government of the National Capital Territory of Delhi (GNCTD), and the Delhi Development Authority (DDA). The Ministry of Housing and Urban Affairs (MoHUA) plays a key role in planning and transit agencies, while the GNCTD's responsibility was implementing the Delhi TOD Policy and Master Plan of Delhi 2021. The DMRC is the implementing agency for the Delhi Metro project, working closely with the DDA and other stakeholders to ensure the successful execution of the project.

### Institutions

The Delhi Metro project is a collaborative effort between the Central Government, the Government of the National Capital Territory of Delhi (GNCTD), and the Delhi Development Authority (DDA). The Ministry of Housing and Urban Affairs (MoHUA) plays a key role in planning and transit agencies, while the GNCTD's responsibility was implementing the Delhi TOD Policy and Master Plan of Delhi – 2021. The DMRC is the implementing agency for the Delhi Metro project, working closely with the DDA and other stakeholders to ensure the successful execution of the project.

### Finance and Revenue Generation

The Delhi Metro project has been financed through a combination of equity, debt, and grants. The project has received equal equity from the Government of India (GoI) and the GNCTD, with land and central taxes contributing to the project's revenue. The DMRC has also accessed interest-free subordinate debt for land cost and has received a soft loan from the Japan International Cooperation Agency. A dedicated Urban Transport Fund has been proposed for Phase 3 of the project, which will provide additional financing for the project.

### Proposed LVC Mechanisms

The DMRC has proposed several LVC mechanisms to generate revenue for the Delhi Metro project. These include the sale of property development rights, such as advertising and station retail licenses, concession agreements, and long-term leases for the development of depot, standalone, and government-allotted sites. The DMRC has also proposed the sale of premium FAR and external development charges to generate additional revenue for the project.

### Use of Revenue from LVC

The revenue generated from the LVC mechanisms will be used toward transit capital costs and operations. The DMRC will utilize the revenue to fund the development and maintenance of the Delhi Metro system, ensuring that the project remains financially sustainable and efficient.

### Enabling Conditions

The Delhi Metro project has been enabled by a range of policies and regulations, including the Delhi TOD Policy

and Master Plan of Delhi 2021. The Draft TOD regulations have been developed to provide a framework for the implementation of TOD principles in Delhi. The DMRC has worked closely with the DDA and other stakeholders to ensure that the project is aligned with the city's urban development plans and policies.

### Outcome and Impact

The Delhi Metro project has had a significant impact on the city's urban landscape, providing efficient and reliable public transport system.

## Case Study 16. Land and Asset Management Practices – a comparative case of Australia and Singapore

### Background

Effective land and property management is a cornerstone of sustainable economic and social development. Governments across the world adopt diverse frameworks and policies to optimize the use of public assets, ensure accountability, and align property management with national priorities. This document explores case studies from Australia and Singapore, highlighting their approaches to public land and asset management. Australia's Commonwealth Property Management Framework emphasizes transparency, efficiency, and value for money, supported by centralized data systems and collaborative agency involvement. Similarly, Singapore's Singapore Land Authority (SLA) adopts a comprehensive strategy combining policy-driven acquisitions, leasing, rentals, and digital tools to optimize land use, support public programs, and align with the city-state's economic and urban planning objectives. These case studies provide valuable insights into how strategic asset management can drive economic growth, safeguard public interests, and ensure long-term sustainability.

### 1) The Australia Example

In Australia, the Department of Finance oversees the management of Commonwealth-owned properties, including acquisition, maintenance, usage, and disposal. Its objective is to ensure efficient, cost-effective management in the public interest. Guided by the Commonwealth Property Management Framework, the department focuses on optimizing property value, addressing risks, mitigating conflicts of interest, and ensuring transparency. While the Department of Finance leads implementation, other government agencies contribute by managing their portfolios in alignment with the framework's principles and policies. This collaborative approach ensures accountability and maximizes the performance of the government's property assets.

#### A. Portfolio Management

The Commonwealth Property Management Framework guides property management in Australia to ensure value for money through effective planning, transparency, risk management, and compliance with legislation. It applies to domestic and overseas properties. The framework distinguishes between required practices ("must") and best practices ("should"). Acquisitions are undertaken for public purposes, preferably by agreement to ensure fair value, but compulsory acquisition is also permitted with just compensation. Leasing decisions prioritize existing Commonwealth spaces, and a Whole-of-Australian-Government strategy optimizes efficiency. The Australian Government Property Register (AGPR) aids in identifying vacant properties and supports data-driven decision-making.

#### A.1 Acquisition

Land acquisitions in Australia must serve a public purpose under the Land Acquisition Act (LAA) 1989.

##### A.1.1 Acquisition by Agreement

The Commonwealth prefers acquisitions by mutual agreement to ensure value for money. Agreements involve negotiation between the landholder and the acquiring authority, with both parties deciding on fair compensation.

### **A.1.2 Compulsory Acquisition**

If mutual agreement fails, compulsory acquisition is used, ensuring landholders receive compensation on just terms under the Constitution. The Finance Minister authorizes acquisitions, while the acquiring authority and Department of Finance collaboratively manage the process, ensuring transparency and ethical practices.

### **A.2 Lease Management**

Non-corporate Commonwealth entities (NCEs) aim to minimize surplus office space by prioritizing existing Commonwealth properties for leasing. They may reassign leases or sub-lease properties through agreements. The Australian Government Property Register (AGPR) aids in identifying vacant spaces.

### **Property Services Coordinated Procurement (PSCP) Arrangements**

Introduced in 2016–2017, these arrangements optimize leasing and facilities management services, ensuring transparency and value for money. It includes:

- Strategic Property Adviser (SPA). Develops a Whole-of-Australian-Government Leasing Strategy.
- Property Service Providers (PSPs). Delivers leasing and facilities management services. These practices consolidate government purchasing power and standardize property management for efficiency.

## **B. Asset Management**

### **B.1 Management of Surplus Properties**

The Public Governance, Performance, and Accountability (PGPA) Act mandates efficient use of government properties. Surplus properties are disposed of at market value unless an alternative government use is identified through the Clearing House Mechanism. Divestments can occur via open-market sales or off-market sales under specific conditions.

### **B.2 Asset Management Systems**

The Australian Government Property Register (AGPR) tracks leased office spaces and owned land, enabling evidence-based policymaking and alignment with government needs. Data is updated through annual collections and divestment notifications, supporting efficient portfolio management.

### **B.3 Property Valuation**

Valuer-General Victoria (VGV) oversees property valuations for acquisitions, financial reporting, and sensitive transactions. VGV ensures fair compensation for compulsory acquisitions and provides guidelines for valuation best practices under the Valuation of Land Act 1960.

## **2) The Singapore Example**

The Singapore Land Authority (SLA), a statutory board under the Ministry of Law, manages state land and buildings, land sales, leases, acquisitions, and land title registration. It optimizes land use by maintaining a national land information database, marketing state properties, and developing geospatial infrastructure for economic and social benefits. SLA oversees property transactions and the national land survey system while promoting customer-

centric service through its Service Charter, “LISTENS,” emphasizing relationships, innovation, trust, and nation-first principles. The charter ensures professional service, empathetic engagement, and proactive solutions, aligning with SLA’s mission to safeguard and optimize Singapore’s limited land resources.

## A. Portfolio Management

### A.1 Acquisition

The Singapore Land Authority (SLA) oversees land acquisition under the Land Acquisition Act for public purposes like infrastructure and economic development. Only compulsory acquisition is allowed, and compensation is based on market value as of the notification or declaration date. Acquisitions aim to meet public utility and economic needs.

### A.2 Lease of State Land and Property

SLA leases state land and properties via an online portal, adhering to public seal requirements. Lease rates are predetermined and published, but limited data is available on rate-setting or lease management practices.

### A.3 Rental of State Land and Property

SLA rents out properties such as former schools and community centers through open tenders. Tenures vary, including temporary occupation licenses (TOLs) for short terms. Tender evaluations consider price, proposed use, and bidder qualifications.

### A.4 Disposal of State Land and Property

SLA facilitates state land sales for residential, commercial, and industrial purposes. Sales are conducted transparently through public tenders. Remnant land parcels are sold directly or through closed tenders to optimize land use and value.

## B. Asset Management

### B.1 Asset Management Systems

SLA employs several digital tools for land and property management:

- i. [Integrated Land Information Service](#) (INLIS): A portal for property ownership, survey plans, and road or utilities data.
- ii. [State Property Information Online](#) (SPIO): Provides information on vacant state properties and tender statuses.
- iii. [Singapore Satellite Positioning Reference Network](#) (SiReNT): A GNSS-based system for real-time high-precision positioning and navigation.
- iv. [Digitized Land Information](#): Offers licenses for geo-data like street directories and road networks for business solutions.
- v. [OneMap](#): A national map offering detailed geospatial data for various purposes like demographics and landownership.

## Lessons Learned

### Australia

- i. Compulsory Acquisition: Priced at market value with legal recourse for disputes.
- ii. Surplus Property Management: Efficient systems and open-market disposal mechanisms in place.
- iii. Valuation: Robust mechanisms, in-house or outsourced, for acquisitions, disposals, and leasing.
- iv. Pricing: Government land/buildings provided at market value, not free of charge.
- v. Lease Management: Comprehensive policies covering the full lease cycle.
- vi. Property Management Framework: Defined roles and responsibilities for lifecycle management.
- vii. Efficiency: Systems ensure timely reporting and decision-making.

### Singapore

- i. Compulsory Acquisition: Priced at market value with legal recourse for property owners to dispute compensation.
- ii. Surplus Property Management: Efficient systems monitor and identify surplus properties, with mechanisms for open-market disposal.
- iii. Valuation: Robust mechanisms through outsourced specialist valuers for acquisitions, disposals, and leasing.
- iv. Pricing: Land/buildings for official use are priced at market value, not provided for free.

The following table captures the various highlights of the land and building management practices in Australia and Singapore.

| Public Land and Building Management Attributes                                  | Australia | Singapore |
|---------------------------------------------------------------------------------|-----------|-----------|
| <b>Public properties portfolio management</b>                                   |           |           |
| Provision for compulsory acquisition                                            | Yes       | Yes       |
| Compulsory acquisition based on market value                                    | Yes       | Yes       |
| Right to contest the offered compensation in court (for compulsory acquisition) | Yes       | Yes       |
| Land can be acquired through private negotiation                                | Yes       | No        |
| Properties are disposed off in open market                                      | Yes       | Yes       |
| Internal transfer to the government departments on market value                 | Yes       | Yes       |
| Properties leased out to external entities                                      | Yes       | Yes       |
| Long term strategy for public land and building assets management               | No        | No        |
| <b>Asset management</b>                                                         |           |           |
| Properties are evaluated by expert valuers                                      | Yes       | Expected  |
| Surplus assets are assessed and identified                                      | Yes       | Yes       |
| System in place for assessing and identification of surplus assets              | Yes       | Yes       |
| Electronic and updated record management practices                              | Yes       | Yes       |

Case Study 17. Croydon Urban Regeneration Vehicle (CURV)<sup>26</sup>

|                   |                                       |
|-------------------|---------------------------------------|
| City:             | Croydon                               |
| District/State:   | London Borough, United Kingdom        |
| Population:       | Approximately 380,000 (2024 estimate) |
| Area:             | 87 square kilometers                  |
| Urban Local Body: | London Borough of Croydon Council     |

The Croydon Urban Regeneration Vehicle (CURV) demonstrates the effective use of Public–Private Partnership (PPP) financing to drive urban redevelopment. This 50:50 joint venture between Croydon Council (the ULB) and John Laing (a leading infrastructure developer) leveraged public land and private equity to deliver significant regeneration projects. Developments such as the Bernard Weatherill House (modern administrative headquarters) and Taberner House (mixed-use housing including 40% affordable units and commercial hub) exemplify CURV’s capacity to generate revenue, recover investments, and support further urban improvements. The initiative highlights the potential of PPPs in revitalizing urban areas while balancing economic and social goals.

Context and Background

The Croydon Urban Regeneration Vehicle (CURV) is a Public–Private Partnership (PPP) initiative established by the London Borough of Croydon in the United Kingdom. The project aimed to address significant urban decline in the borough, marked by economic stagnation, aging infrastructure, and a lack of investment in public facilities. CURV was formed to regenerate various key sites in Croydon, focusing on delivering economic growth, enhancing public spaces, and improving local facilities. This partnership represents an innovative approach to leveraging private sector expertise and investment to deliver public sector regeneration goals.

Need for the Project

Croydon faced challenges such as deteriorating urban infrastructure, declining economic activity, and inadequate public facilities. These issues necessitated a large-scale regeneration effort to revitalize the borough’s economic and social fabric. CURV was envisioned to tackle these challenges through the redevelopment of public assets and the creation of new opportunities for businesses and residents, fostering long-term economic growth and community benefits.

Project’s Unique Features

- 1. **Joint Venture Structure.** CURV was established as a limited liability joint venture, owned equally (50:50) by the London Borough of Croydon and John Laing, a private sector infrastructure development company. The Council contributed land and property assets for its stake, while the private partner provided equity funds and development expertise. Both partners have equal voting rights, ensuring balanced decision-making.

<sup>26</sup> World Bank. (n.d.). Croydon Council Urban Regeneration Vehicle, London Borough of Croydon, United Kingdom. Public–Private Partnership in Infrastructure Resource Center. Retrieved January 10, 2025, from [https://ppp.worldbank.org/public-private-partnership/index.php/subnational-and-municipal/croydon-council-urban-regeneration-vehicle-london-borough-croydon-united-kingdom].

2. **Asset-Based Financing.** The joint venture leveraged public land and property assets to attract private investment. Revenues generated from urban redevelopment projects were used to pay any outstanding land value, senior debt, and recover equity contributions. Profits from these redevelopment works and other profitable assets acquired by the joint venture were shared equally between the partners.
3. **Operational Model.** The joint venture functions as a commercial land developer, revitalizing properties to generate sufficient income for sustainable investments. While public buildings remain under the Council's ownership, private developments are sold by the joint venture. This ensures both economic and social benefits from the redeveloped assets.
4. **Development Expertise.** The private partner's role extended to leveraging mixed-use development opportunities within the project area. This included identifying and executing profitable redevelopment initiatives to maximize returns.
5. **Right of First Refusal.** The joint venture has the right of first refusal for all surplus properties the Croydon Council decides to sell. It is also empowered to purchase additional properties and secure debt financing for its works, providing operational flexibility.
6. **Project Portfolio.** CURV's focus included multiple sites such as:
  - o Residential developments to address housing needs.
  - o Commercial spaces to attract businesses and stimulate economic activity.
  - o Community facilities, including schools and leisure centers, to enhance quality of life for residents.
7. **Sustainability Goals.** The partnership emphasized sustainable design and construction, ensuring long-term environmental benefits and resilience.

## Project Outcomes and Impacts<sup>27</sup>

- **Economic Growth.** CURV attracted significant private sector investment, fostering economic activity and creating jobs in Croydon.
- **Enhanced Public Facilities.** The redevelopment included landmark projects such as the Bernard Weatherill House (BWH), Croydon Council's new administrative headquarters. The BWH provides modern administrative facilities, including a dedicated conference center, health suite, staff canteen, meeting rooms, and external amenity spaces. Similarly, the Waddon Leisure and Housing Scheme delivered a new leisure center with a swimming pool, sports hall, gym, and community space alongside 119 affordable housing units.
- **Housing Delivery.** The project delivered mixed-use developments, including the redevelopment of Taberner House, which is set to provide 513 homes, 40% of which will be affordable units. The development includes retail and office spaces, a pavilion café, public spaces, and a children's play area.

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<sup>27</sup> There are missing information for this case study such as specific details on project timelines and budgets; quantitative data on economic and social impacts, such as job creation numbers or housing units delivered; and insights into post-implementation monitoring and evaluation mechanisms.

## Key Challenges

1. Ensuring sufficient private sector investment required careful financial structuring and risk-sharing mechanisms.
2. Balancing the interests of the public and private sectors, as well as the community, presented significant challenges.
3. Navigating planning permissions and regulatory approvals added complexity to project implementation.

## Lessons Learned

1. The 50:50 ownership model demonstrated the importance of shared objectives and risk alignment in successful PPPs.
2. Utilizing public land as an asset base proved critical in attracting private investment without overburdening public finances.
3. Engaging the community early and throughout the project lifecycle ensured local buy-in and minimized opposition.

The Croydon Urban Regeneration Vehicle initiative illustrates the potential of PPPs to drive urban regeneration by aligning public and private sector strengths. While it faced challenges, its innovative approach to asset-based financing, stakeholder engagement, and joint venture structuring offers valuable lessons for similar projects worldwide.

# Annex 3

## Planning and Utilization of Land for Creative Redevelopment of Cities

### Process and Regulations to Manage Redevelopment

Redevelopment requires a planning framework in place if it is to occur in a manner that contributes to the city's transformation in a positive way. In the presence scenario provision of a higher FSI triggers the process and the redevelopment occurs parcel by parcel in an ad hoc and unpredictable manner. The outcome is higher densities without the required infrastructure which adds to the congestion and pollution. Areas for redevelopment need to be identified in the master plan / development based on the redevelopment opportunity. A local plan for a slightly wider area needs to be drawn up (like the LAP mechanism) with expected infrastructure requirements and fiscal required to implement these. Planning regulations for land parcels such as FSI, setbacks, coverage – needs to be stipulated.

### Leverage the Use of Underutilized Public Lands and Built Assets

A significant share of land in Indian cities is owned by public authorities, including central, state, and local governments, as well as government-owned entities. For example, the Mumbai Port Authority owns 944 hectares of land or 13.9% of the total land area in the island city of Mumbai. As a first step identification of public lands in urban areas is crucial.

The below map of the jurisdiction (256 square kilometers) of the Ahmedabad Municipal Corporation prior to its extension in 2006, illustrates that 26.74% of the said area was owned by public agencies (in 2013).<sup>28</sup>

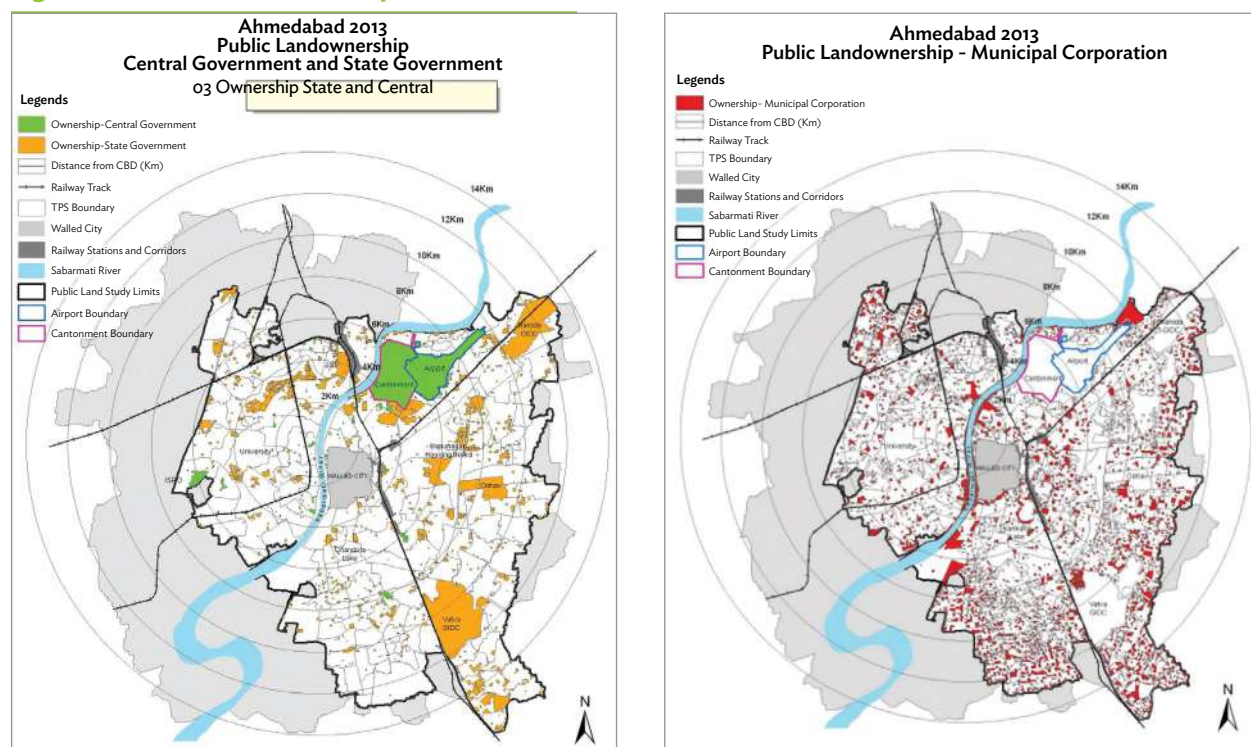
Unfortunately, not a single city in India maintains a database of public lands. The above cited example for Ahmedabad was possible owing to the data of town planning schemes with the planning authority, otherwise landownership records are scattered based on the revenue village/city survey records. Further, a clear policy of use of public lands would be required in place.

**Countries with effective land management have clear policies on public land and building assets, land inventory or database and a land management entity/agency.** The below table reflects on the international best practices and Indian experience across these areas. All these can be translated across levels in a federal structure—central, state, as well as local.

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<sup>28</sup> S. Ballaney et al. 2013. Inventory of Public Land in Ahmedabad, Gujarat. *Policy Research Working Paper 6664*.

Figure 10. Public Landownership in Ahmedabad



Source: S. Ballaney et al. 2013. Inventory of Public Land in Ahmedabad, Gujarat. *Policy Research Working Paper 6664*.

Table 1. Effective Public Land and Building Assets Management

| Good Practice                                                                                                                            | International Examples                                                                                                                                                                                                                                                                                      | Indian Experience                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clear Policy on Public Land and Buildings                                                                                                |                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |
| Clear criteria as to which properties ought to be in public ownership and what building assets should be leveraged/put to alternate use. | Commonwealth of Australia Government has a policy, which contains the principle that the Government holds land and building assets only for the provision of public services. Agencies report annually justifying the business case for their landholdings on the basis of most effective service delivery. | Currently, there is no clear policy in India on limit to or systematic reporting of land by public agencies.                                                                                                                                                                                                                                                                                            |
| Limit the public ownership of lands and properties to when it is the most efficient way of providing a public service                    | In Finland, the Government owns properties only when direct ownership is the most cost-effective way of delivering a public service.<br><br>The Policy on State Properties sets the criteria for core and non-core assets, operational savings, and monetizing the non-core assets.                         | <b>The Government of India must consider having clear land and building ownership policy.</b> The key question is to determine what land and buildings the Government needs to own and the reasons for the ownership of such assets, what kind of screening of assets should take place, and under what conditions and modalities should these properties be repurposed or monetized via sale or lease? |

| Good Practice                                                                                                      | International Examples                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Indian Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Inventory or Database                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| The starting point is to draw up an inventory or database of the real estate assets that the Government owns.      | Canada maintains its Directory of Federal Real Property database and web-service that publicly provides for all owned and rented federal real properties land registry and cadaster data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The Ministry of Electronics and Information, the Ministry of Urban Development and the Land and Development Office (LDO) of the Union Territory of Delhi have established the Government-Land Information System (GLIS18) as a centralized repository of government lands and buildings in India.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| The assets must be valued. There must be a set of valuation standards.                                             | The Senate Group, a wholly-owned State enterprise in Finland, has a comprehensive legal and fiscal cadaster of private and public properties, their owners, and values. It prepares annual reports on the performance of its assets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Users of Government land and buildings can be incentivized to identify surplus, non-core, and underutilized assets | <p>The Korea Asset Management Corporation (KAMCO) produces an annual State-owned property business plan under the Guidelines for the Disposal of State-owned Property.</p> <p>The Senate Group is responsible for 8,900 buildings and 6 million square meters of space. Every Government department pays rent for the operational facilities it uses. A further aim is to provide for new life for historic or heritage buildings. State properties must first be rezoned, with rezoning having to be undertaken by municipalities. Sales or development are after rezoning at its development value.</p> <p>The Government Property Agency (GPA) was established in 2018 and is the latest policy initiative aimed at improving the efficiency with which public bodies use land and buildings with the intention of reducing the space used. The Government has created sector orientated agencies for offices and warehouses (the GPA), health, railways, and defense properties. The agency manages the interface with the occupiers (account management), delivers workplace services, manages the estate (property management), and invests in the estate. The aim is to incentivize better space utilization and to realize value through leases/rentals/disposal.</p> | <p>In general, central, state and local governments in India have limited database or inventory of their land and building assets. <b>Governments at various levels must consider establishing a comprehensive land management cadaster database which is GIS mapped.</b> In addition, <b>Land Valuation Zone Maps must be prepared</b> which are updated regularly.</p> <p>Select states in India have passed Government Orders to initiate establishment of a Government Land Management System (GLMS) under the revenue department. Such a system would source land and built-up structure details from other departments. The GLMS can be initially used for planning purpose and then for legal/title purposes after subsequent required actions on due diligence etc.</p> |

| Good Practice                                           | International Examples                                                                                                                                                                                                                                                                                                                                                                                         | Indian Experience                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Management Entity/Agency                           |                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Dedicated land management company/agency or department. | <p>Canada Lands is a wholly-owned corporation belonging to the Federal Government of Canada. Its mandate is to extract best value from surplus properties released by federal Government.</p> <p>Land Use Victoria (LUV) is the State of Victoria's (Australia) key agency for land registration, property information and services and even Government land policy and advice and transaction oversight .</p> | <p>RLDA was established in 2006 as a statutory authority with the objective of centralizing the management of railway lands.</p> <p>National Land Management Corporation (NLMC) was set up in 2022 under the Ministry of Finance, Government of India.</p> <p>Revenue/Urban Departments at State levels and even large ULBs/metropolitan regions must consider having a dedicated agency/wing/personnel for efficient land management</p> |

Source: Research undertaken for Advisory Service by The World Bank to the Department of Investment and Public Asset Management (DIPAM), Ministry of Finance, Government of India.

Once public lands are identified then parcels that can be brought into use need to be identified and this would depend on ownership (center/state/city), possibility of being made available, location, present use and most suitable alternative use.

## Efficient Land Administration

Land administration deals with (i) cadastre, (ii) tenure, (iii) land use conversion (agriculture to non-agriculture), (iv) conveyance (sale), and (v) land valuation.

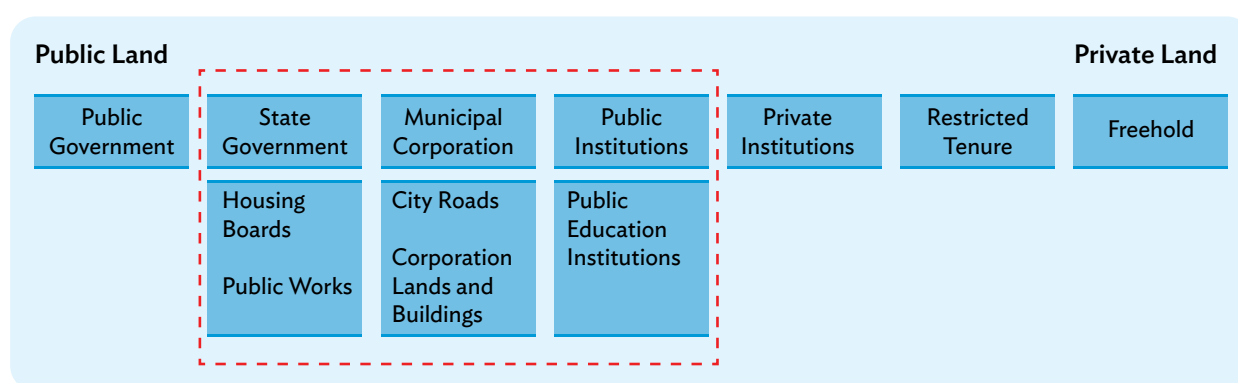
Lands in developed areas especially older areas are fraught with tenure issues. Possibilities of built land parcels being freehold-ready for redevelopment are rare. Further land use conversion as per revenue regulations may be required. Ownerships in cadastre may not have been updated. At present each redevelopment project is dealing with assembling land parcels and ensuring clear land titles. This is a costly process both in the time taken and costs involved.

Cadastral (including tenure) for a “city” need to be updated and cleaned up. In the present revenue system that is responsible for land records, cadastre is maintained by the land administration units which are the village and city survey blocks. Records for all such spatial units falling in urban boundary need to be updated on a priority by the revenue department which can greatly ease the redevelopment process.

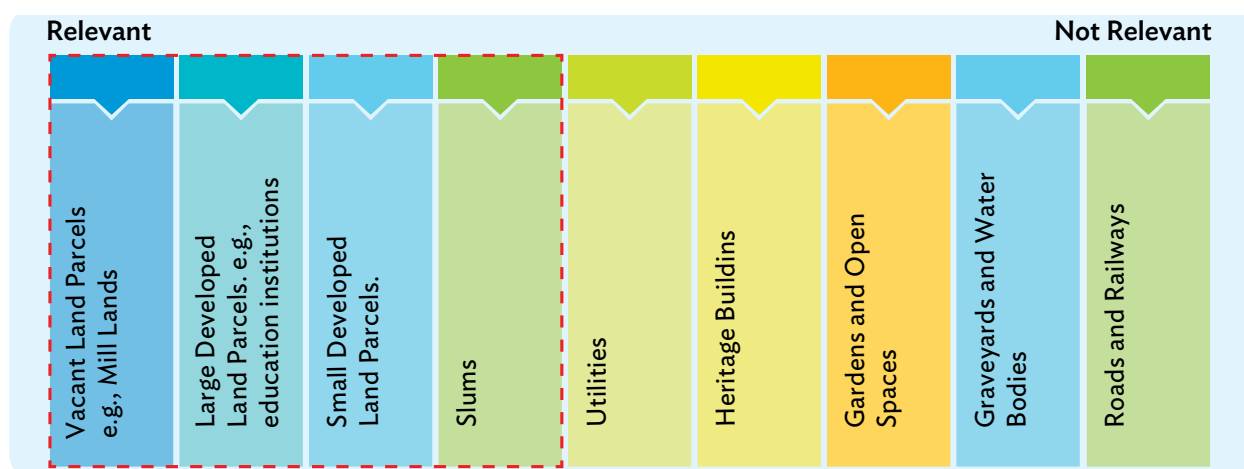
Efficient land administration and clarity over land rights is crucial for preventing land-related conflicts and promoting a conducive investment climate. State governments/urban department should consider developing a modern land information system.

## Identification of Public and Private Land for Creative Redevelopment

**Step 1: Identification of land by ownership and use which can be developed.**<sup>29</sup> Whether a plot of land is public or private cannot be decided by ownership alone. The nature and extent of rights attached to the land also have to be taken into account. *Thus, there is a continuum of property rights in land ranging from private freehold to unencumbered public land.* Figure 2 shows such a range. At the state level; state, municipal, and public institution land buildings will be most feasible for leveraging. These are largely likely to be vacant or unused land parcels (e.g., mill lands), large-developed land parcels under inefficient use (e.g., public jails), small-developed parcels (e.g., local markets) and informal settlements.



**Step 2: Identification of potential marketable/feasible to develop public lands.** The use of public land ranges from infrastructure like roads—which must remain dedicated to this use, in use buildings, to vacant land that could be made available for development without any encumbrance. These must be also reviewed for any earmarked use under the development plan. Figure 3 shows such a range.



**Step 3: Assess the viability of a land parcel for development and residential/commercial use.** Key factors are (i) location and dimensions, (ii) legal title and restrictions on development, and (iii) availability or potential to develop basic services infrastructure. Rules on conversion of land for urban uses, and the intensity at which land

<sup>29</sup> S. Ballaney et al. 2013. Inventory of Public Land in Ahmedabad, Gujarat. *Policy Research Working Paper 6664*.

can be used by industry, commerce, and housing needs to be evaluated for a land parcel. Restrictive urban planning controls—FSI regulations, height, lot size, setback, and zoning controls—may impose limits on development and need to be evaluated by the state and city for redevelopment of existing areas.

### Land Assembly

Site assembly requires that there be a system in place that enables prospective owners to identify rights holders and to enable them to defend their ownership once the rights have been acquired. Developments in urban areas, such as the redevelopment of railway station areas or urban renewal schemes, are likely to require the assembly of a site from multiple owners as they usually take place in areas characterized by small-scale fragmented patchworks of ownerships. Site assembly must therefore involve multiple owners, which, given the state of land records and land services, is often problematic. A common challenge is the prevalence of lands belonging to central and local government agencies with historical rights that may not be current or even well-known, and policies that disincentivize their current custodians from using these areas in land development schemes. Instruments for land assembly in dense and/or developed core urban areas is summarized below.

There are few critical factors which might impede the scalability of TPS and possible solutions based on national (Gujarat TPS) and global experience (Japan, Republic of Korea, and Germany) are presented below.

**Table 2. Critical Factors Enabling Successful Land Pooling—Lessons from India and Abroad**

| Sl. Nos. | Critical Factors                                                                                                                                   | Lessons Learned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.       | Time-consuming: unless time-bound can delay development process/urgent infrastructure projects                                                     | <b>Gujarat</b> <ul style="list-style-type: none"> <li>Act was amended to allow timely provision of infrastructure (like roads) for which construction can begin soon after the state government's approval of a draft TP Scheme (previously, construction had to wait for the sanction).</li> <li>Prior to 1999, the TPS was one continuous process and took years to complete. The Act was later amended to break up the process into three phases to speed up implementation. Timelines are now legally mandated at certain stages.</li> </ul> |
| 2.       | Capacity constraints: skilled professionals required to carry out planning, design, and stakeholder engagement                                     | <b>Gujarat</b> <p>Under the TP Scheme, the state appoints a quasi-judicial official, the Town Planning Officer (TPO), who is trained to interact with landowners and prepares physical and financial plans, with no influence from local authorities. This also helps to ensure fair and independent decisions.</p>                                                                                                                                                                                                                              |
| 3.       | Legislative backing: requires the enactment of a state-level town and country planning act and frequent modifications to support the local context | <b>India</b> <p>Select states have specific land pooling models with stand-alone legislation, including Haryana (2012), Punjab (1995), Rajasthan (2016), and Gujarat (1976; land readjustment through the TPS mechanism). Others have legislation for a particular city or development authority, such as the Andhra Pradesh Capital Region Development Authority (2014), and the Delhi Development Authority (2013).</p>                                                                                                                        |

| Sl. Nos. | Critical Factors                                                                                                                                                                                                                | Lessons Learned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.       | Securing trust of landowners: Lack of trust impedes the “buy in” from the landowners and causes temporary delays or complete failure                                                                                            | <p><b>Japan</b></p> <p>In Japan, the scale of the use of the land readjustment mechanism is quite high. With regular usage of this tool, the scheme self-evolves and people’s trust in this mechanism of development increases, leading them to participate.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.       | Dispute resolution: Successful systems must have functional and credible grievance redress mechanisms that define clear ways for landowners to raise complaints and objections to projects.                                     | <p><b>Japan</b></p> <p>An administrative measure, the Administrative Complaint Reinvestigation Act, 1962, guides the LR mechanism in Japan. This act allows the hearing of the complaints, objections, or dissatisfaction of the landowners over their contribution ratio or plot placements and so on without halting or freezing the implementation process of the scheme.</p> <p><b>Germany</b></p> <p>Landowners can raise their concerns or complaints to the project authority and, if not satisfied with the decision of authority, can approach the special court of law for grievances redressal.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6.       | Financial viability: The self-financing principle of land pooling works best when prospects of gain from development of public infrastructure are high for landowners. Otherwise, land pooling requires some financial support. | <p><b>Gujarat</b></p> <ul style="list-style-type: none"> <li>• Mostly, the scheme is self-financed through the betterment charges and the revenues from the sale of reserved land, but state-level subsidies are also available when needed.</li> <li>• The TP Scheme in Gujarat is supported by revolving funds whereby land sale proceeds from previous TP Scheme fund infrastructure and services in subsequent ones.</li> </ul> <p><b>Global examples</b></p> <ul style="list-style-type: none"> <li>• Before implementation, it is critical to secure sufficient financial resources for administrative, implementation, and construction costs so that projects avoid implementation delays because of financing gaps. This can take shape in different ways, for example: <ul style="list-style-type: none"> <li>o Germany: cost recovery is done through cash transaction</li> <li>o Japan: projects are largely financed through government subsidies and public works funds</li> <li>o Republic of Korea: almost entirely self-financed through sale of reserved land</li> </ul> </li> </ul> <p><b>Japan</b></p> <ul style="list-style-type: none"> <li>• LR implementers are entitled to exemption from and reduction of taxation. The exemption is applicable to the real estate registration tax for replotting lands, sale of reserve lands, corporate tax, and income tax levied on the LR cooperative and corporations. Landowners relinquishing their land receive a reduction in the income tax on the income that they earn from compensation and land expropriation.</li> </ul> |

## Land Valuation

Developing countries often lack the systems to record and manage information on land transactions. The data may not, for instance, reflect the true price of land because of black market transactions to save on duties or heavy public subsidies on housing and land use. Land registries are often archaic and lack the dynamic functions that allow them to be searched or updated quickly. These deficiencies translate into a dearth of data on real estate prices, preventing analysis that is critical for appraising land values, with heavy implications for real estate-based local financing. Land valuation is integral to local revenue generation since land values form the basis for activities such as property tax collection and land sales or leases.

Public land valuation in developing countries is fraught with challenges, including the cost of hiring private assessors (as these countries lack standardized public valuation methods), the need to update land price data, and the fact that inter-government transfers of public land are often recorded as a zero-value transaction.

In countries where land valuation is successful, techniques are standardized to enable appraisers to arrive at uniform and transparent valuations. In the United States, most states require that appraisers and assessors be certified. Appraisers generally work for private clients to determine the market value of property for real estate transactions, while assessors generally work for the government to determine values of properties for tax purposes (United States Department of Labor 2010). Both must follow the same regulations in valuing real estate.

The United States allows each state to define its own method for private property valuation. In most cases, states delegate this power to local governments, leading to a vast array of approaches. While the most common is the market value (or sales comparison) approach, there are at least two others: the cost approach, and the income approach. All three approaches are often used in parallel to estimate property values. New York, for example, uses these methods for different property categories. It follows the sales comparison approach to value small residential properties and vacant land, using sales data of comparable properties for the previous three years. It adopts the income approach to value offices and businesses, taking an estimated income and dividing the net income by a capitalization rate. It uses the cost approach for new construction and renovations and for special properties such as stadiums, museums, and places of worship (Lafuente 2009).

In Germany, federal regulation governs private land valuation. Germany has local land valuation boards that are charged with collecting and maintaining land price data as well as disseminating land price information (Kertscher 2004; Seidel 2006).

## Urban Planning

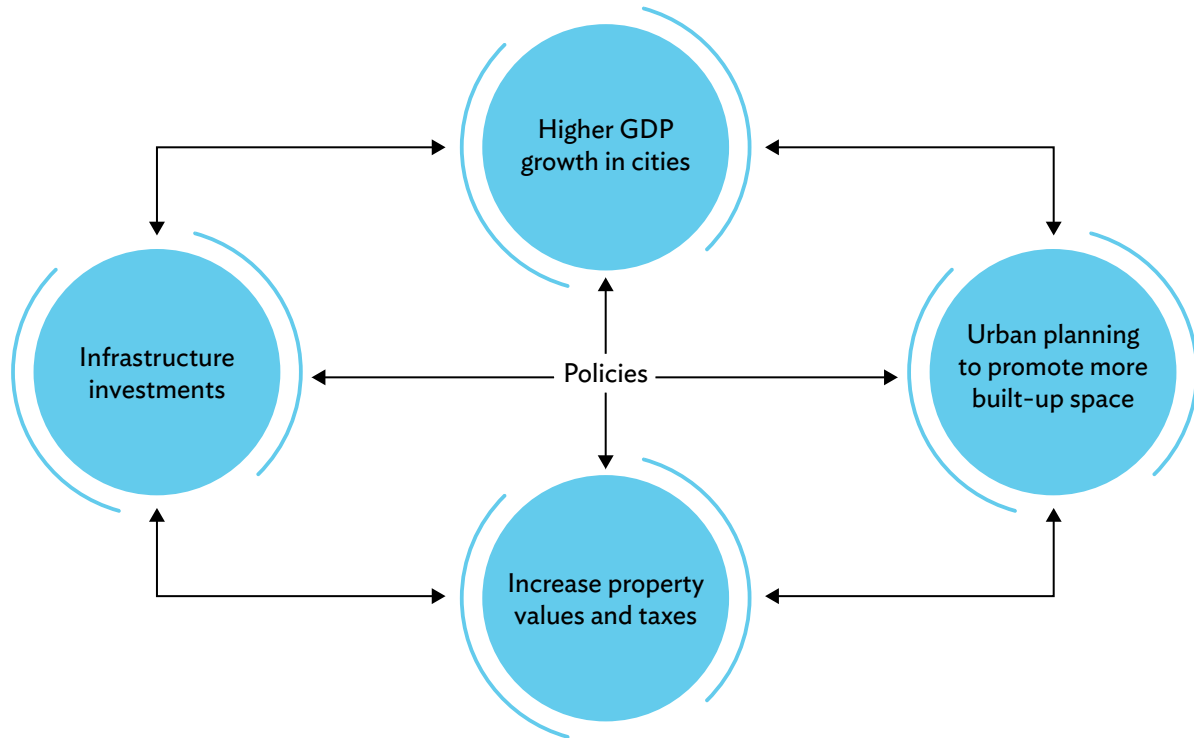
Urban planning must link the four domains of GDP growth, built-up space, property values and taxes and infrastructure investments to promote economically vibrant and sustainable cities and metropolitan areas.

Land assembly and valuation to enable urban development and managing densities and finding ways to finance urban expansion and city renewal go hand in hand in optimization land use.

## Floor Space Index (FSI)

Planners argue that the densities must be kept low due to lack of or limited infrastructure. However, these arguments negate the possibilities of using land values to finance higher capacity and higher quality infrastructure and to increase the supply of office space and affordable housing for low- and middle-income groups. Density should not

**Figure 11. Urban Planning Cycle**



overwhelm infrastructure capacity—nor should it constrain the optimal use of infrastructure networks by keeping density below what the infrastructure can support. Optimizing infrastructure and density is thus a central element of urban planning.

Most FSI maps for best practice cities, such as New York, Seoul, and Singapore show a fine-grain pattern of small density zones, determined by street width and capacity, existing land use patterns,<sup>7</sup> and infrastructure capacity. Areas of cities that are economically dynamic, such as central business districts (CBDs), generally have the highest FSIs. The CBDs of New York, Tokyo and Singapore have FSIs of 1: 15, 1:20 and 1:12 to 1:25 respectively. (Source: Lainton)

### Vertical Densification

Density regulation and floor space indexes (FSIs) should be placed in a broader urban planning framework that includes FSIs, zoning and use controls, height and bulk controls, and requirements for public space and rights-of-way. International experience suggests that flexibility and granularity—or extremely local variations—are vital in land use regulations and density management policies. As in New York, FSIs vary by location as well as by land use. It also shows that FSI adjustments and infrastructure investments should go hand in hand.

# Annex 4

## Public Land and Asset Management Processes in India

### Background

Public land and building assets are essential for governments, yet many central and local authorities do not effectively manage or utilize these assets to support their policy goals. These assets, whether owned, leased, or managed by government entities or state-owned enterprises (e.g., Housing Development Boards), can significantly impact society depending on how they are handled.

Governments primarily use these assets for three purposes: delivering critical public services such as education, health care, and transportation; generating revenue through rents, fees, or other income sources (e.g., sports venues); and preserving properties of cultural, environmental, or national importance for future generations.

In certain cases, the market value of public properties may surpass their current utility, leading governments to consider selling or leasing them to maximize fiscal benefits or stimulate broader economic growth. However, this requires a well-defined strategy to balance immediate gains with long-term public interests. Managing real estate assets involves ongoing costs, and disposing of surplus properties may sometimes be more practical. Yet, without a comprehensive portfolio management plan, governments risk incurring high costs to reacquire these assets for future public needs, potentially leading to financial inefficiencies and taxpayer losses.

### Objectives and Scope

The primary objective of document is to highlight the key processes and approaches to managing public assets across different government levels in India. With rapid urbanization, competing demands for land, and the increasing pressure on public resources, it has become imperative to adopt strategies that ensure these assets are utilized optimally.

This document is structured to address key aspects of public land and building asset management, from governance and legal frameworks to operational procedures. It underscores the importance of data-driven decision-making, leveraging technology, and adopting international best practices to modernize and streamline asset management processes. By integrating geographic information systems (GIS), digital records, and centralized databases, different government levels can ensure greater visibility into asset inventories and make informed decisions. The document emphasizes the importance of aligning asset management strategies with broader national goals, such as sustainable urban development, environmental protection, and inclusive growth.

## Institutional Framework

Effective governance and a robust institutional framework are the cornerstones of efficient public land and building asset management. In India, land is a state subject, with each state holding primary authority over its management, allocation, and development decisions. This decentralized approach, while necessary to address local needs and priorities, also presents challenges of ensuring consistency, transparency, and accountability across states. Understanding the various processes involved in land governance—spanning acquisition, utilization, leasing, and disposal—is critical to building a cohesive system that balances state autonomy with national objectives. A well-defined governance framework can streamline decision-making, foster interdepartmental collaboration, and ensure that public assets are managed in alignment with the socio-economic development goals of the country.

By clearly delineating roles and responsibilities among state departments, urban development authorities, and local bodies, and by integrating mechanisms for transparency and accountability, India can unlock the full potential of its public land and building resources while ensuring the goal of *Viksit Bharat*.

| Current Legislative Competency of Land Management |                      |                                  |
|---------------------------------------------------|----------------------|----------------------------------|
| Matter                                            | Arena                | Constitutional Provision         |
| Land Rights                                       | State Government     | 7th schedule, List 2 of Entry 18 |
| Maintenance and survey settlement                 | State Government     | 7th schedule, List 2 of Entry 44 |
| Transfer and Registration of transactions         | Center + State Govt. | 7th schedule, List 3 of Entry 6  |

Source: LA. Kapoor, M. Esposito, and M. Anand. 2024. [Land Record Management in India](#). #TheIndiaDialog Working Paper Series Working Paper (WP-2024-016 February, 2024). US Asia Technology Management Center, Stanford University; and Institute for Competitiveness, Gurgaon, Haryana, India.

A study by NITI Aayog highlights that land-related disputes in India take an average of 20 years to resolve. Unclear land titles contribute to ownership disputes in housing projects, obstructing urbanization. The lack of transparency, accountability, and consistency in land records, along with delays and fragmented datasets across departments, exacerbates these challenges in land records management.

**Table 3: Departments Within States Responsible for Land Administration**

| Department                     | Functions                                                                                                                                       | Documents maintained                                                                                | Officers                                                                                      |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Revenue                        | <ul style="list-style-type: none"> <li>Collection of land revenue</li> <li>Updating and maintaining revenue records</li> </ul>                  | <ul style="list-style-type: none"> <li>Record of Rights (RoR)</li> <li>Mutation register</li> </ul> | District: Collector<br>Block: Tehsildar<br>Village: Patwari                                   |
| Survey and Settlement          | Maintaining spatial land records                                                                                                                | <ul style="list-style-type: none"> <li>Village map</li> <li>City survey maps</li> </ul>             | District: Deputy inspector<br>Block: Town surveyor<br>Village: Village Administrative Officer |
| Registration and Stamp Revenue | <ul style="list-style-type: none"> <li>Registration of property documents and deeds</li> <li>Evaluation and collection of stamp duty</li> </ul> | <ul style="list-style-type: none"> <li>Encumbrance certificate</li> <li>Sale deed</li> </ul>        | District: Registrar<br>Block: Subregistrar                                                    |

Source: A. Kapoor, M. Esposito, and M. Anand. 2024. [Land Record Management in India](#). #TheIndiaDialog Working Paper Series. Working Paper (WP-2024-016 February, 2024). US Asia Technology Management Center, Stanford University; and Institute for Competitiveness, Gurgaon, Haryana, India.

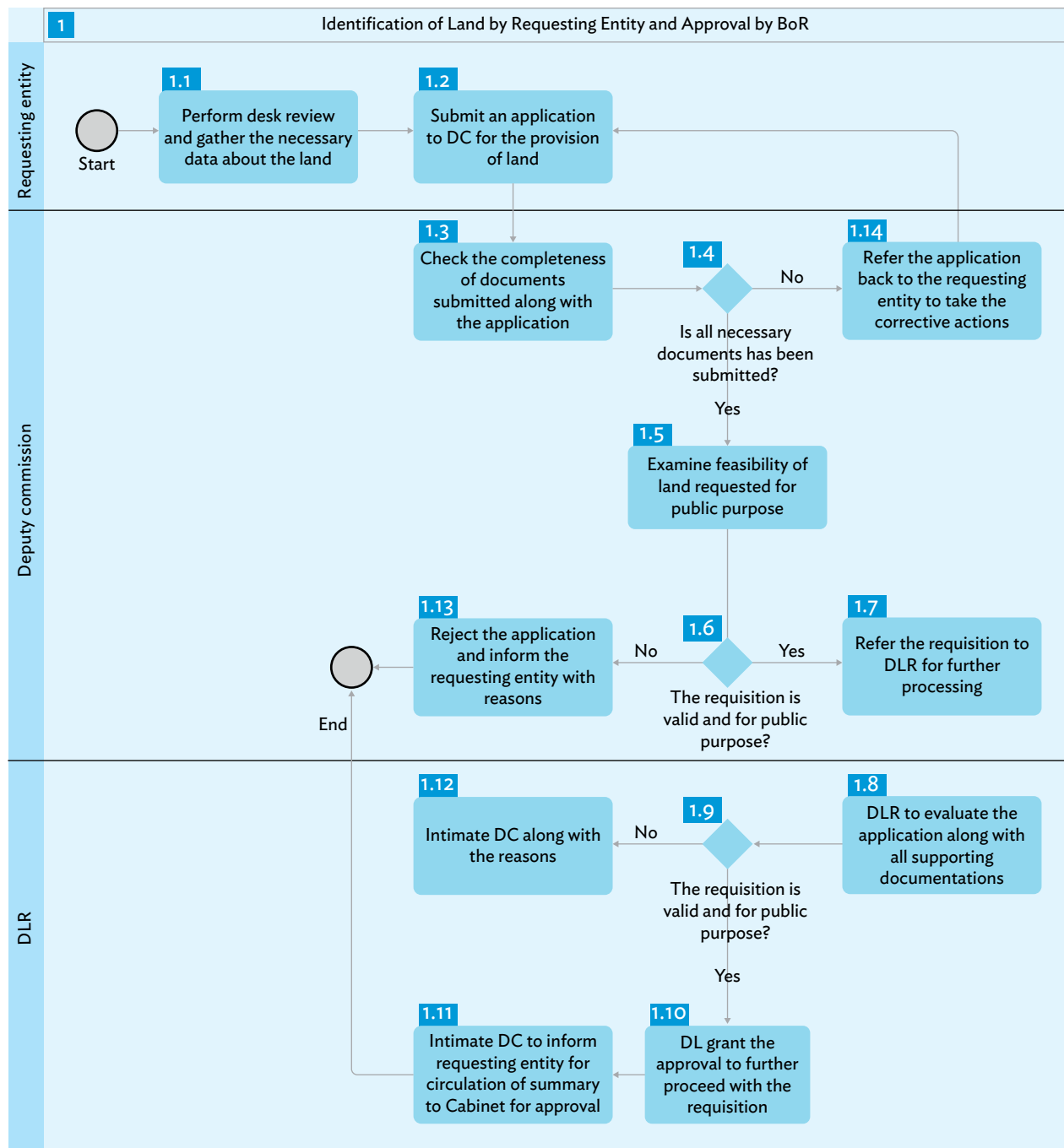
## Processes in Land Management

The different processes (not exhaustive) of land management have been listed below.



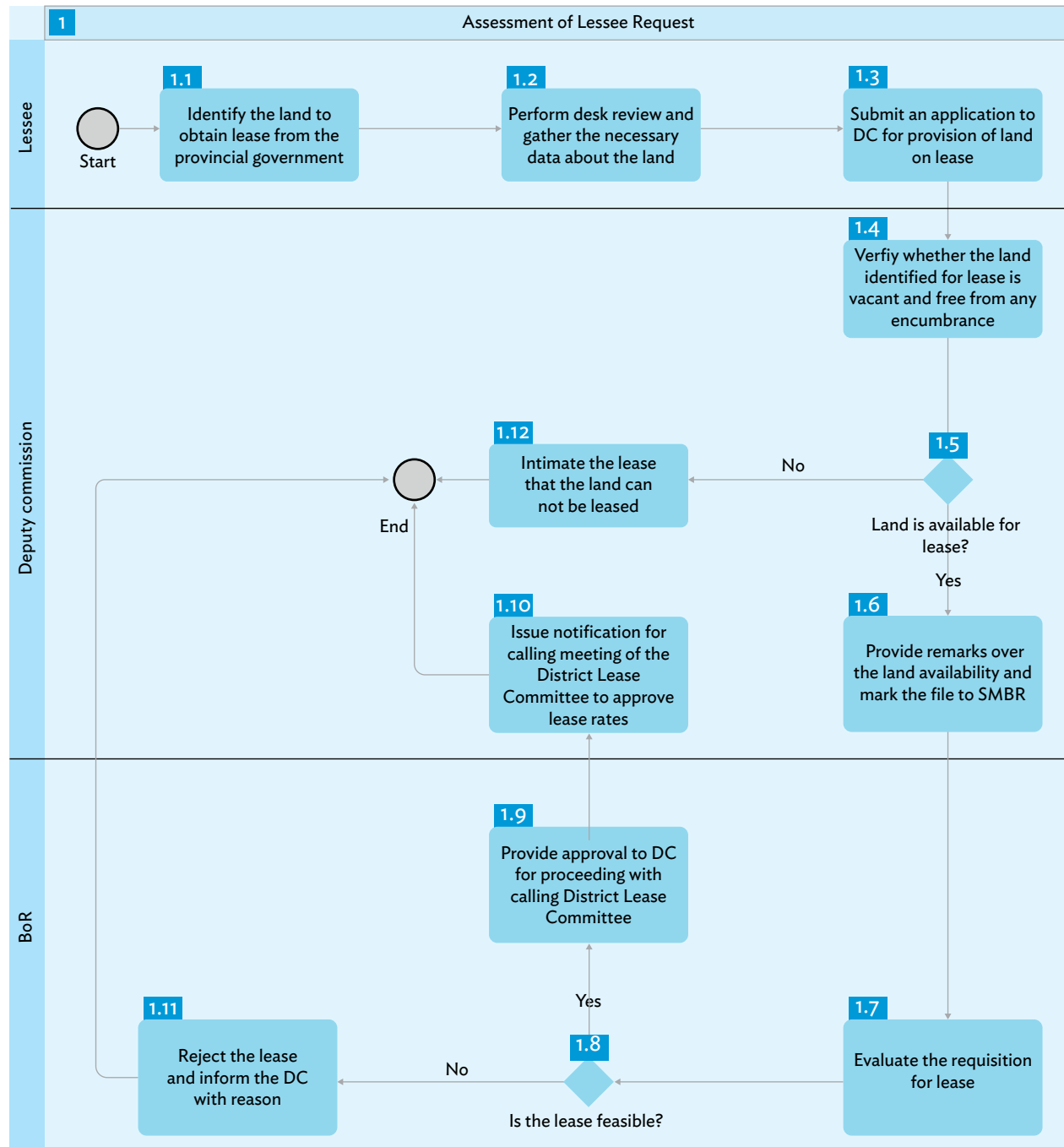
## A. Providing Possession of Land to Other Departments

Providing possession of land to other departments for public use can be done upon their request. This possession of land can be provided from the land which is already in ownership of the Department of Land Resources/Revenue Department. The figure below displays the usual process of identification of land and submission of request.



## B. Providing Land on Lease to Private Entities

The standard procedure for leasing land to private entities is outlined below. Similar to the process for "providing possession of land," the lessee must first identify suitable government land and perform a desk review to gather the necessary documentation. The lessee then submits a lease application to the district commissioner for assessment.



## C. Inventory and Record Management

The Digital India Land Records Modernization Programme (DILRMP), launched in 2016 as a restructured version of the National Land Records Modernization Programme (NLRMP) established in 2008, is now a Central Sector Scheme. It integrates the Strengthening of Revenue Administration and Updating of Land Records (SRA and ULR) and the Computerization of Land Records (CLR) schemes. DILRMP aims to modernize land records through computerization, surveys, and updates of records, digitized registration processes, and modern record rooms at various administrative levels. The program focuses on enhancing the quality and accessibility of land records and aims to transition to a conclusive land titling system with government-backed titles.

### Key Components of DILRMP

- Computerization of Land Records. This involves digitizing existing land records, including details like ownership, location, dimensions, and encumbrances.
- Survey/Re-survey. Many areas lack proper surveys or outdated maps, so this component focuses on conducting accurate surveys and creating digital maps for all properties.
- Computerization of Registration. This streamlines the registration process for land transactions and integrates it with the digitized land record system.
- Setting Up Modern Record Rooms and Centers at Tehsil, Taluk, Circle and Block level.
- PMU and DILRMP cell for Capacity Building. Training and Capacity building of officers and staff implementing the program.

## D. Initiatives for Digitization of Land Records

The DILRMP includes initiatives like the Bhu-Aadhaar or Unique Land Parcel Identification Number (ULPIN) project, which assigns a 14-digit alphanumeric code to land parcels based on their geo-coordinates. In March 2023, the Indian government organized the fourth National Conference on *Bhumi Samvaad*, focusing on ULPIN implementation and the digitization and geo-referencing of land records. With 94% of land registrations computerized and 90 million parcels assigned Bhu-Aadhaar, the system is operational in 26 states, with implementation underway in nine others, except Meghalaya due to its community landownership tradition. Future plans include transliteration of records into 22 languages, promoting citizen-centric governance and supporting India's \$5 trillion economy goal.

In 2021, the Department of Land Resources introduced updated guidelines for the Digital India Land Records Modernization Programme (DILRMP). These guidelines address the needs of States and Union Territories for implementing various program components. The program has been extended for five years (2021–2022 to 2025–2026) with newly added features and components.

1. Linkage of Aadhaar number with land records database
2. Computerization of Revenue Courts and their integration with land records

Other initiatives, such as the National Generic Document Registration System (NGDRS) and Multilingual Land Records, are being developed to standardize processes, overcome linguistic barriers across states, and enable seamless data sharing through a common protocol. These initiatives are expected to be launched soon.

## Way Forward

India's land and asset management system continues to grapple with deep-rooted challenges, even with significant advancements made under the DILRMP. While the program has successfully digitized land records in many states and Union Territories, it has failed to address the fundamental issue of unclear landownership. This stems from a legal framework centered on registered sale deeds rather than conclusive land titles. Laws such as the Transfer of Property Act, 1882, and the Registration Act, 1908, mandate the registration of transactions but not the ownership of land itself, leading to gaps in ownership guarantees and challenges in verifying previous transactions.

Fragmented and uncoordinated processes across departments exacerbate these issues. Land-related data is maintained in silos—sale deeds with the registration department, maps with the survey department, and property tax records with the revenue department. This lack of integration risks data discrepancies, delays resolution of disputes, and complicates the verification of ownership claims, often requiring individuals to trace years of documentation. High registration costs further discourage individuals from formalizing transactions, with stamp duty rates in India ranging between 4% and 10%, compared to 1% to 4% in other countries. The additional registration fee of 0.5% to 2% compounds this burden.

Moreover, the current land registration process remains cumbersome. It involves multiple steps, from obtaining a No Encumbrance Certificate and paying stamp duty to notarizing agreements and applying for mutation after registration. These manual processes, coupled with a lack of coordinated data updates among departments, delay ownership confirmations and expose the system to inefficiencies.

While digitization has enhanced transparency and accessibility, it has introduced privacy concerns. Land records, which often include sensitive personal details, property locations, and valuations, are freely available online in many states. This raises the risk of misuse, particularly when data is combined with other datasets for unauthorized purposes, such as by real estate entities. Although India has introduced personal data protection laws, their application to legacy public records, such as land records, remains untested.

Addressing these systemic challenges is crucial for creating a robust land and asset management framework. This requires transitioning from a deed-based system to one centered on conclusive titles, integrating departmental data for seamless updates, reducing registration costs to incentivize formal transactions, and implementing stringent data privacy safeguards. Only through such comprehensive reforms can India achieve a transparent, efficient, and equitable land management system that supports its socio-economic development goals.

# Annex 5

## Terms of Reference: Real Estate Advisory Services

This Terms of Reference document outlines the scope, objectives, deliverables, timeline, budget, and reporting framework for the real estate asset advisory services to assist an urban local body (ULB) in optimizing monetization and management of real estate assets. All parties involved are expected to adhere to the terms outlined herein.

### Background

Urban Local Bodies (ULBs) in India face the dual challenge of generating sustainable revenue streams and ensuring efficient management of their real estate assets. With increasing urbanization and financial pressures, optimizing the utilization and monetization of these assets has become critical to fund infrastructure development, service delivery, and brownfield redevelopment of underperforming city cores. Real estate advisory services provide ULBs with expert guidance on asset valuation, land-use planning, lease structuring, and public-private partnerships, ensuring informed decision-making. Such services enable ULBs to unlock the economic potential of underutilized properties, attract private investment, and foster transparency, thereby contributing to the overall financial health and urban growth objectives.

The term “monetizable real estate assets” refers to land and buildings that are neither actively utilized nor reserved for public services and are potentially disposable in the open market for monetary compensation, such as through sale or long-term ground lease transactions, or in the form of equity contribution in joint ventures with private partners.

### Objective

This Terms of Reference calls for a suite of specialized real estate services to assist a ULB in implementing a range of activities aimed at improving real estate asset management, monetization and land value capture approaches.

### Scope of Work

The scope of work encompasses the execution of the following tasks throughout the assignment.

#### a) Task 1: Upgrading Procedures for Disposition of Monetizable Real Estate Assets

This task focuses on reviewing and enhancing the current frameworks for disposing of real estate assets in the ULB. The Consultant will be responsible for:

- Describing the **current situation of the inventory of the ULB's real estate portfolio**, with a focus on assets that can be monetized, including undeveloped and developed land parcels.
- Reviewing the **current land disposition framework and systems used in the ULB**, identifying their strengths, challenges, and areas for improvement. This subtask will also entail detailed stakeholder mapping in the ULB's land disposition processes, identifying roles of key stakeholders, decision-making powers, and the ULB's authority in effecting potential procedural and administrative changes.
- Contributing industry and context-specific **insights to a parallel but related process** of implementing a dedicated real estate management information system (MIS) to support strategic decision-making for the ULB's real estate portfolio.
- Devising an **optimized and flexible approach to the ULB's land disposition**, covering both developed and undeveloped land. This approach must ensure that ULB's land solicitations are competitive with those in the open market, minimizing any potential disadvantages that may arise from public land solicitations.
- Developing **comprehensive guidelines, protocols, and procedures** to elucidate the enhanced approach for land dispositions. This will provide the ULB with a practical blueprint for enhancing their framework and systems for land dispositions. The outline of protocols and procedures should reference existing codes and regulations relevant to public land dispositions at the ULB. It should also diligently highlight any necessary regulatory changes, particularly focusing on the ULB's authority to enact such changes.
- Building **technical capacity among the ULB's staff members** to deploy optimized land disposition procedures.

## b) Task 2: Support Pilot Land Monetization Transaction Within a Selected Creative Redevelopment Site/Zone

This task will involve acting as a trusted advisor and representing ULB in the land disposition process on a pilot transaction within a selected site or zone for creative redevelopment, in accordance with the new procedures and disposition framework outlined in Activity 1. The task will entail the following activities:

- **Assist ULB on selecting a pilot site** (a land parcel, or a cluster of land parcels), hereinafter the Pilot Site, suitable for testing the new disposition processes as projected in Task 2. This will involve validation of market fundamentals, the legal status, and physical characteristics, of the Pilot Site. The Consultant will review several candidate sites and present site selection findings in a structured format, such as a comparative table and scoring methodology that describes the relative characteristics of the candidate sites.
- In the **consultative process with the ULB, recommend two to three of the most feasible disposition options**. The feasibility of these options should primarily consider regulatory aspects. This involves assessing the necessity, administrative effort, and time required to implement any changes in the regulatory framework for public land dispositions at the ULB that may be necessary for each option. Additionally, once the regulatory feasibility is established, each option should be evaluated based on maximizing the financial yield from the transaction for the ULB. To support this consultative process, all disposition options should include a disposition roadmap outlining key benefits, challenges, risks, and methods to mitigate them.

- Support to ULB in preparing an **investor or buyer solicitation package** for the Pilot Site, summarizing key site parameters.
- Provide professional **broker opinion of value (BOV) for the Pilot Site** to give a) indicative achievable fair market value in the potential disposition transaction, and b) to set the value benchmark for competitive solicitation of investors' interest in the Pilot Site. The BOV shall be supported by clear documentation of methodologies, assumptions, and market evidence of value of comparable properties, if applicable, and any limitations associated with the valuation. Consulting with a chartered surveyor or ensuring the BOV follows the internationally accepted guidelines of the Royal Institute of Chartered Surveyors (RICS) is highly desirable, to enhance credibility and reliability of the BOV.
- Assist the ULB in developing **other relevant solicitation or tender documents** necessary for the land monetization transaction on the Pilot Site as applicable.
- Assist the ULB in **evaluating investor bids, contract award**, and negotiating contracts with acquirers of the rights in the Pilot Site.

### c) Task 3: Establishing Strategic Asset Management Framework for the ULB's Real Estate Portfolio

This task involves developing a comprehensive system of guidelines, tools, and decision-making principles aimed at actively managing the ULB's real estate assets. The primary objective is to ensure the adoption of strategic considerations in all aspects of real estate decision-making within the organization. This strategic asset management framework is intended to enable the ULB to generate revenue from real estate operations while aligning monetization decisions with broader policy objectives.

The consulting services for this task will be divided into two batches. The first batch will focus on the key thematic aspects of real estate asset management that are most relevant to the ULB's situation. The second batch will concentrate on the systems and infrastructure needed to implement an active asset management framework.

#### i. Essential Building Blocks for the Real Estate Asset Management Framework

##### - **Inventory of Real Estate Assets**

As part of this subtask, the consultant will verify the real estate inventory systems currently deployed by the ULB. Additionally, the consultant will coordinate with ongoing activities for developing a new inventory system. The output of this task will be a comprehensive summary of the ULB's real estate inventory efforts, contributing to the development of the asset management framework.

##### - **Monitoring Utilization and Reuse Potential of Real Estate Assets (Lands and Buildings)**

The sub-task involves recommending approaches and systems designed to monitor the utilization of current real estate assets. It should also address data needs and decision frameworks to pinpoint opportunities for maximizing the value or utilization of underused assets. Furthermore, the recommendations should include systems aimed at regularly evaluating maintenance conditions, such as conducting facilities condition surveys on a routine basis.

- ***Real Estate Analytics***

The Consultant will provide recommendations for establishing a system for continuous monitoring of real estate market trends for the ULB. This will include an outline of a range of specialized services and types of vendors required, with a sample Terms of Reference for such real estate analytic support. This outline shall also indicate any necessary software and asset inventory requirements and in-house staffing needs. This real estate analytics system will allow the ULB to utilize market intelligence to identify segments of the portfolio that may yield the highest returns when monetized and to make informed decisions regarding land solicitations and development opportunities (e.g., incorporating factors such as optimal lot size, proposed development conditions, and the adoption of green building requirements to enhance the attractiveness and value of the ULB's real estate offerings).

- ***Management of Unused and Underused Land***

This sub-task involves providing recommendations on practices and strategies aimed at preserving and enhancing the value of land assets that are currently unused or underutilized (e.g., regular land surveys to confirm legal boundaries of reserved lands, record changes and document encroachments, creating physical property enclosures to curb encroachments, conducting utility sweeps and infrastructure assessment surveys to document servicing status of land, formulating plans for the effective maintenance and potential redevelopment of such properties to maximize their value).

- ***Fair Market Value Appraisals of the ULB's Monetizable Real Estate***

Asset management strategies strongly depend on robust valuation information to ensure optimized portfolio performance, enhance effectiveness of real estate operations while aligning real estate decisions with market dynamics. As part of this sub-task the Consultant will outline a set of service requirements (e.g., engaging qualified appraisers to ensure accuracy and reliability in valuation processes, with sample list of vendors) and system recommendations (e.g., utilizing industry-standard methodologies) to develop a robust system for appraisals of fair market value for monetizable portions of the ULB's real estate portfolio. The recommendation shall also include a sensible approach to regular reappraisals to monitor value movements over time, including a recommendation on the technically and practically justified frequency of re-appraisals.

- ***Transaction Management System***

The Consultant will identify and outline information technology solutions suitable for streamlining and overseeing the various processes involved in transacting the ULB's monetizable real property. These solutions should encompass tools for tracking property information, managing documents, coordinating approvals, and ensuring compliance with regulations and policies. Additionally, the transaction management system should incorporate reporting and data management features that allow the ULB to compare own transaction data with market evidence and that way improve decision-making. It is imperative that software solution for the transaction management system shall have an intuitive and user-centric interface and minimal software training effort for most of data management needs. Overall, the outlined transaction management system should aim to enhance efficiency, transparency, and accountability in the ULB's real estate operations.

## ii. Enabling Elements for the Asset Management Framework

### - **Decision-Making Processes**

Through a multi-iterative consultative process with relevant departments of the ULB, the Consultant will outline a decision-making process for the ULB's monetizable real estate assets. This will include recommendations on key stakeholders, decision-making chart, and suggested criteria for evaluating monetization opportunities.

### - **Technology and Tools**

The Consultant will recommend appropriate technology platforms (or technological approaches) to support real estate asset management activities. This could include a range of software solutions for inventory management (including through integration with any existing real estate 'management information system' in use at the ULB), financial modeling, property use administration, transaction management, and performance reporting. As part of this sub-task, the Consultant will review the technological platforms currently deployed by the ULB for managing real estate (active use licenses), and provide an opinion on how those can be leveraged for the new real estate asset and transaction management system.

### - **Governance Structure**

This sub-task will outline a governance structure to oversee the implementation of the asset management framework. This may involve creating a dedicated real estate asset management unit or assigning such responsibility to existing governance bodies within the organization. The process will entail a consultative process and deep stakeholder engagement with relevant personnel and line units within and outside of the ULB, including senior management, finance, operations, legal, and external advisors.

### - **Capacity Building**

This activity will focus on enhancing the ULB's technical capacity to effectively implement the new real estate asset management system. It will involve organizing a series of workshops and on-the-job training activities for the ULB's staff.

## d) Task 4: Identifying Opportunities for Strengthening Premium Floor Space Index (FSI) System

As part of this task, the consulting team will conduct the following analytic exercises:

- Review the current FSI premium formula as it is used at the ULB and provide sample calculations for randomly selected high circle rate parcels in the selected creative redevelopment site/zone.
- Review variations in approaches for FSI premium calculations between the ULB and other large urban markets in the respective state; if no variations are encountered, the Consultant is required to unequivocally conclude as such.
- Conduct a comprehensive benchmarking exercise to explore how similar density premium charges are applied in other Indian states with highly dynamic urban markets.

- Provide and justify an opinion on the most rewarding FSI Premium calculation approach.

The anticipated output of this analytic exercise is a set of recommendations to the State Government for its consideration regarding the potential optimization of the Premium FSI calculation. This aims to enable ULBs in the state to expand their participation in the real estate value generated through the process of granting additional buildable densities to investors.

### e) Task 5: Identifying Opportunities for Strengthening the Use of Transfer of Development Rights (TDR) Certificates.

This task involves exploring the amplified usage of the system of what's widely known in India as TDR certificates, a mechanism whereby allowable buildable density transfers from one parcel of land, often termed as the "sending zone," to another designated area known as the "receiving zone." This transfer represent compensation for the forgone development potential in the sending zone, which otherwise has density restriction dictated by the zone's environmental or heritage status, or other planning or infrastructure restrictions.

The Consultant is tasked with the following:

- Reviewing and summarizing the current TDR policies at the ULB (If in place).
- Consolidating evidence of Tradable Right Certificates issued at the ULB annually (in terms of the number of certificates and buildable density units, e.g., square feet) over the last 5 years, including their geographic distribution and the prevalent types of land uses that have utilized TDRs.
- Collecting and presenting structured evidence of TDR practices in other dynamic urban markets in India, including data on the annual number of TDR certificates issued and the density units transferred.

In anticipated output of this task is explication of the differences between TDR policies and regulations at the ULB compared to those in other dynamic urban markets in India where TDRs systematically yield higher annual numbers. The emphasis shall be given on highlighting how the following specific aspects of TDR and how they influence the success of the TDR system:

- o Compensation formula for the lost potential on "sending parcels".
- o Transferability, i.e., whether landowner can then transfer or sell these TDR certificates to developers or other landowners who wish to exceed the prescribed development limits on their properties elsewhere in the city.
- o Redeemability, i.e., whether a developer who purchases TDR certificates can use them to increase the permissible Floor Space Index (FSI) or Floor Area Ratio (FAR) on their own project site elsewhere in the city and increase the intensity of development beyond what is typically allowed by the zoning regulations.

## Deliverables

To be developed. e.g., developed procedures, pilot transaction reports, system training materials, etc.

## Timeline

To be developed for each activity separately, including milestones and completion dates.

## Consultant Criteria

The Consultant should propose an adequately sized and structured team to deliver the scope of work prescribed in these Terms effectively. The team should display subject matter expertise and track record and must include a range of relevant technical expertise.

- Proven track record in real estate transacting and real estate analytics.
- Proven experience in developing asset management systems for large real estate portfolios. Access to international practices and team member with international experience on this subject is a significant advantage.
- Good understanding of real estate asset management processes, data need and software ecosystem.
- Proven in-house expertise in the Indian real estate market.
- Proven experience in advising Indian public sector clients on real estate and land management matters.
- The leading team member should have at least 10 years of experience working in real estate, with the significant exposure to transactional work (investment transaction brokerage, land deals brokerage).
- Corporate and individual team members' experience in organizing public land solicitations in India is a significant advantage.
- Firsthand access to hand real estate market data (e.g., from transactional work and brokerage networks) with proven capability to interpret real estate data and leverage it for strategic asset management decisions.
- Experience working with international financial institutions, particularly the World Bank Group, in relevant areas is considered a plus.
- The roles the Consultant may wish to present (one individual may occupy more than one role):
  - o Project Director
  - o Project Manager
  - o Real Estate Specialist
  - o Real Estate Asset Management Specialist
  - o Land Procurement Specialist
- The Consultant should include an effective local on the ground team in [add City] to ensure all required information can be collected in a timely manner and to support the software procurement and deployment process. This local team should be adequate to ensure successful delivery of the assignment even under potential travel restrictions.
- The client facing team should be fluent in English and Hindi, ability of local team members to communicate in [add language] is an advantage.

## Budget

Bidders are requested to submit bids at a fixed price in [add currency], inclusive of all expenses associated with the execution of the assignment. The anticipated level of effort, for the purpose of fee calculation based on a burdened daily rate, is TBD working days. However, proposals exceeding this level of effort will still be considered.

## Annex 6

# Model Scope for Transaction Advisory Services for Real Estate Development Solicitations and Transaction Support

- A. Statement of Purpose
- B. Project Background
- C. Submission Procedure
- D. Returnable Documents and Necessary Clearances
- E. Scope of Work
- F. Outputs and Review Process
- G. Timing and Estimate Level of Effort
- H. Vendor Qualifications
- I. Background Materials

### A. Statement of Purpose

The purpose of these Services is to provide guidance to the [THE NAME OF THE JURISDICTIONAL ENTITY IN CHARGE OF REAL ESTATE SOLICITATIONS AND MANAGING THE LAND PORTFOLIO], relevant jurisdictional personnel, and relevant entities in charge of creative redevelopment in organizing and managing Developer Solicitations procedures for the identified land portfolio in the ULB (attach map of the creative redevelopment zone, if any). Additionally, the Services will include professional support for real estate negotiations and transactions arising from the Developer Solicitations procedure.

This Developer Solicitations procedure is a process of advertising the real estate investment opportunity in the identified Creative Redevelopment Area/Zone of the ULB to potential investors, selecting qualified developers for granting them development rights for specific land subdivisions in the Area/Zone through a competitive selection process, negotiating and executing investment agreements with selected qualified investors, in accordance with the laws of the State Government.

The procedure serves the following purposes:

- Establishing a procedure for marketing the real estate investment opportunities in the Creative Redevelopment Area/Zone as a transparent and effective way of disseminating information about the respective investment opportunities and facilitating requests for investor proposals.
- Ensuring impartial, comprehensive and timely evaluations of investor Proposals for real estate development in the Creative Redevelopment Area/Zone.
- Providing the ULB, relevant jurisdictional personnel, and relevant entities in charge of creative redevelopment with an effective management tool for facilitating and tracking the investor solicitation progress, consolidating and leveraging a range of specialized expertise to aid the investor selection process, including but not limited to real estate, economic development, financial, legal, marketing etc.
- Consolidating auditable documentation of the investor solicitation and selection process and increasing its transparency and wider market appeal.
- Establishing an effective communication channel for disclosing terms and conditions under which the land parcels (if any) in the Creative Redevelopment Area/Zone will be offered to investors.
- Identify the roles and responsibilities of the ULB and other relevant jurisdictional entities, developers and the community in the real estate investment processes in the Creative Redevelopment Area/Zone.
- Assure adherence of the investment planning and associated urban development efforts to the statutory land use planning and urban design guidelines and regulations (e.g., the state town planning act, etc)

This request is for a vendor teaming engagement, meaning that this solicitation invites vendors to submit proposals as teams, with each team comprising a lead vendor and specialized sub-vendors, to complete the predetermined scope of multidisciplinary transaction advisory work as summarized further in this Terms of Reference.

## B. Project Background

The background of the Creative Redevelopment Area/Zone shall be described here with relevant details such as land area, number of land parcels (if fragmented or contiguous), proposed land use, floor space index (FSI), circle rates and market rates. The intended project impact and potential real estate investment opportunities shall also be highlighted.

## C. Scope of Services

The Services will be based on the Creative Redevelopment Project Plan of the Area/Zone of the Pilot Site(s) and Detailed Engineering Designs for the same, prepared as part of overall project design package by the ULB or its appointed consultants, and will include a series of interrelated tasks listed below.

### Task 1: Consolidate and Maintain Data Room with Related Information

The task involves consolidation and management of background information about the investment opportunities in the Creative Redevelopment Area/Zone. This task entails consolidating, abstracting and updating legal, regulatory, financial, engineering and other inputs needed for real estate investment planning in the Creative Redevelopment Area/Zone, including but not limited to the following sub-tasks:

- Summarize all planning and legal assumptions pertaining to investment planning in the Creative Redevelopment Area/Zone.
- Document and regularly update applicable legal and regulatory frameworks for land use planning, land and real estate transacting and investor solicitation in the Creative Redevelopment Area/Zone.
- Consolidate, verify and systematize evidence of initial building conditions, including Site Grading Plans, Topographical Surveys, Cut and Fill Volumes from the earthworks completed by current date, Drainage Layout post the earthworks, Photographs and Inspection Reports visualizing and recording of the state of the earthworks and providing evidence of the building conditions, other related documents including but not limited to results from any tests conducted on soil compaction, stability, or other relevant factors to confirm the initial building conditions.
- Mapping of existing and planned public infrastructure nodes, hubs and central connection points, including timing and phasing of delivery of the sitewide civil engineering works, new or upgraded utility lines and capacities.
- Mapping of existing transport Infrastructure networks and nodes, ingress and egress points, existing and planned, including timing/phasing of delivery.
- Outline the urban design plan, including its boundaries, design assumptions, and the vision and planning requirements.
- Present detailed and visualized Land Use Plan based on the layers of information including topography, Infrastructure, transportation, climate resilience and sustainability metrics.
- Render envisioned real estate offerings with spatial plans and visualization of massing of uses and indicative vertical development.
- Provide verified Cost Estimates for outstanding pieces of public infrastructure works that are required to enable the envisioned real estate offerings.
- Consolidate packages of existing financial and market viability assessments of the real estate offerings on the Creative Redevelopment Area/Zone, including most recent land valuations and market studies.

- Outline Urban Development Management Framework covering the Creative Redevelopment Area/Zone.
- Outline proposed governance framework for Common Area Maintenance and Operation of Public Infrastructure in the Creative Redevelopment Area/Zone.

## **Task 2: Support in Preparing and Conducting Investor Solicitations**

- Conduct due diligence on the economic, technical, and legal viability of the urban development concept and the Creative Redevelopment Plan as the basis for investor solicitations. This sub-task will include a series of market, engineering, and legal surveys to validate the Redevelopment Plan and reconfirm the real estate investment opportunities in both current and prospective market conditions, considering the present legal and regulatory context, as well as the current planning status, the physical limitations and civil engineering conditions of the site.
- Transform the planning land subdivisions/parcels from the urban concept and Creative Redevelopment Project Plan into commercial land subdivisions packaged into Transparent Real Estate Investment Opportunities, with Indicative schedule and phasing of land dispositions.
- Advise on the development controls, conditions and encumbrances (e.g., common area maintenance, planning area governance) to be included in the solicitations and attached to each land subdivision prepared for investor solicitation.
- Advise on proper solicitation documents (RFIs, RFPs, etc.) to generate the best response for proposals. Draft/prepare and review solicitation documents as appropriate. Assist staff in developer selection process by developing relevant selection criteria and evaluating proposals.
- Advise on commercial structure and transaction design for disposition of land and development rights. This is to be determined if this is going to be done individually for each parcel or there's going to be a unified approach for the entire land portfolio or portions of the portfolio. Proposed land transacting / investment contract structure(s) for investor solicitations based on development vision, legal context and pro forma model. Developing transaction blueprint ("roadmap") for solicitations.
- Develop and manage the master pro forma financial model for the financial due diligence of the real estate program in preparation of the solicitation process.
- Contract drafting in preparation of investor solicitations.

## **Task 3: Investment Promotion**

- Assist in various marketing and communications strategies in the effort to advertise the opportunity to invest in real estate development in the Creative Redevelopment Area/Zone. Tasks may include identifying industry characteristics and players, conducting market sounding, tailoring communications approaches, designing marketing collateral, recommending outlets/channels for advertising solicitations or press releases, etc.

#### **Task 4: Development Negotiations**

- Assist ULB staff and relevant jurisdictional personnel in developer negotiations. Perform research/due diligence as necessary for preparation. Support in review and proposing terms for real estate transactions, covenants, conditions, and restrictions, and other agreements necessary to advance transaction closure for solicited land subdivisions.

#### **Task 5: Financial Due Diligence and Advisory**

- Assist ULB in creating financial models for evaluating project financing and investment plans from bidding investors to assess feasibility of proposals. Suggest and evaluate alternative deal structures and refined commercial terms.

#### **Task 6: Support Review and Coordination of Legal Documents**

- Review and comment on a variety of real estate legal documents in consultation with legal professionals to support transactions, such as easements, derivative land rights, leases, licenses, purchase/sale agreements, and operation and maintenance agreements. Recommend changes to ULB document templates. Draft additional correspondence in support of ULB's approval process.

#### **Task 7: Staff Augmentation**

- Provide personnel on a part-time or full-time basis who are directly managed by ULB management staff daily to complete select specialized services listed above. These individuals should be capable of working on-site at ULB properties and offices.

# Annex 7

## Urban Planning and Design, and Land Value Capture Implementation Strategies for Creative Redevelopment in India

### Adopting an Urban Planning and Design Framework for Creative Redevelopment

At the 2023 G20 Summit in India, the concept of Creative Redevelopment<sup>30</sup> (CR) was introduced. This policy and planning approach focuses on urban regeneration using innovative mechanisms to reorganize land for better utilization and revenue generation<sup>31</sup>, improving land management efficiency and enhancing economic attractiveness.

Indian cities face challenges such as overburdened infrastructure, and issues with service delivery due to urban sprawl as well as declining city centers with degraded buildings and lack of public space. Fiscal constraints and limited private sector participation in urban infrastructure worsen these issues. Additionally, the lack of integrated urban planning leads to inefficiency, reduced productivity, and increased spatial inequality. Urban redevelopment must address these complexities in planning and design. Box 1 identifies some possible practical entry points for Indian cities to implement CR.

Modern urban planning and design practices cannot be discussed in isolation without addressing its implementation modalities and processes including what tools municipalities have at their disposal, how they are to be financed, key actors involved as well as institutional foundations and capacity.

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<sup>30</sup> Creative Redevelopment refers to an integrated urban planning and development approach that aims to that revitalizes underutilized land and outdated infrastructure by upgrading built systems, implementing regulatory reforms, and streamlining institutional frameworks. It aims to maximize land use and revenue potential while fostering sustainable, inclusive, and resilient urban environments. By using spatial planning, regulatory, and fiscal tools, this approach helps city and state managers create efficient urban systems that support economic growth and community well-being.

<sup>31</sup> Examples include repurposing buildings, such as converting old factories into mixed-use developments with residential, commercial, and cultural spaces, or transforming vacant land into community gardens or parks. This involves physical planning and policy interventions, such as refurbishing infrastructure with advanced features and adaptively reusing structures to meet current market needs.

A proposed approach (Figure 1) offers a holistic methodology for redeveloping India's cities, streamlining the scoping, preparation, and implementation of CR projects. In particular, it offers pathways for municipalities to unlock land and asset development potential. It focuses on ensuring economic viability of CR through (a) value creation through various urban planning and design processes; and (b) modalities for land value capture / land-based financing in CR projects. The approach also identifies catalytic opportunities to leverage existing city assets—such as land, natural environment, cultural heritage and socio-economic base. It highlights the various scale of intervention encompassing both top-down approaches and bottom-up initiatives and identifies the institutional foundations and capacity requirements.

The approach seeks to (a) achieve efficiencies through spatial and sector integration; (b) support inclusive growth; and (c) unlock sustainable financing methods, including land value capture and land-based financing in CR projects.

To implement CR initiatives, municipalities can explore various urban planning and LVC instruments, distinguishing between public and private land development. For instance, to implement public infrastructure in inner-city areas, municipalities can either finance and implement projects on public lands or use developer exactions or incentives for private developments. Urban planning and design can also create conditions for economically viable urban regeneration. These instruments fall into three categories:

### **Leveraging Public Land and Assets**

Public assets, such as government land and buildings, offer significant opportunities for CR. Examples include converting low-rise buildings into more efficient and taller mixed-use buildings by co-locating services or disposing/leasing public land for economic development. Effective management requires inventories and valuation of municipal assets, supported by strong public asset management and regulatory frameworks that facilitate leasing and selling public land to the private sector.

### **Regulating Land Use on Private and Public Land**

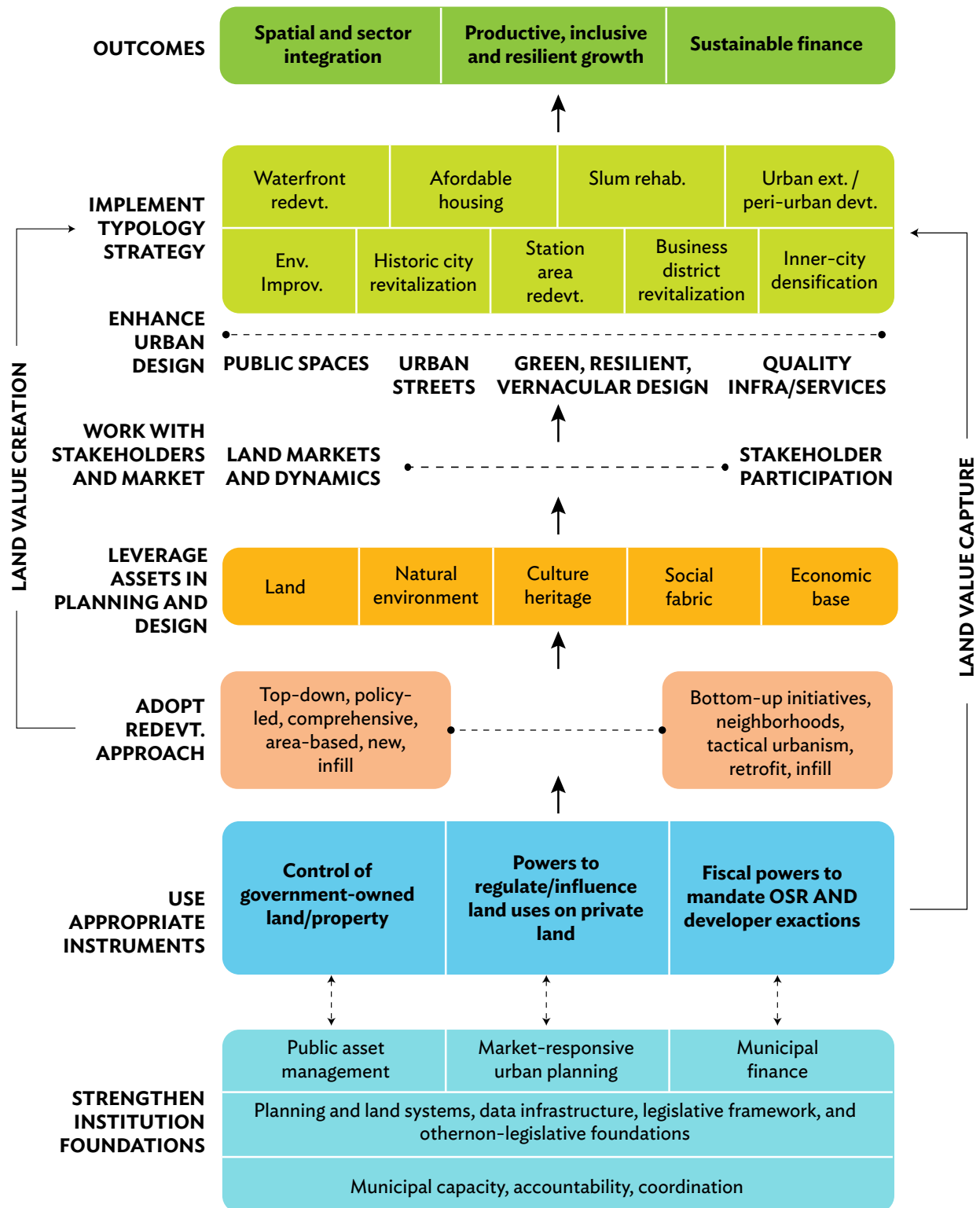
Governments can also regulate land use through urban planning instruments (e.g., master plans, zoning) and set development parameters (e.g., density limits, floor-to-area ratios, height restrictions, set-backs) through regulations and development incentives. These regulations should be responsive to allow dynamic land use changes while safeguarding long-term city growth, ensuring adequate infrastructure and supply of land for housing and businesses. The level of detail and sophistication of urban planning policies and plans should be calibrated with the municipal capacity that can realistically be achieved for developing, monitoring, and enforcing these instruments.

### **Applying Fiscal Instruments to Shape the Urban Environment**

Fiscal tools can capture value to fund public infrastructure, remediate blighted areas, or impose exactions from developers for public spaces or for public infrastructure. Ensuring that owning vacant underutilized lands is not cost-free is essential to shaping compact and efficient urban forms.

The benefits from LVC instruments are mainly realized locally, either (a) as revenues for municipal budgets or as in-kind contributions; (b) direct in-kind contributions, such as land for public use (e.g., streets, public spaces) or land for public infrastructure (e.g., public-use facilities); or (c) indirect in-kind contributions, such as local economic development benefits (e.g., new jobs). It should be noted that in-kind contributions of land or facilities for public use, which some LVC instruments supply, are equivalent to cost avoidance and savings for public budgets.

**Figure 12. Approach for Leveraging Urban Planning and Design, and LVC for Creative Redevelopment Projects**



Implementing LVC instruments requires a critical assessment<sup>32</sup>, including (a) who pays (owners or developers); (b) whether private sector participation is mandatory or optional; (c) which government levels must be involved; and (d) the prerequisites and risks for each instrument, among others.

### Box 1. Land Value Capture, Planning, and Design Entry Points for Creative Redevelopment

Urban planning and design in CR require practical approaches for implementation. Suggested entry points for Indian cities can include the following:

- **Scale up, adapt, and enhance urban planning and design modalities that work.** This can include scaling “tried and tested” models across cities in India, and improving on them, such as the town planning scheme (TPS), the use of transfer of development rights (TDRs), among others.
- **Focus on public asset management.** Municipalities often hold large portfolios of public assets (land and property) with untapped potential for creative regeneration.
- **Support bottom-up initiatives.** Coupling policy-led urban planning and design with support for ground-up initiatives, such as tactical urbanism, community- or business-driven initiatives, and creative placemaking.
- **Develop spatial and sector integration.** Finding synergies across sectors such as the integration of transport and land use through transit-oriented development (TOD), or integrated nature-based solutions into infrastructure and urban development. Some of these, can adopt suitable LVC and funding mechanisms.
- **Unlock private sector participation, work with land and property markets.** Not all public infrastructure needs to be funded by the government. There is an opportunity to create, finance, and manage urban planning and design through land value capture.

## Strengthening Institutional Capacity and Policy Instruments

To effectively implement LVC and urban planning instruments, institutional capacity is required for developing, monitoring, and enforcing these policy levers:

### Public Asset Management Qualifications

Effective public land and asset management involves several key components to ensure effective and sustainable use of resources. Firstly, it requires a clear and explicit public land management policy with objectives related to economic growth, equity, social development, environmental sustainability, and fiscal policy. In the Indian context, clear regulatory protocols and guidance for government land sales to the private sector would be crucial to maximize the economic potential of such lands. Secondly, an effective asset management plan should include current land and property inventory and digitized land records, an overview of property aims, the costs of O&M, and the (market) value of these assets. Additionally, good practices such as using performance indicators, implementing formal

<sup>32</sup> O. Kaganova, P. Gabor, and J. K. Kaw. 2023. *Land Value Capture: Guidance for Practitioners*. Paper presented at the World Bank Land Conference 2024, Washington, DC, 16–18 May.

strategies across its lifecycle including property disposals are essential. Lastly, adopting robust O&M practices (including involvement of the private sector), are key to public asset management.

## Spatial and Urban Planning Capacity

Good urban planning involves several essential components to ensure the development of resilient, sustainable, inclusive and livable cities. Of foremost importance is the development of clear, strong, and enforceable land use policies, zoning regulations, and urban design guidelines that are aligned with economic and infrastructure priorities. The planning systems should include a process in place to update these plans regularly so that they do not remain static; to this end, plans should have short-, medium- and long-term horizons/time frames.

Development Control Regulations (DCRs) and enforcement play a key role; international good practices have evolved from restrictive and prescriptive approaches to performance and outcome-based rules. The DCRs should also allow optimum flexibility to adapt to dynamic market demands for different typologies and urban floor space, while safeguarding long-term needs. An effective model in practice can be seen in Singapore, where the “white-site” concept was introduced to give developers more flexibility in the use of sites bought through government land sales.

Urban planning should also adopt an evidence-based approach, with the establishment of a strong Municipal Spatial Data Infrastructure (MSDI) foundation. Data on spatial growth patterns and land use that are linked to population and economic growth trends, information on land markets, as well as climate vulnerabilities should inform scenario models to develop risk-informed, market-responsive plans, without compromising on core planning principles (see Box 2).

Further, urban plans should be developed through shared visioning<sup>33</sup> and gender-inclusive<sup>34</sup> citizen participation, to ensure that vulnerable populations are included as part of the urban planning process.

From an urban planning capacity perspective, second-tier Indian cities and small towns face significant challenges in staffing the planning departments, development authorities and municipal agencies with qualified urban planners. This has a substantial impact on the planning interventions in these towns and eventually impacts the quality of life of citizens. The report released by NITI Aayog in September 2021 titled “Reforms in Urban Planning Capacity in India” outlines the current challenges and provides recommendations to address capacity gaps both in metro and non-metro areas, which can be incorporated by cities aiming to effectively develop masterplans and implement LVC.

## Ability to Implement Fiscal Tools and Policies

Municipal revenue mobilization is a key challenge in many Indian cities, and LVC has been limited. A critical step would be to expand local tax authority and allow a mix of elastic and inelastic revenue sources which can withstand economic fluctuations. Where possible, state support should be provided to bolster municipalities that may otherwise lack resources. From an operational perspective, optimizing the value of existing assets, effective governance and fiscal discipline, exploring partnership (including private sector) to enhance revenue generational opportunities are key areas to focus on. Effective use and unlocking new LVC instruments as part of urban development and land management is also essential.

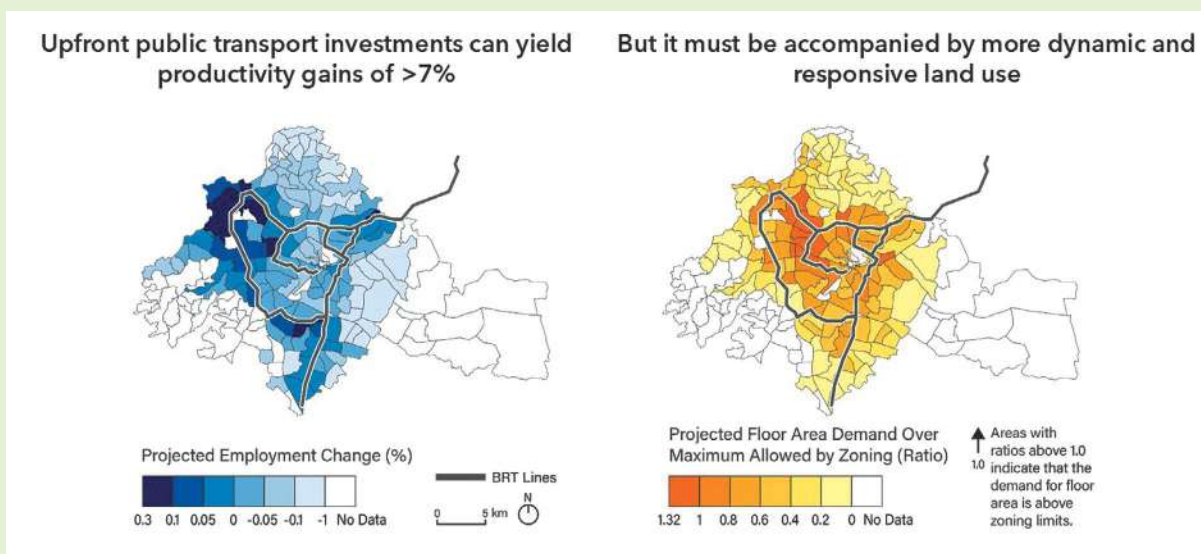
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<sup>33</sup> ADB. 2015. *GrEEEn Solutions for Livable Cities*.

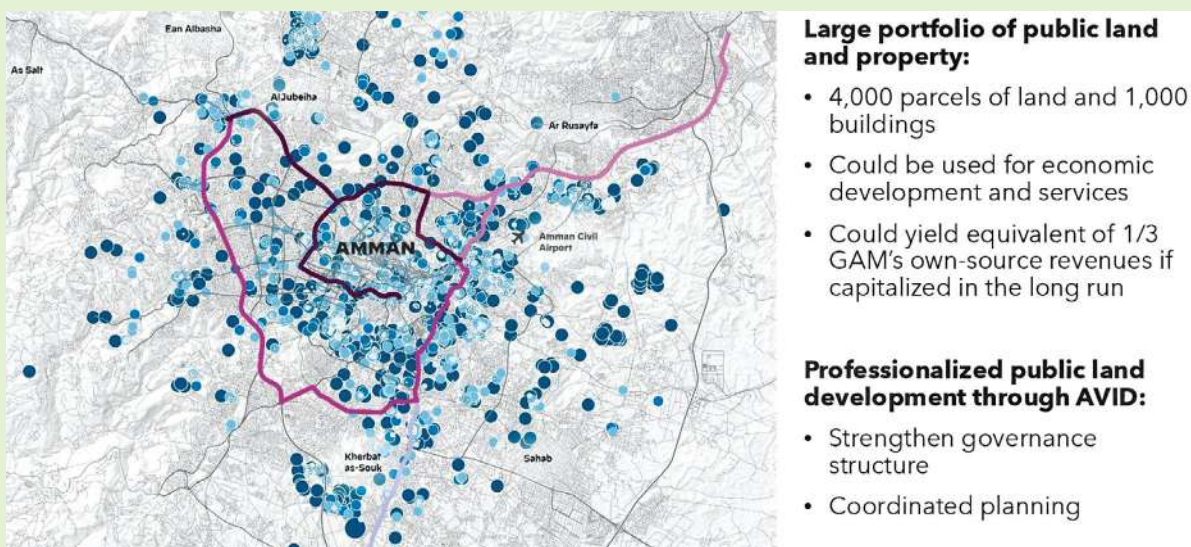
<sup>34</sup> H. Terraza et al. 2020. *Handbook for Gender-Inclusive Urban Planning and Design*. World Bank, Washington, DC.

## Box 2. Evidence-based Spatial Planning and Public Asset Management to Prioritize Investments for Jobs and Growth

In Amman, Jordan, the use of spatial analytics provided strong justifications to complement public transport infrastructure investments with land use reforms to permit denser buildings on private lands beyond current zoning, maximizing productivity gains from agglomeration economies. The municipality has started to modernize its planning laws to also unlock better land value capture instruments, and to support more comprehensive urban planning. The municipality has also inventoried and valued its public land assets and enhanced its land disposal and economic development efforts by establishing a land development company. These public lands can be utilized for transit-oriented development at strategic locations. Neighborhood public spaces and urban streets improvements are also poised to improve walking times to reach the nearest planned Bus Rapid Transit (BRT) stations significantly.



Source: Kleineberg et. al. 2024.



Source: Kaw, Park and Edilbi. 2024.

## Building Long-term Institutional Foundations

While CR can benefit from unlocking immediate opportunities for urban redevelopment, cities must also address and strengthen other foundational needs in the medium and longer terms to sustain CR efforts.

## Planning and Land Systems, Legislation, Non-legislative Foundations

Good planning requires a robust legislative framework, dynamic urban plans that meet short-term demand while safeguarding long-term goals, informed decision-making, and citizen and industry engagement.

In most Indian cities, spatial growth and land use are guided by 20-year master plans, supplemented by detailed development plans and Local Area Plans (LAPs). While these documents provide a foundation, they are often static, restrictive, and unresponsive to land and property markets, potentially hindering CR efforts. Land use changes are difficult and lengthy, and enforcement is weak. Infrastructure priorities in master plans and LAPs are often not implemented, making access to planned areas difficult and undermining the plans' purpose.

There is an opportunity to make these plans more dynamic and responsive to redevelopment, focusing on shorter-term implementation and flexibility while safeguarding long-term needs. Long-term master plans and LAPs should include frequent reviews to update visions and land use objectives. For example, a 20-year master plan could have a review every five years to respond to growth changes, with major revisions requiring substantial analytics and policies. Although review timeframes are embedded in Town Planning Acts and Masterplan Rules, they are not strictly enforced. A legal mandate with clear Monitoring and Evaluation (M&E) mechanisms is needed.

Most master plans do not address redevelopment issues, focusing instead on greenfield development. Redevelopment projects are often special cases, like the historic core of Delhi or the Bhandi Bazaar Redevelopment in Mumbai.<sup>35</sup> Development plans for key city areas should be mandated or integrated within master or city strategic plans, or by strengthening LAP implementation.

While adopting City Capital Investment Plans (CIPs) with a percentage of priority investments earmarked for redevelopment projects is another intervention. This could be opportunities for more effective value capture. India uses five main land value capture (LVC) instruments<sup>36</sup> with varying degrees of success. There is an opportunity to strengthen existing ones and explore other mechanisms. Globally, up to 16 different LVC tools are used<sup>37</sup>, each with pros and cons for specific development situations.

Improving municipal spatial data infrastructure (MSDI), land cadasters, and land registries is critical for accurate land valuation and functional land markets.

## Municipal Capacity, Development Authority, Coordination with Agencies

From an urban planning capacity perspective, second-tier cities and small towns face significant challenges in staffing the planning departments, development authorities and municipal agencies with qualified urban planners.

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<sup>35</sup> S. Ballaney et al. 2024. *Rejuvenating the City: Case Studies in Urban Redevelopment and Renewal*. ADB Sustainable Development Working Paper Series No. 103. Asian Development Bank

<sup>36</sup> OECD/Lincoln Institute of Land Policy, PKU-Lincoln Institute Center. 2022. *Global Compendium of Land Value Capture Policies*. OECD Regional Development Studies, OECD Publishing, Paris.

<sup>37</sup> O. Kaganova, P. Gabor, and J. K. Kaw. 2023. *Land Value Capture: Guidance for Practitioners*. Paper presented at the World Bank Land Conference 2024, Washington, DC, 16–18 May.

This has a substantial impact on the planning approaches followed in these towns and eventually impacts the quality of life of citizens. The report released by NITI Aayog in September 2021 titled “Reforms in Urban Planning Capacity in India” outlines the current challenges and provides recommendations to address capacity gaps both in metro and non-metro areas, which can be incorporated by cities aiming to effectively develop masterplans and implement LVC.

Departments should develop a competency framework and strategic workforce planning to map required skills and provide appropriate training programs. Clear mandates from senior levels, such as the Chief Secretary, should define roles and responsibilities to facilitate coordination. Heads of Departments (HoDs) should conduct periodic reviews to ensure alignment of plans and projects. Technical champions within departments should ensure day-to-day coordination. Additionally, a strong data foundation, including a common geoportal for data sharing, will enable coordinated urban governance and enhance service delivery.

In large-scale urban redevelopment, such as transforming old waterfront port areas, some cities create municipal land corporations to consolidate and manage land, guide long-term development, and secure financing for infrastructure. With strong urban governance, this model has the potential to professionalize public asset management through private sector efficiency, while maintaining a public purpose (see Box 6)..

## Operationalizing Creative Regeneration

Urban regeneration is a comprehensive process aimed at revitalizing urban areas that have experienced decline. The process typically involves several key phases and the management of critical assets. The main processes involved in urban regeneration<sup>38</sup>:

- **Scoping, location analysis and project readiness.** This initial phase involves identifying the areas in need of regeneration and understanding the local context. It should include economic analyses that help understand population growth rates, land value and job opportunity trends and growth trajectories. This should be supplemented by spatial planning and urban design studies that analyze access to transport and service infrastructure, climate resilience and sustainability considerations to help understand the extent of intervention required. A project roadmap should also be prepared with a logical framework that highlights the outcomes, outputs and activities as well as Key Performance Indicators (KPIs). These activities should be coupled with an organizational readiness assessment and staffing plan of the implementation agency.
- **Planning.** In this phase, a detailed plan is developed, which includes the creation of a master plan (with associated environmental and social impact assessment studies), area plans, urban designs, site plans and outlining the specific interventions needed, along with the regulatory and policy tools to be used. The plans should be developed through a participatory process guided by a Communications and Outreach Plan (COP). Quick-win initiatives, if any, can be identified to kickstart the first phase. This stage should culminate in a Detailed Project Report (DPR).
- **Financing.** Securing funding is crucial for the success of urban regeneration projects. This phase involves identifying and leveraging financial tools, including public-private partnerships, government incentives, public sector infrastructure investments, and private sector investments.

<sup>38</sup> R. Amirtahmasebi et al. 2016. Regenerating Urban Land: A Practitioner’s Guide to Leveraging Private Investment. *Urban Development Series*. The World Bank, and City Investments to Innovate, Integrate and Sustain (CITIIS) program and National Institute of Urban Affairs (NIUA). 2021. *Developing Innovative, Integrated, and Sustainable Urban Projects Using the CITIIS Model: Toolkit on Urban Infrastructure Project Development*.

- **Implementation.** This phase involves executing the planned interventions. This includes construction, rehabilitation (if required), and upgrading of infrastructure and public spaces. Effective project management and coordination among various stakeholders are essential during this phase.
- **Monitoring and Evaluation.** The completed project should be monitored through an M&E process and checklist to ensure compliance with pre-identified Key Performance Indicators (KPIs).

Additionally, urban regeneration projects often focus on several major assets:

- **Land and infrastructure.** Efficient use and management of land resources and existing infrastructure, including land readjustment and redevelopment. CR can also work with land and property markets to spur regeneration.
- **Cultural heritage.** Leveraging tangible and intangible culture and heritage, to support CR, economic development, tourism, and local basic services.
- **Existing communities and social fabric.** Engaging and involving the local community to ensure the sustainability and success of regeneration efforts.
- **Economic base.** Integrating and leveraging on existing businesses and economic clusters. This can include the blue economy for urban waterfronts,
- **Natural environment.** Recognizing urban greenery and enhancing, integrating and/or preserving environmental quality through green spaces and sustainable practices. There is also an opportunity to pivot from grey infrastructure provision to green infrastructure as part of CR.

There is however a need to also adapt these processes or include other specific approaches for specific typologies of catalytic opportunities. These are further discussed below in the next section.

## Adopting Strategic Redevelopment Processes, Scale, and Approaches

Urban planning and design can take on various approaches, and at different scales—from a more comprehensive area-based redevelopment to smaller neighborhood interventions.<sup>39</sup> They largely depend on various factors, including timing, needs and priorities, support, and available resources. For example, tactical-urbanism approaches could be an option for cities that lack financial resources for permanent public-space investments and could be used as an entry point to rejuvenate neighborhoods and cities. In other areas, own-source revenue from growing private investments might allow cities to invest in comprehensive transformation of a declining neighborhood, including infrastructure investments and public spaces.

## Comprehensive Area-based Urban Planning and Design

Neighborhood public space planning and design are often part of broader strategies like urban regeneration and Transit-Oriented Development (TOD). These involve mid- to long-term implementation, infrastructure and service investments, and are supported by robust planning systems and policies (Box 3).

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<sup>39</sup> J. K. Kaw, H. Lee, and S. Wahba. 2020. [The Hidden Wealth of Cities: Creating, Financing, and Managing Public Spaces](#). The World Bank.

## Bottom-up Initiatives, Tactical Urbanism, and Placemaking

Tactical urbanism and placemaking<sup>40</sup> offer visible, impactful outcomes at low cost through simple physical alterations that improve city space use.<sup>41</sup> These quick results build confidence among policymakers and practitioners, showing real changes and reflecting their opinions. Examples include free mini libraries, guerrilla gardening, art exhibitions, and parklets. However, without systematic, well-planned programming and ownership, these approaches may only have temporary impacts (Box 3). A notable example is the transformation of Times Square in New York from a busy traffic junction to a pedestrian-friendly public space.

## Identifying City-wide Urban Design Catalytic Opportunities

Urban design interventions can be site-specific and part some development typologies, or they could be implemented systematically city-wide to encourage CR—public space provision (including privately owned public spaces), practical enhancement of urban street design within existing street profiles<sup>42</sup>, and greening programs incorporating nature-based solutions (NBS) in infrastructure investments, and conservation programs to allow adaptive reuse of existing heritage buildings are some key areas of opportunity.

## Public Spaces, Privately Owned Public Spaces

Historically, “public spaces” referred to areas owned and used by the public, clearly distinct from private spaces. Over the past decades, this definition has evolved to reflect the diverse roles public spaces play in cities and the complex property relations involved. For instance, can a public space be privately owned but publicly used? Can a private space provide public benefits? A global review identifies three main types of public space ownership and management<sup>43</sup>:

- Public ownership and management
- Private ownership and management
- Mixed ownership and management (public ownership with private management or vice versa)

Cities can explore alternatives to traditional public management and funding for public spaces through CR initiatives. For instance, developers in large-scale projects often provide public spaces and neighborhood services, such as schools, which are later transferred to municipalities for O&M, as seen in Egypt’s new towns and Brazil’s metropolitan areas. Another model involves privately owned, operated, and maintained public spaces in New York City, created under incentive zoning schemes that grant developers additional rights while ensuring public accessibility. Box 4 describes the use of planning incentives to incentivize the creation of urban greenery and privately owned public spaces in Singapore’s urban development.

<sup>40</sup> Placemaking is a collaborative approach to planning, designing, and managing public spaces that focuses on community engagement, sustainability, and inclusivity to create vibrant, functional, and attractive areas that enhance the quality of life for all users. It leverages local assets and inspiration to develop spaces that promote health, happiness, and well-being, supporting local economies and fostering social and cultural inclusion.

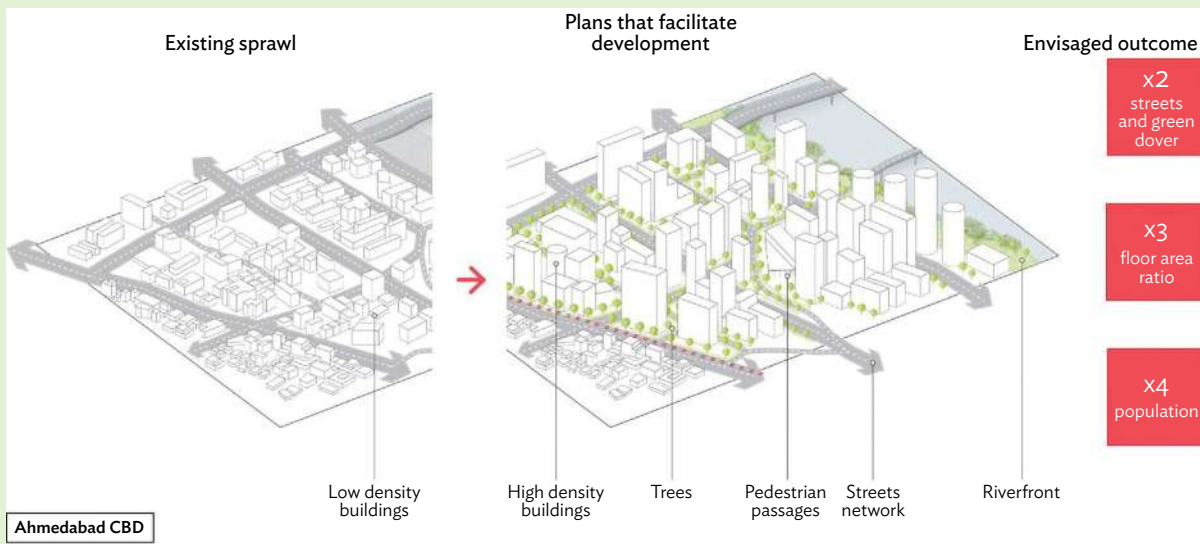
<sup>41</sup> W. H. Whyte. 1980. *The Social Life of Small Urban Spaces*. Conservation Foundation.

<sup>42</sup> National Association of City Transportation Officials (NACTO). 2016. *Global Street Design Guide*.

<sup>43</sup> J. K. Kaw, H. Lee, and S. Wahba. 2020. [The Hidden Wealth of Cities: Creating, Financing, and Managing Public Spaces](#). The World Bank.

### Box 3. Types of Redevelopment Approaches

**Comprehensive redevelopment.** Ahmedabad’s central business district (CBD) will be transformed under a new local area plan by the Ahmedabad Urban Redevelopment Authority (AUDA). Currently marked by small buildings, traffic congestion, and limited pedestrian movement due to restrictive bylaws, the plan aims to utilize the proposed Metrorail system and waterfront location to increase the FAR from 1.8 to 5.4, accommodating a population increase from 85,000 to 357,000. This densification will be supported by doubling the street network and green spaces. The plan aligns with market forces to achieve long-term public goals.



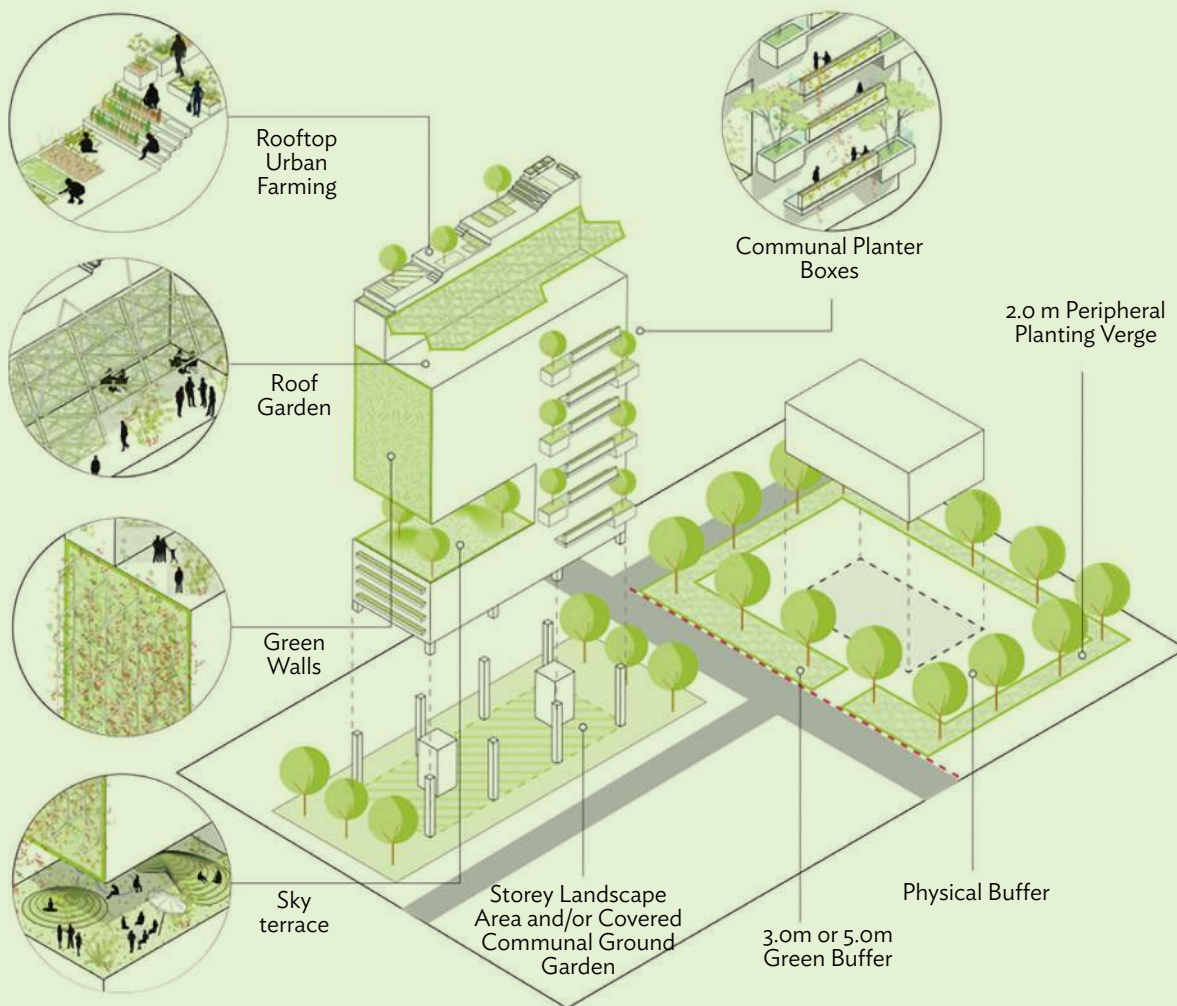
**Tactical urbanism.** The San Isidro District in Lima transformed Las Begonias, a commercial street with wide lanes and underused parking lots, into a vibrant public space. The local government’s “14m<sup>2</sup> of Life” campaign showcased how a parking lot could host art performances, urban farming, yoga classes, and exhibitions. Temporary grass benches and potted plants replaced car spaces, gaining strong citizen support. This led to the permanent addition of wider sidewalks, trees, bike parking stations, and benches.



Source: Kaw, Lee, and Wahba. 2020.

#### Box 4. Implementing Urban Greenery and Privately Owned Public Spaces in Singapore

The Landscaping for Urban Spaces and High-Rises (LUSH) Program in Singapore require developers to replace greenery within new development projects. The landscaped space, which can be at ground level (typically public spaces open to the public), rooftops, or mid-level sky terraces, must be at least equivalent to the development site area. Additional guidelines include floor-area exemptions for communal sky terraces and floor-area incentives for rooftop outdoor refreshment areas to encourage converting existing roofs into roof gardens or green roofs. The LUSH program is supported by the National Parks Board's Skyrise Greenery Incentive Scheme (SGIS), which covers 50% of the cost for installing rooftop and vertical greenery. These initiatives have been adopted by many private developments in the city center in Singapore.



Source: Kaw, Lee, and Wahba. 2020.

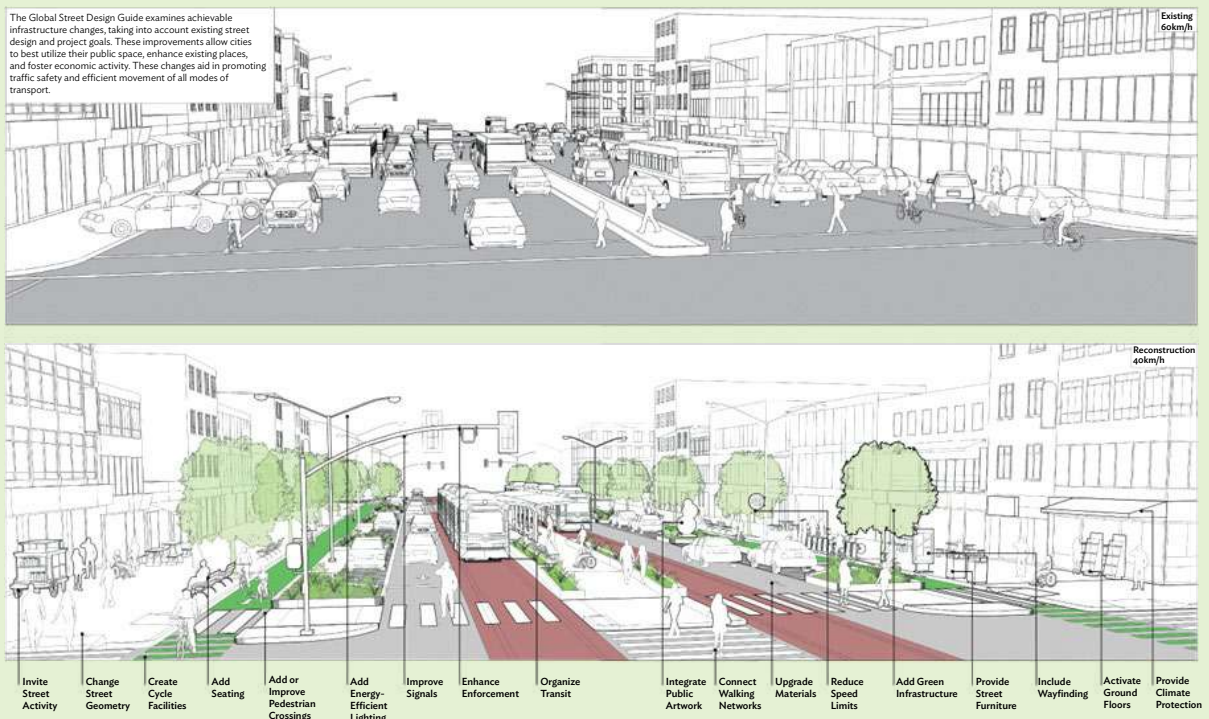
## Urban Street Design

Increasingly, urban streets in Indian cities, often crowded with people and congested with vehicles, need to balance personal mobility and economic access. There is a big opportunity for many Indian cities to adopt robust multimodal transportation networks can provide sustainable growth, equal economic opportunity, and high quality of life. Today's urban dwellers need walkable, cyclable, and transit-oriented neighborhoods. Urban streets must increase capacity to support the urban context and ensure a high-quality public realm.

CR can focus on practical and achievable urban street upgrades that consider existing street profiles without rebuilding completely and strengthening project goals (see Box 5). Global experience<sup>44</sup> show that this can be achieved by prioritizing sustainable transportation modes through dedicated spaces, allowing high-efficiency transit to free up room for other street activities that support urban life. As cities expand, it is crucial to consider the various players and processes shaping streets. Well-designed streets, integrated with other urban systems, offer multiple benefits to cities and their residents. Getting urban streets right can set strong foundations for encouraging CR.

### Box 5. Practical Urban Street Improvements

Thoughtful and practical street design can dramatically change the character of neighborhoods, leading to personal and traffic safety, quality public and green spaces that help mitigate heat islands, and help with stormwater runoff, and organize spaces for public transport, non-motorized transport and businesses that rely on street activity.



Source: NACTO. 2016.

<sup>44</sup> National Association of City Transportation Officials (NACTO). 2016. *Global Street Design Guide*.

## Green Infrastructure

The importance of incorporating blue-green infrastructure into masterplans has increased in recent decades. Bhopal's 2031 Development Plan prioritizes conserving eco-sensitive areas and promotes environmental conservation alongside tourism for lakes and rivers through specific regulations. Similarly, Chennai's upcoming Third Masterplan emphasizes blue-green considerations, integrating several baseline studies on blue-green infrastructure and climate into the draft plan. These master planning efforts provide a framework for Nature-Based Solutions (NBS) at various scales, from city-wide projects like waterfront development to medium-scale lake rejuvenation and micro-level park designs.

CR could scale up the use and integration of NBS in city-wide green infrastructure or integrated as part of specific projects. NBS offer multiple advantages over traditional hard engineering solutions, including durability and better integration with urban spaces. For example, embankments and flood control solutions benefit from vegetation for soil retention, providing ecological benefits (water filtering, bird habitats), livability (shade, reduced urban heat, social spaces), and a lower carbon footprint. NBS tertiary water systems improve water quality before it reaches rivers, and vegetated retention ponds reduce flash flooding. Initial support for NBS implementation may require bioengineering solutions, such as cellular systems and natural fiber nets to retain soil while root systems establish. Wood structures can effectively retain banks and support vegetation, ultimately creating a resilient, re-naturalized system compared to the material degradation of hard engineering.

## Implementing Strategies for Creative Regeneration Typologies

The following urban typologies in Indian cities offer potential opportunities for CR, some of which can be combined. This summary outlines common key issues within each typology and provides implementation guidance for redevelopment.

### Waterfront Redevelopment

Urban waterfronts offer significant redevelopment opportunities due to their population and economic concentration. Over 40% of the world's population lives within 100 km of the coast, where most megacities are located, and approximately 80% of global tourism is coastal, and they support and benefit from the blue economy. However, 1 in 7 urban dwellers live in vulnerable coastal areas susceptible to flooding and storm surges from extreme weather and climate change. Waterfronts are some of the most dynamic urban areas that can play a crucial role in city transformation. Initially bustling ports or settlements, they often become physically separated from cities by infrastructure. As waterfront activities decline or when ports relocate, cities must redevelop, undertake environmental remediation, and reconnect these areas with the urban fabric. Today, cities like Bilbao, Copenhagen, and Singapore are reimagining their waterfronts with low-carbon, energy-efficient developments, biodiversity preservation, mixed-use districts, and ample public spaces.

India's urban waterfronts are no different. CR efforts must therefore not only unlock the value they possess, but they must also integrate urban resilience and address vulnerable communities as a central theme.

Waterfront regeneration involves the process of revitalizing and redeveloping urban waterfront areas that have often fallen into disuse or disrepair. This process typically involves a combination of environmental restoration, economic

development, and community engagement to transform these areas into vibrant, functional, and attractive parts of the city. Key operational aspects of waterfront regeneration may include processes for:

- **Develop a plan for environmental restoration.** Efforts to clean up and restore natural water bodies and surrounding environments. This can involve removing pollutants, restoring natural habitats, and improving water quality.
- **Focus on economic development.** Attracting private investment and creating economic opportunities through the development of commercial, residential, and recreational spaces—integrating with blue economy activities. This often includes the creation of public-private partnerships to finance and manage the redevelopment projects. There is often a focus on land assembly, instruments for land value creation capture.
- **Engage and integrate affected communities.** Involving local communities in the planning and development process to ensure that the projects meet their needs and contribute to the overall well-being of the area. This can include public consultations, community events, and the development of public spaces. Often the need to address resettlement through a fair and inclusive process is needed.
- **Develop urban planning and design for waterfront areas.** Developing comprehensive plans that integrate urban, social, environmental, and economic elements to create cohesive and sustainable waterfront areas. This often involves innovative financial instruments and land-value capture mechanisms to fund the projects. Plans should also integrate with existing city plans.
- **Consider institutional arrangements.** Waterfront redevelopment may require dedicated institutional vehicles for assembling and disposing land for development, urban planning and design, raising finance, upfront infrastructure investments (including brownfield remediation and resettlement) and safeguarding long-term goals for the city. These entities could be a combination of private and public (see Box 6).

An example of a successful waterfront regeneration project is the Anacostia Waterfront Initiative (AWI) in Washington, D.C., which transformed a derelict piece of land into a vibrant part of the city through a 30-year, \$10 billion program that linked economic development with watershed restoration. Please see Annex 2, Case Study 7 for more information.

The Wharf, a thriving mixed-use development which was a part of the AWI captures \$ 70.5 million annually in taxes.



Source: Washington, DC website. Undated. [The Wharf reestablishes Washington, DC, as a waterfront city and destination.](#)

### **Box 6. The Copenhagen Model of Unlocking Land Value, Public Direction and Private Sector Discipline in Waterfront Redevelopment**

Almost 40 years ago, Copenhagen saw 17.5% unemployment, outmigration, manufacturing decline, decline of taxes, and annual budget deficit of \$750 million. Today, the city has transformed into one of the most livable and prosperous cities in the world. Key features include bundling assets by merging public entities and setting up of a private development corporation; state and local government collaboration; transparent ownership and value of public assets (land, buildings, etc.); and insulation from political interference. The Copenhagen model works because the public sector participates for the long term, reaping enormous benefits as value naturally appreciates from smart public investments. It combines the efficiency of market discipline and mechanisms with the benefits of public direction, legitimacy and low-cost finance. Urban development takes on the following process:

- National and local government transfer assets to CPH City and Port Development Corporation.
- Local government rezones land for residential and commercial use, resulting in increase in land value.
- Corporation borrows based on the increased value of the land, on favorable terms.
- Investments in local infrastructure for land development through the metro construction company for transit and/or through corporation.
- Facilitates development through variety of mechanisms: land sales to or leases with developers or development by the corporation.
- Generates revenue to service debt.



Source: Katz and Noring. 2017.

## Slum Upgrading

Slum upgrading is a complex process that requires careful planning, community involvement, and strategic implementation. Here are the key considerations and processes involved in slum upgrading. Key considerations during implementation include:

- **Regularize property.** A vital component of slum upgrading is regularizing properties in situations of insecure or unclear tenure. This helps in providing legal recognition and security to the residents, which is crucial for the sustainability of the interventions.
- **Select and prioritize areas for upgrading.** City governments must establish criteria to select and prioritize areas for intervention, considering the best use of limited budgets and resources. This involves developing a medium to long-term plan for phased implementation of slum upgrading.
- **Develop customized standards and planning procedures.** Slums often do not comply with formal planning standards and procedures. City governments may need to develop specific standards for slum upgrading to eliminate legal, regulatory, and procedural bottlenecks, thereby incorporating slums into formal city planning. This may include standards for both infrastructure and buildings.
- **Provide and invest in basic services.** Slum upgrading typically involves providing a package of basic services in addition to housing, including clean water supply, sewage disposal, waste collection, power, transport connectivity and network infrastructure with lighting etc., social amenities such as Integrated Child Development Services (ICDS), Primary Health Care Centers (PHCs), community centers etc. These services are essential for improving the living conditions of slum dwellers.
- **Support community participation.** Engaging the community is crucial for the success of slum upgrading projects. This involves involving residents in the planning and implementation processes to ensure that their needs and preferences are considered. Community participation helps in building trust and ensuring the sustainability of the interventions.

In scenarios where slum upgrading is not viable (e.g., locations with climate vulnerabilities etc.), resettlement may be considered. Indian cities should move away from the currently prevalent model of high-rise, high-density resettlement sites far from the city core, which negatively impact livelihoods and livability. Resettlement sites should be chosen factoring in access to work opportunities; site and building design should create low-rise, high-density areas with adequate open spaces and social infrastructure, factoring in the socio-cultural preferences of the beneficiaries. At a building level, thermal comfort through passive design that maximizes natural ventilation and daylight should be emphasized.

## Affordable Housing

The rapid growth of India's population and cities creates an opportunity for affordable housing to improve urban design. Successful housing projects require adequate typologies, quality design, and materials, supported by well-designed buildings and neighborhoods including public spaces, streets, and infrastructure. Key considerations include:

- **Define affordability.** Affordability varies by state and specific local conditions; before embarking on affordable housing projects, define affordability and the target income groups to be served.

### Box 7: In situ Slum Redevelopment, Ahmedabad

Under the Pradhan Mantri Awas Yojana (PMAY), in situ slum rehabilitation of Ramapir ni Tekra in Old Vadaj uses TP scheme to rehabilitate former inhabitants into 896 housing units designed for the Economically Weaker Section (EWS). The rehabilitated complex includes a community hall, a primary school, and a play area for children as common spaces. The units are allotted to the tenants on a leasehold basis under the provisions of the PMAY scheme. The scheme allows for the private developer to retain a part of the plot for commercial sale of higher category units as an incentive for in situ redevelopment.



Source: Authors.

- **Conduct target population and needs assessment.** Different zones within cities have varying needs for affordable housing. For example, outer-city areas may require low-cost home improvements, while urban centers may need multi-story buildings due to high land costs. Tailoring solutions to specific regional needs is crucial. For the lowest income groups, upfront subsidies may be more appropriate than credit due to their low and unstable cash flows. Subsidies can help these groups access housing without the burden of loans.
- **Develop appropriate land use, zoning layers, and urban design.** Ensure land for housing projects is safeguarded by avoiding environmentally sensitive or hazardous sites and ensuring clear title and ownership. Affordable housing zones should be demarcated in the masterplan, with incentives for private sector involvement. Ahmedabad's Residential Affordable Housing (RAH) Zone offers valuable planning insights.
- **Assess costs of affordable housing provision.** Rising construction costs and market volatility can impact the affordability of housing. Regularly update affordability analyses based on current market data to ensure that housing remains accessible to the target population; introduce innovative construction techniques to minimize construction cost.
- **Develop appropriate public-private partnership arrangements.** Leverage partnerships with private developers and financial institutions to develop affordable housing projects and provide financing and ensure

the delivery of affordable housing units. This can include tripartite agreements between lenders, buyers, and developers.

- **Engage community and focus on social considerations.** Engage local communities in the planning and implementation process to ensure that housing projects meet their needs and preferences. This can also help in building a sense of ownership and responsibility. Consider the social impact of housing projects, such as the creation of jobs for residents and the provision of services like education, health care, and basic utilities.

In Tamil Nadu, projects by the ADB and WB have focused on financially and economically viable affordable housing initiatives for underserved EWS and LIG segments, including rental housing for female migrant workers (e.g., Vidiyal Residency Pvt Ltd's 14,000 units), SIPCOT-backed TNIHPL's 800-bed facility, and Thozhi-branded hostels serving 1,100 women through state-led initiatives. These have been described in greater detail in Annex 2, Case Study 2.

## Inner-city Density

Effective densification requires the coordinated placement of jobs, services, and public transportation to create a livable urban environment. This ensures that the benefits of density, such as cost-effectiveness and productivity are realized. At the site level, economic viability is also a key factor for redevelopment and densification. Key considerations include:

- **Integrate land use and transport infrastructure planning.** Accompanying transport infrastructure must be considered, as increased density could lead to congestion if not properly managed. This includes ensuring adequate public transport services and limiting the number of parking lots to encourage the use of public transport and cycling.
- **Enhance regulatory and policy frameworks to allow densification.** Implementing appropriate land use, zoning, policies and regulations can help incentivize and manage densification (see Box 4). Restrictive zoning and density controls often need to be revised, calibrated and/or relaxed to be more responsive to market demand for floor area. This should be coupled by robust planning systems and strong enforcement.
- **Improve public asset management.** Governments can also densify public property by consolidating public functions (such as government offices and public services) to buildings with more efficient use of land, or co-locating services.
- **Conduct community engagement and focus on social equity.** Engaging local stakeholders in the planning and implementation process is crucial. Consideration must be given to the potential for gentrification and displacement of existing residents. Strategies should be developed to ensure that densification benefits all community members, including low-income and vulnerable populations.
- **Integrate green spaces and public amenities into implementation plans.** Densification can incorporate green spaces and public amenities into densification plans to enhance the quality of life for residents and support environmental sustainability. For instance, increasing FAR can be coupled with incentives for private sector developers to implement privately owned public spaces (see Box 4).

A successful example is the series of systematic investments in inner-city areas by the city of Johannesburg in South Africa in response to severe economic decline, social fragmentation, and infrastructural degradation caused

## Box 8: Rental Housing Provision Using PPP Models in Tamil Nadu, India

### Private Industrial Housing

| Summary                              | Description                                                                                                          |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Company Name</b>                  | M/s Industrial Housing 1                                                                                             |
| <b>Investment Size</b>               | \$ 21.6 million                                                                                                      |
| <b>Instrument</b>                    | Optionally Convertible Debentures (OCD)                                                                              |
| <b>Project Description</b>           | Industrial housing for a Private Limited's employees (14,308 beds)                                                   |
| <b>Location</b>                      | West Tamil Nadu                                                                                                      |
| <b>OCD Tenure</b>                    | 10 years                                                                                                             |
| <b>Expected IRR</b>                  | 12%                                                                                                                  |
| <b>Project Cost</b>                  | \$ 109 million                                                                                                       |
| <b>Investment Impact</b>             | Providing safe, good quality, rental housing for women employees thereby increasing workforce participation of women |
| <b>Lowest income level reachable</b> | \$ 2,500 per annum                                                                                                   |



Actual Site photos

This project was implemented to provide safe and high-quality rental housing for women employees in the industrial sector, aimed at boosting their workforce participation. This initiative utilized a Public-Private Partnership (PPP) model, where the private sector took responsibility for constructing and managing the rental housing facilities.

### TNSF Investment: TNWWHCL Retrofitting of Hostels

| Summary                              | Description                                                                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Company Name</b>                  | M/s Tamil Nadu Working Women's Hostels Corporation                                                                                                 |
| <b>Investment Size</b>               | \$ 0.3 million                                                                                                                                     |
| <b>Instrument</b>                    | Optionally Convertible Debentures (OCD)                                                                                                            |
| <b>Project Description</b>           | Retrofitting hostels in 8 locations with 532 beds                                                                                                  |
| <b>Location</b>                      | Vadapalani, Adyar, Perambalur, Tirunelveli, Villupuram, Thanjavur, Salem, Vellore                                                                  |
| <b>OCD Tenure</b>                    | 10 years                                                                                                                                           |
| <b>Expected IRR</b>                  | 10%                                                                                                                                                |
| <b>Project Cost</b>                  | \$ 0.5 million                                                                                                                                     |
| <b>Investment Impact</b>             | Upgrading existing facility to provide safe, good quality, affordable rental housing for working women/increasing workforce participation of women |
| <b>Status</b>                        | Operations to commenced in 7 sites.                                                                                                                |
| <b>Lowest income level reachable</b> | \$ 2,500 per annum                                                                                                                                 |



Actual Site photos



An existing working women's hostel was upgraded into a safe, high-quality, and affordable rental housing facility for working women, aiming to enhance their workforce participation. This initiative was implemented by the public sector, with the private sector managing the upgraded facilities.

Source: ADB-World Bank South Asia Urban Team, Tamil Nadu Infrastructure Fund Management Corporation

by apartheid-era segregation and subsequent disinvestment. Johannesburg achieved this through a combination of progressive policy frameworks like the 2004 Inner City Regeneration Business Plan, iGoli 2030; innovative fiscal planning measures like tax and areas-based incentives; and effective local area spatial planning through delineation of specific City Improvement Districts (CIDs). The impact of was remarkable. From 2002 to 2007, Johannesburg's inner-city emerged as the leading economic contributor, accounting for 20.5% of the city's gross geographic product (GGP) growth, crime rates fell by 80% and about 22,000 new affordable housing units were added to the housing stock between 2003–2015. For further details, refer Annex 2, Case Study 8.

## Historic City Revitalization

Historic city revitalization projects can create vibrant, economically prosperous, and culturally rich urban environments that benefit both residents and visitors.

- **Develop a strategy for cultural and heritage preservation and adaptive reuse.** Ensure that revitalization efforts maintain the authenticity and historical integrity of the site. This includes preserving traditional architecture, urban structure, and cultural landscapes. Promote the adaptive reuse of historic buildings to give them new functions while preserving their historical value.

**Figure 13. Hillbrow Health Precinct Improvement**



Source: Johannesburg Development Agency (JDA).

### Box 9. World Trade Center Redevelopment, Nauroji Nagar, New Delhi

New Delhi's severe underutilization of low-density high-value land in core-city areas has been a consequence of high concentration of public lands in core areas, currently utilized as administrative zones with government offices and public employee housing. While the former—also known as Lutyen's Delhi—is the colonial administrative district protected by heritage norms, the latter refers to very low density public housing built post-independence, referred to as the General Pool Residential Accommodation (GPRA) in the Masterplan. To re-densify these low-density extremely high-value lands, Government of India in 2017 began major redevelopment efforts in both Lutyen's Delhi and GPRA colonies, one of them being the Nauroji Nagar Redevelopment or the World Trade Center (WTC) in Delhi.

The WTC is implemented by the NBBC—a Public-Sector Undertaking (PSU) of the Ministry of Housing and Urban Affairs (MoHUA) responsible for construction and management of public properties. The model allows enhanced value capture through auction of the developed commercial lease/rental spaces to both public and private players. However, the ownership and resale model attracts more PSUs, aligning with their business models and buying preferences than multinationals who avoid burdening their balance sheets.



Source: Easy Realtors. 2024. [World Trade Centre in Nauroji Nagar Space Sold by NBCC.](#)

- **Conduct community and stakeholder engagement.** Engage local communities, stakeholders, and experts in the planning process to ensure that their needs and perspectives are considered. Assess and mitigate the social impacts of revitalization, ensuring that the benefits are equitably distributed, and that the local way of life is preserved.
- **Develop economic development and tourism management.** Develop strategies to manage tourism sustainably, ensuring that it benefits the local economy without compromising the heritage and social fabric of the city. Focus on creating employment opportunities through heritage conservation and tourism development.
- **Invest in green infrastructure.** Incorporate green infrastructure and nature-based solutions to enhance environmental sustainability and resilience.

**Figure 14. Dashashwamedh Plaza, Varanasi**



Source: Authors.

The Dashashwamedh Plaza and Street Revitalization project is an example of addressing the decline in urban environment at a key historic and religious center through a holistic preservation and adaptive re-use strategy. The project included pedestrianization of a key tourist street, relocating incompatible land-uses and transforming an old building into a commercial complex into a landmark public plaza. The initiative also involved enhancing the street's urban aesthetics through improved shop facades and standardized signage. The project leveraged institutional innovation through a Special Purpose Vehicle (SPV) between Varanasi Smart City Limited (VSCL) and Varanasi Development Authority (VDA), responsible for revenue generation and opex. For further details, refer Annex 2, Case Study 3.

## Business District Revitalization

Business districts often face economic decline due to various factors such as reduced investment and loss of businesses, often leading to aging infrastructure, outdated buildings, poor road conditions, and inadequate public amenities. Perceptions of crime and safety can significantly impact the attractiveness of a business district. Some barriers to business district revitalization are resistance to change and regulatory constraints. Implementation strategies include:

- **Develop an economic development plan.** Addressing business activity and investment, including the long-term development vision.
- **Invest in infrastructure.** Upgrade outdated or poorly maintained infrastructure and exploring appropriate financing or funding models.

### Box 11. Historic City Revitalization of Shanghai



Source: <https://www.som.com/projects/shanghai-taipingqiao-xintiandi-specific-plan/>.

The Shanghai Historic Neighborhood Regeneration project in the Taipingqiao area, including Xintiandi, was initiated to address dilapidation while preserving the historic Shikumen architectural style. A public-private partnership led by Shui On Land Limited (SOL) collaborated with local authorities. Strategic location, cultural heritage, and commercial potential underpinned the revitalization.

- **Preservation-Oriented Development.** The project in the Taipingqiao neighborhood emphasized conserving Shanghai's historic Shikumen buildings while integrating commercial and cultural uses, balancing preservation and modern development.
- **Comprehensive Master Planning.** A master plan developed by SOL and supported by local government agencies outlined the neighborhood's transformation, ensuring harmony between traditional architecture and modern infrastructure.
- **Public-Private Partnership.** The initiative was a collaboration between the municipal and district governments and SOL, showcasing effective public-private cooperation for urban regeneration.
- **Socio-Economic Impact.** The redevelopment created a vibrant, mixed-use community with retail, residential, and entertainment facilities, enhancing urban space quality and property values.
- **Cultural Heritage Utilization.** The project leveraged historic assets to attract tourism and boost economic growth, proving cultural heritage as a valuable capital.
- **Demonstration Effects.** Xintiandi's success inspired similar projects in other Chinese cities, promoting sustainable regeneration practices while addressing urban heritage conservation.

**Source:** R. Amirtahmasebi et al. 2016. Regenerating Urban Land: A Practitioner's Guide to Leveraging Private Investment. *Urban Development Series*. The World Bank.

- **Promote safety and security.** Enhance public safety to attract businesses and visitors.
- **Engage businesses and community, build ownership.** Involve local stakeholders in planning and decision-making, develop placemaking approaches, and explore implementation and management arrangements such as Business Improvement Districts.
- **Review and address regulatory barriers for redevelopment.** These can include simplifying regulations to encourage business operations and development; and incentives for redevelopment.

A notable example of business district revitalization and environmental improvement is the Cheonggyecheon Restoration Project in Seoul which targeted a degraded urban area by replacing an aging highway with a vibrant public green space. It improved environmental quality, flood resilience, and economic activity while fostering community engagement through innovative planning, interdisciplinary coordination, and public-private partnerships, setting a global benchmark for urban renewal. The project significantly boosted real estate values, with land prices near the stream rising 30% more than surrounding areas. Office rents increased by 20%, and the area saw a surge in construction, renovations, and commercial land use transformations. Please see Annex 2, Case Study 10 for more information on this example.

Another example is Bhendi Bazaar in Mumbai—the 150-year-old historical commercial center, renowned for its specialized markets and currently undergoing one of the largest urban transformations in India. The 6.7-hectare project area, initially challenged by a historical tenure structure, was selected for redevelopment through a community-led, not-for-profit trust tasked with improving infrastructure, enhancing amenities, and creating new spaces for housing and commerce. For further details, refer Annex 2, Case Study 4.

Bhendi Bazaar exemplifies how healthy land markets and growth pressures can spur creativity in maximizing urban land potential.



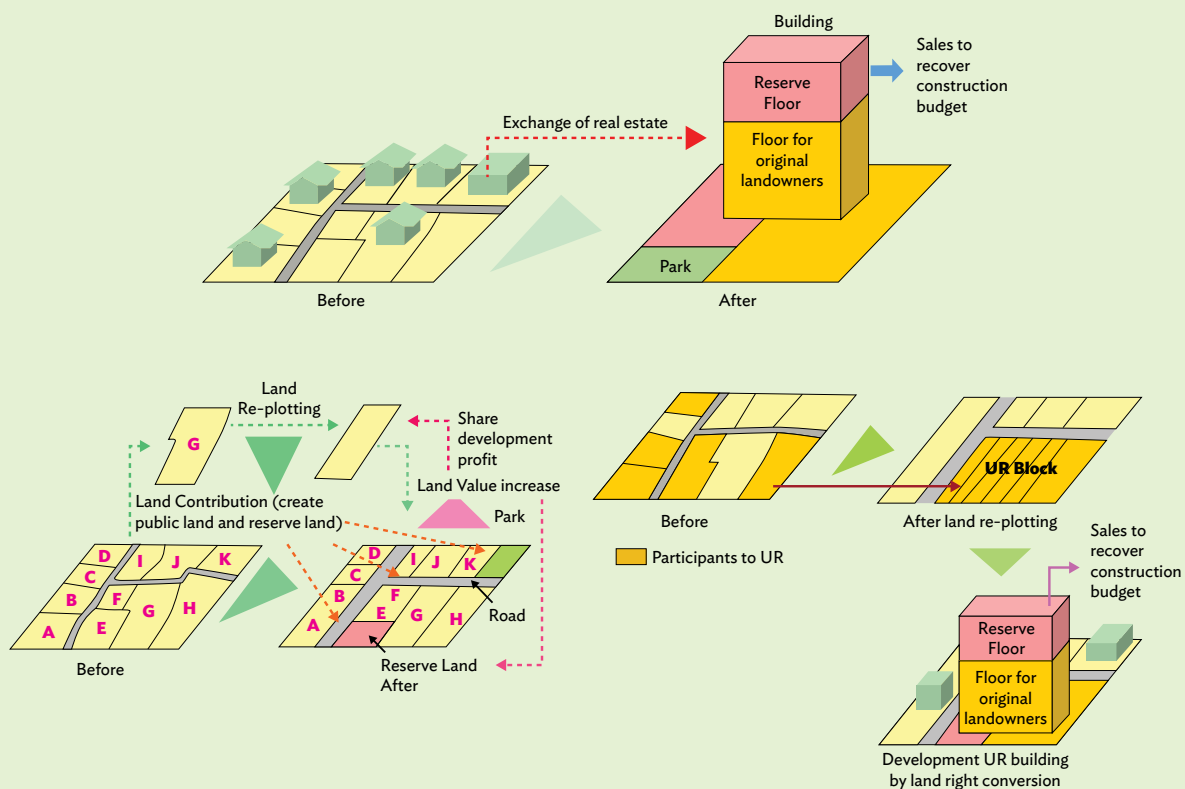
Source: Safi Burhani Upliftment Trust.

### Box 12. Land Readjustment in Suburban Tokyo

Agricultural Land Consolidation (ALC) in Japan was established in the late 19th century, evolving eventually as a mechanism to develop peri-urban agricultural lands as residential areas in large cities facing rapid population growth. To recover part of the project cost, “surplus lands”—which can be created from private lands under the provision of ALC law—were sold on the market as “reserve lands” of the Land Readjustment (LR), established in 1954. The two diagrams below depict the conceptual model of:

- Urban redevelopment (UR) involving plot amalgamation for vertical development of the amalgamated UR Block.
- Land Readjustment of peri-urban agricultural land involving plot readjustments and thereafter the vertical development of UR Blocks.

**Figure 15. Conceptual Model of Urban Redevelopment and Land Readjustment**



To date, LR has created and redeveloped 3700 Sq.km of urban accounting for 30% of the total urban land in Japan. Furthermore, LR has developed urban public facilities such as roads, green parks, and station plazas.

Source: World Bank Case Study on Land Readjustment in Tokyo.

## Urban Extensions/Peri-urban Development

Urban extensions and peri-urban development face several key issues when not managed well, including infrastructure deficiencies, unplanned expansion, environmental impacts often leading to inefficient urban forms with costly infrastructure that undermine city productivity and livability.

- **Assess cost-benefit and interjurisdiction coordination.** Raising awareness about the costs of sprawl and fostering inter-jurisdictional collaboration to address urban growth.
- **Upfront infrastructure investments that anticipate growth.** Secure rights-of-way for roads and public spaces and implement infrastructure investments such as roads in advance of urban expansion.
- **Planning and development.** Promote more efficient use of infill land through compact development, ensuring adequate supply of land for commercial and residential uses, and better connectivity.

## Station-area Redevelopment and Improving Accessibility

TOD is gaining significant traction in several Indian cities, including Ahmedabad, where Transit-Oriented Zones (TOZs) are part of the development plan; Delhi, where the master plan has an entire section dealing with TOD provisions; and Bengaluru, which has started preparing Station Area Plans, to name a few.<sup>45</sup> The successful execution of TOD relies on a strong TOD policy, backed by TOD-specific regulations with development control relaxations (e.g., higher FSI, reduced parking requirements etc.) that can help maximize the land's development potential and encourage more efficient land assembly models. The inclusion of social infrastructure, especially affordable housing, should be prioritized in these zones. While these considerations provide the necessary framework for TOD, urban design plays a crucial role in realizing projects and making them successful. TOD design considerations are critical to factor in, including public space design adjacent to stations, introduction of mixed commercial uses as well as efficient pedestrian circulation that leads to greater footfall, and in turn, urban vibrancy. TOD may require the following key actions:

- **Assess viability, integrate transit and land use.** Effective TOD requires the integration of transit infrastructure with urban development. This involves aligning transport planning, land-use planning, real estate development, and infrastructure delivery. Viability of each station needs be assessed, considering the station area, network corridor and city-level plans.<sup>46</sup>
- **Develop institutional and policy frameworks for TOD.** Establishing robust policy frameworks and institutional capacities is crucial for successful TOD. This includes regulatory flexibility, enabling policies, and strong institutional support to facilitate TOD implementation.
- **Explore financing and investment, private sector participation modalities.** Securing financing for transit infrastructure involves estimating capital costs, identifying funding sources, and establishing mechanisms for public-private partnerships and revenue generation. TOD could also offer more opportunities for PPPs.
- **Design for walkability, access and road safety.** Integrating walkability, and road safety considerations into TOD projects is essential to ensure safe public infrastructure and reduce traffic-related risks.

<sup>45</sup> R. Joshi et al. 2017. *Transit-Oriented Development: Lessons from Indian Experiences*.

<sup>46</sup> S. Salat and G. Ollivier. 2017. [Transforming the Urban Space through Transit-Oriented Development: The 3V Approach](#). The World Bank.

### Box 13. Hong Kong, China's MTR Rail Plus Property Model

MTR Corporation Limited (MTRCL) developed the Rail Plus Property (R+P) model, leveraging exclusive development rights around rail stations. Land was acquired from the government on a 50-year lease at "before rail" market value. MTRCL profited from the increased land value after rail development, selling it to private developers and using the profits to fund railway investments. Initially, MTRCL obtained government land and partnered with private developers through joint development agreements, sharing built real estate or profits.

A new "entrustment" model was introduced for two rail lines when land value increases were insufficient to cover funding gaps. In this model, MTRCL built the lines (funded by the government) and operates them under a service concession, with the government absorbing construction cost overrun risks. The R+P model has been successful due to government landownership and high real estate value in Hong Kong, China, driven by high land use density.

Source: Authors.

There are noteworthy examples of transit nodes employing land value capture (LVC) tools from Ahmedabad, Bengaluru, Hyderabad, and Delhi for urban development projects. These LVC mechanisms, including property taxes, impact fees, and FAR sales, enhanced financial sustainability, supported infrastructure development, improved urban mobility, and spurred economic growth through innovative public-private partnerships and policy support. More details for each of these cities are available in Annex 2, Case Studies 11 to 13.

## Environmental Improvement

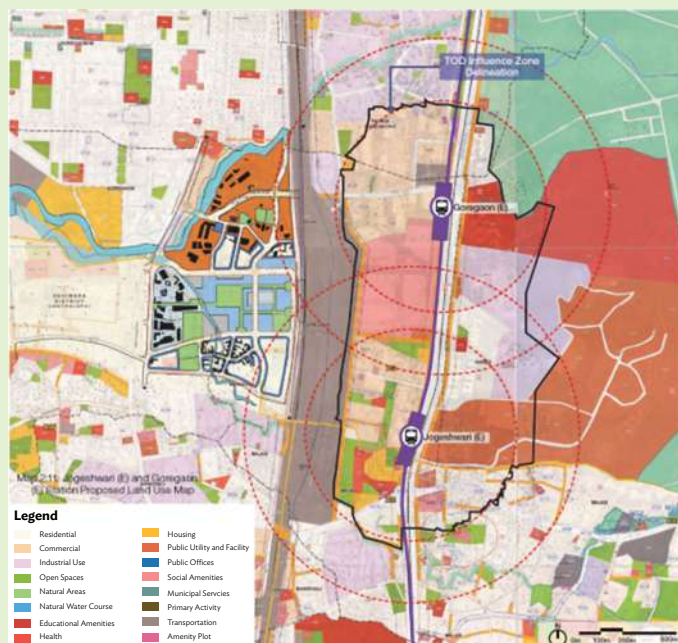
Environmental improvement or regeneration projects enhance urban ecosystems, using green infrastructure and nature-based solutions. They reduce pollution, manage stormwater, restore habitats, and boost economic vitality and land value, promoting public health, climate resilience, and community engagement. The implementation of environmental improvement project may require the following actions:

- **Assess and plan for environment improvement.** Conducting comprehensive assessments to understand the drivers of risk and the functioning of ecosystems is essential. This involves evaluating the potential of NBS to meet human needs and address societal challenges, such as water security, climate mitigation, and disaster risk reduction.
- **Design and implement with the right spatial and time scales.** Designing NBS often requires a long-term perspective and a large spatial scale. It involves creating or restoring natural features, such as wetlands, forests, and green spaces, to provide critical services like flood mitigation, water purification, and habitat restoration. The design should consider multifunctionality and adaptability to local conditions.
- **Integrate with gray infrastructure.** NBS can be implemented as standalone solutions or in combination with traditional gray infrastructure. This hybrid approach can enhance urban resilience by providing multiple benefits, such as reducing urban heat islands, managing stormwater, and improving air quality.

In response to severe pollution and deteriorating river health, the Sabarmati Riverfront Development Project in Ahmedabad was conceptualized to improve public access to the river and boost economic and social opportunities by reclaiming high-value urban land for commercial purposes and value capture.

#### Box 14. Land Value Capture Mechanisms at Goregaon and Jogeshwari Transit Station, Mumbai

Figure 15. Goregaon-Jogeshwari Station Area Delineation Based on an Extensive Land Use Study



The Goregaon East Transit Station project exemplifies a progressive approach to urban development through Transit-Oriented Development (TOD) and Land Value Capture (LVC). Situated at a key junction connecting western and central suburbs via the Jogeshwari-Vikhroli Link Road (JVLR) and Western Express Highway (WEH), the area benefits from robust connectivity through metro lines, suburban rail, and diverse transport modes. The station cluster, encompassing Goregaon (East) and Jogeshwari (East), serves as a dynamic hub for residential, commercial, and mixed-use developments, presenting unique opportunities for inclusive growth, sustainable urban planning, and financial innovation. The project aims to address existing infrastructure gaps while creating a vibrant, accessible, and economically productive zone.

- **Integrated Development.** The TOD approach integrates informal neighborhoods and slum rehabilitation, improving housing inclusivity, living standards, and transit ridership while ensuring sustainable growth.
- **Institutional Collaboration.** Land ownership by multiple entities, including MCGM, MMRDA, MHADA, and Indian Railways, fosters innovative models for cohesive development, with an emphasis on capacity-building and design uniformity.
- **Land Value Capture (LVC) Mechanisms.** Financial viability is ensured through PPPs, joint ventures, and innovative LVC measures, facilitating large-scale redevelopment of underutilized land parcels.
- **Economic Potential.** The project anticipates creating 250,000 jobs and significant residential and commercial developments, with prime location attributes attracting private sector investments.
- **Social and Environmental Inclusion.** With high redevelopment potential, the area is poised to enhance public spaces, foster social equity, and promote multi-modal accessibility, aligning with broader urban sustainability goals.

Source: The World Bank. 2024.

**Sabarmati in the early 1980s****Sabarmati Today**

Source: Sabarmati River Front Development Corporation Limited.

The project involved redevelopment along both sides of an 11.5 kilometer stretch (in Phase 1) passing through core-city areas, including river re-alignment, dredging for the purpose of desilting, embankment construction, and high-density spatial planning of reclaimed land using Local Area Plans (LAP) designating a commercial business district with an FSI of 5.4. For details on regulatory innovation and fiscal planning, refer Annex 2, Case Study 1 of the main document.

## Summary

Taking a CR approach to revitalize city development by replacing archaic physical, economic, or functional structure(s) with innovative approaches opens several key opportunities for India's cities. The following summarizes possible urban planning and design entry points for implementing CR in India and offers areas for developing more robust knowledge and implementation methodologies.

- **Planning and Regulatory Framework**

- o Scale up, adapt and enhance urban planning and design modalities that work in India (e.g., LAP, TPS, TDR).
- o Encourage spatial and sectoral integration in urban planning and design (economic planning and spatial planning, land use planning and transport planning etc.)
- o Develop catalytic urban projects such as waterfronts, TOD etc.
- o Revise or update Planning Acts and Regulations to provide an enabling environment for climate resilient, sustainable and economically viable development.

- **Institutional Arrangements and Implementation**
  - o Replicate and refine successful institutional arrangements that work in India (e.g., SPV etc.)
  - o Unlock private sector participation in urban planning and design both at macro- and micro-levels (PPP projects, POPS, etc.)
  - o Focus on public asset management (better use of public lands which LGs have more control).
- **Capacity Augmentation**
  - o Develop a competency framework and enhance urban planning capacity in institutions across the state, city and local government levels.
  - o Embrace data-driven, cutting-edge planning approaches.
- **Participatory Process and Citizen-centric Interventions**
  - o Support citizen engagement and bottom-up initiatives focused on placemaking.
  - o Identify quick-win projects that can be executed through innovative approaches e.g., tactical urbanism etc.

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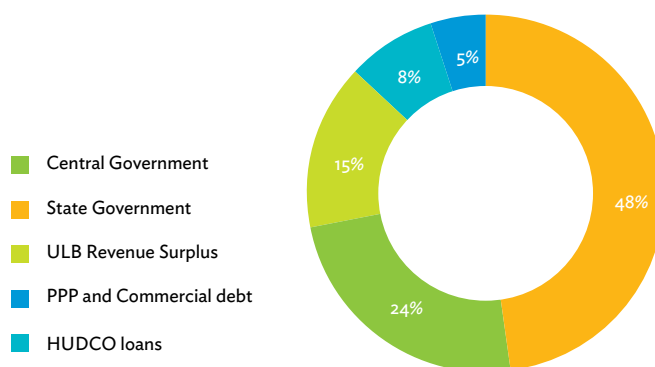
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## Annex 8

# Financing Creative Redevelopment: Sources of Municipal Finance Available for Cities in India

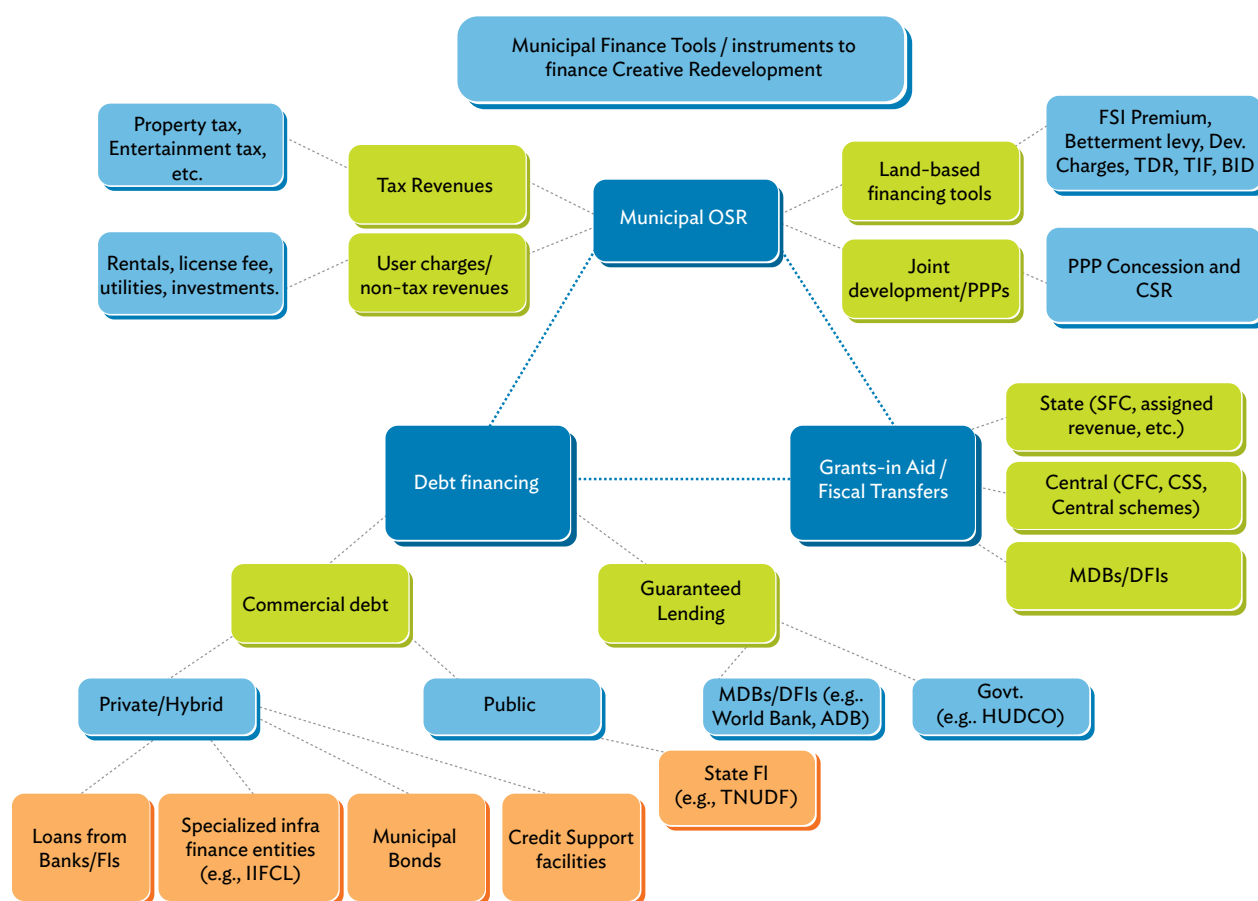
1. Sources of financing and sources available to cities can be largely categorized into (i) own source revenues (includes land-based financing tools); (ii) fiscal transfers and grants-in-aid; (iii) debt and commercial financing; and (iv) others, which include a combination of these sources including private sector participation. Sometimes used interchangeably, “financing” refers to raising of money for investment needs (e.g., municipal bonds) often on a repayable basis, whereas ‘funding’ indicates the revenue base available to service this financing (i.e., without creating future payment obligations).
2. Indian cities have largely remained dependent on fiscal transfers with a significant portion of the urban infrastructure being financed by state and central government grants. Given the capacity of cities to generate revenue from infrastructure assets is low, cities continue to treat fiscal transfers as enablers or seed capital to undertake capital investments (considering actual value capture from the investment may or may not happen at a later stage). Figure 1 illustrates the share of financing urban infrastructure from various sources during FY 2011–2018.<sup>47</sup> Figure 2 below provides an overview of the municipal finance resources available to cities to fund/finance redevelopment activities and the following paragraphs outline some of the key sources available to cities.



<sup>47</sup> Financing India's Urban Infrastructure Needs, The World Bank, 2022.

3. **Municipal Own Source Revenues (OSR).** Municipal OSR consists of tax and non-tax revenues and forms around 42%<sup>48</sup> of total municipal revenues (grants, OSR, borrowings, etc.) of ULBs in India. Overall, OSR of ULBs constitute around 0.43% of GDP (2017–2018) and property tax remains a major source contributing around 0.15% of GDP (which is less than lower/middle income countries at 0.3% of GDP) and 60% of total municipal tax revenue. Non-tax revenues, on the other hand, largely consist of user charges (e.g., for services such as water and sanitation), fees, rentals from municipal property, etc. Overall, revenue surplus of ULBs accounted for around 15%<sup>49</sup> of total capital expenditures on urban infrastructure during FY 2011–2018. It is important to note that a large share of revenue surplus is concentrated in few ULBs. These ULBs are also able to leverage this it better to borrow and/or invest in capital infrastructure. Overall, ULBs use OSR to (i) contribute toward ULB share in Centrally Sponsored schemes (CSS); and/or (ii) service generational debt (as a city grows this is

**Figure 16. Municipal Finance Tools for Creative Redevelopment**



Note 1: The above typologies may not be fully exhaustive and may not fully account for some types of overlap between categories in some contexts. Tax increment financing (LVC) involves borrowing; many forms of LVC involve a PPP of some kind; PPPs often involve a form of indirect borrowing

Note 2: Land-based financing tools are also a type of non-tax own source revenue of ULBS

Source: Developed by ADB and World Bank 2025.

<sup>48</sup> Data: 2017–2018 “State of Municipal Finance Report”

<sup>49</sup> Financing India’s Urban Infrastructure Needs, The World Bank, 2022. Additional resources: <https://cityfinance.in/own-revenue-dashboard>

an equitable approach allowing distribution of the debt burden over a larger population). Given that municipal OSRs in India are lower than those in similar Lower Income Countries (LICs)/Middle Income Countries (MICs), there is ample scope for revenue improvement (e.g., property tax, especially considering the fact that property tax revenue in certain cities severely lag behind others) through administrative (i.e., tax registers, property values, coverage, collection) and policy (i.e., tax base, tax rate, exemptions) level reforms. Overall, binding constraints (policy weaknesses and structural limitations) have led to poor financial sustainability of ULBs as municipal OSR base remains weak. Factors involving the political economy at state and local levels have resulted in reluctance to collect/revise tax and user charges and link them to service quality.

(Resources available: [Property Tax Diagnostic Manual](#); Leveraging [Technology for Property Tax Management in Asia and the Pacific: Guidance Note](#)).

**Vadodara Municipal Corporation (VMC)** used its tax revenues to implement a Structured Payment Mechanism<sup>50</sup> by leveraging a separate non-lien escrow account for servicing its municipal bond debt (issued in 2022). Under this mechanism, VMC's tax revenues available in collection accounts were transferred twice every week to the escrow account. The funds were used to maintain minimum balance in the escrow account, which was used only for the purpose of servicing debts of VMC.

4. **Grants-in-aid and Intergovernmental Fiscal Transfers.** Fiscal transfers are typically made from higher tiers of government to ULBs as grants and non-repayable financing for the performance of specific funds or for general financial support. Between 2011–2018, fiscal transfers from the State and Central government in India accounted for nearly 72% of investments in urban infrastructure by ULBs. Among various types, fiscal transfers to ULBs are available mainly as (i) Central Finance Commission (CFC) grants, (ii) Centrally Sponsored Schemes (CSSs), and (iii) State transfers which state level capital grants, State Finance Commission (SFC), assigned revenue, and so on. Out of these, CFC and SFC are recurring fiscal transfers and CSSs are scheme-based capital fiscal transfers. Over the years, CSSs have attempted to fund redevelopment initiatives. For example, under Centrally Sponsored Schemes, when Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was introduced in 2005, redevelopment of old city areas was one of its key focus areas. More recently, Smart Cities Mission (SCM) was introduced to drive economic growth and improve the quality of life of people through local area development and application of smart solutions. Its key strategic components included Area-Based Development (ABD) involving city improvement (retrofitting), city renewal (redevelopment) and city extension (Greenfield development) and pan-city development. Atal Mission for Rejuvenation and Urban Transformation (AMRUT) also aimed at enhancing amenity value of cities by creating and upgrading green spaces and parks. On the other hand, recurring transfers can be used to leverage and improve borrowing potential of ULBs. In addition to these, many Indian cities receive funds under projects financed by multilateral development banks (MDBs) wherein the central or state government bears the cost of loan repayment but passes on the funds to cities as grants or partial grants.

<sup>50</sup> About Municipal Bonds, Global Case Study, 2022.

- In **Odisha**, 15<sup>th</sup> CFC funds and 5<sup>th</sup> SFC funds (among other state government funds, Swachh Bharat Mission funds) were leveraged to fund Jaga Mission—a flagship Slum Upgradation and slum dwellers Empowerment Program.
- Under SCM, **Coimbatore Smart City Ltd.** is restoring eight lakes, developing the lakefront, providing open air recreation, food kiosks, open plazas, cycle tracks, etc.
- Similarly, to tackle environmental pollution and minimize the dependence on conventional sources for public transport, **Kanpur Smart City Ltd** has come up with electric buses and an electric bus charging depot to promote eco-friendly public transport for its citizens.

5. **Debt Financing.** Debt financing remains a miniscule share of urban infrastructure expenditure. Despite a diverse set of options to tap including municipal bonds, loans from scheduled commercial banks, pooled finance by state-level intermediaries, guaranteed lending from MDBs, Housing and Urban Development Corporation (HUDCO), etc., the scale of debt financing is stymied by severe demand and supply side constraints. Key issues include increase in fiscal transfers and grants, low absorption capacity and creditworthiness of cities, policy issues with a highly centralized control framework by states (e.g., ex ante and ex post regulations<sup>51</sup> pertaining to municipal borrowing), limited access to long-term financing instruments to support projects with long gestation period, and lack of secondary markets for financial instruments.

6. Globally, municipal borrowing and debt financing are key financing sources for redevelopment activities given the scale of investments and the potential to significantly expand the volumes of finance available for infrastructure. However, it is important to understand that debt is repayable, and it cannot substitute OSR and fiscal transfer funding. In fact, the more a city taps into external sources, the more revenue or fiscal transfers it needs to pay for debt obligations. (Resources available: [Financing India's urban infrastructure need](#)). Few sources of debt financing are described below:

- **Municipal Bonds.** A municipal bond issued by an urban local body is used to usually finance public projects involving redevelopment/urban regeneration/infrastructure (e.g., water and projects, roads, schools, etc.). Main types of bonds include General obligation Bonds (debt securities are serviced through tax proceeds of the municipality), Revenue Bonds (debt securities are serviced through revenues from one or more projects), and Green Bonds (supports environment sustainability). Few prerequisites for issuance of bonds are (i) identification of need and selection of bankable projects, (ii) appointment of relevant support agencies including merchant bankers, (iii) finalizing of annual reports and obtaining credit rating, (iv) approval from the state government, (v) approval from the stock exchanges and Securities Exchange Board of India (SEBI), and (vi) escrow mechanism and bond listing. Municipal bonds are designed to be tradeable in the secondary market, however, in India, market liquidity has been a key constraint. (Resources available: [All About Municipal Bonds, A Global Case Study 2022](#)).

<sup>51</sup> This includes regulations and procedures pertaining to the purpose, authorization, limits, financial characteristics, tenor, types of securities offered, sources of repayment and accounting, reporting and disclosures related to borrowing or bond issues, etc.

**Ahmedabad Municipal Corporation (AMC)** became the first state to list Green Bonds in India in 2024. The bond funds will support green initiatives like green energy generation, zero liquid discharge for industry, and sewage water purification, all aimed at sustainable urban development. The issue amount was ₹2.0 billion with a coupon rate of 7.90%. Till date, issuance of municipal bonds has been largely concentrated in Gujarat, Maharashtra and Madhya Pradesh.

- **Pooled Finance / State-level Intermediaries.** The rationale behind a pooled financing emanates from the need to finance investment requirements of small/medium ULBs which do not have the creditworthiness (on a stand-alone basis) to undertake market borrowing and their investment requirements exceed the fiscal transfers and OSR from various sources. Through this approach the pooled finance aims to realize economies of scale for the combined borrowers while making the fund quantum to be a significant amount from a supply side perspective. The financial intermediaries are at the state level (e.g., TNUDF) and cities need to coordinate with the state government to access pooled financing.

**The Water and Sanitation Pooled Fund in Tamil Nadu** issued a pooled bond to facilitate access to long-term domestic capital markets for 13 small and medium ULBs to finance water and sanitation services to overcome high transaction costs and mobilize funds through a single bond issuance. Debt was repaid from project cash flows and from general ULB revenues. A multi-layered credit enhancement package was designed to extend the maturity of the bond and increase investor confidence. The different credit enhancement mechanisms included a debt service reserve fund capitalized by the state government, creation of individual ULB escrow accounts, a local debt service reserve fund, a state revenue intercept mechanism, and a partial credit guarantee from USAID. The issue amount was ₹3.04 billion (in 2002) with coupon rate of 9.2% and maturity of 15 years.

- **Loans from Scheduled Commercial Banks (SCBs).** These are straightforward loans from SCBs for infrastructure investments. Borrowers typically plan to hold the loan obligation until maturity and term of the loan must match the lender's investment horizon. A commercial bank that takes customer deposits typically cannot lend for a longer-period which is essential for redevelopment projects.
- **Blended Finance.** Blended finance in municipal finance refers to the strategic use of public and philanthropic capital to attract private sector investments into urban projects, typically those involving infrastructure development, public services, or sustainability initiatives. Different forms of instruments include (i) Concessional Finance: Development funding entity provides funds on below-market terms to reduce risk or improve returns; (ii) Guarantees / risk insurance: Funding entity acts as a guarantor or by absorbing a portion of losses to mitigate risks; and (iii) Results-based financing: funding is provided if results are met. Support is provided to strengthen investees and improve project viability. Some examples include bilateral agencies such as USAID, British Asian Trust, British International Investment; and banks such as NBFC, IndusInd Bank, and Samunnati.

Few other instruments/sources include (i) credit enhancement facilities wherein credit risk support or guarantee is provided to local bodies by specialized facilities to reduce risk of lending agencies; (ii) MDBs loan wherein the World Bank and Asian Development Bank provide sovereign guaranteed loans; and (iii) Municipal Development Funds, and so on.

7. **LVC Tools.** LVC is a diverse set of alternative infrastructure financing mechanisms that leverage the government's ability to capture a share of the increase in land and real estate values resulting from public investment as well as from zoning and policy decisions. The essence of LVC is that the captured land related revenue can be reinvested into subsequent public developments or accounted to recover the upfront public infrastructure expenditures. LVC relies on cities' capacity to ring-fence their revenues, raise and service debt, and enter partnerships or transactions with the private sector.<sup>52</sup> In India, the usage of LVC for generating owned sourced revenue by major ULBs is quite widespread and is centered around the following major tools:

- **Floor Space Index (FSI) Premium Charge.** A charge levied as a monetary consideration payable by real estate developers for obtaining permission to build beyond the "by-right" density, based on a formula and fully accepted by the market as a component of pricing for land and development rights. The evidence of a substantial contribution to ULB's owned-sourced revenue is particularly evident in the states of Maharashtra (especially the largest cities including Mumbai, Pune, Nagpur), the National Capital Territory (NCT) of Delhi, Karnataka (notably Bengaluru, the capital city), Tamil Nadu (Chennai), Gujarat (especially in Ahmedabad and Surat), Rajasthan (Jaipur), and West Bengal (Kolkata). It is evident that the most successful FAR systems align with market robustness, where the demand for additional buildable density is most apparent. Further, studies have shown that synchronized interaction between land use regulations (such as FSI increase) can enhance the socioeconomic benefits of urban infrastructure investments. For example, increasing FSI near metro stations can significantly boost the welfare gains of metro investment, including OSR enhancement from increased productivity and land value appreciation.<sup>53</sup>
- **Development Charges.** Development charges are one-time charges levied on developers at the time of grant of building permissions and is levied in area terms (Rs. per sq. m) based on the land-use or type of development proposed. In many states, development charges are governed under development legislation, enabling Development Authorities (DAs) to levy and collect these charges. However, where the town planning function has been transferred to ULBs, development permissions and levy of development charges are handled by ULBs in areas within their jurisdiction.
- **Betterment Levy.** Enacted in some urban jurisdictions (e.g., the Municipal Corporation of Greater Mumbai, Delhi, Greater Noida, Hyderabad), these charges are applied to developers and investment vehicles that benefit from significant upfront public investment made to deliver additional infrastructure, such as water supply, sewage treatment, and road networks, to support higher-density development. These levies can be applied to an area or region where publicly funded infrastructure improvements have a broad impact. New road networks, for example, might create immediate and large impacts for the value of those properties adjacent to them. However, there is also an improvement in value for those properties that lie within a certain radius of the road improvement. Betterment levies are a means of determining a relative value increase that might occur for each user and assessing a tiered fee to each.

<sup>52</sup> Resources available: Realizing India's Potential for Transit-Oriented Development and Land Value Capture: A Qualitative and Quantitative Approach, ADB, 2022; Land Pooling in South Asia: Lessons Learned for Equitable, Participatory, and Inclusive Urban Expansion, ADB, 2022; Examining the Town Planning Scheme of India and Lessons from Land Readjustment in Japan, ADB, 2019.

<sup>53</sup> Faster, Taller, Better: Transit Improvements and Land Use Policies, ADB, 2023; Realizing India's Potential for Transit-Oriented Development and Land Value Capture: A Qualitative and Quantitative Approach, ADB, 2022.

*In Bogota, Colombia, more than half of the city's main road grid was paid for by betterment levies<sup>54</sup>. In Brazil, betterment levies have been successful in small and medium towns and such fees were focused on direct beneficiaries only. Community outreach and buy-in plays a critical role for the successful implementation of this tool.*

- **Land Lease or Sale of Land.** Governments sell developers land or its development rights, whose values have increased due to a public investment or regulatory change, in return for an up-front payment, leasehold charge, or annual land rent payments through the term of the lease. Governments can dispose of “excess” public land to generate cash for area-wide infrastructure upgrades, as well as avoiding costs for maintenance. This, however, requires an enabling regulatory system to be in place. States like Gujarat have such regulatory system in place.
- **Impact Fees.** Impact fees are generally levied on new constructions and is collected to offset the impact of the new project on off-site city infrastructure and services. They are one-time fees charged at the time of building approval. Impact fee is being levied by a very few states in India. Impact fee is provided for in town planning legislation in many states and is not very common, despite being identified under the National Transit Oriented Development (TOD) Policy, 2017 as a critical LVC tool to ring-fence funding for infrastructure upgradation/ maintenance and enhancing viability of transit systems.
- **Transfer of Development Rights (TDRs).** TDR is an instrument to assign, monetize and trade in development rights and has been used by ULBs and development authorities as a development control mechanism to implement master plans and as non-cash means to acquire land for infrastructure creation. A strong institutional is needed set-up to support implementation of TDR guidelines. Brihanmumbai Municipal Corporation (BMC) adopted the practice of TDR under Regulation 34 of the DCR for Greater Bombay, 1991, framed in accordance with the provisions of the Maharashtra Regional and Town Planning Act, 1966. BMC started to use TDRs to acquire land for public amenities, i.e., reservations for gardens / playgrounds, and road widening. TDRs were awarded to plot/landowners if they constructed/developed the public amenities under its Development Control Regulations. Later, TDRs were extended for other developments including slum housing, and heritage conservation.
- **Taxing Unimproved Land.** Some municipalities and local governments do not have differential rates for “unimproved” land versus commercially active land. Others do have this difference, but there is no time period for improvement or no penalty for leaving the land unimproved. Owners are thus incentivized to leave land unimproved if no commercial option is forthcoming. Such land can sit unused for years at little cost to the owner. Introducing a time frame for requiring commercial activation of the site stimulates development to avoid taxation of idling land. Mexico City successfully implemented such a program and saw immediate improvement in investment and commercial activity.
- **Tax Increment Financing (TIF).** TIF is a value capture revenue tool that uses taxes on future gains in property values to pay for new infrastructure improvements. When a TIF redevelopment project area (often called a TIF district) is created, the value of the property in the area is established as the “base” value of the project area. The growth of the value of the subject property over the base value that generates the tax increment. This increment is collected into a special fund (the Special Tax Increment Allocation Fund) for use by the municipality to make additional investments in the TIF project area. This reinvestment generates additional growth in property value, which in turn results in even more revenue growth for reinvestment.

<sup>54</sup> Unlocking Land Value for Financing Urban Development in India, I. J. Ahluwalia, P. K. Mohanty, Indian Council for Research on International Economic Relations, 2012.

Globally, LVC is used differently according to each country's legal and financial environment. Many of the tools of LVC tools can be applied regardless of context. Others require substantive changes at the legal or regulatory level.

8. **Public-Private Partnerships to Spur Creative Redevelopment.** Public-private partnerships (PPPs)<sup>55</sup> are a mechanism that allows governments to procure and implement public infrastructure or services using the resources and expertise of the private sector. Where governments face challenges such as ageing or lack of infrastructure or the need for more efficient services, a partnership with the private sector can help foster new solutions and financing. PPPs can be undertaken through government funding, on-Balance Sheet finance of the private party or Project Finance mechanism where an SPV is created with limited recourse financing.
9. **Few typologies of creative redevelopment financed through PPPs are as follows.**

**Business District Revitalization.** Cities have often used PPPs or private sector financing to revitalize city centers and business districts through value capture of real estate in such locations. This is done through typical PPPs where a Concessionaire can be tasked with the re-design, finance and/ or redevelopment of relevant portions of the business district, in lieu of subsidy/ premium payment. The redeveloped portions of the business district owned by the city can then be leased/ sold by the city. Alternately, the city and a private developer could undertake such projects in a Joint Venture (JV) with the city contributing land and the private sector, equity and expertise, while developing and selling the real estate in partnership. Historic-city conservations and upgrading. Innovative financing mechanisms such as PPPs and deployment of private capital through trust funds can be used for redevelopment and restoration of historic structures and areas within cities. This is also done through charitable organizations or Corporate Social Responsibility (CSR) initiatives of private companies.

**Station-area redevelopment (TOD linked).** Cities can provide access to station area land which can be used to develop station facilities on lower floors and retail, commercial and residential spaces on higher floors to encourage people work/ live in close vicinity to stations. This real estate can then be sold or leased by the city/ developer in lieu of premium or subsidy payments as applicable. The city can also provide direct incentives to private landowners along transit lines to encourage TOD. Alternately, developers have also utilized their own land and financing to develop transit lines and stations to boost the use and value of their real estate developments.

**Table 4. Different LVC Mechanisms and their Indian and Global Examples**

|                         | Instrument                                 | Description                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tax or fee based</b> | Property and land tax                      | Tax levied on estimated value of land or land and buildings combined, with revenues usually going into budgets for general purposes.<br><b>Indian:</b> Mumbai, Bengaluru, Ahmedabad, Pune<br><b>Global:</b> London, Pittsburgh, Melbourne                          |
|                         | Betterment charges and special assessments | Surtaxes imposed by governments on estimated benefits created by public investments, requiring property owners who benefit directly from public investments to pay for their costs.<br><b>Global:</b> London, Sydney, Singapore, Bogota, Washington D.C., New York |

<sup>55</sup> <https://ppp.worldbank.org/public-private-partnership/applicable-all-sectors/about-public-private-partnerships>.

|                          | Instrument                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tax or fee based</b>  | Tax increment financing     | Incremental increase in property tax proceeds that are ring-fenced and channelled to service TIF-bond repayments, in a specific “beneficiary area” over a specified period of time.<br><b>Indian:</b> Nil<br><b>Global:</b> Portland, New York, Chicago                                                                                                                                                                                      |
| <b>Development-based</b> | Land sale or lease          | Governments sell developers land or its development rights, whose values have increased thanks to a public investment or regulatory change, in return for an up-front payment, leasehold charge, or annual land rent payments through the term of the lease.                                                                                                                                                                                 |
| <b>Development-based</b> | Joint development           | A well-coordinated development of transit station facilities and adjacent private properties between transit agencies and developers, where the latter usually contribute physically or financially to the construction of the station facilities, as their property value will increase thanks to the transit investment.<br><b>Indian:</b> Delhi, Hyderabad<br><b>Global:</b> London; Paris; New York; Hong Kong, China                    |
|                          | Air rights sale             | Governments sell development rights extended beyond the limits specified in land use regulations (such as floor area ratios [FARs]) or created by regulatory changes to raise funds to finance public infra structure and services.<br><b>Indian:</b> Mumbai, Bengaluru, Ahmedabad, Pune<br><b>Global:</b> São Paulo; Hong Kong, China; London; Paris                                                                                        |
|                          | Land readjustment           | Landowners pool their land and contribute a portion of their land for sale to raise funds and partially defray public infrastructure development costs.<br><b>Indian:</b> Delhi, Ahmedabad, Amravati, Mumbai, Pune<br><b>Global:</b> Bangkok, Jakarta, Tokyo, Berlin                                                                                                                                                                         |
|                          | Urban redevelopment schemes | Landowners and a developer establish a cooperative entity to consolidate piecemeal land parcels into a single site that they then develop (such as a high-rise mixed-use building) with new access roads and public open spaces. The local government modifies zoning codes and increases maximum FARs in the targeted redevelopment areas (typically around rail transit stations) and finances the infrastructure.<br><b>Global:</b> Japan |

# Annex 9

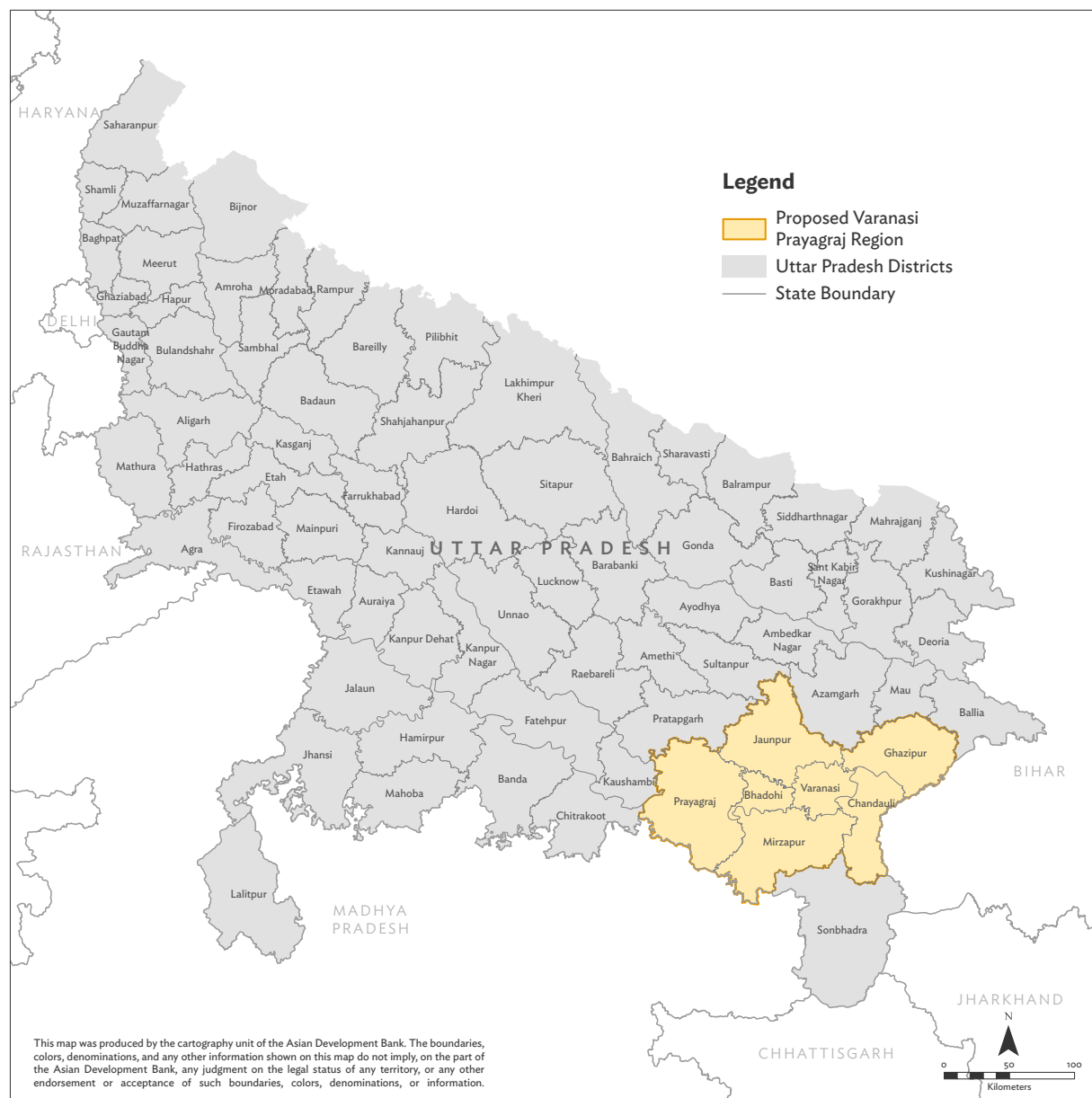
## Mission Findings and Opportunities for Systematic Creative Redevelopment in Varanasi

### A. Basic Information: Develop City Vision

| Scoping                               |                                                                                                                                                                                                                                                                                       |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Development Priorities             | To be the Hub of Learning, Spirituality, and Culture                                                                                                                                                                                                                                  |
| 2. Asset                              | Over 3000 years of history, considered one of oldest living cities in the world and has evolved organically over time to become an important center of art, culture, spirituality and education.                                                                                      |
| 3. Unique Selling Points              | Home to iconic sites like Kashi Vishwanath Temple and Sarnath Stupa. Produced well-known political leaders, poets, revolutionaries, classical dancers, and personalities. Creative economy: Art, Architecture, Textiles and handicrafts—Banarasi textile weaving, wooden lacquer etc. |
| 4. Economic Drivers                   | Tourism/Pilgrimage site for Hindu and Buddhists—Kashi Vishwanath temple and Sarnath; Education—one of the oldest universities—Banaras Hindu University (BHU); Handloom and Textiles; Terminal Care; Spiritual meditation, etc.                                                        |
| 5. Development objectives/ directions | To harmoniously blend its rich cultural heritage and spiritual significance with strategic urban redevelopment that fosters economic growth and prosperity<br>A city that preserves the timeless traditions, spirituality, and unique character.                                      |
| 6. Density                            | Population 2,571,256 (estimated 2021 Masterplan 2031), 793 square kilometers (VDA) Varanasi Urban Area 25,71,256 (2021) to 31,44,646 (2031) person per hectare; add some visuals (focus should be MC) both areas (Varanasi Urban Boundary population: 1,212, 610, Census 2021)        |

## Geography

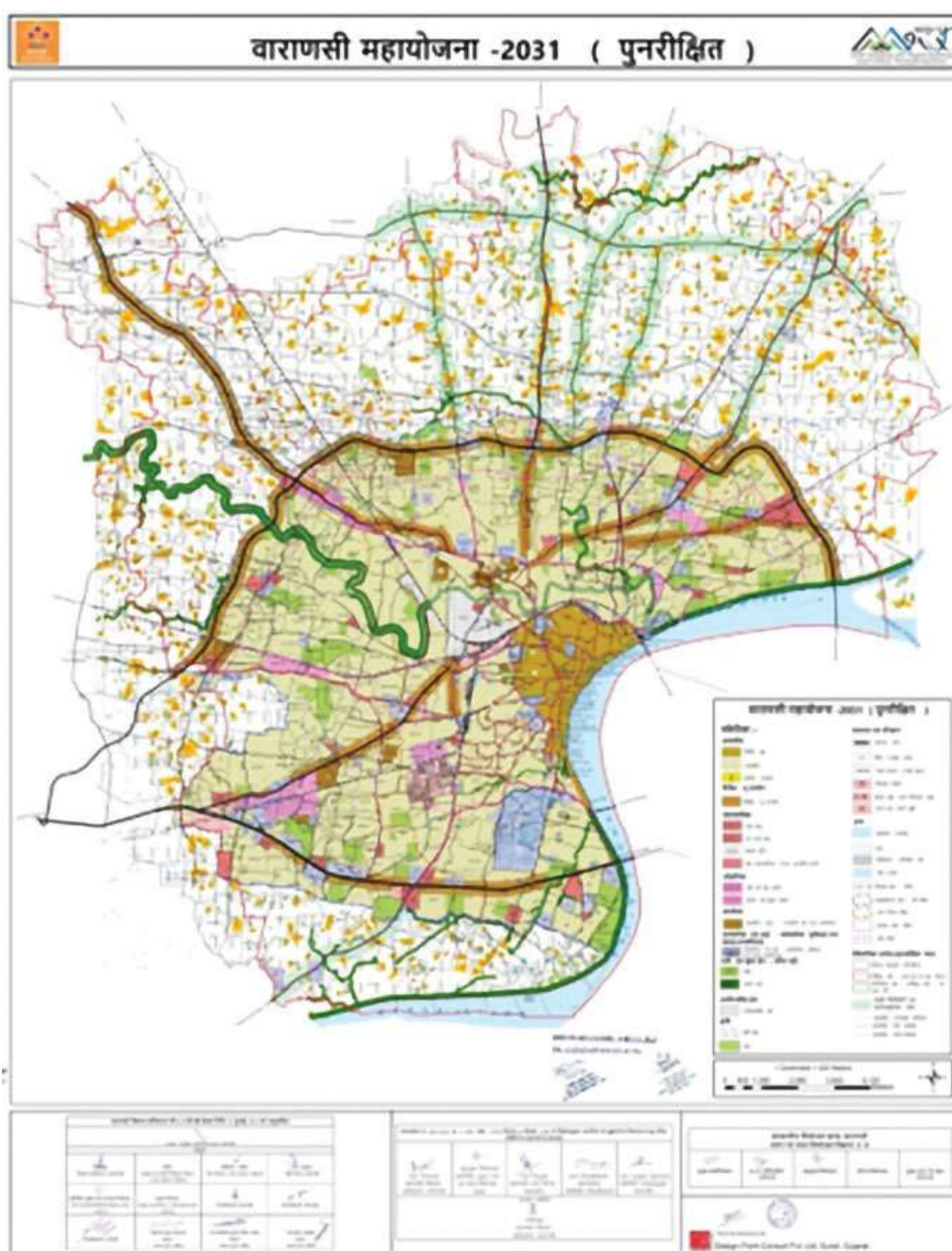
### Proposed 7 Districts of Varanasi for Regional Plan



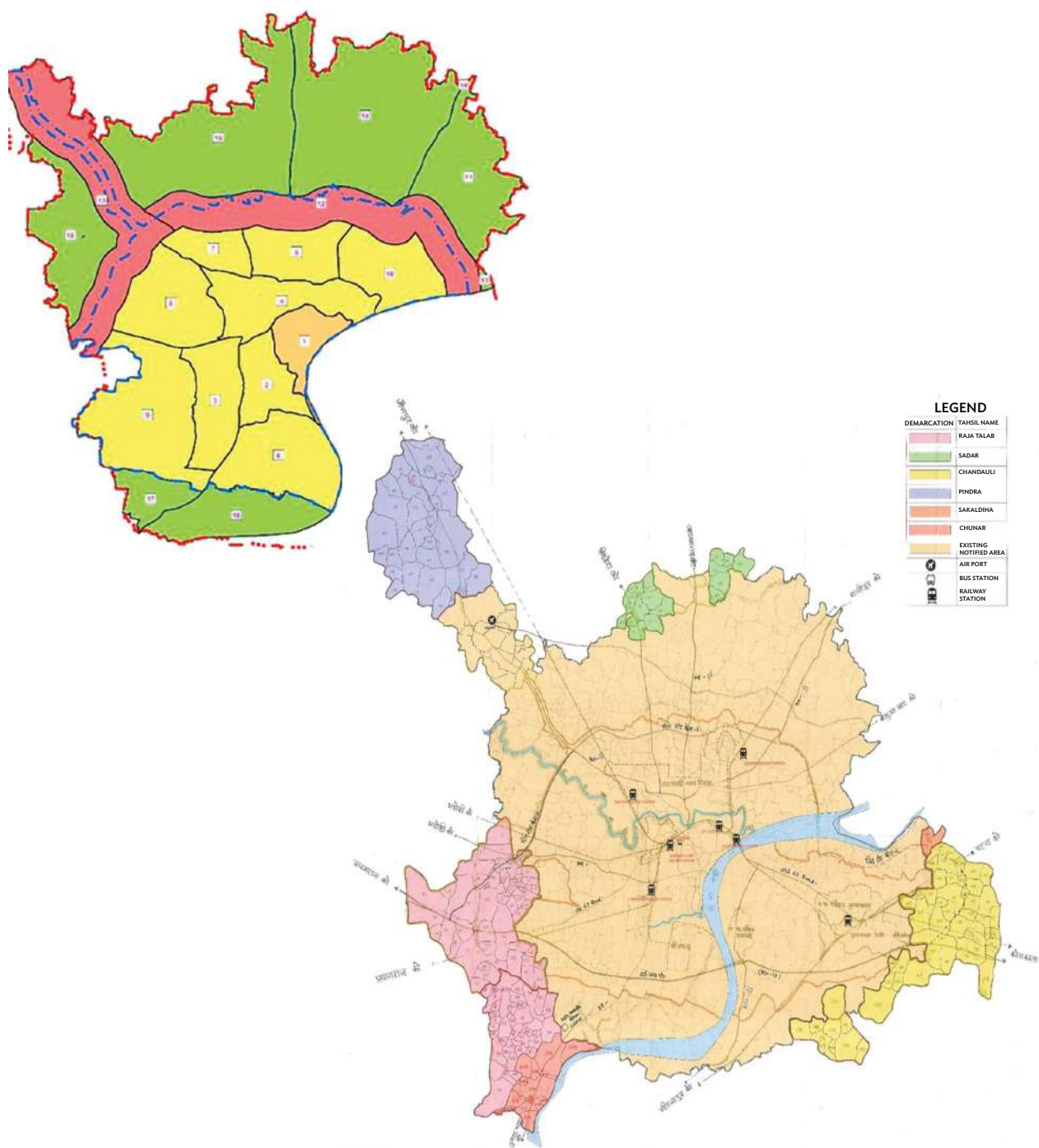
Source: ADB. 2025.

## B. Inventory City's Public Assets

| Land Use, Urban Form, and Regional Surroundings |                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Land Use, Land Availability, Land Value      | The city that has mostly grown in the North-West direction toward the airport is NH2 and newly planned ring road in the outer circle<br>See Varanasi Master Plan. 2031 at <a href="https://vdavns.com/master-plan/varanasi-master-plan">https://vdavns.com/master-plan/varanasi-master-plan</a> |
| Land Use Based on the Latest Master Plan 2031   |                                                                                                                                                                                                                                                                                                 |



|                                                                          |                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| b) Urban Form                                                            | Development-free zone 200 meters from the Ganga, TOD corridor along the outer ring road and Airport-road (North West)<br>Historical low area in center, Commercial use along major roads, and Low-rise residential area mostly inner area; Currently, Varanasi is Urban Form C, low-density city |
| Current City New Expansion Zones Around the Ring Road and to the Airport |                                                                                                                                                                                                                                                                                                  |



| Natural Environment of the City and Surroundings |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| c) Climate and Disaster Vulnerability            | <p>In 2009, a country-based analysis using the Climate Disaster Resilience Index was undertaken in India with primary focus on 12 cities of different size and location (mountain, river, coast and arid areas) including Bhubaneswar, Guwahati, Shimla, and Varanasi. Another assessment for the city was done by Kyoto University in 2011 and in 2015.<sup>56</sup></p> <p>Located on the banks of river Ganges, Varanasi has been witness to flooding issues in the past. There are studies which point out the regular flooding occurs more by storm water logging.<sup>57</sup> &lt;On top of annual dredging and cleaning up of floods, a campaign to reduce rubbish dumping on streets and rivers should be enforced&gt;</p> <p>The city needs to improve its governance capacity on disaster risk reduction. It is important to share knowledge and experience widely across the city and conduct regular emergency drills including involving youth and social media.</p> |
| Cultural and Historical Heritage                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                  | <p>The city has its strength in cultural assets, household assets at historical center, education and awareness, basic but limited water supply system and institutional collaboration. Based on these existing assets, the city needs to enhance physical, social, economic and institutional resilience that would be visible to visitors and tourists.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Low Hanging Fruit                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Policy and Planning                              | <ul style="list-style-type: none"> <li>• Varanasi city has produced most requisite master plans, mobility plans etc in recent years. It needs some coordination mechanism across different departments/agencies.</li> <li>• The city needs Area Development Plan or Zonal Plan, including zone-based code, mixed-use, special regulations (up-zoning), Design guideline, street management/open space</li> <li>• A Creative Redevelopment Plan can be developed to identify and prioritize redevelopment projects.</li> <li>• The coordination body needs to consider how the city can incentivize inner-city area development with a higher density (maximize allowed vertical volume) based on traffic, commercial activity and tourists flows.</li> </ul>                                                                                                                                                                                                                       |

<sup>56</sup> Chatterjee R., Verma P., Shaw R., Raghubanshi A.S. (2015): Climate and Disaster Resilience of Varanasi, Kyoto University, Banaras Hindu University, Varanasi Nagar Nigam study, 76 pages, Kyoto, Japan. [https://www.researchgate.net/publication/279923875\\_Climate\\_Disaster\\_Resilience\\_of\\_Varanasi\\_City\\_Zone\\_and\\_Ward\\_Profile](https://www.researchgate.net/publication/279923875_Climate_Disaster_Resilience_of_Varanasi_City_Zone_and_Ward_Profile)

<sup>57</sup> See [https://bhu.ac.in/research\\_pub/jsr/Volumes/JSR\\_66\\_01\\_2022/3.pdf](https://bhu.ac.in/research_pub/jsr/Volumes/JSR_66_01_2022/3.pdf), Mishra M, et al., 2022. Journal of Scientific Research, Banaras Hindu University, Volume 66, Issue 1, 2022. Banarasi.

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land and Regulation                    | <ul style="list-style-type: none"> <li>The city has already considered areas for amending Urban Planning and Development Act 1973, giving legal framework for TPS and LAP (Currently, the Act does not support special schemes, such as TPS), and boost to promote TOD</li> <li>The city is currently trying to promote develop outer areas along the new Ring Road and Airport roads, but Inner area is the symbol of Varanasi, and dynamic transformation of inner-city area with controlled incentivization to consolidate land plots, making public place making for ease of movements for tourists are needed.</li> </ul> |
| I. Municipal Land                      | <ul style="list-style-type: none"> <li>Ghat areas and Temple precinct have already experienced relocation/swap/ relocation of vendors and shops—the City already has project development and implementation experience</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              |
| i. State/Center Land                   | <ul style="list-style-type: none"> <li>There are some existing government-held parcels and plots that are proposed to further densify</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| iii. Private Land                      | <ul style="list-style-type: none"> <li>Prime historical center shops are hesitant to have traffic control or vehicle access as they are basis for commercial revenues and opportunities— however small a plot maybe, the location matters, especially near Ganga no-development 200-meter zones</li> </ul>                                                                                                                                                                                                                                                                                                                     |
| Finance                                | <p>The total investment needs of the city to deliver is to be estimated during Light-touch study.</p> <p>The city so far has relied on publicly-owned land; but could also incentivize and promote privately held low density inner area TDR; also place strategically important areas for higher FAR with public place-making requirements to boost tourism and higher retail zones</p>                                                                                                                                                                                                                                       |
| USP (Economy, Environment, and Equity) | <p>Currently, the inner-city area's two-wheeler traffic and pedestrian traffic control is not organized, highly congested and chaotic movement. accident-prone.</p> <p>Rubbish (solid waste) is visibly piling up and tourism experience is let down by untidy streets, especially in historic centers around Kashi Vishwanath.</p>                                                                                                                                                                                                                                                                                            |

#### Projects Identified by VDA: The City's Own Assessments

|                                                                                    |                                               |
|------------------------------------------------------------------------------------|-----------------------------------------------|
| Buddhist Circuit Dev Sarnath – Redevelopment of Street and Market area for Vendors | *Completed under World Bank Pro-poor Project. |
| Rope Way Transport                                                                 | *Under construction                           |

Figure 17. Long-term Proposed Rope Way Project

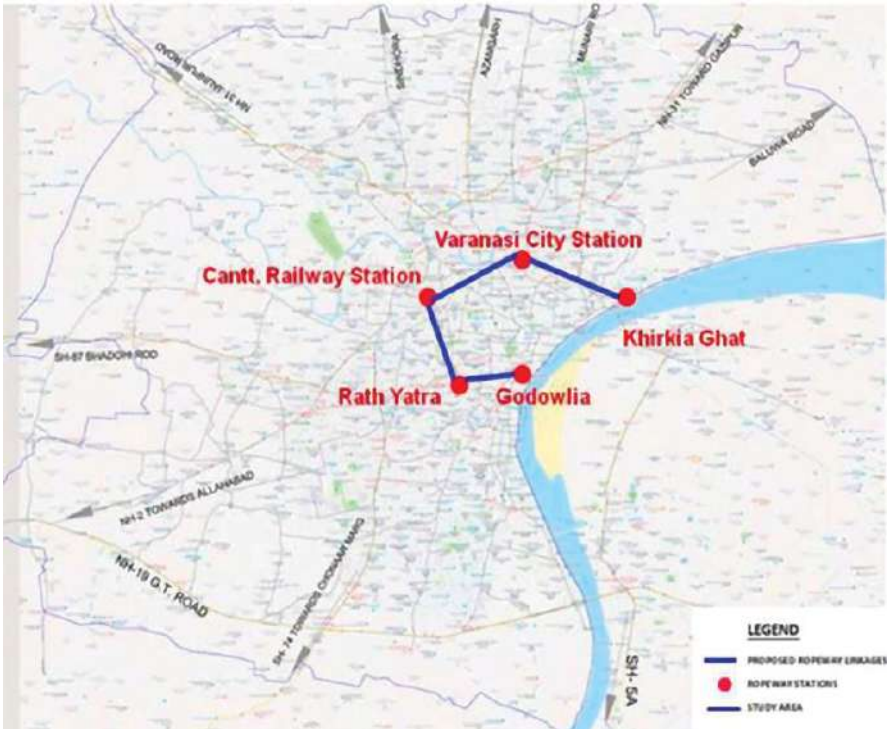


Figure 18. Rope Way Segments Currently Under Construction



## Dashashwamedh Redevelopment

\*Completed

### ARCHITECTURAL MODEL OF THE KASHI VISHWANATH DHAM PROJECT



Interactive Courtyard spaces within the Shopping Complex



Placemaking through Interactive Wall Murals in Plaza design



68 shops on lower ground floor (991.14 square meters)

|                       |            |
|-----------------------|------------|
| NaMo Ghat Development | *Completed |
|-----------------------|------------|



<https://indianexpress.com/article/cities/lucknow/namo-ghat-entry-fee-varanasi-uttar-pradesh-8069608/>

| Projects Under Consideration                | Creative Redevelopment Typology                                                                                                                                                                                     |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Integrated Commissioner Compound            | Type 7 Peri-urban Development                                                                                                                                                                                       |
| Mandis Inner-city Decongestion              | Type 6: Business District Revitalization<br>Cold storage and Warehousing facility – move to outer area                                                                                                              |
| Theme-based Townships along Ring Road       | Type 2: Affordable Housing and Type 7: Peri-urban Dev                                                                                                                                                               |
| TTTransport Nagar (Inner-city Decongestion) | Type 6: Business District Revitalization                                                                                                                                                                            |
| Road Walkability Upgrade                    | Inclusive Urban Design Upgrades                                                                                                                                                                                     |
| Assi ghat Park and Street Placemaking       | Type 5: Historic City Revitalization                                                                                                                                                                                |
| Ramnagar Fort Upgrade                       | Type 5: Historic City Revitalization                                                                                                                                                                                |
| Assi River Rejuvenation                     | Type 9: Environmental Improvement                                                                                                                                                                                   |
| Jawahar Lal Nehru Commercial Complex        | Type 4: Inner-city densification                                                                                                                                                                                    |
| Undi Tal Wetland Restoration                | Type 9: Environmental Improvement                                                                                                                                                                                   |
| Kunds Dev at Varanasi (Phase2)              | Type 9: Environmental Improvement                                                                                                                                                                                   |
| Junctions Improvement                       | Type 8: Station-area Development                                                                                                                                                                                    |
| Buddhist Circuit Tourism – Sarnath          | Type 5: Historic City Revitalization – ADB pipeline project (2025) with Ministry of Tourism and UP State Department of Tourism – destination management, development of hospitality district, upgrading of the site |

**Table 5. ADB and WB Suggestions on Potential Ideas for Creative Redevelopment for Varanasi**

| Project Identification                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Potential Ideas for Creative Redevelopment for Varanasi. <ADB-WB suggestions> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Short-Term suggestions                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1. City-wide sanitation and SWM                                               | <p>The city's image and first impression is quite let down by dirty rubbish piling up on streets. To keep the main tourism attraction the Ganga clean, the whole city needs to seriously tackle the garbage collection and management. This is one of the first tasks that the city needs to prioritize for any urban redevelopment and tourism boost.</p> <p>Set up centers for recycling plastic and waste collected from ghats and markets.</p> <p>Offer contracts for wastewater treatment plants and waste management through PPP contracts</p>                                                                                                                                                                                                                                                      |
| 2. Pollution air control                                                      | <p>Varanasi needs to be on the forefront of regulating car exhaustions, incentives on reducing fumes and polluted air from industries, households, cars</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 3. Greening the city, place-making, public space, pedestrian management       | <p>4. Varanasi needs “Clean and Green City” movement and slogans to clean and beautify the inner-city streets. Adopt a action plan for low-carbon development.</p> <p>5. Place-making projects can be designed to ensure better quality public spaces, smoother traffic flows easing congestion and aligning better with tourist movement.</p> <p>6. Highlight pedestrian pathways and create pedestrian circuits for covering key tourism destinations</p> <p>7. Interactive Spaces: spaces for yoga, meditation, and cultural performances along the riverfront. Another specialization can be in wellness centers and yoga retreats—to capitalize Varanasi's spiritual ambience.</p>                                                                                                                   |
| 8. Creative Economy Cluster mapping and signage                               | <p>The creative economy of the city is untapped. Currently tourists cannot experience and witness the making of art, sculpture, textile weaving, wooden lacquer etc.</p> <ul style="list-style-type: none"> <li>• A heritage and cultural asset map with a mobility option—pedestrian or e-vehicle—would greatly contribute to reduced congestion and improved economic opportunities for local artisans, weavers and other businesses. Ideally opening out the actual spaces of the weaving communities to the tourists would be an intangible heritage experience.</li> <li>• Asset mapping of the creative economy highlighting the city's art, culture and handicrafts small industries within the old city. A walking map of participating communities can be made with distinct signage.</li> </ul> |

| <b>Mid-term Suggestions</b>                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9. Inner-city Area Traffic Management                                                                                                                                                     | <p>Related to above, congested and dangerous two-wheelers movement need more stringent and strict flow control, perhaps introducing one-way traffic, and secured pedestrian lanes, where pedestrians do not need to navigate 2-wheelers heavy traffic. For example, the pedestrian road to the Dashashwamedh Ghat can be closed to two-wheeler traffic during the peak hours of Ganga Aarti enabling the pedestrians and older people in wheelchairs better and safer mobility.</p> <p>Transform other congested areas into pedestrian-only zones during selected period of the day, and street furniture and shaded walkways.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10. Placemaking and Local Economic Development: Public space and tourist destination management with creative economy (Tourism Site Mapping, e-vehicle connectivity and pedestrian paths) | <p>Analyze key tourism sites—mapping with model pedestrian movement flows; and promote more zone- or area-based tourism, with ease of e-vehicle based on traffic, offering an improved retail and food experience.</p> <ul style="list-style-type: none"> <li>• Design good public spaces with urban design, coordinated signage and campaigns with Chamber of Commerce cooperation and major retails, textile and tourism/hospitality industries (hotels, restaurants).</li> <li>• Create artisan hubs showcasing traditional crafts like Banarasi sarees, brassware, and wooden toys showcase Varanasi's traditions, like silk weaving, classical music, and temple architecture. An Artisan village or a <i>haat</i> where the tourists can see the handicrafts and artisans in action with exhibitions will support the creative economy in the city for example on the Jal Vibhag land.</li> <li>• Ghat beautification and restoration—incorporate artistic lighting to enhance nighttime aesthetics. Install interactive kiosks sharing the history and significance of each ghat.</li> <li>• Convert old havelis and unused heritage buildings into museums, art galleries, or cultural centers.</li> <li>• Organize heritage walks (e.g., Ahmedabad Pol area): Develop dedicated walking trails with signage and guides, connecting key historic sites</li> </ul> |
| <b>Long-term Suggestions</b>                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 11. Core Area Strategic Vertical Space Maximization Zones and Incentivization                                                                                                             | <p>Varanasi needs to balance outer Ring and Airport Road development with inner-city vertical space maximization, based on high retail shops and food vendors concentrated locations and tourist flows. The city should consider inducing privately held land amalgamation with TDR incentives and public space making in the historic center</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12. Green City Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• Implement the action plan for low-carbon development</li> <li>• Modernize infrastructure by moving utilities like electrical wires and other cables underground</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>“Light-touch Creative Redevelopment Plan”</b><br>See Figure 3 and 4 in the main report—Phasing, Landownership, Asset Inventory (VDA and VMC developable land identification, availability, size), any other local body land (e.g., Temple Trust) for the suggested steps.<br><b>For preliminarily-identified ideas from above CR project concepts, the City may embark on preparing feasibility study using the enablers below:</b> <ol style="list-style-type: none"> <li>1. Develop design standards on urban design, open space and street design</li> <li>2. Introduce single-window systems to convert land-use</li> <li>3. Lower conversion charges, stamp duty, and registration fees</li> <li>4. Development of project-specific entitlement matrix in case of relocation</li> <li>5. Designate an anchor CR agency for the city</li> <li>6. Allow setting up of Special Planning Authority</li> <li>7. Promote undertaking of marketability assessment for identifying and prioritizing CR projects</li> <li>8. Develop a vision for the city linked to the development priorities and USP under the 3E's (economic competitiveness, environmental sustainability, resilience and social equity)</li> <li>9. Develop city branding and marketing to attract investments, firms and people.</li> </ol> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Phasing: Short - Medium - Long term</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Land and Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The city may consider the following two-pronged approach: <ul style="list-style-type: none"> <li>• Short-term option: pedestrianization for certain hours during the day for tourism, segregate pedestrians and traffic</li> <li>• Medium to Long term: identify those areas for Area Development Plan—increasing ROW main street, or ROW of parallel streets for back street and parking, incentivize landowners to vertical up</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Finance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Roll out GIS-based property survey to identify unregistered or undervalued properties.</li> <li>• Mandatory linking of property registration number/id with electricity bill (e.g., Guwahati collected additional ₹700 million in revenues within eight months where the residents were mandated to link their property holding number with the electricity bill), and followed with strict enforcement.</li> <li>• Review property tax exemption rules that may have excluded a significant number of properties from the tax base.</li> <li>• Explore the potential and legality (beyond GST collection), some form of tourism tax on hotels, tour operators, and luxury services catering to tourists.</li> <li>• For the Ropeway project, a detailed inventory on various parcels of land in the city center was carried out. Develop clear plans to monetize such idle municipal land through auctions, long-term leases, or joint ventures</li> </ul> |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>• Develop commercial development opportunities in the Ropeway Station.</li> <li>• Promote transfer of development rights (TDRs) to fund infrastructure projects.</li> <li>• The city can optimize its expenses by undertaking: <ul style="list-style-type: none"> <li>○ city wide energy-efficient smart LED lighting system</li> <li>○ Promote solar energy for powering public utilities and municipal buildings</li> <li>○ Implement e-governance platforms for tax collection, citizen services, and permits to reduce administrative costs.</li> </ul> </li> <li>• Develop a credible roadmap for improving the overall credit worthiness of Varanasi city, including developing appropriate approaches to tap capital markets and eventual bond issuance to support specific capital expenditure/ infrastructure.</li> </ul> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Project Structuring

#### < Study will carry out structuring exercise >

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Some potential ideas for the use of JalVibhag land | <ul style="list-style-type: none"> <li>• Build a VDA's branch office building, which can house various sizes of meeting rooms for exhibiting and presenting various development projects</li> <li>• Consultation halls for affected persons and showcasing post-completion developments</li> <li>• Grievance Redress Mechanism-related facilities</li> <li>• One-stop halls for consolidating various municipal services, utility bills payment, property tax collection</li> <li>• Community health clinics for vaccinations or virus screening facilities</li> <li>• Election-related voting booths and various municipal campaigns and gathering facilities</li> </ul> |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# Annex 10

## Mission Findings and Opportunities for Systematic Creative Redevelopment in Bhubaneswar

### Step 1: Develop City Vision

| A. Basic Information                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Development Priorities and Growth Objective | <p>Bhubaneswar has identified the following development priorities, and the city aims to be:</p> <ul style="list-style-type: none"><li>• Educational and Tourist hub</li><li>• Promote compact land use development</li><li>• Enhance trade, commerce and logistics</li><li>• Develop self-sufficient residential towns</li><li>• Seamless mobility and connectivity</li><li>• Disaster resilience</li></ul> <p>“To achieve wholesome development of the region by fostering an inclusive and enduring rural-urban balance, with a focus on enhancing core aspects such as health, safety, opportunity, and mobility. This vision prioritizes environmental sustainability and the preservation of the region’s natural and heritage assets.”<sup>58</sup></p> |
| 2. Assets                                      | <p>One of the first planned cities in India; confluence of Hindu, Buddhist, and Jain heritage; seat of culture, education and has several architecturally significant temples dating back to 1 CE. Administrative capital of Odisha, with important academic and research establishments.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

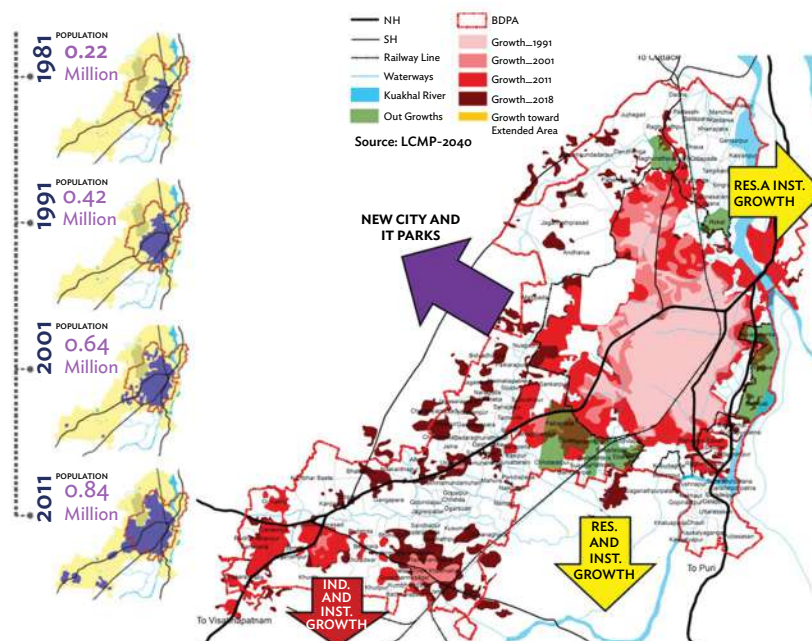
<sup>58</sup> Bhubaneswar Development Authority. 2024. [About BDA](#).

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Unique Selling Points | Home to iconic sites like Lingaraj Temple, Rajarani, Muktesvara Temples and part of the Golden Triangle with Puri and Konark; produced well-known architects, freedom fighters, classical dancers, and writers/poets; creative economy: art, architecture, Handloom and handicrafts—textile weaving, stone carving, silver filigree work, Pattachitra painting, etc. Odisha has 17 Geographical Indications or GI tags for its various arts and crafts. |
| 4. Economic Drivers      | Tourism/Pilgrimage site for Hindu, Jains, and Buddhists (Lingaraj Temple, Udaygiri Caves); Education (Utkal University); handloom and textiles; industrial zones with paper, steel, automobile, food, pharma and electronics industries; and an emerging IT hub as well.                                                                                                                                                                                |
| 5. Density               | Population of Bhubaneswar Municipal Corporation (BMC) area: 885,363 (Census 2011) and area of 135 square kilometers (65.6 persons per hectare)                                                                                                                                                                                                                                                                                                          |

## Step 2: Inventory City's Public Assets

| B. Land Use, Urban Form, and Regional Surroundings |                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Land Use, Land Availability, Land Value         | The present growth concentrates mainly toward northeast, south, and the west toward Khordha. Growth is restricted towards eastern side owing to waterbodies. CDP 2010 promoted growth toward the west as well. Please see Figure 1.                                                                                                                                    |
| 2. Urban Form                                      | <ul style="list-style-type: none"> <li>City is growing along the existing and proposed rings roads such as Inner Ring Road, Outer Ring Road (ORR), semi-ORR.</li> <li>Commercial use along major roads, and low-rise low-density residential</li> <li>Central city has low density development at present and has the potential to accommodate more growth.</li> </ul> |

Figure 19: Direction of Growth, BDA Area



Source: BDA 2024.

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Climate and Disaster Vulnerability | <ul style="list-style-type: none"> <li>Under the Government of Odisha (GOO) and UNDP partnership, the Hazard Risk and Vulnerability Analysis for Bhubaneswar was prepared in 2014<sup>59</sup>.</li> <li>Bhubaneswar experiences extreme weather conditions and is exposed to cyclonic wind, flood, earthquake, heat wave, and epidemics.</li> <li>The city has its strength in community cohesion, collective efforts toward disaster preparedness, institutional collaboration, and progressive policy thinking. These collectively can enhance city's physical, social, economic and institutional resilience.</li> </ul> |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Step 2: Low Hanging Fruit—Projects Already Identified and Invested (Selected) by Bhubaneswar

| Projects Identified by BDA                          |                                                                                                                            |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Name                                                | Creative Redevelopment Typology                                                                                            |
| Several placemaking and streetscaping               | *many stretches and roundabouts completed and many are underway<br>Transport Infrastructure and Urban Design Interventions |
| TPS for Inner Ring Road                             | *Under construction<br>Transport Infrastructure Upgrades                                                                   |
| The City identified 3 sites for new towns using TPS | *under consideration<br>Gothapatana New Town, TP Scheme, and Jagasara                                                      |
| Environmentally Sensitive Zones and Gangua Nallah   | *Ongoing<br>Type 9: Environmental Improvement                                                                              |
| Urban Jungle Forest                                 | *completed and opened<br>Kalingnagar (100 acre forest) done by BDA                                                         |
| Chandaka Forest Buffer Zone                         | *proposed<br>Type 9: Environmental Improvement                                                                             |
| Daya Riverfront Development and Eco Park            | *proposed<br>Type 9: Environmental Improvement                                                                             |
| Aragada Hill Daya River Dev. Zone                   | *proposed<br>Type 9: Environmental Improvement                                                                             |
| Sports Complex/Hub                                  | *proposed<br>Urban social infrastructure                                                                                   |
| Chudanga Fort Redevelopment                         | *proposed<br>Type 5: Historic City Revitalization                                                                          |

<sup>59</sup> [https://cms.bhubaneswarone.in/uploadDocuments/content/Bhubaneswar\\_Final\\_Report.pdf](https://cms.bhubaneswarone.in/uploadDocuments/content/Bhubaneswar_Final_Report.pdf)

## Step 3: Project Identification

### Potential Ideas for Creative Redevelopment

| Short Term Suggestions                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Creative economy mainstreaming - development of the Temple Circuit within Bhubaneswar with Clear Wayfinding and Signages     | <p>Bhubaneswar, known as the “City of Temples,” houses a rich collection of architectural marvels spanning centuries, including iconic temples like Lingaraj, Mukteshwar, and Rajarani. Enhancing the temple circuit involves implementing a comprehensive wayfinding system with clear, multilingual signages, information boards, digital maps, and interactive kiosks at key locations. This initiative will also improve the aesthetic appeal of the circuit with several benefits including</p> <ul style="list-style-type: none"> <li>• Enhanced visitor experience by providing seamless navigation and detailed historical and cultural insights.</li> <li>• Enhanced heritage tourism, encouraging longer stays and higher tourist spend.</li> <li>• Strengthened the cultural identity of Bhubaneswar, making it a global pilgrimage and tourism hub.</li> <li>• Improved accessibility for local and international tourists, including older and differently-abled visitors.</li> </ul> |
| Mainstreaming Other Tourism Attractions like Handloom Units and Textile Museums into Tourist Circuits                        | <p>Bhubaneswar and its surrounding areas are celebrated for their vibrant handloom and textile heritage, particularly the intricate ikat weave. Mainstreaming such heritage includes guided tours of handloom units to witness the weaving process, live demonstrations, interactive workshops for tourists to learn the craft, and revitalization of textile museums with immersive exhibits, audiovisual displays, and retail spaces offering authentic products.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Create a cultural brand identity for the city with an expanded form of a traditional festival                                | <p>Expand and promote nascent or less popular cultural festivals to leverage their unique selling propositions (USPs) and attract a larger audience.</p> <p>Specifically, consider extending the Mukteshwar Dance Festival beyond its current three-day format into a more elaborate, month-long event, similar to Chennai’s Margazhi Festival, which successfully draws large crowds. By aligning the festival with the peak tourist season (mid-December to mid-January) and incorporating diverse performances, workshops, and cultural experiences, Bhubaneswar can enhance its reputation as a vibrant cultural hub.</p>                                                                                                                                                                                                                                                                                                                                                                      |
| Mid Term Suggestions                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Identify a brownfield redevelopment site within the central city limits and develop it as a mixed-use integrated development | <p>Bhubaneswar has a universal FAR of 7 which has not been achieved in many places and presents an opportunity identify suitable sites to redensify.</p> <p>The Redevelopment Policy of the State (under preparation) may be able to give impetus to a demonstration pilot and bring in the different enablers suggested under this knowledge framework.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                        | It will be important to analyze if the market is active enough to absorb such additional density/new real estate. Also, the city shall identify and study deficiencies/shortages in infrastructure that are not supportive of higher densities resulting in lower FAR utilization.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Leverage Bhubaneswar's status as an educational hub                                                    | <p>With institutions like IIT Bhubaneswar, NISER, KIIT University, and XIMB, by investing in supporting infrastructure, the city has an opportunity to establish itself as a national and global knowledge destination. Develop state-of-the-art research parks, innovation centers, and incubation hubs to foster academia-industry collaboration.</p> <p>Complimenting the above goal, enhance public transport, student housing, and recreational facilities to attract talent, boost economic activity, and establish the city as a knowledge and innovation capital.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Long Term Suggestions</b>                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Development of Canal Corridors, Eco-Corridors, and Riverfronts for Community Building and Imageability | <p>Revitalizing Bhubaneswar's canals and riverfronts involves creating eco-corridors with walking paths, cycle tracks, green spaces, and leisure areas. These spaces can host community events, outdoor markets, and recreational facilities while ensuring ecological preservation. The bankability of the projects can be studied and specific revenue streams can be identified. These can be then earmarked and leveraged for commercial financing (debt/private) and used to pay off any debt obligations arising in the future.</p> <p>Benefits include:</p> <ul style="list-style-type: none"> <li>• Promotes community interaction and well-being by providing safe, inclusive public spaces.</li> <li>• Improves the city's image and livability, enhancing its appeal for residents and tourists.</li> <li>• Strengthens environmental conservation efforts by improving water quality, restoring biodiversity, and preventing encroachments.</li> <li>• Generates economic benefits through eco-tourism and local business opportunities around the developed spaces.</li> </ul> |
| Explore the expansion and strengthening of international air connectivity of Bhubaneswar               | <ul style="list-style-type: none"> <li>• Limited international connectivity restricts Bhubaneswar's access to global markets, investments, and tourism, hindering its economic and cultural growth. Expanding air and transport links will attract foreign businesses, boost tourism, and position the city as a regional hub for trade, technology, and culture, ensuring sustained long-term development and global competitiveness.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

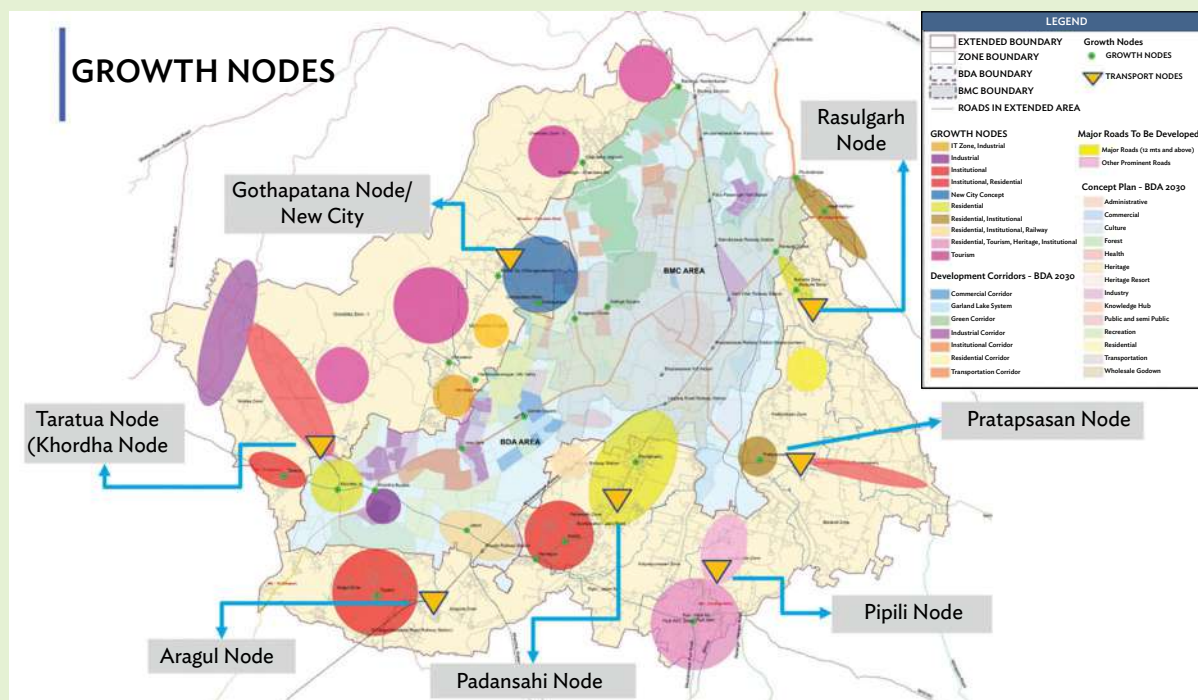
## Step 4: Creative Redevelopment Plan

Bhubaneswar has the following enablers for creative redevelopment for which very high-level gaps have been highlighted at this stage. These will need to be studied further and crystallized at the next stage of the project.

| Existing Enablers of Creative Redevelopment |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Policy and Planning                      | <ul style="list-style-type: none"> <li>• Comprehensive Development Plan 2040 (under preparation), <a href="#">CDP 2010</a> is currently under enforcement. Covers housing, transport, water supply, sanitation, disaster risk resilience, solid waste management.</li> <li>• 45 Town Planning Schemes (TPS) are ongoing in the city and the investment potential of these schemes would be a useful metric for the city to assess and track.</li> <li>• Average time for TPS reaching the final scheme stage is eight years; the execution of the TPS has led to a five-time increase in property value.</li> <li>• Bhubaneswar Drainage and Road Master Plan</li> <li>• Street Design Guidelines</li> <li>• Child-friendly Public Space Guidelines</li> <li>• Placemaking Pilots</li> <li>• New City Proposal—a 50-hectare greenfield city, with the aspiration to be an innovation hub for knowledge and research industries, labs etc. (Please see Figure 2)</li> <li>• DRAFT Rural-Urban Transition Policy under consideration</li> <li>• Redensification Policy not looked at in greater detail yet, even though mixed land use in core areas and commercial areas are being incentivized</li> <li>• <a href="#">“Visit Bhubaneswar”</a> is a unique initiative which aims to create a new identity for Bhubaneswar through city branding initiatives, including promotional strategies, guided tours, pop-up events, branded merchandise, and Hop-On Hop-Off bus services.<sup>60</sup></li> <li>• Dynamic policy making approach to test new ideas and accommodate</li> </ul> |
| 2. Land and Regulation                      | <ul style="list-style-type: none"> <li>• Universal maximum FAR of 7 has been put in place for the whole city, which has not been fully utilized in most places. There are only selected pockets/standalone structures where this FAR has been absorbed.</li> <li>• Predominantly low-density (60–70 persons per hectare) even in the core city area.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

<sup>60</sup> <https://www.bda.gov.in/project-details/5>.

**Figure 20. Identified Growth Nodes of Bhubaneswar Including New City**



Source: BDA 2024

### 3. Institutions

- TPS mechanisms in place through the Odisha Town Planning and Improvement Trust Act, 1956.
- Bhubaneswar Urban Knowledge Centre (BUKC), a knowledge and innovation center, established under the Smart City for Mission, acts as an urban incubation unit, devising and testing different strategies and interventions for the city.
- Capital Region Urban Transport (CRUT) established as an SPV for providing Public Transport Services in master plan areas of Bhubaneswar, Cuttack and Puri.
- The City also availed Smart City program funds (through SMCL) to implement smart traffic management, adaptive signal control, CCTV surveillance etc.
  - Bhubaneswar's participation in the Smart Mission has led to multiple smart infrastructure initiatives that attract private sector investments, which includes (a) smart street lighting systems, which are energy-efficient and equipped with sensors; and (b) Integrated Command and Control Center (ICCC), which is a core part of Bhubaneswar's smart city strategy, set up to centralize the management of city services (e.g., traffic, water supply, waste management). The project involved private companies for both implementation and long-term maintenance. This created opportunities for private firms in sectors like IT, telecom, and urban management; (c) Smart Public Transport System: Bhubaneswar is developing a smart public transport system, which includes e-buses, modern bus stations, and a traffic management system. Private operators are being encouraged to invest in electric buses and digital payment systems for public transport.

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | <ul style="list-style-type: none"> <li>Other notable institutional policy support for private sector participation include (a) Bhubaneswar Housing Policy that facilitates private sector involvement in affordable housing, with developers offered incentives like faster approvals and subsidized land rates in exchange for building affordable housing units; (b) waste-to-energy model in partnership with private companies, where organic waste is converted into energy—this has opened doors for private firms specializing in waste processing technologies to invest in the city’s infrastructure; and (c) smart bins equipped with sensors that alert municipal authorities when bins are full. Private companies are responsible for the installation, maintenance, and operation of these smart waste management systems.</li> <li><a href="#">Bhubaneswar Municipal Corporation</a></li> <li><a href="#">Bhubaneswar Development Authority (BDA)</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4 Finance | <ul style="list-style-type: none"> <li>The total investment needs of the city to deliver its Comprehensive Development Plan 2040 is around ₹300.00 billion<sup>59</sup> (₹150.00 billion will be public investment, remaining is planned to be arranged through loans, funds, user charges, etc.).</li> <li>The TPS are at a cost of ₹84.8 billion, funds for which are received in part from the State Government, and part through the GOI’s Scheme for Special Assistance to States for Capital Investment. Under the TPS, 40% land is deducted out of which 28% is used for construction of the Ring Road and remaining is set aside for EWS housing, open spaces, parks; however, a strategy for monetizing the residual land by BDA is absent.</li> <li>FAR has been increased to 7 to encourage re-densification. Base (free) FAR is 2 beyond which is chargeable. BDA collects all development related revenues (including revenues from land-value capture tools) such as FSI premium; BMC collects other key tax revenues such as property tax, etc. It will be useful to gather further information on whether BDA and BMC earmark the proceeds from these revenues for specific urban infrastructure investments.</li> <li>Housing projects of BDA are financing through PPPs and project financing and beneficiary contribution.</li> <li>Overall, the financing sources of Bhubaneswar mainly consist of state and central transfers which are traditional means. The city has not extensively explored innovative financing tools.</li> <li>Development of a new city has been proposed for an investment of ₹80.00 billion. This is proposed to be funded by the (i) 15th Central Finance Funds (₹10.00 billion); (ii) private sector (₹40–50 billion); and (iii) land monetization.</li> </ul> |

<sup>59</sup> Source: CDP 2040, Bhubaneswar Development Authority (BDA).

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. USP (Economy, Environment, and Equity) | <ul style="list-style-type: none"> <li>• The temple circuit within Bhubaneswar to be developed further with clear wayfinding and signages.</li> <li>• Other tourism attractions like the handloom units, textile museum etc. may need to be mainstreamed on the tourist circuits</li> <li>• Development of Canal Corridors, Eco-Corridors and River Front Development identified as a focus area</li> </ul> |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Recommendations on the Enablers Based on the City's Presentation and the Site Visit (ADB and WB) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Policy and Planning                                                                           | <ul style="list-style-type: none"> <li>• The city needs to develop a creative redevelopment plan (CRP) keeping in mind its vision of becoming an educational and tourism hub, which balances the delicate rural-urban balance well. The city also intends to promote compact city form and hence redensification needs to be carefully explored.</li> <li>• The permissible FAR of 7 is not being achieved in the city, and the reasons need to be ascertained. Possibly, relaxation of setbacks (DCRs) may allow higher FARs to be achieved along transit nodes and commercial nodes.</li> <li>• The identified development priorities can be focused on using a CRP among other tools.</li> </ul>                                                                                                                          |
| 2. Land and Regulation                                                                           | <ul style="list-style-type: none"> <li>• BMC may undertake a land inventorization of all public land within the municipal limit. The same may be done by BDA for areas outside BMC jurisdiction but within the Bhubaneswar Metropolitan Area.</li> <li>• BMC to maintain the database of land inventory.</li> <li>• BMC to strengthen asset management and monetization functions.</li> <li>• The city is currently trying to promote develop outer areas along the Inner Ring Road and beyond with the New City being proposed, but the city core has not reached its optimum density yet. Land pooling and amalgamation for brownfield redevelopment to be explored.</li> </ul>                                                                                                                                            |
| 3. Institutions                                                                                  | <ul style="list-style-type: none"> <li>• The BMC may be identified as the Anchor Institution for CR-BMC will prepare the light touch CR Plan. The CR Plan will mention the lead implementation agency for each CR project identified. BUKC will providing the primary technical support for development of this plan.</li> <li>• The existing BUKC can be extended to have strong coordination function across different departments, such as transport-metro agency, education, police, industries, etc.</li> </ul>                                                                                                                                                                                                                                                                                                         |
| 4. Finance                                                                                       | <ul style="list-style-type: none"> <li>• The city could incentivize and promote privately held low density inner area TDR; also place strategically important areas for higher FAR with public place-making requirements to boost tourism and direct development in high-priority commercial/ educational zones.</li> <li>• Under TPS schemes, strategize how to monetize residual deducted land (under 12% after deducting land for ring road and considering EWS, green space, etc.). Analyze the marketability of projects implemented under the deducted land. To monetize residual land, there should be sufficient investor interest in buying and developing such land subdivisions. Also, the "monetizable" land parcels need to be sized and configured appropriately to meet the demands of the market.</li> </ul> |

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4. Finance                                | <ul style="list-style-type: none"> <li>OSR per capita of BBSR is at par compared to similar sized cities. However, compared to other capital cities in India, OSR per capita (around ₹ 3,000) is relatively low. A detailed administrative and policy level analysis can be carried out for overall OSR and specifically Property Tax. Property tax exemption rules can be reviewed to assess the properties excluded from the tax base.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5. USP (Economy, Environment, and Equity) | <ul style="list-style-type: none"> <li>To promote the city as the center of tourism hub linking Bhubaneswar to Puri and Konark with efficient highway linkage or reliable and efficient shuttle bus services or organized tour operators;</li> <li>High skills education focal, linking universities, vocational training institutes and surrounding industries for job opportunities (aspiring to be Hyderabad of the “East India”)</li> <li>Smooth Multi-modal integration (MMI) across all kinds of transit modality (planned metro or BRT, highway, buses, footpaths) enabling smooth and regular connections across all key facilities and sub-districts—also potentially promoting the City as sports mecca and events hosting with smooth movement of spectators with pleasant urban amenities, high-quality hotels and hospitality industries (local handicraft, textiles shopping and cultural experience under one banner and campaigns)</li> <li>Early planning of TOD zoning along the planned Metro or BRT corridors</li> </ul> |



Successful examples of placemaking from the city. Sources: BUKC

## Annex 11

# Integrating Environmental and Social Risk Assessment and Mitigation Measures in Creative Redevelopment

Integrating environmental and involuntary resettlement safeguards in urban redevelopment is essential for promoting sustainable development, protecting vulnerable communities, and minimizing adverse social and environmental risks and impacts. The key steps to integrate environmental and social risks effectively in creative redevelopment include:

1. **Planning and Early Assessment.** City planners need to conduct comprehensive assessments early in the planning phase to identify potential environmental and social risks. The **environmental assessment** would cover an evaluation of air quality, water resources, biodiversity, land use, noise, and pollution levels, as well as identification of physical cultural resources and sensitive receptors such as schools, hospitals in the redevelopment area. The **social assessment** would cover an assessment of community dynamics, local livelihoods, housing, and any risks of displacement. Consideration of design alternatives to minimize the risks and impacts would be an intrinsic part of the risk assessments.
2. **Policy and Legal Framework.** The redevelopment plan needs to comply with national regulations on land acquisition, resettlement, and environmental protection. A good practice would be to align with international standards, to ensure that good practices in resettlement and environmental management are integrated. This would enable city governments to seek funding for redevelopment initiatives from international organizations as well. Existing land tenure systems would need to be reviewed and proper land rights documentation for affected populations undertaken, to prevent land disputes.
3. **Stakeholder Mapping and Consultations.** This would entail identification of key stakeholders, including affected communities and the vulnerable people among them, elected representatives, NGOs, CSOs, trade and business associations, ward/neighborhood committees, and other relevant groups, to ensure their concerns and inputs are considered throughout the redevelopment process. A consultation plan with identified stakeholders would enable structured and timely consultations and ensure that vulnerable people have a voice in shaping the redevelopment plan. City planners would need to ensure that consultations with concerned

communities are inclusive, transparent, and culturally appropriate. In doing so, a variety of communication channels to reach all community members, including marginalized groups may be used.

4. **Social Risk Management Planning.** This would entail preparation of a plan that includes (a) identification of affected persons and communities including vulnerable groups (people with disabilities, women, older people, scheduled castes, and scheduled tribes) by the types of impacts, (b) identification of common property resources that are important to the local communities and need to be preserved or enhanced; (c) designing a robust entitlement framework that includes compensation for lost property, relocation assistance, livelihood restoration programs, and common property restoration or enhancement plans, and ensuring that these measures are fair and culturally appropriate, (d) engaging with affected individuals and communities in the planning and design of strategies to address social risks, to ensure that their concerns are addressed; (e) establishing a grievance redress system that allows affected individuals to report issues and seek remedies related to resettlement and environmental impacts; and (f) defining a time-bound implementation schedule for the identified actions in social risk management. In order to facilitate timely execution of redevelopment projects, city planners would need to ensure that compensation for lost land, housing, and livelihoods is fair (at replacement cost), and in accordance with both local laws and international best practices. For the most vulnerable groups, the compensation needs to meet their specific needs and ensure they are better off at the end of the process. In addition to financial compensation, there is a need to integrate vocational training, employment opportunities, or support for small businesses to help displaced persons rebuild their livelihoods.
5. **Environmental Risk Management Planning.** This would entail: (a) development of mitigation strategies to mitigate adverse environmental impacts identified in the impact assessment such as pollution control, waste management, and ecosystem protection; (b) establishing an ongoing environmental monitoring program and ensuring that local authorities and developers are accountable for adhering to environmental standards; and (c) incorporating the protection and creation of green spaces, trees, and biodiversity protection measures (as required in specific contexts) in urban redevelopment plans, ensuring that the natural environment is preserved or enhanced.
6. **Monitoring and Evaluation.** City planners would need to set up systems for continuous monitoring of both environmental and social impacts throughout the redevelopment project. This should include the assessment of resettlement progress, environmental conditions, and the effectiveness of mitigation measures. Where impacts are significant or large-scale, independent external parties may be engaged to support the assessment of compliance with policies and planned mitigation measures, ensuring transparency and accountability and enabling course corrections, where necessary.

In doing all of the above, there will be a need to build the capacity of redevelopment practitioners and planners in local government agencies, project developers, and communities on environmental and social safeguard policies. Institutional strengthening may be required to manage environmental and social risks and ensure that local agencies have the resources and knowledge to enforce safeguard measures effectively. By following the above steps, urban redevelopment can be carried out in a way that balances economic development with environmental sustainability and social equity, minimizing negative impacts on both people and the environment.

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[illegible]



## **Creative Redevelopment of Cities in India**

### *A Catalyst for Inclusive, Resilient, and Sustainable Growth—Knowledge Framework—Annexes*

Creative Redevelopment is a concept that aims to transform city cores through a judicious densification and repurposing of underutilized assets, while delivering better economic, social, and environmental outcomes for the city and its communities. This publication complements the vision and framework for developing cities as growth hubs as economic drivers for growth. It offers the tools to unlock the potential of creative redevelopment and to foster inclusive, resilient, and sustainable urban growth, aligning with India's "Viksit Bharat" vision of becoming a developed nation by its centennial year of independence. The publication is a joint effort of the Asian Development Bank and the World Bank Group, in close collaboration with the Government of India.

### **About the World Bank Group**

The World Bank Group (WBG), is an international development organization, comprising five institutions, who work together toward its mission to end extreme poverty and boost shared prosperity on a livable planet. These five institutions work together to reduce poverty and promote sustainable development by providing governments with an integrated package of financing, advisory services, and knowledge, tailored to the development needs of each country.

### **About the Asian Development Bank**

ADB is a leading multilateral development bank supporting inclusive, resilient, and sustainable growth across Asia and the Pacific. Working with its members and partners to solve complex challenges together, ADB harnesses innovative financial tools and strategic partnerships to transform lives, build quality infrastructure, and safeguard our planet. Founded in 1966, ADB is owned by 69 members—50 from the region.



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Ministry of Finance,  
Department of Economic Affairs  
Ministry of Housing and Urban Affairs  
Government of India

