



# G20 Framework on Capacity Building of Urban Administrations for Financing Cities of Tomorrow

July 2023



## Contents

<b>1</b>	<b>Introduction.....</b>	<b>3</b>
<b>2</b>	<b>Capacity Building Framework for Urban Administrations.....</b>	<b>6</b>
2.1	Recognize Key Functions and Critical Elements.....	7
2.2	Assess Capacity Needs and Gaps .....	14
2.3	Develop a Capacity-Building Program .....	15
2.4	Implement the Capacity-Building Program.....	19
2.5	Monitor and Evaluate the Capacity-Building Program.....	23
	<b>Appendix 1: Checklist for Urban Administrations to Assess Current Capacity Gaps</b>	<b>25</b>
	<b>Appendix 2: Tools for Capacity Building for Cities of Tomorrow .....</b>	<b>37</b>
	List of Tools .....	37
	Details of Tools.....	40
	<b>Climate Toolkits for Infrastructure PPPs .....</b>	<b>60</b>
	<b>Appendix 3: International Good Practices .....</b>	<b>62</b>
	<b>List of Figure</b>	
	Figure 1: Capacity Building Framework for Financing Cities of Tomorrow.....	6
	<b>List of Boxes</b>	
	Box 1: Critical Elements of Urban Policies and Planning.....	8
	Box 2: Critical Elements of Urban Infrastructure Development and Service Delivery....	10
	Box 3: Critical Elements of Urban Governance .....	12
	Box 4: Differentiated and Targeted Design of Capacity-Building Programs .....	18
	Box 5: Indicative List of Capacity Development Modalities.....	20
	Box 6: Examples of Monitoring and Evaluation Indicators of Capacity-Building Programs .....	24

## 1 Introduction

---

Urbanization is a global phenomenon of the 21st century, driving economic growth and creating jobs: cities generate close to 80% of global gross domestic product (GDP). Urban administrations, being the closest entities to citizens, provide public services such as education, health care, social protection, solid waste management, and water supply, among others. Besides this, they plan, design, implement, and manage urban infrastructure. Further, cities play a crucial role in achieving the Sustainable Development Goals (SDGs) as nearly two-thirds of the 169 operational targets of the SDGs have local dimensions (Organisation for Economic Co-operation and Development – OECD – estimate). The 2030 Agenda for Sustainable Development also emphasizes the need for an inclusive and localized approach to the SDGs. Rapid urbanization has increased the demand for sustainable and quality public services, which requires increased investment in infrastructure development.

While cities have opportunities to improve the overall well-being of their citizens and to catalyze economic development through urban agglomeration, they face unprecedented challenges, including inequitable growth, increasing risks of climate change and disasters, environmental deterioration, and emerging threats like that of the coronavirus disease (COVID-19) pandemic. In climate change context, low-income urban communities are often densely populated and located in low-lying areas, making them more vulnerable to urban flooding. Increased temperatures and variations in rainfall have adverse impacts on citizens' access to basic urban and water services. Cities are also becoming the major sources of carbon emissions, given the high levels of economic activity that take place within them. Cities of tomorrow therefore need to be *inclusive* by addressing the special needs of poor and vulnerable groups such as women, children, the elderly, people with special abilities, and those in low-income communities; *resilient* by protecting citizens from disaster-led shocks and enhancing their preparedness for future challenges emanating from climate changes; and *sustainable* by promoting energy and resource efficiency for a net-zero future.

For cities of tomorrow, urban administrations need robust institutional capacity to enhance the mobilization of funding and financing. Financing infrastructures remains a challenge for many cities, particularly those in least developed and lower-middle-income countries, as some do not mobilize adequate revenue and depend largely on central government transfers, which remain insufficient to fund their vast infrastructure needs. Moreover, recent rises in debt-to-GDP ratios (as a result of COVID-19) have placed increased strain on the availability of public finance. Cities therefore need to create a conducive environment by (i) developing integrated urban policies and planning through spatial and non-spatial measures, (ii) preparing financially viable projects through robust capital investment plans and ensuring sustainable urban services with enhanced revenue streams and asset management, and (iii) strengthening

urban governance to improve creditworthiness through accountable financial management and improved own-source revenues.

Cities need coordinated support from higher levels of government to increase funding and financing since they often rely for their operations on the national/regional levels for various legislation, regulatory frameworks, policies, and guidelines. Effective vertical coordination across levels of government is critical to ensure policy coherence, streamline development planning, and avoid duplication of resources. An enabling framework for cities of tomorrow should include long-term visions and national development plans; legal frameworks and guidelines for urban planning; national climate adaptation plans; policy and guidelines for public–private partnerships (PPP); fiscal responsibility and regulatory frameworks, including on borrowing rules, accessing financial markets, and issuing bonds; infrastructure design codes; service delivery standards; and procurement guidelines. Policy advisory and technical support from higher levels of government strengthens the institutional capacity of cities to implement their legal and regulatory frameworks and to enhance creditworthiness and good governance.

Recent urban agglomerations further require horizontal coordination with neighboring local authorities in metropolitan areas. Cross-jurisdiction coordination along with policy synergies can help cities maximize value for infrastructure investments through affordable, efficient, and quality service provisions. Collaboration with the private sector and civil society organizations is also vital to support urban administrations, which often do not have adequate resources, skills, and knowledge for inclusive, resilient, and sustainable development. Citizens' engagement in urban planning, project implementation, and municipal governance will build their ownership as well as legitimize the decisions made by cities, which is fundamental to citizens' confidence in the government. This will eventually contribute to citizens' willingness to pay taxes and user charges, thereby increasing funding for infrastructure development.

Capacity-building is necessary for urban administrations to increase their competence, effectiveness, and efficiency with regard to enhancing infrastructure financing. Capacity-building is particularly critical for cities in least developed and lower-middle-income countries, since most of these lack adequate knowledge and resources to undertake their mandates. Meanwhile, with many countries increasingly devolving functional responsibilities to subnational governments, a significant mismatch can be observed between the increased responsibilities assigned to them and their available capacities and resources. Urban capacity development programs should take a holistic approach through (i) targeting differentiated beneficiaries such as political representatives, executive leaderships, technical staff, national/regional officials, and partners including private sectors and city networks; (ii) adopting adaptive designs that consider complex and rapidly changing urban challenges; and

(iii) strengthening institutional as well as individual capacity, as these are mutually reinforcing.

Urban development models vary between urban administrations within and across countries depending on the local context, development needs, and the unique policy and financial challenges. This report presents a customizable framework for urban administrations to use in developing and implementing their own capacity-building program. For practical use, it provides a step-wise guide to assess capacity gaps and to design, implement, and monitor a tailored capacity-building program. The framework will also help cities develop their suitable programs by providing (i) a mix of various delivery modalities, which include proven traditional approaches as well as innovative models; (ii) a wide array of tools available on global platforms; and (iii) international good practices in urban policies and planning, urban infrastructure development and service delivery, and urban governance.

Facing rapidly changing urban needs, cities can also enhance partnerships and coordination with multilateral development banks, international organizations, national/regional governments, academia, the private sector, and city networks to address their capacity-building agenda. Global and regional communities can cross-learn, access the knowledge pool to develop innovative solutions, and customize good practices to fit the context, needs, and priorities of each city.

This report represents an evolving and collaborative framework to enhance cities' capacity to finance inclusive, resilient, and sustainable infrastructure. It has been prepared through a consultative process with inputs and contributions from G20 members, development partners, and city network organizations including C40, ICLEI Local Governments for Sustainability, Resilient Cities Network, and United Cities and Local Governments.

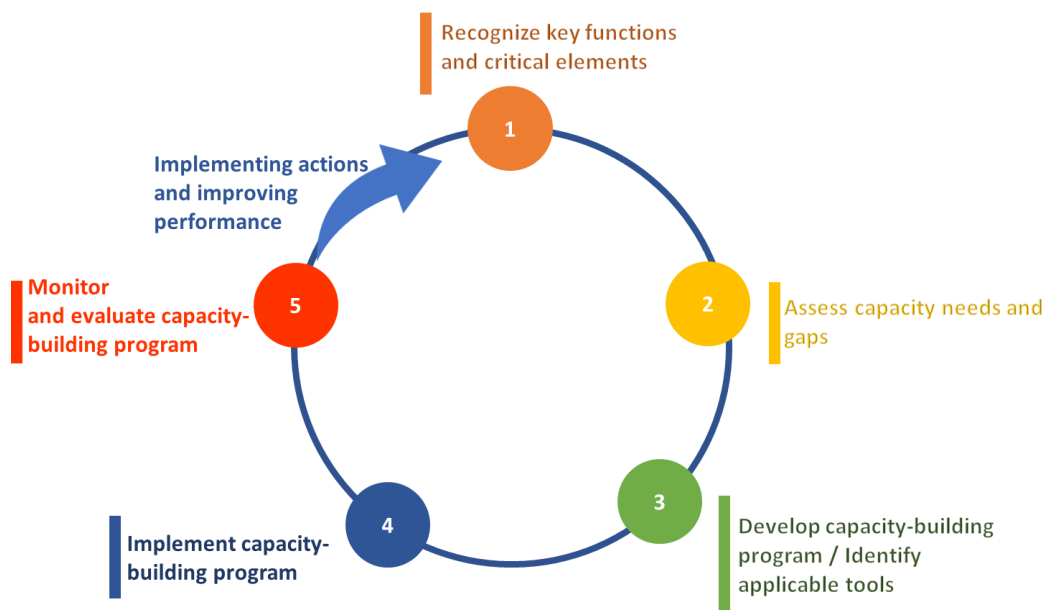
## 2 Capacity Building Framework for Urban Administrations

Building the capacities of urban administrations requires a well-structured and strategic framework guided by the key principles of inclusivity, resilience, and sustainability. It will entail a methodical approach that will account for the capacity and maturity of various stakeholders at city level. The proposed capacity-building framework adopts the Plan-Do-Check-Act (PDCA) method, comprising the following steps:

- (i) *Recognize* key functions and critical elements
- (ii) *Assess* capacity needs and gaps (using a checklist)
- (iii) *Develop* a capacity-building program (Plan)
- (iv) *Implement* the capacity-building program (Do)
- (v) *Monitor and evaluate* the capacity-building program (Check and Act)

The framework identifies potential tools, methodologies, and/or programs—available internationally—that can be leveraged to meet capacity-building needs.

**Figure 1: Capacity Building Framework for Financing Cities of Tomorrow**



## 2.1 Recognize Key Functions and Critical Elements

### **Step 1 of 5: The city takes stock of its functions and critical elements for cities of tomorrow.**

National and/or provincial rules and regulations as well as structure and state of decentralization determine the type of local governance, local policies and functions, and the ability of cities to take actions related to infrastructure development, mobilizing funding and financing, and having access to additional sources of finance. The extent of decentralization and devolution to subnational governments defines their mandate to execute their specific functions and role.

Nevertheless, the key functions required to transform into cities of tomorrow are generally grouped into (i) urban polices and planning, (ii) urban infrastructure development and service delivery, and (iii) urban governance. Subsections 2.1.1–2.1.3 discuss these key functions and critical elements that urban administrations should address.

#### **Urban Policies and Planning**

Urban policies and planning represent one of the most fundamental and strategic functions of urban administrations, influencing economic, environmental, and social outcomes. Cities of tomorrow need to prepare context-specific urban policies based on a high level of information on local conditions. Urban planning should be designed to balance private and public interests and ensure efficient patterns of spatial development. Infrastructure projects should be planned in such a robust urban planning framework to maximize the benefits of urban agglomeration.

Box 1 discusses critical elements of urban policies and planning including: (i) urban master plans, (ii) land-use plans, development control regulations, and building permits and design codes, and (iii) multisectoral urban policies. In implementation, cities need coordinated support from higher levels of governments for nation-wide strategies, policies, and guidance such as national development strategy, regional spatial plan, legal framework and guidelines for urban planning, national climate adaptation plans, and long-term net-zero development strategy. Cities also need to coordinate horizontally across different local sector agencies and departments and ensure integrated planning and multi-sectoral policy. Further, recent urban agglomerations require cross-jurisdiction coordination in metropolitan areas. Wider consultations with civil society and local communities help cities find the optimal balance among the competing urban demands. Strategic communications with private investors in urban planning will create future buy-in and investment opportunities. Political leadership of urban administrations can take a critical role in coordinating across these different stakeholders.

## Box 1: Critical Elements of Urban Policies and Planning

### (i) Urban master plans

- Cities should set a clear strategic vision in their master plans that guide development priorities, policies, and planning to mainstream inclusive, resilient, and sustainable urban transformation. Master plans should include robust land-use plans and city infrastructure development plans based on accurate spatial data and information (e.g., geographical information system-based mapping). Cities also need to adopt a medium- or long-term revenue enhancement strategy to fulfill their urban vision in a self-sustaining manner.
- Urban master plans need to meet national policy objectives and, if appropriate at scale, cities are required to develop metropolitan master plans. These plans should be prepared and implemented through wider consultation with civil society, local communities, and business associations.

### (ii) Land-use plans, development control regulations, and building permits and design codes

- Under overwhelming pressure from competing land uses, cities' land-use plans and regulations play a vital role in ensuring sustainable spatial development.<sup>a</sup> Well-designed plans can contribute to preventing suburban sprawl and negative externalities (e.g., unplanned development, traffic congestion, pollution emissions); protecting citizens, especially vulnerable groups, from climate-induced disasters (e.g., risk-sensitive land-use planning in low-lying areas); and promoting innovative financing and green growth (e.g., land value capture and green cover).
- Cities of tomorrow need to adopt a holistic, integrated, and flexible approach in urban planning and leverage spatial measures (e.g., land-use plans, development control regulations, land zoning, building permits) as well as non-spatial measures to unleash urban potential for a green future (e.g., multisectoral policies, as discussed below).

### (iii) Multisectoral urban policies and plans

- Cities of tomorrow need to develop climate action plans (CAPs) to enhance sustainable and resilient development. These CAPs should set out a vision, inventory greenhouse gas emissions and scenarios and climate change risks, present goals and targets, and highlight the strategy and action roadmap. The planning process should strengthen existing climate governance structures to design and deliver the CAPs.<sup>b</sup>
- Cities should further adopt cross-sectoral inventions for low-carbon urban mobility (e.g., a modal shift to public transport; conducive urban transport planning with



transit-oriented development including route restructuring, transport service quality improvement, and financial sustainability of public transport providers); energy efficiency (e.g., energy conversion, a smart grid and demand response system, green buildings); environmental improvement (e.g., mainstreaming of water resilience, city-wide inclusive sanitation management, circular economy); and integrated urban flood management (e.g., hazard mapping and early flood warning systems; nature-based solutions; green infrastructure).

<sup>a</sup> OECD. 2017. *The Governance of Land Use in OECD Countries: Policy Analysis and Recommendations*. Paris.

<sup>b</sup> C40 Knowledge Hub. *Climate Action Planning Guide*.

**(Cases) Appendix 3** presents international good practices on urban policies and planning.

- Case 1: Environmental Sustainability—Singapore’s Journey
- Case 2: (i) Integrated Urban Development in Yokohama, Japan, through Six Major Projects; and (ii) a Capacity-Building Modality—City Management as a Service (CMaaS)—for International Collaboration
- Case 3: Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) for Water Security in All Statutory Towns in India and Improving Municipal Services for Citizens
- Case 4: German Agency for International Cooperation (GIZ)—Tools and Methods of Sustainable Development Goal Localization for City Corporations and Municipalities of Bangladesh
- Case 5: ILBANK, World Bank and European Union—Diagnostic Assessment and Needs Analysis for Sustainable City Planning of 10 Selected Metropolitan Municipalities in Türkiye
- Case 6: City Climate Finance Gap Fund to Support an Interdisciplinary Approach in Developing a Human-, Flora-, and Fauna-Friendly Area along the Pivdennyi Buh River in Ukraine (Vinnitsia’s “Alley 12.7”)
- Case 7: Global Environment Facility for Sustainable Cities Integrated Approach Pilot Project to Support Transit-Oriented Development in Tianjin
- Case 8: Resilient Cities Action Package (ReCAP21) for Bangladesh, Mauritania, and Rwanda

### 2.1.1 Urban Infrastructure Development and Service Delivery

Urban administrations are generally responsible for various basic public services, such as education, health care, social protection, housing, water supply, sanitation, waste

management, local transport, and environmental protection. Urban infrastructure should be designed and implemented to provide affordable and equitable access to such public services, to increase the city's resilience capacity to mitigate adverse climate impact on citizen's access to basic urban and water services, and to promote energy and resource efficiency for a net-zero future.

Box 2 discusses critical elements of urban infrastructure development and service delivery require a holistic and coherent approach, including (i) CIPs, (ii) project development and implementation including project preparation facilities (PPFs), and (iii) service delivery with effective asset management. In implementation, the higher levels of governments should provide an enabling environment for urban administrations to mobilize more innovative funding and financing. Central governments may adopt PPP policies and laws which specify the eligible sectors, types of permitted private sector participation models, guidelines on risk allocations, provision of financial or other incentives, and other details of project preparation and implementation. Further, higher levels of governments can provide urban administrations infrastructure design codes and service delivery standards. In metropolitan areas, inter-municipal cooperation can ensure that infrastructure investments maximize economies of scale and promote efficiencies. Citizen's participation in project preparation and implementation will improve infrastructure designs to meet the local needs and sustain quality services, which will eventually contribute to improving people's willingness to pay user charges.

## Box 2: Critical Elements of Urban Infrastructure Development and Service Delivery

### (i) Capital investment plans

- Achieving a city's visions requires sustained capital investment. In line with urban policies and planning, cities need to prepare robust capital investment plans (CIPs) to leverage various financing sources. The core of CIPs is a fiscal capacity assessment to review and enhance own-source revenues (e.g., service fees, charges, taxes, asset mobilization). The plans should present a list of prioritized projects and match these to already available or potential funding and financing sources.
- Enhanced own-source revenues can improve a city's creditworthiness, which in turn makes it possible for the city to access various types of market-based financing (e.g., commercial lending, municipal bonds, public-private partnerships, and carbon finance). Urban administrations can also leverage land as a financing solution (e.g., transit-oriented development, land value capture, transferable development rights).

### (ii) Project development and implementation

- Cities should design and implement quality infrastructure projects in alignment with the G20 Quality Infrastructure Investment Principles. These projects must have the technical feasibility to deliver sustainable services through enhanced implementation and operation arrangements. The projects to build cities of tomorrow should target socially excluded and vulnerable people in their service design and delivery, and ensure participatory preparation, awareness programs, and wider coordination with civil society.
- Lack of bankable projects as well as inadequate capacity within urban administrations to design such viable projects is one of the major reasons for low infrastructure investment by the private sector. Urban administrations should enhance project structuring and evaluation capacity to enable the preparation of viable urban projects that will provide robust revenue streams for investors. The various risks should be identified in advance and monitored and mitigated throughout each project's lifecycle. PPFs can take a critical role in providing technical and financial support for cities to develop investment-ready projects. It can also aggregate cooperation efforts and commitments from a wide range of stakeholders, particularly public and private investors and financing institutions.<sup>a</sup>

### (iii) Service delivery with effective asset management

- An asset management framework is vital to provide sustainable urban services, improve financial performance, and inform future investment decision in CIPs. Such frameworks should represent a system of policies, procedures, and the entities that perform project asset management.
- The framework will enable urban administrations to maximize both the financial and the service value of physical assets. It should follow a portfolio approach and implement lifecycle asset management to ensure the sustainable operation of newly created infrastructure.

<sup>a</sup> Cities Climate Finance Leadership Alliance. ['What is a Project Preparation Facility?'](#)

(Cases) **Appendix 3** presents international good practices on urban infrastructure development and service delivery.

- Case 9: Leveraging Land Value Capture for Public Transportation—Centered Mixed-Use Development in the Yeongdong-daero Underground Complex in Seoul, Republic of Korea
- Case 10: Abu Dhabi Public–Private Partnership Framework to Facilitate Private Financing in the Infrastructure Sector
- Case 11: European Union—InvestEU Advisory Hub

- Case 12: The C40 Cities Finance Facility’s Capacity Development Approach—Solarizing Public School Rooftops in Quezon City, Philippines
- Case 13: ICLEI (Local Governments for Sustainability)—A Transition to Decentralized Renewable Energy for Brazil’s Youngest Planned City
- Case 14: World Bank—Tianjin Urban Transport Improvement Project
- Case 15: Transit-Oriented Development in Ahmedabad, India

### 2.1.3 Urban Governance

Urban governance characterizes policies, plans, systems, strategies, and guidelines related to the internal operations of urban administrations. It covers planning, budgeting, revenue mobilization, public financial management, recruitment and management of human resources, and mechanisms for public participation, transparency, and accountability. It largely affects the sustainable provision of quality public services.

Box 3 discusses critical elements of urban governance, including (i) local public financial management, (ii) revenue enhancement, (iii) procurement and contract management, (iv) digitalization, and (v) human resource management. To support urban administrations to implement these elements, higher levels of governments have a critical role in providing clear delineation of devolved administrative functions, fiscal responsibility and regulatory frameworks (e.g., revenue assignment and borrowing rules), uniformity in public financial management system, and procurement guidelines. Citizen’s engagement in municipal governance will build their ownership as well as legitimize the decisions made by cities, which is fundamental to citizens’ confidence in the government.

#### Box 3: Critical Elements of Urban Governance

##### (i) Local public financial management

- Local public financial management (LPFM) is a part of the national public financial management system, which comprises a set of laws, rules, institutions, policies, and processes. It governs the planning, budgeting, management, accounting, and auditing of public funds to achieve immediate and medium- to long-term development outcomes.
- Effective LPFM is at the core of the institutional capacity of urban administrations. Digitalization of LPFM systems is critical to increase operational efficiencies and enhance the transparency and accountability of public funds. This

requires enhanced accounting, budgeting, financial reporting, and auditing practices.

#### **(ii) Revenue enhancement**

- Many cities do not mobilize adequate revenue to meet their growing infrastructure needs and largely depend on central government transfers. Property tax has good revenue potential, thus policy and administration reform is required for efficient, equitable, and accountable collection and enforcement.<sup>a</sup> The tax administration should be supported by information technology, including geographical information system-based property mapping, drone surveys, big data analytics, digital billing, and online collection.
- To fund and finance infrastructure development (especially high revenue-generating projects), urban administrations should not resort only to burdening taxpayers: cities should explore user-funded options through the user pays principle. With accountable LPFM, revenue enhancement enables cities to improve their creditworthiness, enhance the financial viability of projects, and access more innovative financing.

#### **(iii) Procurement and contract management**

- Good procurement practices lead to reduced costs and deliver timely results. Transparency could be enhanced through an e-procurement system. Sustainable procurement is encouraged to promote energy and resource efficiency.
- Regular monitoring of the implementation of contracts and payments is important to ensure quality service delivery and give confidence to the private sector. Financial, technical, and engineering experts should be available for effective contract management in urban administrations.

#### **(iv) Digitalization**

- Digitalization of systems and procedures improves the efficiency of urban functions, including public service delivery. More importantly, it enhances the transparency and accountability of public funds, which is crucial to enhancing the creditworthiness of urban administrations.
- Urban administrations must invest in enhancing innovative technologies, skills, and capacities to establish a digital urban platform that can provide city administrators and residents with reliable and timely service data, land records, and revenue data. This will help cities carry out evidence-based planning and develop citizen-centric governance.

#### **(v) Human resource management**

- An efficient and effective institution depends strongly on the skills and competence of people who work in that institution. Urban administrations require human resources of various skill sets to fulfill their urban mandates.
- Recruitment policy and mechanisms are important to ensure that the right people are hired without discrimination. Performance management is also critical to motivate staff to deliver planned outputs. Urban administrations need to upskill and reskill city staff so they can address emerging urban challenges.

<sup>a</sup> World Bank. 2020. *Property Tax Diagnostic Manual*. Washington, DC.

(Cases) **Appendix 3** presents international good practices on urban governance.

- Case 16: Asian Development Bank (ADB)—Urban Governance and Infrastructure Improvement Project in Bangladesh
- Case 17: Smart City Mission India – Integrated Control and Command Centre

## 2.2 Assess Capacity Needs and Gaps

**Step 2 of 5: Against the backdrop of relevant key functions and critical elements related to infrastructure financing, the city must assess capacity gaps.**

The gap assessment relates to reviewing whether cities have the required capacities to undertake their responsibilities for key functions and critical elements identified in Step 1. The capacity assessment also sets the baselines for monitoring and evaluating capacity development.

While many critical elements discussed in Step 1 are not particularly new to urban administrations, their capacity in performing these elements needs to be analyzed through the lenses of inclusivity, resilience, and sustainability, for them to become “cities of tomorrow”. The checklist in **Appendix 1** enables cities to assess their current gaps.

Some of the capacity gaps that cities may identify could be as follows:

- (i) *Urban policies and planning*
  - (a) Lack of knowledge of urban planning required for inclusive, resilient, and sustainable development;
  - (b) Limited use of information technology to collect data required for evidence-based planning;
  - (c) Absence of an effective mechanism to plan, implement, monitor, and update urban policies;

- (d) Inadequate staff resources and technical expertise to prepare and implement climate action plans (CAPs) and multisectoral policies; and
- (e) Limited citizen participation in planning processes.
- (ii) *Urban infrastructure development and service delivery*
  - (a) Disconnections/misalignments between masterplan, CIP, and annual budget;
  - (b) Low analytical capacity to conduct fiscal capacity assessment to enhance own-source revenue and creditworthiness;
  - (c) Inadequate project preparation and implementation capacity to maximize socioeconomic benefits and minimize adverse impacts;
  - (d) Limited knowledge, skills, and resources to formulate PPP project; and
  - (e) Incomplete asset management to improve operational and financial performance of project and inform asset investment decisions in CIP.
- (iii) *Urban governance*
  - (a) Lack of prudent financial management knowledge and skills (accounting, budgeting, financial reporting, auditing);
  - (b) Non-digitized tax administration, limited revenue performance data, and no medium- or long-term revenue enhancement strategy;
  - (c) Lack of transparency in procurement and contract management;
  - (d) Limited capacity and skills to manage municipal data for timely decision-making; and
  - (e) Absence of clear policies and adequate budgets to hire competent staff.

### 2.3 Develop a Capacity-Building Program

#### **Step 3 of 5: The city defines its short-, medium-, and long-term capacity-building goals and develops a time-bound capacity-building program.**

Based on the gap assessment, cities can create capacity development plans and programs with timelines (immediate and short and long term) relevant to their context, needs, and priorities.

Capacity-building programs not only entail training provision but also should encompass certain elements as described below:

- (i) The design of a capacity-building program must be adaptive, considering the rapidly evolving urban demographics, priorities, financing, technology, and challenges. In response to the changing needs, contextual research is necessary for comprehensive understanding of what is relevant to the local context, rather than being guided entirely by research done in other contexts and/or countries. Such local research and consultations would help in creating new capacity development tools or updating existing tools with appropriate decision support systems.
- (ii) Cities can decide the duration of the capacity-building program, ensuring ample time to effectively plan, implement, and monitor its efficacy. The capacity-building program must use pedagogical methods that ensure greater participation of the city administration, with medium- to long-term engagement through learning by doing. Lectures are normally less effective, particularly for technical staff, whereas hands-on implementation exercises will expose them to what they have learned through the program. If the capacity-building program cycle follows the short- or mid-term city development planning cycle, this will maximize relevance and impact.
- (iii) Cities need to motivate their staff to participate in capacity-building programs, as people are often hesitant to attend such programs due to their routine workloads or simply overlooking the values of the training. Regular capacity building and skills development is critical for them to ensure quality urban services in rapidly changing situations. Urban administrations need to consider proper incentives for promoting participation through various forms such as rewards, additional points in performance evaluation, and positive prospects for career growth.
- (iv) Capacity building should be an evolving and collaborative process to be mainstreamed through urban administrations. It is important to involve local and national actors (e.g., government partners, research institutes, civil society organizations, private sector) in designing and implementing capacity-building programs. Moreover, city networks/associations have a great role in cross-learning through sharing experiences and knowledge, working together with experts from other cities on selected themes, and hosting training for each other.
- (v) The capacity-building program should include information on:
  - (a) differentiated short-, medium-, and long-term capacity-building goals;
  - (b) overall duration of the capacity-building program;
  - (c) list of capacity building actions;
  - (d) target audience: political representatives, executive leadership, and technical staff (see Box 4);
  - (e) identified tools and/or methodologies;



- (f) training institutions, development cooperation institutions, city networks/associations, and governments at international, national/regional, and local level that can support deployment of the capacity-building action for each topic;
- (g) external experts per topic (if relevant);
- (h) national, state, or development cooperation institutions that can support capacity-building costs per topic;
- (i) mode of delivery and funding for each identified activity;
- (j) time plan for implementation of each identified capacity-building action; and
- (k) desired outcome and a defined timeline for demonstrated outcome. Accordingly, propose a set of indicators for each capacity-building action.

**Appendix 2** presents an indicative list of various capacity-building tools and methodologies for transforming into cities of tomorrow.

- (i) These are provided by development banks, bilateral and multilateral agencies, other international development agencies, city networks/associations, and PPFs. Most are at no or minimal cost to urban administrations. Cities as well as higher levels of governments may use these tools directly or customize them for their specific needs and mainstream capacity building in their functions.
- (ii) The list includes various financial appraisal tools to help cities of tomorrow, such as SN. 1: Cities and Climate in Africa (CICLA); SN. 2: PPP Certification Guide (APMG International); SN. 3: Cities Development Initiative for Asia (ADB); SN. 8: Catalytic Finance Initiative (Bank of America); SN. 10: Prep (CCFLA, FELICITY, and GIZ); SN.12: Cities Finance Facility (C40); SN.15: Good Practice Guide: Creditworthiness (C40); SN. 30: Transformative Actions Program (ICLEI); SN.31: Climate-Resilient PPP (Inter-American Development Bank); SN.34: Guidance on Use of Municipal Bond Financing for Infrastructure Projects (Ministry of Finance, Government of India); SN. 40: City Finance Lab (South Pole, Climate-KIC, FMDV, CDP, and GIB); SN. 41: Global Innovation Lab for Climate Finance (The Lab); SN. 43: PPP Reference Guide (World Bank); SN. 44: Municipal Public–Private Partnership Framework (World Bank); SN.48: Municipal Finances: A Handbook for Local Governments (World Bank); SN. 49: Climate Toolkits for Infrastructure PPPs (World Bank); SN.50: City Climate Finance Gap Fund (World Bank and European Investment Bank); SN. 51: Women’s Livelihood Bond™ Series (World Bank and United Nations Entity for Gender Equality and the Empowerment of Women [UN Women]); and SN. 52: Associated Programme on Flood Management (WMO and GWP)



#### Box 4: Differentiated and Targeted Design of Capacity-Building Programs

- (i) Capacity-building programs for urban administrations must account for the varied nature of cities across countries in terms of size, geography, population, governance structure, and processes in place.
- (ii) Building inclusive, resilient, and sustainable cities requires a concerted effort of the political, executive, and technical wings of a local government. For each of the identified capacity-building needs, the primary and secondary audience needs to be defined and the capacity-building delivery models customized.
- (iii) For example, if a city identifies gaps in own-source revenues and wishes to bolster internal funding for infrastructure operations and maintenance, technical staff will need to undertake a value capture analysis (addressing taxations, duties, betterment levy, impact fees, etc.). The decision to enhance own-source revenues requires political buy-in and support from the executive leadership. Therefore, capacity building for the three levels—political, executive, and technical—needs to be differentiated and tailored.
- (iv) Typically, for any capacity -building topic:
  - **Political representatives** need to acquire high-level knowledge to effectively lead various urban reforms and interventions for maximizing socio-economic benefits. They should be aware of the short- and long-term strategic value of the action, approach, and/or process the city is seeking to deploy or implement, stressing socioeconomic impacts, including relevance to social inclusion, resilience, and sustainability. This can be done through high-level workshops, exposure visits, impactful visualization tools, and short-duration strategic dialogues and discussions.
  - **Executive leadership** is often entrusted with the responsibility to lead the implementation of various reforms enacted by political representatives. They should have access to short-duration strategic training programs that clearly delineate the benefits and challenges across the lifecycle of a particular approach, action, and/or process. Peer learning, exposure visits, and communities of practice are impactful ways to build capacities at this level. Training on ‘mentoring’ should also be considered as city executives manage a team of staff with different kinds of skill sets, competence, and qualities. Mentoring staff whenever needed is effective to improve productivity and morale in urban administrations.
  - **Technical staff** need to undergo not only multiday classroom- or workshop-based training but preferably also learning with hands-on experience. For this purpose,

practical demonstration, exposure visits, and embedding city staff with experts from other cities would maximize impact. New employees should benefit from the ‘buddying’ arrangement where they can be assisted by their colleagues for the initial period.

## 2.4 Implement the Capacity-Building Program

**Step 4 of 5: The city implements the capacity-building program through a mix of various delivery modalities that include proven traditional approaches as well as innovative models.**

Capacity-building programs are convened by the city administrations with oversight from the political and executive leadership. A designated official/core team (e.g., external consultants/entities) can implement the programs taking into account the following considerations:

- (i) As discussed earlier, delivery models should be tailored to the role of the trainees and the topics on which capacities need to be strengthened, and must account for the unique contexts of cities, maturity, governance structure, budget size, the scale of training, and the type of government system.
- (ii) National/provincial governments have a significant role to play in city-level capacity development. They are uniquely positioned to design and implement large-scale capacity development programs that address several cities. In partnership with international development agencies, they are able to steer and curate large-scale capacity development programs that support the strategic development vision of the country/province.
- (iii) International development cooperation agencies, multilateral development banks, city networks/local government associations, international, national and local think tanks, and expert groups conduct several capacity-building programs, which usually focus on the pertinent and emerging needs of cities. Capacity-building support in the technical preparation of finance-ready infrastructure projects is becoming more critical for urban infrastructure finance.
- (iv) Capacity development programs are useful not only for city administrations but also for other government agencies, private urban service providers, academic professionals, local experts, consultants, and other local technical groups. Wider inclusion of local stakeholders and experts in capacity development efforts helps



localize and mainstream innovative and sustainable solutions and results in multiplying the impact of capacity-building programs manifold.

Capacity-building programs can include proven traditional approaches (e.g., workshops, knowledge exchange) as well as innovative modalities (e.g., urban/community labs, communities of practice). Depending on the type of training/capacity need (e.g., theoretical understanding of new technologies or hands-on training on specific instruments or digital tools), cities need to select appropriate models. Box 5 presents an indicative list of such capacity development modalities and a gist of their features.

### Box 5: Indicative List of Capacity Development Modalities

- (i) **Workshops:** Single or multiday workshops can focus on specific themes, tools, approaches, or methods. They are usually conducted in person but also possible via virtual mode. They are conducted by training institutions that include development organizations, multilateral development cooperation agencies, think tanks, thematic expert groups, universities, etc. [**>>Target audience:** Political representatives, executive leadership, technical staff, local experts, and private sector].
- (ii) **Twinning/peer exchange programs:** Cities form alliances with other cities and cross-learn from each other's competencies at parallel levels of governance. These programs are usually conducted by external agencies but can also be spearheaded by a group of cities with common development contexts [**>>Target audience:** Executive leadership, technical staff].
- (iii) **Urban co-creation labs (also called urban living labs):** A cohort of cities, or even individual cities, that have similar challenges work together with experts from other cities or other external experts with solutions and expertise in related topics to co-create solutions. They usually focus on selected thematic areas and adopt a lifecycle perspective in their approach. Experts make use of different approaches and tools to build capacities. Live cases/challenges/problems are addressed through such co-creation labs. Such labs are usually convened by external agencies that support city development [**>>Target audience:** Executive leadership, technical staff, private sector, and local community].
- (iv) **Urban innovation/aggregator labs:** Convened by external agencies, in such innovation labs an ecosystem is created to facilitate the testing and implementation of pilot-scale urban solutions, and private enterprises can present and implement solutions in collaboration with the public sector. This is aimed at testing and implementing new and innovative solutions that have previously been untested at large scale in cities, such as the use of next-generation Artificial Intelligence and Blockchain in urban planning and development. The findings and outcomes from the

lab can be shared with other participating cities and member countries for subnational scaling [>>>**Target audience:** Executive leadership, technical staff, private sector, and local community].

- (v) **Community labs:** This model is based on the Massachusetts Institute of Technology D-Lab’s Creative Capacity Building methodology, which encourages collaboration on real-time projects between municipal officials, community members, and other stakeholders like multilateral development banks (MDBs), academia, the private sector, etc. The convening itself may be done by a training or academic institution but offers all stakeholders the opportunity to present and learn about the various facets of the project. The structured “community” focuses on examining and learning from a project, across all phases, from conceptualization to post-implementation and end-of-life. The full-cycle collaborative approach not only builds capacities but also achieves sustained support from all project stakeholders [>>>**Target audience:** Executive leadership, technical staff, private sector, and local community].
- (vi) **Embedded training programs/deputation:** Officials from cities and city agencies work closely within the host organization/department in other cities/states for a short-/medium-/long-term duration. These training programs can potentially address full lifecycle expertise in specific domains [>>>**Target audience:** Technical staff].
- (vii) **Communities of practice:** City officials participate in curated discussion groups that focus on a specific vision/goal/thematic area, such as grid-integrated renewable energy or clean mobility. Such communities of practice can convene national government and subnational government representatives, local experts, relevant private sector representatives, and members of think tanks and research organizations. The group usually subscribes to a vision or goal and progressively addresses each building block, which leads to achievement of the goal. Members learn through peer learning and experience sharing. Based on the resources available, the community can also engage in in-person workshops, site visits, and other forms of experiential learning [>>>**Target audience:** Executive leadership, technical staff, private sector, and local community].
- (viii) **Knowledge exchange:** This aims to quickly disseminate new knowledge and best practices and facilitates peer-to-peer learning. It is best achieved through conferences, newsletters, journals, and structured study visits within the country. Online platforms or websites are curated to disseminate thematic knowledge from several stakeholders; usually, such knowledge-sharing platforms address themes that have regional, national, and/or global relevance [>>>**Target audience:** Executive leadership and technical staff].

- (ix) **Peer exchange through dialogues and discussions:** Senior representatives and city leadership and officials participate in structured exchanges to share good practices, successful approaches, and lessons from challenging experiences centered around specific topics. These are usually curated by training agencies such as development organizations, multilateral development cooperation agencies, think tanks, and thematic expert groups [**>>Target audience:** Political representatives (for high-level exchange), executive leadership, technical staff, private sector, and local community].
- (x) **Peer Experience and Reflective Learning (PEARL):** Built on the Government of India's program to develop and nurture sharing of experiences through experiential learning and exchanges with peer networks, cohorts of cities with unique characteristics, such as megacities, industrial mega cities, mixed economy cities, tourist cities, mountainous cities, etc., are convened. Exchange visits to partner cities could also be facilitated if such a program is adequately funded. Compendia that reflect discussed good practices are prepared and shared. PEARL fosters peer-to-peer learning, identifies knowledge gaps, and promotes replication of good practices [**>>Target audience:** Political representatives, executive leadership, and technical staff].
- (xi) **E-learning modules:** These self-tutored training modules can be self-administered or provided by online learning platforms and academic institutions. In many cases, certificates and scorecards are provided [**>>Target audience:** technical staff].
- (xii) **Leveraging MDB investments as a stimulus for capacity building:** This model leverages current investments made by various MDBs in member cities and countries. Training as a key performance indicator can be included in the disbursement-linked incentives and outcomes of the implemented program. This would facilitate accelerated capacity development of municipal officials in thematic areas of immediate relevance to the cities [**>>Target audience:** Executive leadership and technical staff].
- (xiii) **Executive/specialized education programs:** Medium-duration executive courses that address specific themes are delivered either in local universities or in virtual mode by academic institutions [**>>Target audience:** Executive leadership and technical staff].
- (xiv) **Contextualized research:** The objective here is to establish a structured program of research that can help generate solutions relevant to the local context rather than being guided entirely by research done in other contexts/countries. Such research findings feed into city planning and project implementation [**>>Target audience:** Technical staff].

(xv) **Educational institutions’ outreach programs:** National/provincial governments and, in certain cases, urban administrations engage with the prevalent educational system to review its current curriculum and modify it as needed to align with current-day needs in the country, and enhance its capacity to produce an adequate number of competent professionals to meet the future needs of urban administrations of the country [**>>Target audience:** Local schools, colleagues, and universities].

**(Cases) Appendix 3** presents international good practices on capacity-building tools and programs.

- Case 18: European Union—URBACT
- Case 19: European Union—European Urban Initiative
- Case 20: The ABC of Successful Investment Projects Preparation – Project Preparation and Readiness Program for Public Officials to Deliver Sustainable Infrastructure Investment Projects at the Subnational Level
- Case 21: The Five Steps for Cities Program in the Russian Federation – Positive and Rapid Urban Transformation for All Citizens
- Case 22: National Urban Learning Platform (NULP) in India

## 2.5 Monitor and Evaluate the Capacity-Building Program

**Step 5 of 5: The city monitors the effectiveness and impacts of the implemented capacity-building program via identified indicators.**

The city must measure progress against planned outcomes and monitor the results of capacity-building activities. The monitoring and evaluation (M&E) framework should include the institutional mechanism that will periodically review implementation of the program and the specific indicators for each capacity-building activity. The M&E activities will capture how capacity-building actions effect systematic change at individual and organizational levels. This M&E framework will also help reassess existing capacities in relation to evolving development priorities and will inform future capacity-building programs.

The efficacy and impact of capacity-building programs can be measured by monitoring certain predefined indicators. Measurement indicators should be able to assess the achievement of targets of the capacity-building program (output-based indicators) and the outcome or impact desired by the capacity-building activity.

The capacity-building program defines the time required to witness the effects of each capacity-building activity. Cities must measure impacts at an intermediate stage (intermediate outcome-based indicators) and at the end of the suggested period (final outcome-based indicators). Box 6 presents examples of indicators.

Capacity development should be an evolving and collaborative process: cities need constant capacity improvement to meet their changing needs in collaboration with their partners. This last step of the framework should lead to the first step of the next capacity development cycle. Cities need to revisit their functions and critical elements that may have changed or evolved, assess their gaps in light of the changing environment and evolution in functions and elements, and design and implement the updated capacity-building programs so they can transform themselves into cities of tomorrow.

#### Box 6: Examples of Monitoring and Evaluation Indicators of Capacity-Building Programs

##### (i) Output-based indicators

- Number of officials who report increased knowledge on the areas in which they are trained;
- On-the-job performance of officials after training;
- Number of accreditations issues, and
- Number of women trained.

##### (ii) Intermediate outcome-based indicators

- Number and type of policies and guidelines issued, revised, and updated;
- Increase in the share of cases that are compliant with standards or requirements;
- Issuance of new design guidelines by including aspects of inclusivity, resilience, and sustainability; and
- Number of infrastructure projects developed with inclusive, resilient, and sustainable features.

##### (iii) Final outcome-based indicators

- Increase in own-source revenue;
- Improved credit rating of the city;
- Size of green bonds issued and volume of climate finance accessed;
- Size of bonds issued and projects financed through debt;
- Number and Value of public-private partnership projects; and
- Sustainable provision of quality services.



## Appendix 1: Checklist for Urban Administrations to Assess Current Capacity Gaps

Critical Elements	Checklist
<b>Urban policies and planning</b>	
<b>Urban master plans</b>	<ul style="list-style-type: none"> <li>(i) Does the master plan follow the proper preparation process?               <ul style="list-style-type: none"> <li>(a) Alignment with national/regional policy and legal framework</li> <li>(b) Intergovernmental coordination</li> <li>(c) Support from information technology with spatial data (e.g., geographic information system [GIS]-based mapping)</li> <li>(d) Citizens' wider participation</li> </ul> </li> <li>(ii) Does the master plan cover the following basic elements?               <ul style="list-style-type: none"> <li>(a) City's visions, opportunities and challenges, and urban planning target</li> <li>(b) Land-use plan, city infrastructure development plan, and urban redevelopment/rejuvenation (if needed)</li> </ul> </li> <li>(iii) Does the master plan aim to enhance inclusivity, resilience, and sustainability principles?               <ul style="list-style-type: none"> <li>(a) Inclusivity: Build a safe, livable environment for all citizens including vulnerable groups, with affordable and equitable access to basic urban services and livelihood opportunities</li> <li>(b) Resilience: Incorporate climate and disaster risks into the master plan and build the capacity of the city, community, and people to withstand future shocks and stresses</li> <li>(c) Sustainability: Support low-carbon/net-zero and environmentally friendly urban development</li> </ul> </li> <li>(iv) Does the city adopt an integrated urban planning approach through spatial measures (e.g., land-use plans associated with development and building code regulations), non-spatial measures (e.g., climate-smart policies; multisectoral policies such as transportation, water supply, sanitation, flood management; tax policies)?</li> <li>(v) If the city does not have/update a master plan, what are the bottlenecks?</li> </ul>

Critical Elements	Checklist
	<ul style="list-style-type: none"> <li>(a) No national policy and legal framework in place</li> <li>(b) Limited planning staff, technical expertise/skills, and data management system to prepare the plan</li> <li>(c) Unfunctional administrative and coordination mechanism</li> <li>(d) No support from citizens</li> <li>(e) No budget allocation for master planning</li> </ul>
<p><b>Land-use plans, development control regulations, and building permits and design codes</b></p>	<ul style="list-style-type: none"> <li>(i) Land-use plan               <ul style="list-style-type: none"> <li>(a) Does the city have a land-use plan striving to optimize balance among complex urban demands such as commerce and industries, social necessities, and environmental concerns?</li> <li>(b) Does the land-use plan align with the spatial plan and legal framework at national/regional level?</li> <li>(c) Is the land-use plan prepared based on the GIS-based land and property mapping?</li> <li>(d) Is the land-use plan climate and disaster risk-sensitive and linked with hazard zoning?</li> <li>(e) Does the city have the administrative and technical resources to prepare, implement, and enforce the land-use plan and regulations?</li> <li>(f) Does the land-use plan have no contradiction or conflict with other sectoral policies (e.g., housing, transportation, energy, water, agriculture, tourism), tax policies (e.g., fuel tax, tax deduction of commuting expenses, tax on ownership on single-family homes, parking charges, differentiation of property taxes), and fiscal instruments (e.g., brownfield redevelopment incentives, transfer of development rights, land value capture instruments)?</li> </ul> </li> <li>(ii) Development control regulations               <ul style="list-style-type: none"> <li>(a) Does the city have map-based boundary plans that divide urban areas into zones in order to steer development?</li> <li>(b) Do the development control regulations and land zoning have less restrictive regulations and a good focus on</li> </ul> </li> </ul>



Critical Elements	Checklist
	<p>protecting residents from developments that would have negative effects on their quality of life?</p> <p>(c) Does the city have a well-designed development control and land zoning system to promote sustainable and resilient development (e.g., increased floor area ratio for commercial areas, including transit-oriented development [TOD] areas; standards for optimal green and open space in individually owned land parcels; mandates on rainwater harvesting; on-site wastewater treatment systems; dual plumbing systems for large-scale development)?</p> <p>(d) Does the city have inclusive provisions for enhancing accessibility for the elderly, women, children, and disabled persons?</p> <p>(iii) Building permits and design codes</p> <p>(a) Does the city have/follow proper building permits and regulations to set premises' standards, structure, facilities, and use of buildings?</p> <p>(b) Do the building codes promote green building designs with incentives to building owners (e.g., efficient use of energy, water, and other resources)?</p>
<p><b>Multisectoral urban policies and plans</b></p>	<p>(i) City climate action plan</p> <p>(a) Does the city have a climate action plan (CAP) in alignment with the ambitions of the Paris Agreement (e.g., the country's Nationally Determined Contribution)?</p> <p>(b) Does the city's CAP present the vision, context, greenhouse gas (GHG) emissions inventory and scenarios, climate risks, goals and targets, action roadmap, and monitoring and evaluation (M&amp;E)?</p> <p>(c) Does the city strive to promote good climate governance to implement an effective climate action plan through conducting self-assessment, using climate budgeting to operationalize climate actions, and establishing a transparent monitoring system?</p> <p>(ii) Urban mobility</p>

Critical Elements	Checklist
	<p>(a) Does the city have an urban mobility policy/plan to promote net-zero urban development (e.g., modal shift to public and less polluting modes of transport such as train/bus, electric vehicles, non-motorized transport, and pedestrians; connectivity improvement for less congestion; demand-side management; intelligent traffic management)?</p> <p>(b) Does the city promote TOD with effective coordination arrangements (e.g., TOD masterplan; enabling policy and implementation framework for TOD, multimodal integration, and value capture finance with private participation; institutional reform such as unified metropolitan transport authority with dedicated funds; consultation mechanisms with stakeholders; capacity-building program for line agencies)</p> <p>(iii) Energy efficiency</p> <p>(a) Does the city have policies and regulations to promote energy efficiency (e.g., energy conversion programs, smart grid and demand response system, green buildings)?</p> <p>(b) Does the city have the capacity to implement and enforce these policies in coordination with other governmental departments and agencies and the private sector?</p> <p>(iv) Environmental improvement</p> <p>(a) Water supply: Does the city mainstream water resilience and ensure universal access to quality water supply services (e.g., urban watershed management; water safety plans; sustainable water source augmentation; efficient use of water through nonrevenue water management and volumetric metering; equitable and affordable access to reliable water supply; community engagement in planning and operation and maintenance)?</p> <p>(b) Sanitation management: Does the city adopt adequate and sustainable sanitation management policy and planning (e.g., a city-wide inclusive sanitation plan; sustainable sanitation chains through generation, collection, treatment, and disposal; universal access with poverty targeting;</p>

Critical Elements	Checklist
	<p>environmental monitoring; people’s awareness raising and behavioral changes, including reduce-reuse-recycle; circular economy, such as reuse of liquid and solid waste, waste-to-energy)?</p> <p>(v) Integrated urban flood management</p> <p>(a) Does the city have an effective coordination platform with disaster management authorities and neighboring cities?</p> <p>(b) Does the city implement both structural measures (e.g., channels, stormwater drains, stormwater pumping stations) and non-structural measures (e.g., hazard maps, early flood warning systems, community awareness-raising campaigns, green interventions such as rainwater harvesting and nature-based solutions)?</p>
<b>Urban infrastructure development and service delivery</b>	
<p><b>Capital investment plans</b></p>	<p>(i) Does the city prepare a capital investment plan (CIP)?</p> <p>(ii) Is the CIP linked with the city master plan, sector policy, city infrastructure development plan, and annual budget plans?</p> <p>(iii) Fiscal capacity assessment to enhance own-source revenue and creditworthiness:</p> <p>(a) Does the city review and identify the level of autonomy and the framework for intergovernmental transfers?</p> <p>(b) Does the city have a solid budgeting and financial management system (e.g., efficient budgeting process from planning, allocation, and release of funds; accounting, auditing, and reporting practices; cash and fund management practices)?</p> <p>(c) Does the city identify own-source revenue levers?</p> <ul style="list-style-type: none"> <li>• Service fees—e.g., business licenses, construction permits, land registration, waste, public parking</li> <li>• Taxes or charges—e.g., property tax, land transfer, betterment levies, carbon tax, other excise taxes</li> </ul>

Critical Elements	Checklist
	<ul style="list-style-type: none"> <li>• Asset monetization—e.g., land monetization, housing units, municipal assets</li> </ul> <p>(d) Does the city have powers to scale up own-source revenue? Support from citizens?</p> <p>(iv) Project screening/prioritization:</p> <p>(a) Does the CIP prioritize infrastructure projects to enhance the principles of cities of tomorrow—inclusivity, resilience, and sustainability?</p> <p>(b) Do the prioritized projects align with localized Sustainable Development Goals, the Nationally Determined Contribution under the Paris Agreement, and the G20 Quality Infrastructure Investment (QII) Principles?</p> <p>(c) Does the city have the effective coordination and decision mechanism to prioritize the projects?</p> <p>(v) Development of funding and financing strategies:</p> <p>(a) Does the city assess the impact of infrastructure investments on projected revenue income, expenditures, surplus, free cash position, own-source revenue, assets, and borrowing capacity?</p> <p>(b) Does the city use a value-for-money approach to define its financial strategy?</p> <p>(c) Does the city access market-based financing (public-private partnership [PPP] transactions, municipal bonds, commercial borrowing, climate finance)?</p> <p>(d) For implementing land-based financing, does the city have an effective land administration system, regulatory power, coordination mechanisms, and resources and skills?</p> <p>(e) Does the city regularly assess its creditworthiness to increase access and affordability of market-based finance?</p> <p>(vi) Monitoring and updating of CIPs:</p> <p>(a) Does the city regularly monitor and update CIPs?</p> <p>(b) If not, what are the issues and bottlenecks?</p>

Critical Elements	Checklist
<p><b>Project development and implementation</b></p>	<ul style="list-style-type: none"> <li>(i) Does the city have well-defined design codes, service benchmarks, and manuals for urban infrastructure in line with national standards?</li> <li>(ii) Does the city maintain GIS-based mapping of existing infrastructure and properties and a record of benchmark performance?</li> <li>(iii) Feasibility studies and due diligence:               <ul style="list-style-type: none"> <li>(a) Does the city identify the opportunities and challenges, socioeconomic benefits, and target beneficiaries?</li> <li>(b) Does the city assess climate risks?</li> <li>(c) Do the proposed project designs align with the G20 QII Principles?</li> <li>(d) Does the project have an effective implementation and operation arrangement?</li> <li>(e) Does the city implement wider consultations with citizens to increase their awareness and maximize the benefits for vulnerable people?</li> <li>(f) Does the city conduct feasibility assessment in terms of technical, economic, financial, environmental, and social aspects to enhance project viability?</li> </ul> </li> <li>(iv) Financing plan:               <ul style="list-style-type: none"> <li>(a) Does the city assess value for money (private sector efficiency and innovation), project risks and financial viability, the city’s creditworthiness (refer to the CIP), and access to financial markets?</li> <li>(b) Does the city identify a suitable financing plan with respect to the financial strategy of the CIP?</li> </ul> </li> <li>(v) PPPs:               <ul style="list-style-type: none"> <li>(a) Does the city have the authority, framework, and resources to implement PPP projects in line with the national policy and regulatory framework?</li> <li>(b) Does the city prepare risk assessment frameworks to classify and monitor risks throughout a project’s lifecycle and</li> </ul> </li> </ul>

Critical Elements	Checklist
	<p>mitigate these risks, such as land acquisition, offtake, and political risks?</p> <p>(c) Does the proposed project ensure uninterrupted and ring-fenced revenue streams?</p> <p>(d) Does the city have the resources or access to resources for project structuring and transaction advisory services to ensure the commercial viability of projects, e.g., a PPP unit at the city or a higher level of government?</p> <p>(vi) Construction management and monitoring:</p> <p>(a) Does the city have an effective project implementation unit with sufficient administrative, technical, and financial staff and consultants to supervise contractor works?</p> <p>(b) Does the city have a robust M&amp;E system to implement infrastructure projects (e.g., environmental and social safeguard monitoring)?</p>
<p><b>Service delivery with effective asset management</b></p>	<p>(i) Service provision:</p> <p>(a) Does the city meet service standards set out by national level or its own?</p> <p>(b) Does the city have the key capacity and resources to provide quality services?</p> <ul style="list-style-type: none"> <li>• Institutional—autonomy to zonal/field offices, timely data acquisition and monitoring</li> <li>• Technical—staff’s engineering capacity, supervision of operators</li> <li>• Financial—budgets secured or ring-fenced for operation and maintenance</li> <li>• Social—beneficiary awareness raising and community participation in operation</li> </ul> <p>(ii) Asset management:</p>



Critical Elements	Checklist
	<p>(a) Does the city have a project asset management framework that includes policies, procedures, and entities that perform asset management of urban infrastructure?</p> <p>(b) Does the framework include (i) medium-term planning through demand management, lifecycle asset management, and financial analysis; and (ii) operation guidance for daily maintenance, renewal, and disposal of the assets?</p> <p>(c) Does the framework align with the city’s asset management policy and procedure, including the following elements?</p> <ul style="list-style-type: none"> <li>• Defined roles and responsibilities of entities, asset managers, and key officers</li> <li>• Classification of assets</li> <li>• Identification, verification, valuation, and inventory of fixed assets to create a reliable asset register</li> <li>• Allocation of land and property (acquisition, divestiture, allocation of rights, final disposal)</li> <li>• Use of asset proceeds</li> <li>• Communication and transparency</li> </ul> <p>(d) Has the city created a GIS-based asset management system?</p> <p>(e) Does the city appraise the value of assets and measure the financial performance of project infrastructure?</p> <p>(iii) Does the city improve operational and financial performance through an asset management framework and inform asset investment decisions in the CIP?</p>
<b>Urban Governance</b>	
<p><b>Local public financial management</b></p>	<p>(i) Does the city have the required regulations, policies, and guidelines for planning, budgeting, expenditure, accounting, reporting, and auditing?</p> <p>(ii) Is the city’s PFM system part of the national PFM system?</p> <p>(iii) Does the city’s PFM include four functions/processes?</p>

Critical Elements	Checklist
	<p>(a) Accounting: Does the city use cash-, accrual-, or modified accrual-based accounting? Is the accounting system computerized?</p> <p>(b) Budgeting: Does the city establish a prudent budget cycle (budget formulation, approval, execution, and audit) and relate capital budgets to the CIP?</p> <p>(c) Financial reporting: Does the city prepare external financial statements such as income statements, balance sheets, and cashflow statements in a timely manner?</p> <p>(d) Auditing: Is the city’s financial report duly audited regularly? Does the city adopt appropriate corrective measures when it fails to obtain an unqualified audit opinion?</p> <p>(iv) Does the city promote climate and gender budgeting?</p> <p>(v) Is the city’s PFM system digitized—fully, partly? What is digitized and what is not?</p> <p>(vi) Does the city have adequate and skilled human resources to manage the PFM system?</p> <p>(vii) Does the city have an established training program for relevant officials to operate PFM systems and processes?</p>
<p><b>Revenue enhancement</b></p>	<p>(i) Does the city have assigned revenue performance data (e.g., total revenue amounts, source-wise revenue amounts [transfers from other governments, own-source revenues, external revenues], historical collection performance)?</p> <p>(ii) Does the city have an effective revenue administration to implement local revenue authority functions, such as assigning local revenue sources, setting tax/fee rates, defining tax/fee bases, collecting revenues, and valuating tax/fee subjects?</p> <p>(iii) Is the revenue administration an information technology-enabled system—fully, partially (e.g., database/management including GIS-based property map for property tax; big data for real-time tax analytics; digital billing; online payment)?</p> <p>(iv) Does the city have a medium- to long-term revenue enhancement strategy?</p>

Critical Elements	Checklist
	<p>(v) Does the city have basic property tax performance data and implement administrative measures to improve property tax coverage, valuation, liability assessment, and collection?</p> <p>(vi) Does the city have revenue experts and a regular training program?</p>
<p><b>Procurement and contract management</b></p>	<p>(i) Does the city have a well-defined procurement policy and guidelines for fair, transparent, efficient, and sustainable procurement?</p> <p>(ii) Does the city have adequate resources and mechanisms to implement procurement in infrastructure projects?</p> <p>(iii) Is the procurement system digitized?</p> <p>(iv) Does the city promote sustainable procurement through requiring materials, specifications, and qualification criteria supporting green features (e.g., energy, water, and resource efficiency)?</p> <p>(v) Does the city have experienced procurement and contract management staff (technical, legal, and financial)?</p> <p>(vi) Does the city establish procurement committees and contract management units for transparent and smooth decision making?</p>
<p><b>Digitalization</b></p>	<p>(i) Does the city have a dedicated information management department that oversees and implements digital solutions where necessary?</p> <p>(ii) Does the city deploy information technology tools for urban planning, service delivery, financial management, grievance reporting, and associated functions (e.g., GIS-based property data, a management information system, supervisory control and data acquisition systems, early flood warning, asset management, accounting/budgeting/reporting, revenue management, citizens' grievances, decision support systems, etc.)?</p> <p>(iii) Are such IT tools integrated for data-driven and citizen-centric governance?</p>

Critical Elements	Checklist
	(iv) Does the city invest in enhancing institutional capacities and individual skills to promote e-governance?
<b>Human resource management</b>	<p>(i) Does the city have a well-defined institutional structure with clear roles and responsibilities for city management and technical staff in each department?</p> <p>(ii) Does the city have adequate staff and capacities to undertake its responsibilities?</p> <p>(iii) Does the city have clear policies, mechanisms, and budgets for hiring human resources?</p> <p>(iv) Are there a policy and guidelines on performance management?</p> <p>(v) Does the city have a capacity development unit/cell for staff, implement regular training programs, and have partnerships with other institutions or city networks to develop staff knowledge and skills?</p>

## Appendix 2: Tools for Capacity Building for Cities of Tomorrow

### List of Tools

#### **Agence Francaise De Development (AFD), European Union (EU) and State Secretariat for Economic Affairs (SECO)**

1. Cities and Climate in Africa (CICLA)

#### **APMG International**

2. PPP Certification Program Guide

#### **Asian Development Bank (ADB)**

3. Cities Development Initiative for Asia (CDIA)
4. Green City Development Tool Kit
5. Enabling Inclusive Cities: Tool Kit for Inclusive Urban Development
6. Gender Tool Kit: Transport
7. Creating Investable Cities (CIC)

#### **Bank of America**

8. Catalytic Finance Initiative (CFI)

#### **Centre for Liveable Cities, Government of Singapore**

9. Liveable and Sustainable Cities: A Framework

#### **Cities Climate Finance Leadership Alliance (CCFLA), Cities Advisory Facility (FELICITY) and German Agency for International Cooperation (GIZ)**

10. PreP

#### **Coalition for Disaster Resilient Infrastructure (CDRI)**

11. Infrastructure for Resilient Island States (IRIS)

#### **C40**

12. Cities Finance Facility (CFF)
13. Climate Action Planning Guide
14. Climate Budgets
15. Good Practice Guide: Creditworthiness
16. 15-Minute Cities: How to Ensure a Place for Everyone
17. Equitable Impacts: Executive Guide

#### **European Bank of Reconstruction and Development (EBRD)**

18. Green Cities Policy Tool
19. Stakeholder Engagement Guide for Green City Action Plans

### **European Commission**

20. Technical Expert Group Final Report on the European Union (EU) Taxonomy

### **European Investment Bank (EIB) and EU**

21. Facility for Eastern Partnership Investment in Connectivity (EPIC)

### **EIB**

22. Greening Financial Systems Technical Assistance Programme
23. European Local ENergy Assistance (ELENA)
24. Joint European Support for Sustainable Investment in City Areas (JESSICA)
25. The Circular City Centre (C3)
26. European Investment Advisory Hub (EIAH)

### **European Investment Fund (EIF) and EU**

27. Joint European Resources for Micro to Medium Enterprises (JEREMIE)

### **EU**

28. European City Facility (EUCF)

### **EU, EIB, and EBRD**

29. Joint Assistance to Support Projects in European Regions (JASPERS)

### **ICLEI (Local Governments for Sustainability)**

30. Transformative Actions Program (TAP)

### **Inter-American Development Bank (IDB)**

31. Climate Resilient Public Private Partnerships: A Toolkit for Decision Makers

### **International Finance Corporation (IFC)**

32. Excellence in Design for Greater Efficiencies (EDGE)
33. Sustainable Energy Finance (SEF) Program

### **Government of India**

34. Guidance on Municipal Bond Financing for Infrastructure Projects (Department of Economic Affairs, Ministry of Finance)
35. Climate Smart Cities Assessment Framework (CSCAF) (National Institute for Urban Affairs, Ministry of Housing and Urban Affairs)

### **Government of Quebec, Canada**

36. International Climate Cooperation Program

**Organisation for Economic Co-operation and Development (OECD)**

- 37. Infrastructure Toolkit
- 38. Environmental Financing Strategies: Methodology and FEASIBLE Computer Model

**Resilient Cities Network (R-Cities)**

- 39. Urban Resilience Planning Tools

**South Pole, Climate-Knowledge and Innovation Community (KIC), The Global Fund for Cities Development (FMDV), Carbon Disclosure Project (CDP), and Global Infrastructure Basel (GIB)**

- 40. City Finance Lab

**The Lab**

- 41. Global Innovation Lab for Climate Finance

**United Nations Department of Economic and Social Affairs (UNDESA) and United Nations Capital Development Fund (UNCDF)**

- 42. Managing Infrastructure Assets for Sustainable Development: A Handbook for Local and National Governments

**World Bank**

- 43. PPP Reference Guide
- 44. Municipal Public–Private Partnership Framework
- 45. Gender-Inclusive Urban Planning Design
- 46. Property Tax Diagnostic Manual
- 47. Qualitative Value-for-Money Guidance & Toolkit for Assessing PPP Projects in Developing Countries in Asia and the Pacific
- 48. Municipal Finances: A Handbook for Local Governments
- 49. Climate Toolkits for Infrastructure PPPs

**World Bank and EIB**

- 50. City Climate Finance Gap Fund (Gap Fund)

**World Bank and United Nations Entity for Gender Equality and the Empowerment of Women (UN Women)**

- 51. Women’s Livelihood Bond™ (WLB™) Series

**World Meteorological Organization (WMO), Global Water Partnership (GWP)**

- 52. Associated Programme on Flood Management (APFM)

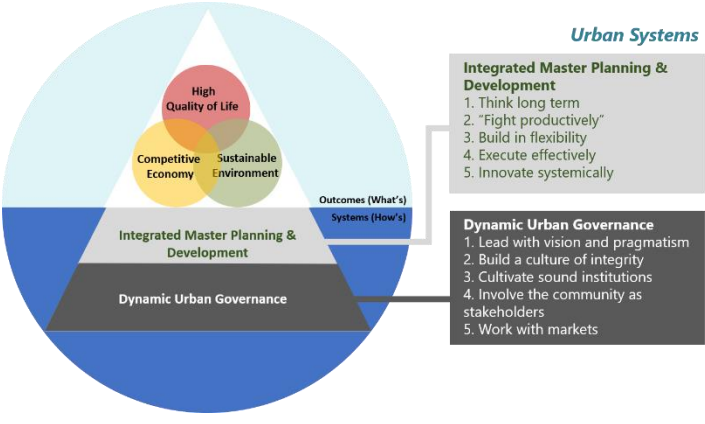
## Details of Tools

SN. Organization and Tool Name	Target Beneficiaries	Details
<b>1. AFD, EU, and SECO</b>  Cities and Climate in Africa (CICLA)	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://www.afd.fr/fr/ciclia">https://www.afd.fr/fr/ciclia</a>  <b>Description:</b> CICLIA is a EUR 18.4 million project preparation facility funded by AFD, EU, and SECO for supporting 40 to 50 cities in launching urban low-carbon & resilient infrastructure projects in Africa.
<b>2. APMG International</b>  PPP Certification Guide	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="https://ppp-certification.com/pppguide/download">https://ppp-certification.com/pppguide/download</a>  <b>Description:</b> The PPP Certification Program Guide will assist public officials and their advisors in putting effective, long-lasting PPPs into practice. It is a member of the family of CP <sup>3</sup> P credentials that, if attained, allow PPP practitioners to earn the designation of “Certified PPP Professional” under the aegis of the APMG PPP Certification Program.
<b>3. ADB</b>  Cities Development Initiative for Asia (CDIA)	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="https://cdia.asia/">https://cdia.asia/</a>  <b>Description:</b> CDIA is a multi-donor trust fund managed by ADB. It works closely with secondary cities in Asia and the Pacific to address gaps in infrastructure development and financing. It uses a demand-driven approach to support infrastructure projects that emphasize poverty reduction, environmental improvement, climate change mitigation or adaptation, and good governance. To facilitate these initiatives at the city level, CDIA provides a range of international and domestic expertise that can support for project preparation studies for high priority infrastructure investment projects.



SN. Organization and Tool Name	Target Beneficiaries	Details
4. ADB  Green City Development Tool Kit	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="http://www.adb.org/sites/default/files/institutional-document/173693/green-city-dev-toolkit.pdf">www.adb.org/sites/default/files/institutional-document/173693/green-city-dev-toolkit.pdf</a>  <b>Description:</b> This tool kit introduces key ideas in the development of green cities and points out intersecting issues that can be taken into consideration when creating urban programs to support sustainable and green city growth. It includes an overview of available tools and resources for green and sustainable development as well as a three-step framework for city assessment.
5. ADB  Enabling Inclusive Cities: Tool Kit for Inclusive Urban Development	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="http://www.adb.org/sites/default/files/institutional-document/223096/enabling-inclusive-cities.pdf">www.adb.org/sites/default/files/institutional-document/223096/enabling-inclusive-cities.pdf</a>  <b>Description:</b> This tool kit offers guidance for development partners to engage in project and program creation and implementation utilizing the inclusive urban development strategy as a crucial feature of ADB lending programs in its developing member countries. The tool kit offers techniques for prioritizing tasks, setting goals, planning, designing, and carrying out inclusive urban initiatives as well as gathering the necessary data on a specific context and place for inclusive urban development.
6. ADB  Gender Tool Kit: Transport	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="http://www.adb.org/sites/default/files/institutional-document/33901/gender-tool-kit-transport_0.pdf">www.adb.org/sites/default/files/institutional-document/33901/gender-tool-kit-transport_0.pdf</a>  <b>Description:</b> The tool kit goal is to help ADB personnel, consultants, and government partner executing agencies plan and implement gender-responsive projects in the transportation sector. By highlighting the gender aspects of transportation and

SN. Organization and Tool Name	Target Beneficiaries	Details
		demonstrating how to integrate gender equality concerns into project design, implementation, and policy involvement, the tool kit serves as a resource for gender and transportation sector experts. It offers instructions on how to incorporate gender concerns into the design of project outputs, activities, inputs, indicators, and targets.
<b>7. ADB</b>  Creating Investable Cities (CIC)	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> Will be available online shortly</p> <p><b>Description:</b> ADB's CIC provides hands-on advisory support to cities across Asia-Pacific to tie together their key administrative functions of planning and funding and financing to meet their climate resilience goals. Through the CIC Hub, the initiative is being rolled out as an integrated online network with frameworks and toolkits to provide sustained support for cities to: (i) mainstream climate resilience, (ii) improve own-source revenue, capital investment planning, and creditworthiness; and (iii) maximize value-for-money, including through public-private partnerships (PPPs) and municipal bonds. Launched in 2022, the initiative is supporting five partner cities and more cities are being added.</p>
<b>8. Bank of America</b>  Catalytic Finance Initiative (CFI)	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="https://unfccc.int/climate-action/momentum-for-change/financing-for-climate-friendly-investment/catalytic-finance-initiative">https://unfccc.int/climate-action/momentum-for-change/financing-for-climate-friendly-investment/catalytic-finance-initiative</a></p> <p><b>Description:</b> CFI, launched by Bank of America in 2014, is moving beyond green business-as-usual to innovative capital deployment for high-impact clean energy and sustainability investments. CFI support investments in energy efficiency and renewable energy to reduce greenhouse gas (GHG) emissions.</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
<p><b>9. Centre for Liveable Cities, Government of Singapore</b></p> <p>Liveable and Sustainable Cities: A Framework</p>	<p>Executive leadership and technical staff (Government officials)</p>	<p><b>Link:</b> <a href="https://www.clc.gov.sg/docs/default-source/books/clc-csc-liveable-sustainable-cities.pdf?sfvrsn=639663ae_4">https://www.clc.gov.sg/docs/default-source/books/clc-csc-liveable-sustainable-cities.pdf?sfvrsn=639663ae_4</a></p> <p><b>Description:</b> The “Liveable and Sustainable Cities: A Framework” publication examines the roles of Singapore’s pioneering leaders and their innovative policies and enabling process with a view to discerning the broad principles that contributed to their ability to achieve successful transformation and balanced development. Beyond discussing Singapore’s experience, the book takes a comparative look at the development journeys of selected international cities and concludes that there are broad universal principles of integrated master planning and dynamic urban governance which underlie successful cities.</p>  <p>The diagram illustrates the components of Urban Systems. At the top, a triangle contains three overlapping circles: 'High Quality of Life' (red), 'Competitive Economy' (yellow), and 'Sustainable Environment' (green). Below this triangle is a grey box labeled 'Integrated Master Planning &amp; Development'. At the bottom is a dark grey box labeled 'Dynamic Urban Governance'. To the right, two boxes list key principles: 'Integrated Master Planning &amp; Development' (1. Think long term, 2. "Fight productively", 3. Build in flexibility, 4. Execute effectively, 5. Innovate systemically) and 'Dynamic Urban Governance' (1. Lead with vision and pragmatism, 2. Build a culture of integrity, 3. Cultivate sound institutions, 4. Involve the community as stakeholders, 5. Work with markets). The diagram also labels 'Outcomes (What's)' and 'Systems (How's)'.</p>
<p><b>10. CCFLA, FELICITY and GIZ</b></p> <p>PreP</p>	<p>Executive leadership and technical staff (Government officials)</p>	<p><b>Link:</b> <a href="https://ccfla-prep.org/en/">https://ccfla-prep.org/en/</a></p> <p><b>Description:</b> The PreP online course aims to offer project promoters a series of webinars and courses. The course is available in Spanish and English and seeks to provide an overview of the phases required in the formulation and presentation of low-carbon investment projects that are resilient to the impacts of</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
		climate change. The course also seeks to equip participants with access to networks, international organizations, content experts, and other relevant resources.
<b>11. CDRI</b>  Infrastructure for Resilient Island States (IRIS)	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="https://iris.cdri.world/">https://iris.cdri.world/</a>  <b>Description:</b> CDRI, with representatives of its members Australia, the European Union (EU), India, the United Kingdom, and small island developing states, co-created IRIS. Launched at the 26th Conference of the Parties during the World Leaders Summit, IRIS is a dedicated initiative to achieve sustainable development through a systemic approach to promote resilient, sustainable, and inclusive infrastructure in SIDS. IRIS aspires to equip SIDS with the knowledge, tools, and partnerships needed to achieve disaster- and climate-resilient infrastructure.
<b>12. C40</b>  C40 Cities Finance Facility (CFF)	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://www.c40cff.org/">https://www.c40cff.org/</a>  <b>Description:</b> The CFF is jointly implemented by the C40 Cities Climate Leadership Group and the German Agency for International Cooperation (GIZ). The CFF supports cities in developing and emerging economies to prepare finance-ready projects to reduce emissions to limit global temperature rise to 1.5°C and strengthen resilience against the impacts of a warming climate.
<b>13. C40</b>  Climate Action Planning Guide	Executive leadership and technical staff (Government	(i) <a href="#">Climate Action Planning Guide—Overall</a>  <b>Link:</b> <a href="http://www.c40knowledgehub.org/s/guide-home">www.c40knowledgehub.org/s/guide-home</a>  <b>Description:</b> This is a step-by-step guide to developing a city-wide climate action plan that is

SN. Organization and Tool Name	Target Beneficiaries	Details
	officials and consultants)	<p>consistent with the objective of the Paris Agreement and addresses the city’s wider socioeconomic needs.</p> <p>(ii) Climate Action Planning Guide—Climate Change Risk Assessment (CCRA)</p> <p><b>Link:</b> <a href="http://www.c40knowledgehub.org/s/guide-navigation?language=en_US&amp;guideArticleRecordId=a3s1Q000001iahxQAA&amp;guideRecordId=a3t1Q0000071EWQAY">www.c40knowledgehub.org/s/guide-navigation?language=en_US&amp;guideArticleRecordId=a3s1Q000001iahxQAA&amp;guideRecordId=a3t1Q0000071EWQAY</a></p> <p><b>Description:</b> The guide looks at tools, approaches, and considerations for conducting a CCRA. The output from this assessment informs the city’s <a href="#">adaptation goals and strategies</a>, and the <a href="#">prioritization of climate actions</a>. A CCRA is one of three critical inputs to climate action planning, alongside a <a href="#">GHG emissions inventory</a> and a <a href="#">needs assessment</a>.</p> <p>(iii) Climate Action Planning Guide—Good Climate Governance</p> <p><b>Link:</b> <a href="http://www.c40knowledgehub.org/s/guide-navigation?language=en_US&amp;guideArticleRecordId=a3s1Q000001iahrQAA&amp;guideRecordId=a3t1Q0000071EWQAY">www.c40knowledgehub.org/s/guide-navigation?language=en_US&amp;guideArticleRecordId=a3s1Q000001iahrQAA&amp;guideRecordId=a3t1Q0000071EWQAY</a></p> <p><b>Description:</b> Climate governance refers to the formal and informal rules, structures, processes, and systems that define and influence action on climate change. A good climate governance system is integral to the effective implementation of a city’s climate action plan (CAP) and to ensuring that the plan is embedded in all city activities and decision-making processes.</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
		<p>(iv) Climate Action Planning Guide—Monitoring, Evaluation, and Reporting (MER)</p> <p>Link: <a href="http://www.c40knowledgehub.org/s/guide-navigation?language=en_US&amp;guideArticleRecordId=a3s1Q000001iaiaQAA&amp;guideRecordId=a3t1Q0000071EWQAY">www.c40knowledgehub.org/s/guide-navigation?language=en_US&amp;guideArticleRecordId=a3s1Q000001iaiaQAA&amp;guideRecordId=a3t1Q0000071EWQAY</a></p> <p><b>Description:</b> An effective MER system is vital to understanding and communicating the process of actions set out in the city’s CAP, as well as to maximizing the success of its implementation. It fosters learning, enabling informed adjustments over time and boosting internal and external accountability and transparency.</p>
<p><b>14. C40</b> Climate Budgets</p>	<p>Executive leadership and technical staff (Government officials and consultants)</p>	<p><b>Link:</b> <a href="http://www.c40knowledgehub.org/s/topic/0TO1Q000000x2DNWAY/climate-budgets?language=en_US">www.c40knowledgehub.org/s/topic/0TO1Q000000x2DNWAY/climate-budgets?language=en_US</a></p> <p><b>Description:</b> A climate budget is a governance system that offers a way for cities to turn climate commitments into funded and measurable actions across city government. It embeds climate targets, measures, and considerations into decision making as part of a city’s ordinary budgeting process.</p>
<p><b>15. C40</b> Good Practice Guide: Creditworthiness</p>	<p>Technical staff (Government officials and consultants)</p>	<p><b>Link:</b> <a href="http://www.c40knowledgehub.org/s/article/Good-Practice-Guide-Creditworthiness">www.c40knowledgehub.org/s/article/Good-Practice-Guide-Creditworthiness</a></p> <p><b>Description:</b> The guide is aimed at cities that do not have a credit rating or access to international capital, and that face difficulties in financing sustainable infrastructure and delivering on CAPs as a result.</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
16. C40  15-Minute Cities: How to Ensure a Place for Everyone	Executive leadership and technical staff (Government officials and consultants)	<b>Link:</b> <a href="http://www.c40knowledgehub.org/s/article/15-minute-cities-How-to-ensure-a-place-for-everyone?language=en_US">www.c40knowledgehub.org/s/article/15-minute-cities-How-to-ensure-a-place-for-everyone?language=en_US</a>  <b>Description:</b> The 15-minute city model offers an opportunity to raise quality of life in cities and build stronger communities, as well as to address the causes and impacts of climate change and support recovery from the coronavirus disease (COVID-19) pandemic. Equity and inclusivity are central: a 15-minute city strategy must emphasize equal access to services, amenities, and green space.
17. C40  Equitable Impacts: Executive Guide	Executive leadership and technical staff (Government officials and consultants)	<b>Link:</b> <a href="http://www.c40knowledgehub.org/s/article/Equitable-Impacts-Executive-Guide?language=en_US">www.c40knowledgehub.org/s/article/Equitable-Impacts-Executive-Guide?language=en_US</a>  <b>Description:</b> The executive guide on equitable impacts explains the critical importance of inclusive climate action in cities, and summarizes the main steps for measuring the wider impacts of climate actions and evaluating the distribution of those impacts across a city's population.
18. EBRD  Green Cities Policy Tool	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="http://www.ebrdgreencities.com/policy-tool/">www.ebrdgreencities.com/policy-tool/</a>  <b>Description:</b> The Green Cities Policy Tool includes a variety of efficient policy instruments to increase urban sustainability, building on the expertise and insights obtained from EBRD's investments in green cities. Crucial areas of decision making include several sector-specific policy areas such as urban transportation, solid waste, water and wastewater, and energy and buildings, as well as land planning, green space, and biodiversity. Municipal authorities

SN. Organization and Tool Name	Target Beneficiaries	Details
		are given practical and operational policies to use, as well as case studies.
<b>19. EBRD</b> Stakeholder Engagement Guide for Green City Action Plans	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://www.ebrdgreencities.com/assets/Uploads/PDF/Stakeholder-Engagement-Guidance-for-GCAPs_Sep2022_FINAL.pdf?vid=3">https://www.ebrdgreencities.com/assets/Uploads/PDF/Stakeholder-Engagement-Guidance-for-GCAPs_Sep2022_FINAL.pdf?vid=3</a>  <b>Description:</b> The Stakeholder Engagement Guidance for Green City Action Plans provides practical guidance to cities on how to integrate stakeholder engagement processes throughout the development of the <i>Green City Action Plan</i> with various engagement methods and consideration. It also provide guidance on disclosing information in order to ensure transparency and to build mutual understanding of local challenges and opportunities.
<b>20. European Commission</b> Technical Expert Group Final Report on the EU Taxonomy	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="https://knowledge4policy.ec.europa.eu/publication/sustainable-finance-teg-final-report-eu-taxonomy_en">https://knowledge4policy.ec.europa.eu/publication/sustainable-finance-teg-final-report-eu-taxonomy_en</a>  <b>Description:</b> The Taxonomy for Sustainable Finance provides the fundamental requirements for being a sustainable economic activity. Financial market participants engaged in the EU and businesses subject to non-financial disclosure rules must now incorporate disclosures regarding the Taxonomy to ensure investments and financial market activities support those sustainable economic activities.
<b>218. EIB and EU in conjunction</b>	Technical staff (Government	<b>Link:</b> <a href="http://www.eib.org/en/products/advisory-services/epic/index.htm">www.eib.org/en/products/advisory-services/epic/index.htm</a>



SN. Organization and Tool Name	Target Beneficiaries	Details
with World Bank and EBRD Facility for Eastern Partnership Investment in Connectivity (EPIC)	officials and consultants)	<b>Description:</b> EPIC provides free technical support and consultative support to Armenia, Azerbaijan, Georgia, Moldova, and Ukraine to enhance transportation linkages.
<b>22. EIB</b> Greening Financial Systems Technical Assistance Programme	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="http://www.eib.org/en/about/procurement/calls-technical-assistance/all/aa-010993001">www.eib.org/en/about/procurement/calls-technical-assistance/all/aa-010993001</a> <b>Description:</b> The Greening Financial Systems Technical Assistance Programme promotes net zero and climate-resilient financial systems by providing support to the private sector in deploying climate-related and environmentally sustainable investments. It supports official development assistance-eligible countries in Africa, the Caribbean, Asia, Latin America, the EU Southern and Eastern Neighbourhoods, and the Western Balkans.
<b>23. EIB</b> European Local ENergy Assistance (ELENA)	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="http://www.eib.org/en/products/advisory-services/elena/index.htm">www.eib.org/en/products/advisory-services/elena/index.htm</a> <b>Description:</b> ELENA is a joint initiative by the EIB and the European Commission under the Horizon 2020 program. A team of experts, consisting of engineers and economists with extensive experience in the energy and transport sectors, lead the ELENA facility to provide technical assistance for energy efficiency and renewable energy investments targeting buildings and innovative urban transport.
<b>24. EIB</b>	Executive leadership and	<b>Link:</b> <a href="http://www.eib.org/en/publications/jessica">www.eib.org/en/publications/jessica</a>

SN. Organization and Tool Name	Target Beneficiaries	Details
Joint European Support for Sustainable Investment in City Areas (JESSICA)	technical staff (Government officials)	<b>Description:</b> JESSICA is being developed by the European Commission and the EIB, in collaboration with the Council of Europe Development Bank. Under new procedures, Member States are being given the option of using some of their EU grant funding, their so-called Structural Funds, to make repayable investments in projects forming part of an integrated plan for sustainable urban development.
<b>25. EIB</b> The Circular City Centre (C3)	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://advisory.eib.org/about/circular-city-centre.htm">https://advisory.eib.org/about/circular-city-centre.htm</a> <b>Description:</b> C3 is a competence and resource center within the EIB that aims to support EU cities to advance circular action in cities, including facilitating access to advisory and financing for circular projects. It has been established with the support of the European Commission through the European Investment Advisory Hub (EIAH).
<b>26. EIB</b> European Investment Advisory Hub (EIAH)	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://advisory.eib.org/index.htm">https://advisory.eib.org/index.htm</a> <b>Description:</b> The EIAH is a joint initiative by the European Commission and the EIB under the Investment Plan for Europe. Its main aims are to strengthen Europe's investment and business environment and more specifically to provide support for project development and preparation across the EU.
<b>27. EIF and EU</b> Joint European Resources for Micro to Medium	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="http://www.eif.org/what_we_do/resources/jeremie/index.htm">www.eif.org/what_we_do/resources/jeremie/index.htm</a> <b>Description:</b> The JEREMIE initiative offers EU Member States, through their national or regional Managing Authorities, the opportunity to use part of

SN. Organization and Tool Name	Target Beneficiaries	Details
Enterprises (JEREMIE)		their EU Structural Funds to finance small and medium-sized enterprises (SMEs) by means of equity, loans, or guarantees, through a revolving Holding Fund acting as an umbrella fund.
28. EU European City Facility (EUCF)	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="http://www.eucityfacility.eu/home.html">www.eucityfacility.eu/home.html</a> <b>Description:</b> The EUCF unlocks local potential and supports municipalities, local authorities, their groupings, and local public entities aggregating municipalities/local authorities in Europe with tailored, quick, and straightforward financial support (in the form of EUR 60,000 lump sums) and related services to enable them to develop pertinent projects.
29. EU, EIB, and EBRD Joint Assistance to Support Projects in European Regions (JASPERS)	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://jaspers.eib.org/knowledge/publications/jaspers-2021-information-brochure">https://jaspers.eib.org/knowledge/publications/jaspers-2021-information-brochure</a> <b>Description:</b> JASPERS helps cities and regions deliver high-quality projects by advising on strategies, programs, and projects for investments supported by European Grant Funds, with the aim of promoting growth and paving the way to a smarter, greener, and more connected Europe.
30. ICLEI (Local Governments for Sustainability) Transformative Actions Program (TAP)	Technical staff (Government officials)	<b>Link:</b> <a href="https://tap-potential.org/">https://tap-potential.org/</a> ; <a href="https://tap-potential.org/resources/">https://tap-potential.org/resources/</a> ; <a href="https://tap-potential.org/case-studies/">https://tap-potential.org/case-studies/</a> <b>Description:</b> TAP is a project pipeline and project preparation facility created by ICLEI and partners. The TAP platform serves as a project incubator for local and regional governments and assists finance flows for development that is low to no emission and climate-resilient. TAP assists local and regional governments to develop climate project concepts into

SN. Organization and Tool Name	Target Beneficiaries	Details
		<p>low-risk, high-feasibility, and high-impact sustainable infrastructure projects. It aims to link local climate actors with technical experts and financial institutions. The TAP platform, through annual calls for projects, invites cities and regions to submit <a href="#">applications</a> for funding for specific project preparation and/or implementation. Projects that are shortlisted receive requisite technical and financial support through one of several partners of the initiative.</p>
<p><b>31. IDB</b>  Climate Resilient Public Private Partnerships: A Toolkit for Decision Makers</p>	<p>Executive leadership and technical staff (Government officials and consultants)</p>	<p><b>Link:</b> <a href="https://publications.iadb.org/publications/english/viewer/Climate-Resilient-Public-Private-Partnerships-A-Toolkit-for-Decision-Makers.pdf">https://publications.iadb.org/publications/english/viewer/Climate-Resilient-Public-Private-Partnerships-A-Toolkit-for-Decision-Makers.pdf</a></p> <p><b>Description:</b> The toolkit offers advice on identification and addressing climate risk throughout a PPP project as well as optimizing opportunities to increase infrastructure productivity and climate resilience. The toolkit is divided into four categories: project identification; business case creation; transaction structure; and contract management of the PPP project lifecycle. The reader is given useful climate-related information during each project step. The toolkit enables the user to assess, quantify, and mitigate risks inside the boundaries of a PPP project structure using a variety of tools, frameworks, and templates.</p>
<p><b>32. IFC</b>  Excellence in Design for Greater</p>	<p>Technical staff (Government officials and consultants)</p>	<p><b>Link:</b> <a href="https://edgebuildings.com/">https://edgebuildings.com/</a></p> <p><b>Description:</b> The EDGE tool estimates a building's resource use from the planning stage. The cloud-based platform features powerful algorithms for forecasting the most precise performance results, city-based climate and cost data, consumption</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
Efficiencies (EDGE)		trends, and other information. The tool then determines the additional costs associated with building sustainably and the time it will take for operational savings to offset those expenditures.
33. IFC  Sustainable Energy Finance (SEF) Program	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="http://www.ifc.org/wps/wcm/connect/1f2d5661-14b7-490e-8607-79ff80907a3b/SEF-Factsheet-Final.pdf?MOD=AJPERES&amp;CVID=jXXU4Z8">www.ifc.org/wps/wcm/connect/1f2d5661-14b7-490e-8607-79ff80907a3b/SEF-Factsheet-Final.pdf?MOD=AJPERES&amp;CVID=jXXU4Z8</a></p> <p><b>Description:</b> The SEF Program is an innovative solution that supports private banks through capacity building, technical evaluation, and product development to help them finance energy efficiency and renewable energy projects. The SEF Program has helped change the traditional way private banks view energy efficiency and renewable energy investments; they are no longer considered just to meet corporate social responsibility targets but are recognized to increase shareholder value.</p>
34. Department of Economic Affairs, Ministry of Finance, Government of India  Guidance on Use of Municipal Bond Financing for Infrastructure Projects	Executive leadership, practitioners, and policy makers (Government officials)	<p><b>Link:</b> <a href="https://www.pppinindia.gov.in/assets/doc/20181/33749/Guidance%20on%20use%20of%20Municipal%20Bonds%20for%20PPP%20projects.pdf">https://www.pppinindia.gov.in/assets/doc/20181/33749/Guidance%20on%20use%20of%20Municipal%20Bonds%20for%20PPP%20projects.pdf</a></p> <p><b>Description:</b> This document is aimed at supporting urban local bodies (ULBs) to tap municipal bond issuance as a sustainable resource mobilization channel to meet their investment needs and complement PPPs. The document (i) provides an overview of desirable features in municipal legislation for providing an enabling environment for ULB-led bond issuances, (ii) identifies pre-cursor steps and actions to be undertaken by ULBs to gear up for issuance of municipal bonds, (iii) provides an overview of type of municipal bonds, terms of bond issuance, and credit enhancements that are typically</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
		employed to improve credit rating of bond issuances, and (iv) summarizes critical aspects of capacity development required for ULBs. It is intended to serve as an important and useful input to practitioners involved in urban development, financing, and development of PPP projects.
<p><b>35. National Institute for Urban Affairs, Ministry of Housing and Urban Affairs, Government of India</b></p> <p>Climate Smart Cities Assessment Framework (CSCAF)</p>	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="https://niua.in/c-cube/content/cscaf">https://niua.in/c-cube/content/cscaf</a></p> <p><b>Description:</b> CSCAF is a city assessment framework on climate relevant parameters for Indian cities. It was launched in February 2019 by the Ministry of Housing and Urban Affairs (MoHUA) and Climate Centre for Cities (C-Cube) supports MoHUA in the implementation of CSCAF.</p> <p>The CSCAF serves as a tool for cities to assess their current climate situation and provides a roadmap for cities to adopt and implement. The CSCAF 3.0 has been framed with 28 diverse indicators across five categories (Energy and Green Management Buildings, Urban Planning, Green cover &amp; Biodiversity, Mobility and Air Quality, Water Resource Management, and Waste Management). The indicators are progressive in nature to encourage cities to adopt appropriate actions enabling them to improve their score in the future and consequently build climate resilience.</p>
<p><b>36. Government of Quebec, Canada</b></p> <p>International Climate</p>	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="http://www.environnement.gouv.qc.ca/programmes/coop-climatique-internationale/">www.environnement.gouv.qc.ca/programmes/coop-climatique-internationale/</a></p> <p><b>Description:</b> In 2016, the Canadian province of Québec introduced its International Climate Cooperation Program, providing climate finance and support to developing countries. It is one of the first</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
Cooperation Program		subnational climate financing schemes, and one that is, uniquely, funded by the province's own carbon market.
37. OECD  Infrastructure Toolkit	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="https://infrastructure-toolkit.oecd.org/">https://infrastructure-toolkit.oecd.org/</a></p> <p><b>Description:</b> The OECD Infrastructure Toolkit is an online resource that assists policy-makers in planning, obtaining finance for, and delivering sustainable infrastructure. The toolkit utilizes a modal approach to address infrastructure aspects. Infrastructure governance is launched initially, with more domains expected to be introduced in the future. The rules, frameworks, standards, procedures, and instruments used by public entities in the planning, decision making, implementation, and monitoring of the whole lifecycle of public infrastructure are referred to as infrastructure governance.</p>
38. OECD  Environmental Financing Strategies: Methodology and FEASIBLE Computer Model	Technical staff (Government officials and consultants)	<p><b>Link:</b> <a href="http://www.oecd.org/env/outreach/methodologyandfeasiblecomputermodel.htm">www.oecd.org/env/outreach/methodologyandfeasiblecomputermodel.htm</a></p> <p><b>Description:</b> FEASIBLE provides a systematic, regular, and quantitative framework for taking environmental objectives into account as well as streamlining the iterative process of balancing requirements between available and required financing. The tool makes use of data defining the existing infrastructure and the funding choices accessible from user fees, public budgets, and other sources. Based on the specification of the future service targets and the forecast of future funding, the model calculates the resulting gap between the demand for expenditure (to invest in, operate, and</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
		repair infrastructure) and the supply of available funds.
<b>39. Resilient Cities Network (R-Cities)</b>  Urban Resilience Planning Tools	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://resilientcitiesnetwork.org/urban-resilience-planning-tools/">https://resilientcitiesnetwork.org/urban-resilience-planning-tools/</a>  <b>Description:</b> R-Cities supports its network cities to develop resilience strategies. The programs respond to and build on these resilience strategies, with action-oriented initiatives co-designed with its member cities and partners. A core feature of the R-Cities program is the strong emphasis on peer-to-peer learning, which R-Cities fosters through its network activities, city engagement, and communities of practice. R-Cities' programs focus on three priority areas: climate-resilient cities, circular cities, and equitable cities.
<b>40. South Pole, Climate-KIC, FMDV, CDP and GIB</b>  City Finance Lab	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://cfl.southpole.com/">https://cfl.southpole.com/</a>  <b>Description:</b> City Finance Lab is a dedicated platform supporting the development of innovative, replicable, and scalable financing solutions that increase investment in climate-resilient, low-carbon, and green urban projects for sustainable cities.
<b>41. The Lab</b>  Global Innovation Lab for Climate Finance	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="http://www.climatefinancelab.org/">www.climatefinancelab.org/</a>  <b>Description:</b> The Global Innovation Lab for Climate Finance identifies, develops, and launches innovative finance instruments that can drive billions in private investment to action on climate change and sustainable development. The Lab is led by its members, who include over 70 institutions in government, development finance, philanthropy, and the private sector. Since 2014, the Lab has



SN. Organization and Tool Name	Target Beneficiaries	Details
		launched 62 solutions that have mobilized over \$3.5 billion to address climate change.
<b>42. UNDESA and the UNCDF</b>  Managing Infrastructure Assets for Sustainable Development: A Handbook for Local and National Governments	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="http://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2021-08/IAMH_ENG_Jun2021.pdf">www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2021-08/IAMH_ENG_Jun2021.pdf</a></p> <p><b>Description:</b> The handbook urges national and local governments to take action and offers them detailed instructions on how to make sure investments in existing and planned infrastructure are resilient, sustainable, and accessible. It offers guidance and practical tools to improve infrastructure asset management to address socioeconomic and environmental issues including climate change and public health crises.</p>
<b>43. World Bank</b>  PPP Reference Guide	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="https://ppp.worldbank.org/public-private-partnership/PPP%20Online%20Reference%20Guide">https://ppp.worldbank.org/public-private-partnership/PPP Online Reference Guide</a></p> <p><b>Description:</b> The PPP Reference Guide aids users in navigating the wealth of information on PPPs. It presents major PPP issues, lays out possibilities, and points readers towards implementation examples and references. The three modules provide an overview of the development and implementation of PPPs, an explanation of the rationale for utilizing PPPs, and references to the institutional, legal, and policy frameworks required to ensure PPPs achieve their goals.</p>
<b>44. World Bank</b>  Municipal Public-Private	Executive leadership and technical staff	<p><b>Link:</b> <a href="https://ppp.worldbank.org/public-private-partnership/subnational-and-municipal/municipal-public-private-partnership-framework">https://ppp.worldbank.org/public-private-partnership/subnational-and-municipal/municipal-public-private-partnership-framework</a></p>

SN. Organization and Tool Name	Target Beneficiaries	Details
Partnership Framework	(Government officials)	<p><b>Description:</b> The Municipal PPP Framework is a tool created for local governments to assist them in understanding and implementing PPPs while taking into account their unique needs, challenges, and features. The Framework is based on best practices from PPPs all around the world but it has been modified to be more applicable for municipal PPPs, simple to use, and better matched to the capacities and capabilities of local government.</p> <p>With sample terms of reference, bidding documents, and PPP agreements, the tool package provides a thorough and succinct approach to PPPs. Additionally, it includes several relevant projects to give local decision makers guidance on new and innovative municipal PPP prospects that will assist towns and cities to deliver good infrastructure projects at the right scale while also improving services.</p>
45. World Bank Gender-Inclusive Urban Planning Design	Executive leadership and technical staff (Government officials)	<p><b>Link:</b> <a href="https://openknowledge.worldbank.org/entities/publication/63c07ff8-cd1e-52c0-9441-005b9aa22bcf">https://openknowledge.worldbank.org/entities/publication/63c07ff8-cd1e-52c0-9441-005b9aa22bcf</a></p> <p><b>Description:</b> By bridging the gap between gender-responsive policy and practice, the guidebook seeks to address the historical exclusion of women, girls, and sexual and gender minorities from urban planning and design processes. It argues for gender equality in urban planning and design on economic and social grounds. The tool offers concise, detailed design recommendations for a variety of planning areas, including housing, public transportation and mobility infrastructure, other infrastructure services, and urban master plans. These rules apply to all regions and are adaptive to them.</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
46. World Bank  Property Tax Diagnostic Manual	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="https://openknowledge.worldbank.org/entities/publication/61063f54-50a0-501e-95aa-ae55e60dc35f">https://openknowledge.worldbank.org/entities/publication/61063f54-50a0-501e-95aa-ae55e60dc35f</a>  <b>Description:</b> The manual presents a step-by-step process for diagnosing and analyzing property tax systems as well as creating a strategic plan to improve property tax performance in a variety of situations. It also provides a thorough overview of the various aspects of property taxation.
47. World Bank  Qualitative Value-for-Money Guidance & Toolkit for Assessing PPP Projects in Developing Countries in Asia and the Pacific	Technical staff (Government officials of governments and consultants)	<b>Link:</b> <a href="https://ppp.worldbank.org/public-private-partnership/library/qualitative-value-money-guidance-toolkit-assessing-ppp-projects-developing-countries-asia-and-pacific">https://ppp.worldbank.org/public-private-partnership/library/qualitative-value-money-guidance-toolkit-assessing-ppp-projects-developing-countries-asia-and-pacific</a>  <b>Description:</b> The toolkit outlined in this document highlights a list of factors that government officials must take into account when determining whether a project will likely achieve value for money if it is carried out in a PPP.
48. World Bank  Municipal Finances: A Handbook for Local Governments	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099120004052270615/p1746330d584ff0210a9670dcf49a5becb0">https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099120004052270615/p1746330d584ff0210a9670dcf49a5becb0</a>  <b>Description:</b> This manual seeks to assist local government practitioners, particularly personnel of medium and large cities, in strengthening strategic management of municipal finances. It offers a thorough overview of municipal finances with a wide scope while advocating solid municipal management

SN. Organization and Tool Name	Target Beneficiaries	Details
		<p>based on improved governance and increased responsibility.</p> <p>The eight chapters address a variety of subjects, including fiscal decentralization and municipal finances; metropolis management; tools for sound financial management; managing revenues, expenses, assets, and outside resources; and performance measurement. This handbook shares theory, practical how-to guidance, best practices from international experiences, and potential solutions.</p>
<p><b>49. World Bank</b>  Climate Toolkits for Infrastructure PPPs</p>	<p>Technical staff (Government officials and consultants)</p>	<p><b>Link:</b> <a href="https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099120004052270615/p1746330d584ff0210a9670dcf49a5becb0">https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099120004052270615/p1746330d584ff0210a9670dcf49a5becb0</a></p> <p><b>Description:</b> This toolkit supports in integrating a climate perspective and methodology into upstream PPP advisory work and structuring. It helps in properly organizing PPPs to handle difficulties associated with both mitigation and adaptation. PPPs are able to offer partners a well-informed and balanced risk allocation that offers long-term visibility and stability for the duration of a contract, compensating for the uncertainty of climate change through contractual predictability.</p>
<p><b>50. World Bank and EIB</b>  City Climate Finance Gap</p>	<p>Executive leadership and technical staff (Government officials)</p>	<p><b>Link:</b> <a href="http://www.citygapfund.org/">www.citygapfund.org/</a></p> <p><b>Description:</b> Gap Fund supports cities with early-stage technical assistance for low-carbon, climate-resilient urban development plans and projects. It has so far attracted €80 million in funds, and it aims to</p>

SN. Organization and Tool Name	Target Beneficiaries	Details
Fund (Gap Fund)		raise as much as €100 million—and could eventually unlock an estimated €4 billion in investments.
<b>51. World Bank and UN Women</b>  Women's Livelihood Bond (WLB™) Series	Executive leadership and technical staff (Government officials)	<b>Link:</b> <a href="https://wlb.iixglobal.com/">https://wlb.iixglobal.com/</a>  <b>Description:</b> The WLB™ Series is a series of innovative securities pioneered by Impact Investment Exchange to mobilize capital for women's empowerment. The WLB™ Series represents the world's first impact investing and gender lens investing securities listed on a stock exchange. It pools together high-impact women-focused enterprises to create a multi-country, multi-stakeholder portfolio that is sold to private sector investors.
<b>52. World Meteorological Organization (WMO), Global Water Partnership (GWP)</b>  Associated Programme on Flood Management (APFM)	Technical staff (Government officials and consultants)	<b>Link:</b> <a href="https://www.floodmanagement.info/">https://www.floodmanagement.info/</a>  <b>Description:</b> APFM supports countries in the implementation of Integrated Flood Management within the overall framework of Integrated Water Resources Management to maximize net benefits from the use of floodplains and to minimize loss of life and impacts.

## Appendix 3: International Good Practices

### List of Case Studies

#### Urban Policies and Planning

- **Case 1:** Environmental Sustainability—Singapore’s Journey
- **Case 2:** (i) Integrated Urban Development in Yokohama, Japan, through Six Major Projects; and (ii) a Capacity-Building Modality—City Management as a Service (CMaaS)—for International Collaboration
- **Case 3:** Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) for Water Security in All Statutory Towns in India and Improving Municipal Services for Citizens
- **Case 4:** German Agency for International Cooperation (GIZ)—Tools and Methods of Sustainable Development Goal Localization for City Corporations and Municipalities of Bangladesh
- **Case 5:** ILBANK, World Bank, and European Union (EU)—Diagnostic Assessment and Needs Analysis for Sustainable City Planning of 10 Selected Metropolitan Municipalities in Türkiye
- **Case 6:** City Climate Finance Gap Fund to Support an Interdisciplinary Approach in Developing a Human-, Flora-, and Fauna-Friendly Area along the Pivdennyi Buh River in Ukraine (Vinnytsia’s “Alley 12.7”)
- **Case 7:** Global Environment Facility for Sustainable Cities Integrated Approach Pilot Project to Support Transit-Oriented Development in Tianjin
- **Case 8:** Resilient Cities Action Package (ReCAP21) for Bangladesh, Mauritania, and Rwanda

#### Urban Infrastructure Development and Service Delivery

- **Case 9:** Leveraging Land Value Capture for Public Transportation—Centered Mixed-Use Development in the Yeongdong-daero Underground Complex in Seoul, Republic of Korea
- **Case 10:** Abu Dhabi Public–Private Partnership Framework to Facilitate Private Financing in the Infrastructure Sector
- **Case 11:** EU—InvestEU Advisory Hub

- **Case 12:** The C40 Cities Finance Facility’s Capacity Development Approach—Solarizing Public School Rooftops in Quezon City, Philippines
- **Case 13:** ICLEI (Local Governments for Sustainability)—A Transition to Decentralized Renewable Energy for Brazil’s Youngest Planned City
- **Case 14:** World Bank—Tianjin Urban Transport Improvement Project
- **Case 15:** Transit-Oriented Development in Ahmedabad, India

### Urban Governance

- **Case 16:** Asian Development Bank (ADB)—Urban Governance and Infrastructure Improvement Project in Bangladesh
- **Case 17:** Smart City Mission India – Integrated Control and Command Centre

### Capacity Building

- **Case 18:** EU—URBACT
- **Case 19:** EU—European Urban Initiative
- **Case 20:** The ABC of Successful Investment Projects Preparation – Project Preparation and Readiness Program for Public Officials to Deliver Sustainable Infrastructure Investment Projects at the Subnational Level
- **Case 21:** The Five Steps for Cities Program in the Russian Federation – Positive and Rapid Urban Transformation for All Citizens
- **Case 22:** National Urban Learning Platform (NULP) in India

## Urban Policies and Planning

### Case 1: Environmental Sustainability—Singapore’s Journey

#### Background

Singapore is a small island city state of approximately 730 square kilometer (km<sup>2</sup>) with a population of 5.6 million, making it one of the densest cities in the world. It does not have natural resources.

Following its independence in 1965, Singapore embarked on rapid economic development and industrialization to create jobs and alleviate widespread poverty. Together with urbanization and a growing population, this caused serious environmental pollution and degradation and put pressure on Singapore’s scarce water resources.

Today, Singapore residents enjoy clean air, drink clean water directly from taps, live on clean land, and enjoy a high standard of environmental public health. Singapore has been ranked one of the most livable cities in the world and is also known to be a “City in a Garden.” As part of the Singapore Green Plan 2030, Singapore will continue to build on its greening efforts and to transform into a “City in Nature.”

#### Strategy/Approach

How did Singapore achieve this? Its approach lies in having a clear vision of a clean, green, and good living environment. A good living environment is for the benefit not only of this generation but also of future generations; a clean and green environment provides a competitive advantage for Singapore to attract foreign investment, talent, and tourists. It also boosts the morale and pride of Singaporeans, motivating them to strive for higher standards.

To realize its vision, Singapore adopted a pragmatic approach towards sustainable development by balancing economic development, social progress, and environmental protection. Singapore’s development was not achieved at the expense of the environment.

In its environmental sustainability journey, Singapore has adopted the following key strategies:

- (i) **Long-term planning**—incorporating environmental factors into Singapore’s long-term land use plan, making the best possible use of land without compromising development needs.





- (ii) **Environmental infrastructure**—investing in environmental infrastructure, such as solid waste and wastewater facilities, not only to address environmental pollution but also to provide Singapore with environmental gains decades later.
- (iii) **Innovation/technology**—Continually searching for innovative solutions, leveraging on technologies, and learning from good practices of other countries to be ahead of emerging environmental challenges.
- (i) **Pragmatic and effective approach**—Incorporating evolving needs, demands, and attitudes; applying sound economic principles; working with the private sector and markets; and gaining stakeholders’ support and buy-in to achieve the desired and right environmental outcomes.
- (iv) **Environmental education—Instilling** a sense of “environmental ownership” by inculcating civic consciousness, social responsibility, and discipline through public campaigns and outreach programs in communities, schools, businesses, etc.

## The Way Forward

Singapore still faces challenges on the road ahead, including the existential threat of climate change. As a small island state, Singapore is investing in coastal and flood protection to protect itself against rising sea levels. Given the state’s density, the anticipated rise in temperatures will be compounded by the Urban Heat Island effect. Singapore is thus working towards designing and developing its urban environment to ensure better thermal comfort.

As part of the Singapore Green Plan 2030, Singapore is taking steps towards greening its transport system and infrastructure and buildings. For instance, it aims to expand its public transportation system; by the 2030s, 8 in 10 households will be within a 10-minute walk of a train station. Public education continues to be key in promoting sustainable consumption patterns and lifestyles.

Environmental sustainability thus continues to be an important issue for Singapore, requiring continued strong partnership between its public, private, and people sectors.

## Case 2: (i) Integrated Urban Development in Yokohama, Japan, through Six Major Projects; and (ii) Capacity Building Modality—City Management as a Service (CMaaS)—for International Collaboration

### Background

The second most populous city in Japan, Yokohama is known by residents and visitors as an attractive, well-functioning city now in Tokyo Capital Region. The city center, called Minato Mirai 21 (Future Port 21, otherwise known as MM21), is renowned for the beauty of its waterfront view and integrated urban design. Well-developed railway and road networks contribute to mobility within the city and connect the city to surrounding areas. Green spaces are harmonized with residential areas and maintained and supported by active community-based management. Major conferences have taken place in MM21. MM21 is also known as a resilient district. The City of Yokohama could share practical lessons on integrated urban development with regard to strategic visions and policies to be reflected into actual city management and resilient district formulation.

### Strategy/Approach

The city experienced rapid urbanization and population growth in the 1950s to 1980s. These changes posed significant challenges, including scarcity of housing, inability to provide infrastructure and public services, and haphazard and mixed developments, resulting in pollution, traffic congestion, and other common urban problems.

In the 1960s, the city responded by launching an integrated urban development plan called the Six Major Projects. The plan aimed to strategically address Yokohama’s urban challenges and build up key infrastructure services. Yokohama emphasized the new city concept under the rubric “City of Citizens.” As lack of cross-sectoral coordination in the city was identified as a key obstacle to implementing the Six Major Projects, the city established a new department called the Planning and Coordination Department (PCD) to coordinate across both sectors and stakeholders.

- (i) **Six interrelated major projects vision:** With effective coordination by PCD internally and collaboration with citizens and stakeholders, Yokohama City successfully implemented six mutually integrated development projects that provided the core infrastructure to sustain the city’s long-term development and transformation from a suburban industrial and residential town into a core business center.

The city planned several core projects that would fulfill urgent needs and would be essential for long-term development while ensuring the interaction and integration of each project to achieve the city’s comprehensive development.



**Figure A3.1: Six Major Projects That Led Yokohama’s Growth and Mitigated Urban Issues**



**Kohoku New Town** was established as a designated residential area, providing a comfortable living environment while restraining the trend of disorganized, environmentally destructive construction of housing around the city; **Off-Kanazawa coastland reclamation** was implemented to provide a new industrial zone to which heavy industries and factories were encouraged to relocate for an improved environment and more available land in downtown; the **City Center Enhancement Project** (including MM21) redeveloped the waterfront zone as a revitalized commercial and cultural center, which has attracted a number of shops and museums, as well as catering to tourism and to the meetings, incentives, conferences, and events (MICE) market.

The access infrastructure involved **subway development, expressway network development**, including segregation of roads for local and medium-/long-distance travel, and construction of an 860 m **Bay Bridge** in the Port of Yokohama, mainly designed for goods transport by heavy trucks. The segregation of cargo traffic helped reduce congestion within the city and the bridge became a new monumental icon for the waterfront area.

- (ii) **Holistic approach of the PCD:** To carry out its role and coordinate with both internal and external stakeholders, the PCD was given a position directly under the mayor in the city's organization, and was staffed by talented recruits from diverse professional backgrounds. The PCD's unique management methods, including investments in

technical capability, raised the caliber of city staff and allowed them to ably support the implementation of extremely long-range projects.

The PCD tackled numerous project implementation challenges—including a lack of appropriate regulatory frameworks and of financial resources—by developing innovative approaches, constantly improving communications among stakeholders, and effectively engaging the public and the private sectors. These solutions made it possible to coordinate the Six Major Projects and thus to provide an integrated solution to the city’s challenges.

Yokohama’s first and foundational phase-planned urban development proceeded steadily over 30 years. While the PCD itself was dissolved in 1983, the momentum created by the department carried the Six Major Projects forward to completion. The PCD’s legacies, including its focus on people-centered development, are evident in urban development projects currently under way in Yokohama.

- (iii) **MM21 area development project:** Of the six strategic projects, MM21 was the pillar project and was strongly interrelated and synergetic with the other five projects. Today, MM21 is widely known to any visitors to Yokohama.

The MM21 project commenced in 1983 when the shipyard of Mitsubishi Heavy Industries was relocated to the Kanazawa reclamation area along the coast of Yokohama City. This was the industrial area between the districts of Kannai and Kangai, the historical center of Yokohama City on one side and the Yokohama Station District on the other. This controversial yet historic decision to relocate Mitsubishi’s shipyard, which used to divide Yokohama’s two main business districts, significantly aided in realizing the development plan for this coastal city center, which was to reunite the two districts to create a new business center and imbue the city with a new vitality. This also solved traffic congestion in the city center brought about by the large volume of through traffic leading to the port.

Over the years, MM21 has developed into an internationally competitive and attractive center of Yokohama, providing space and opportunities for commercial, business, cultural, and recreational activities, not only for its citizens and the private sector but also for the world. It continues to evolve, responsively meeting the needs of the modern era. MM21 is one of major central business districts (CBDs) in the Tokyo area, a destination for international conferences, and a leading model district on carbon neutrality.



## Impact

MM21 revitalized Yokohama’s CBD, driving growth and enhancing the image of the city. In 2022, 131,000 people worked at 1,890 firms located in MM21. The state-of-the-art Pacifico Yokohama convention complex continues to enhance the city’s identity as a global MICE destination, and 66.8 million tourists visited the area for business and recreation. In 2021, MM21 earned the city nearly ¥18 billion in revenue from taxes. Estimates suggest construction and development have added a cumulative ¥3.5 trillion to the economy, and in 2020 MM21 generated ¥2.8 trillion in total economic output. Ultimately, the project aims to create a district where 190,000 people work and 10,000 people live.

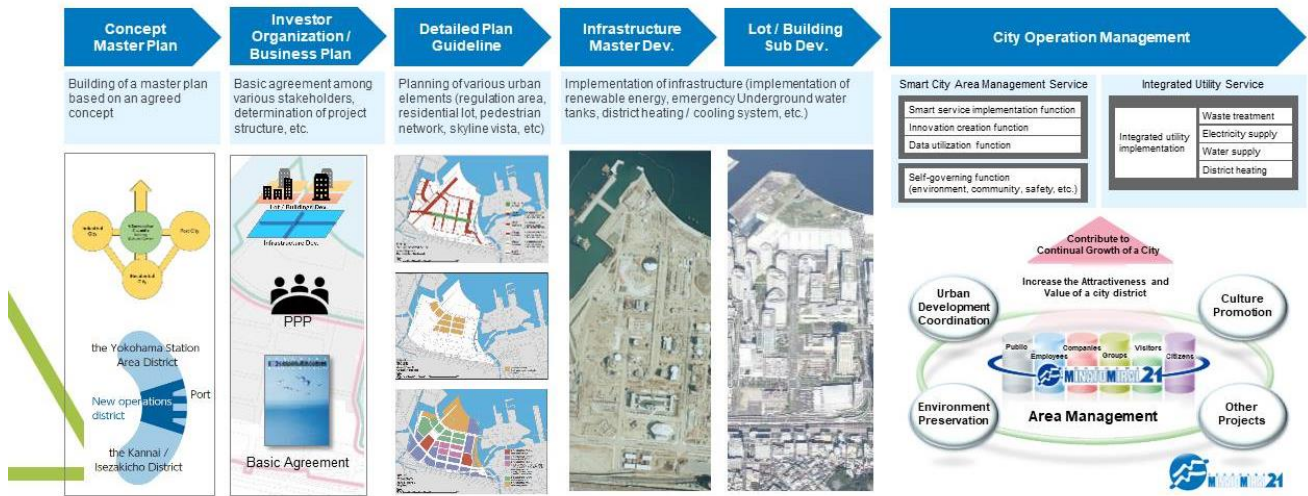
### How Has the City Developed the Capacities to Achieve the Above Results?

While MM21 has not been completed, its creation has demonstrated a new approach to integrated urban development. Integration spans a wide area—city, region, and the world—and comprises hardware (infrastructure/facilities/buildings), software (planning/operation/management), and human-ware (public involvement/leadership). It involves PPPs, urban planning, and urban design. Based on this mindset, the success factors of MM21 can be considered to be as follows:

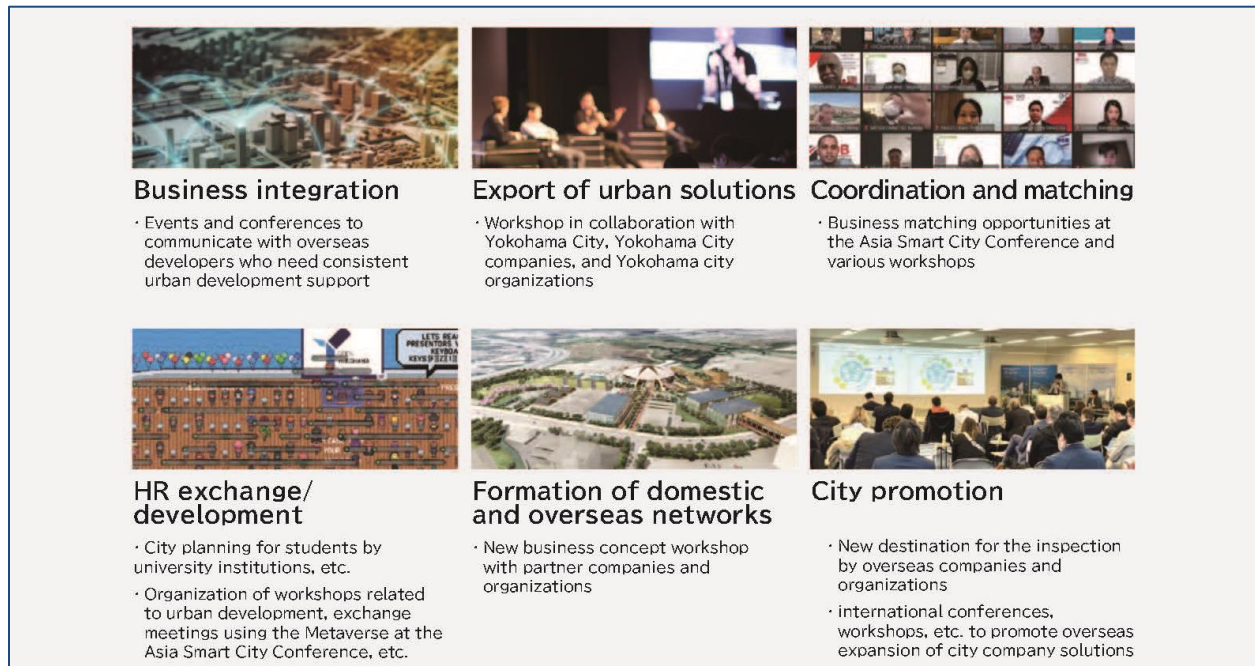
- (i) Long-term vision and consistent policy commitment of the city government and a shared understanding of these by stakeholders;
- (ii) A strategic, integrated, and coordinated approach in urban planning and management in response to changes in the internal and external socioeconomic environment;
- (iii) Provision and creation of added value to MM21, which attracted investments and associated activities
- (iv) Effective coordination between the city government and the central government, among developments and developers within the city, and with all related stakeholders; and
- (v) Maximum involvement of the private sector in partnership with the city government, thereby bringing about innovative funding mechanisms.

Based on this experience, the City of Yokohama is currently promoting **Y-PORT** (Yokohama Partnership of Resources and Technologies), a project that aims at international technical cooperation. Yokohama has signed agreements with Cebu, the Philippines; Danang, Viet Nam; Bangkok, Thailand; and Odessa, Ukraine for technical cooperation under Y-PORT. The city has established the Y-PORT Center and information hub Galerio in the center. Yokohama is also establishing a new modality of capacity building known as CMaaS that will help city officials in emerging economies to streamline strategic visions and policies to be reflected in actual city management and resilient district formulation.

**Figure A3.2: Diagram of City Management as a Service  
Flow of Planning into City Operation Management Based on Yokohama’s Experience**



**Figure A3.3: Capacity-Building Programs Provided by Y-PORT Center Galerio**



Source: [Yokohama Partnership of Resources and Technologies](#)



### Case 3: Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) for Water Security in All Statutory Towns in India and Improving Municipal Services for Citizens

#### Background

AMRUT 2.0, a national flagship mission, was launched on 1 October 2021 as an extension of the version that was launched in 2015.<sup>1</sup> AMRUT 2.0 is an ongoing program of the Government of India covering a period of 5 years, to conclude in financial year 2026. The program is designed to provide universal coverage of water supply through functional taps to all households in all statutory towns in the country, and sewerage/septage management in 500 cities included in the first phase of the AMRUT scheme. The total indicative outlay for AMRUT 2.0 is \$33.60 billion (₹2,77,000 crore), including a central share of \$9 billion (₹76,760 crore) for 5 years.<sup>2</sup>

AMRUT 2.0 aims to promote circular economy of water through city-specific city water balance plans (CWBP) that focus on recycling and reusing treated sewage, rejuvenating water bodies, groundwater management, and water conservation. City-specific plans will also help in identifying the scope for projects focusing on universal coverage of functional water tap connections, water source conservation, rejuvenation of water bodies and wells, recycling/reuse of treated used water, and rainwater harvesting. Based on the projects identified in CWBPs, the Mission envisages making cities “water secure” through circular economy of water.

#### Strategy/Approach

AMRUT 2.0 has seven key components: financing projects; financing administrative and other expenses; urban reforms; technology sub-mission; information, education, and communication campaigns; *Pey Jal Survekashan* (drinking water survey); and community participation with a focus on woman self-help groups. Under its umbrella of “reform agenda,” AMRUT 2.0 has identified mandatory and incentives-aligned reforms for the allocation of funds. Mandatory reforms include reforms to property tax to increase tax collection and improve the financial health of urban administrations, with collections based on the prevailing circle rate/guidance value. Another mandatory reform under AMRUT 2.0 relates to user

---

<sup>1</sup> The first phase of AMRUT was launched in 2015 to improve urban services (water supply, sewerage and septage management, stormwater drainage, nonmotorized urban transport, and green space) in 500 selected towns with a population of more than 0.1 million (2011 census) and some other towns. As part of municipal reforms, 468 urban local bodies (ULBs) were credit rated and 11 ULBs raised municipal bonds worth \$476 million under AMRUT. In addition, 2,465 towns have established online building permit systems as part of improved e-governance.

<sup>2</sup> PIB. 2021. [Cabinet Approves the Atal Mission for Rejuvenation and Urban Transformation – AMRUT 2.0 till 2025–26](#); \$1 = ₹82.44, conversion rate as of 9 June 2023.



charges to meet the expenditure incurred on operations and maintenance of water and sewerage infrastructure and services.

Under incentivized reforms, allocation is linked to milestones such as “successful implementation of seven specified reforms,” “issuance of municipal bonds,” and “incentives against demonstration of projects.” Other incentives are linked to timely implementation of interventions such as online grievance redressal and GIS-based mapping of properties. Details are given in the table below.

**Table A3.1: Reforms to Be Incentivized with Timelines under Atal Mission for Rejuvenation and Urban Transformation 2.0**

Sr. No.	Reforms to Be Implemented	Reform Year	Mission Allocation for Incentive
1.	Implementation of urban reforms	2022–2024	\$78.65 million
2.	Online grievance redressal and municipal service delivery	2023–2025	\$42.35 million
3.	Water body rejuvenation	2024–2025	\$48.40 million
4.	GIS-based mapping of properties for collection of property tax	2023–2025	\$48.40 million
5.	Efficient urban planning through local area plans and town planning schemes	2025–2026	\$36.30 million
6.	Reduction in nonrevenue water to below 20% of total water supplied	2023–2026	\$48.40 million
7.	Recycling/reuse of treated used water	2023–2026	\$36.30 million
	<b>Total</b>		<b>\$338.80 million</b>

Source: Ministry of Housing and Urban Affairs. [AMRUT 2.0 Reforms Toolkit](#).

Guidelines list key performance indicators under each reform, such as dual pipelines, electric vehicle charging points, WiFi infrastructure, wards covered under GIS mapping, approval of local area plans (LAPs) and/or town planning schemes (TPSs) in selected urban administration bodies, installation of water meters, and more. Progress made under AMRUT 2.0 is being monitored through a central digital portal where inputs are geo-tagged.

For Mission implementation, various plans are to be devised at the city and state level, such as city water balance plans, city water action plans, and state water action plans. These plans will provide in-depth understanding of the status of water and incremental interventions that will be undertaken at the granular level.

## Impact

Urban reforms are a core agenda under AMRUT, spread over a set of 11 reforms comprising 54 milestones. To promote energy conservation, 9.9 million out of 10.1 million identified conventional streetlights have been replaced with energy efficient LEDs leading to energy savings of 2.17 billion units per annum and a reduction in CO<sub>2</sub> emissions by 1.74 million tons per annum. As of May 2023, 14.4 million tap water connections and 10.8 million sewerage connections, including households covered through fecal sludge and septage management, have been provided in 485 AMRUT cities, according to the Ministry of Housing and Urban Affairs.

GIS-based master plans will be prepared for 461 AMRUT cities, to result in efficient urban governance through various layers such as property tax, water and sewage coverage, etc. Final plans have been prepared for 175 towns and draft plans are ready for another 159 towns. To improve the capacities of states/cities in urban planning to promote land use efficiency and prevent urban sprawl, a pilot scheme on the implementation of LAPs/TPSs is being taken up in 25 cities. Of these, eight have completed their draft LAP and TPS, three have completed their draft LAP, and three have completed their draft TPS, according to the Ministry of Housing and Urban Affairs.

## How Does This Initiative Support the Cities to Develop Their Capacities?

The Mission intends to train 100,000 persons under its capacity-building program.<sup>3</sup> Mission guidelines outline that capacity-building programs will be conducted for all stakeholders including elected representatives, urban administration functionaries, contractors, staff, and citizens, with an aim of enhancing the knowledge base and improving the job-related skills of targeted groups. The Mission supports mainstreaming policies on women's participation in water demand management and infrastructure operation.

Each group will take part in a relevant training program. For instance, town planners will be trained in land monetization, GIS-based master plans, formation of LAPs, etc.; contractors will be trained in project and financial management; and citizens will be engaged in water quality testing through civil society organizations. Technical support will be extended to urban administrations to carry out implementation and monitoring at the various stages of the program.

## Sources:

- Ministry of Housing and Urban Affairs. [AMRUT 2.0 Operational Guidelines](#)

---

<sup>3</sup> Section 12.6 of AMRUT 2.0 Operational Guidelines.

- PIB. 2022. [AMRUT Scheme](#).
- Ministry of Housing and Urban Affairs

## **Case 4: German Agency for International Cooperation (GIZ)—Tools and Methods of Sustainable Development Goal Localization for City Corporations and Municipalities of Bangladesh**

### **Background**

The GIZ supports the Bangladesh Government through customized trainings, tools, and methods of Sustainable Development Goal (SDG) Localization for City Corporations and Municipalities through joint collaboration among Improved Coordination of International Climate Finance (ICICF), implemented by the GIZ project, the Prime Minister’s Office (PMO), and the National Institute of Local Government (NILG) in the Ministry of Local Government, Rural Development, and Co-operatives.

Bangladesh is expected to graduate from least developed country status by 2026. Achievements in economic development are, however, at risk from the impact of climate change. According to the Global Climate Risk Index 2020, Bangladesh ranks 7th among the 10 countries most affected by extreme weather events. Adapting to climate change is thus vital to the country’s development. The Government of Bangladesh already spends \$1 billion a year, an approximate 6–7% of the annual national budget, on climate change adaptation. This is set to rise to \$5 billion annually by 2050, according to World Bank estimates. The current sources of funds available to meet these financing needs for addressing the impacts of climate change and overall development are not sufficient. The country thus plans to compete for increased access to international climate funds under both the eighth Five-Year Plan and in the SDG Financing Strategy by (i) approaching bilateral and multilateral development partners as well as international funding sources, and (ii) mobilizing sustainable finance from the private sector.

While Bangladesh has 39 national priority targets, an SDG Mapping for Ministries, Divisions, and Custodian Agencies, an SDG Financing Strategy, an SDG National Action Plan, an SDG Monitoring and Evaluation Framework, and an SDG Tracker, the SDG contribution of regular development projects from the local level is given limit recognition, and progress made on the SDGs often remain unaccounted for. The bottom-up SDG reporting process is impeded by the lack of tools and capacities of local officials to gather facts and figures to identify SDG progress from the local level, leading to underreporting in Voluntary National Reviews to the United Nations General Assembly.

### **Strategy/Approach**

GIZ is jointly implementing the ICICF project with the Economic Relations Division of the Ministry of Finance to access, manage, and streamline public and private sector finance for climate action. The aim of this project is capacity development, at national and local level, to

improve access to finance for climate projects that also help achieve the SDGs. The focus is on developing climate projects that are ready for financing and involving the private sector, aiming to mobilize additional sources of climate finance. For this, the project is divided into three outputs: (i) supporting the establishment of an International Climate Finance Cell in the Ministry of Finance to access financing, (ii) development of bankable climate projects to achieve the SDGs in cooperation with the private sector to pitch to funders, and (iii) involvement of local actors in the achievement of the SDGs in the context of adaptation projects.

The focus of this case study is aligned with Output 3, which promotes SDG Localization together with the Governance Innovation Unit (GIU) of the PMO, which holds the main coordination function for the SDGs in Bangladesh. The narrative for city corporations/municipalities to engage with the ICICF project comes from the need for improved capacities to recognize SDG contributions and report on SDG achievements in the context of adaptation projects, including best practices, from the local to the national level.

NILG has the national mandate to strengthen local government institutions (LGIs) in the country by building capacities and conducting relevant research activities. NILG has a training of trainers manual on the SDGs for *zila* (district) and *upazilla* (sub-district) level but not for city corporations and municipalities, which have a separate administrative and legal framework. With one of the highest urbanization rates in the world, 50% of Bangladesh's population is expected to live in urban areas by 2037. Therefore, the focus of SDG Localization in urban areas is pertinent for the country.

After a review of the different SDG Localization tools, the approach of the City WORKS toolkit developed by the GIZ Sector Program Cities was identified. As a toolkit that helps cities and municipalities understand and connect global agendas with local visions and realities, City WORKS has already been used and customized in several countries worldwide, supporting projects and cities to foster urban transformation. The PMO, the ICICF project, and NILG identified a clear opportunity to integrate aspects of the NILG SDG Manual together with the City WORKS toolkit and further expand to cover the SDG Localization process in the urban LGIs and to address major environmental and sustainability issues related to LGI operations. Working closely with GIZ, NILG, and a team of national experts from Bangladesh's premier public engineering university, Bangladesh University of Engineering and Technology, a team of international consultants supported the development, customization, and validation of a comprehensive and practice-oriented training approach and a specific localization tool (Excel-based) for LGI officials. The test run of the customized training and tool was done with 13 officials of 1 city corporation and was revised based on feedback from the different departments of the city corporation.



## Impact

To institutionalize this approach, 15 NILG and 2 GIU master trainers were trained, and the training is envisioned to be included in the NILG annual course curricula. As a next step, 31 officials and 8 elected public representatives of 6 city corporations and municipalities took part in 2 batches of trainings on “Tools and Methods of SDG Localization for City Corporations and Municipalities of Bangladesh.” To encourage gender balance, 23% of the training participants were female. Representatives from the PMO SDG Coordinator's Cell, the GIU, and NILG conducted sessions in the two training batches. The cities participating in the sessions were Dhaka South City Corporation, Dhaka North City Corporation, Khulna City Corporation, Rajshahi City Corporation, Sirajganj Municipality, and Satkhira Municipality. After completion of the training, the trainees (i) had an improved understanding on how to localize the SDGs; (ii) designed and implemented projects maintaining alignment with the SDGs, especially in the context of adaptation projects, and (iii) could properly report achievements related to the SDGs in terms of facts and figures.

### **How Have the Cities Developed Their Capacities to Achieve the Above Results?**

Through improved capacities, LGI officials can better consider the SDG contributions of their development projects. They are able to quantify SDG progress from the local level and thus report on SDG achievements locally and nationally. The in-depth exercises of the training enabled the LGI officials to identify gaps in adaptation planning within the city corporation, and were appreciated highly by the participants. The positive response from the participants can be attributed to three key factors. First, the training began with a comprehensive local assessment that helped identify priorities, establish a baseline, and build on previous efforts linking global goals and national indicators to project planning. Second, working alongside national and local institutions provided a deeper understanding of the community's unique characteristics and needs, allowing for the delivery of tailored training that met local demands and ensured inclusive adaptation project planning. Lastly, the user-friendly and straightforward Localization Excel tool allowed participants to quickly develop and understand indicators, even without prior knowledge or experience. Together, these three factors offered a practical framework for strengthening the capacity of local officials and promoting progress towards achieving sustainable development goals locally in Bangladesh.



Photo: One of the female participants making a presentation during the training sessions conducted in Bangladesh.

**Sources:**

- GIZ. [Improving the Coordination of Climate Finance.](#)
- GIZ. [City Works.](#)
- [SDG Tracker](#)
- [National Institute of Local Government \(Bangladesh National Portal\)](#)
- Urban Policy Platform. [National Urban Sector Policy.](#)
- [Urbanet](#)



## **Case 5: ILBANK, World Bank, and European Union (EU)—Diagnostic Assessment and Needs Analysis for Sustainable City Planning of 10 Selected Metropolitan Municipalities in Türkiye**

### **Background**

Cities and urbanization have played a key role in Türkiye's economic achievements. The urbanization process has also been inclusive, with a rising share of urban growth and job creation in the country's smaller cities. Over the course of the past 70 years, Türkiye has experienced a dramatic and transformative urbanization experience. As the urban population has increased, cities have sprawled, exceeding their mandated boundaries, and challenges associated with quality of service and subsequent long-term financial and environmental sustainability of cities have emerged.

To address the challenges associated with sprawl and subsequent long-term financial and environmental sustainability of cities, Türkiye has revised national policy frameworks and legislation. The most important steps in creating sustainable cities are to identify and meet the growing demand for municipal services in their new service areas and to prepare city plans, which should contain environmental, social, and economic principles for a sound urbanization process; set out correct land use policies and decisions; and account for future infrastructure needs for the Metropolitan Municipalities (MMs), whose areas of responsibility and service have been expanded to cover the whole administrative boundaries of provinces.

Even though Türkiye has an extensive existing urban planning and regulatory framework, there are missing elements. Spatial plans often do not contain coherent transport planning principles, ecological dimensions, or energy efficiency considerations such as provisioning for green space, solid waste management planning, and effective geographic information systems that help plan the delivery and operation/maintenance of critical infrastructure. As a result, many cities do not have well-developed, multi-year capital investment plans with a pipeline of prioritized investment projects. Ensuring comprehensive integrated planning linked to prioritized investments is a key element in the long-term financial and environmental sustainability of cities.

Within this context, national development and investment bank of local authorities, ILBANK and the World Bank have designed a comprehensive Project to close these gaps. The Government of Türkiye requested financing from the World Bank and the EU for the Sustainable Cities Project (SCP). The SCP has been developed to assist cities in planning for sustainable infrastructure service needs through more comprehensive and integrated municipal planning.

### **Strategy/Approach**



Within the scope of a Diagnostic Assessment and Needs Analysis for 10 selected MMs in Türkiye, a Sustainability Framework has been designed considering international, national, and local regulations regarding sustainability indicators. The main approach is to localize the Sustainable Development Goals (SDGs) according to the current circumstances of MMs, considering the specific data, technical capacity, know-how, needs, and priorities. Diagnostic Assessment and Needs Analysis Studies focusing on data collection and determining the needs and gaps for each MM have been carried out, leading to the preparation of an activity design study to prioritize activities and projects.

### **Impact**

Targeted achievements and prioritized benefits after these studies are:

- (i) To obtain a sustainability framework and localization of the SDGs that will be a reference for MMs;
- (ii) To enable more sustainable and integrated urban planning and management;
- (iii) To determine priority areas and intervention points for each municipality against the problems of urban growth for sustainable development;
- (iv) To identify strengths and weaknesses of utilities and determine priority areas for improvement; and
- (v) To create activity designs to develop planning capacities of MMs.

### **How Does This Initiative Support the Cities to Develop Their Capacities?**

The prepared reports are accepted as guidelines for the selected MMs to restructure their investment priorities under the existence of planning approach and to improve their technical capacities for institutional sustainability.

## Case 6: Cities Climate Finance Gap Fund to Support an Interdisciplinary Approach in Developing a Human-, Flora-, and Fauna-Friendly Area along the Pivdennyi Buh River in Ukraine (Vinnytsia’s “Alley 12.7”)<sup>4</sup>

### Background

Urbanization has led to the sprawling expansion of Vinnytsia in central Ukraine. The city has identified the need to form an integral community of “the Great Vinnytsia” while preserving the identity of each community. At the same time, the city has identified current changes in its climate—namely, dryer summers and an increase in climate-related hazards, particularly heat waves. The climate conditions in Vinnytsia are expected to continue changing, affecting water runoff patterns, decreasing the conditions of vegetation, and having impacts on public health.

Moreover, the urban sprawl has altered the natural landscape of the city, creating negative conditions such as “sealed” surfaces, the formation of heat islands, and flooding of streets and yards. Additionally, the city has negative impacts on the water quality of the Pivdennyi Buh River, from which Vinnytsia and surrounding settlements acquire their water supply, and its affluents.

Nonetheless, there are some natural patches along the river, which are relatively well preserved. The territory of the Alley 12.7 project occupies the area from Vodokanal to Sabarivska hydropower plan along the left bank of the Southern Bug River within the city of Vinnytsia. About 60,000 people live in an area, covering ~1.23 km<sup>2</sup> and representing 37% of all green city spaces.

The key planning and implementation challenges faced by the project are:

- (i) Lack of clear responsibility and management processes (owing to very complicated stakeholders’ roles/relationships);
- (ii) Lack of availability of spatial scale and joint solutions for different areas involved;
- (iii) Need for individual approaches for each involved area, in turn creating the need for an increased number of involved stakeholders; and
- (iv) Difficulties in coordinating changes with adjacent areas of the city because of the lack of a joint concept or riverbank development.

### Strategy/Approach

---

<sup>4</sup> Full technical assistance support title: Vinnytsia’s Interdisciplinary Approach in Developing Harmonious and Sustainable Spatial Solutions for a Human-Friendly, Flora- and Fauna-Friendly Area around the Pivdennyi Buh River, in Particular the Area Surrounding Project “Alley 12.7.”

Vinnitsia's approach is based on strategic urban planning. In 2019, the city council approved the Concept of Integrated Urban Development of Vinnitsia 2030, which defines spatial and conceptual priorities for the urban planning of the city. This document includes the greening of the Southern Bug River and a plan for sustainable urban mobility. One of the key aspects is the Alley 12.7 project, which aims to contribute to the adaptation of the city to climate change by improving the riverbank areas of the Southern Bug River, thereby protecting the population of Vinnitsia. The purpose of the intervention is to find a balance between architectural and spatial solutions within the Alley 12.7 project, based on analysis of the natural conditions (climate, the characteristics of the river and its tributaries, landscape diversity, and biodiversity) and of the current and potential users of the area, which activities cannot be avoided in the context of urbanization.

## Impact

The key result of the study is the proposal of two scenarios of spatial solutions based on scientific analysis and forecasting. Both scenarios will aim to create a holistic harmonious environment along the river that reflects the main stakeholders' common vision of sustainable development, protecting the rare and endangered biodiversity within the territory of the Alley 12.7 project, and finding options for proactive response and adaptation to climate change. For the first time since the beginning of the Alley 12.7 project, environmental experts were involved in the analysis and assessment of the state of the environment and in the identification and description of existing types of biodiversity, for a more accurate understanding of the territory and understanding of the value and importance of the existing ecosystem. The experts also established approximate boundaries of various biotopes and focused attention on the existence of invasive plant species that pose a danger to the existence of primary representatives of the local flora. The climate change expert assessed the current climate situation in the city and shared provisional predictions that should be expected in the coming years. All these data collectively affect awareness of the multifaceted relationships between nature and the impact of human activity, and of the importance and value of having nature in the city.

The involvement of strong experts, and their evaluation and description of the territory from the point of view of the environment, only strengthens the significance and importance of the existence of the river and nature in the city and is also a strong support to the continuation of the work on the Alley 12.7 project. The project is expected to be innovative for the Ukrainian scientific and professional community, driving evidence-based urban development and applied environmental research.

## How Does This Initiative Support the City to Develop Its Capacities?

With the City Climate Finance Gap Fund's support, the city of Vinnytsia adopted a new approach for conducting a pre-feasibility study for the Alley 12.7 intervention, while developing its capacity to apply evidence-based environmental research to sustainable urban planning. The city's first step was to submit an expression of interest for Gap Fund support in further developing its original project idea. Afterwards, the city worked closely with the Gap Fund technical secretariat to develop its initial ideas into a conceptual outline and further into terms of reference for technical assistance (TA).

The pre-feasibility study allowed the city to establish new frameworks for the Alley 12.7 project (i.e., analysis of the climate change impact on local ecosystems, assessment of the current state and predicted possible future transformations of the territory, solutions for its development and preservation) and substantiate the need for further research and analysis in terms of adaptation to climate change.

The TA included a participatory process to (i) inform stakeholders about the values, methodology, and first results of the project analysis, and the benefits of the project; (ii) bring together all relevant stakeholders for a joint understanding; and (iii) plan the next steps for better implementation and decision-making. The local government has been initiating and actively leading the development of the Alley 12.7 project since the beginning. During the process of conducting the pre-feasibility study, throughout six events with decision-makers, spatial representatives, general users, and local and national scientists, the city has ensured information and the capacity development of the relevant stakeholders, which is a key aspect of this innovative approach of turning strategic urban planning into a true urban intervention.

## **Case 7: Global Environment Facility—Sustainable Cities Integrated Approach Pilot Project to Support Transit-Oriented Development in Tianjin**

### **Background**

Rapid economic growth has caused so-called “urban diseases” such as traffic jams, environmental pollution, and functional degradation of old cities. Meanwhile, urban rail systems call for a great amount of capital investment. Since fare revenue is usually not enough to cover the cost of such a system, construction costs at the early stages and operation and maintenance at the later stages need large capital subsidies. Transit-oriented development (TOD), as a new urban development mode, can optimize the urban layout, promote travel by public transit, relieve traffic pressure, and generate considerable economic benefits in support of urban construction by carrying out multi-industry high-density development near public transit stations.

### **Strategy/Approach**

Tianjin is one of the cities where the Global Environment Facility China Sustainable Cities Integrated Approach Pilot Project is being implemented. This project conducts a study at three levels (city, corridor, and station) to provide a reference for the development of TOD in the city. The study looks at a comprehensive development strategy, TOD in the downtown area, urban development guided by rail transit, connections between the slow traffic system and the subway, and promotion of public–private partnership in the field of public transit.

### **Impact**

The expected impacts include (i) establishment of the TOD built environment assessment method, proposal of a TOD planning toolkit and action plan, and guidance for urban TOD planning, design, implementation, and operation; (ii) development of a financing model for TOD, estimation of the external benefits of urban rail transit, application of this throughout the entire lifecycle of project construction and operation, and then proposal of an appropriate investment and financing model for the TOD project and solutions to alleviate financial pressure; and (iii) exploration of TOD planning and design methods based on urban renewal that are different from those in new construction areas, and reshaping the urban pathway using the TOD model.

### **How Does This Initiative Support the City to Develop Their Capacities?**

Capacity-building activities in this project focus on the following areas.

- (i) Adopting the public TOD method, overall implementation and integration of transportation hubs, spatial planning and commercial functions, and utilizing the

existing public assets of the city to realize and accelerate the process of urban integration;

- (ii) Strengthening factor gathering and spatial linkages between the transportation hub and surrounding areas, and building a new urban form of “transportation hub + full-service complex,” which will promote the improvement of regional commercial services, enhance the overall consumption level of the core area, improve the transfer function of the subway and bus, and improve the traffic environment around the stations;
- (iii) Encouraging public participation in urban governance to meet the diverse demands of the public; and
- (iv) In order to strengthen interdepartmental coordination, improving communication and decision-making efficiency, establishment of comprehensive management regulations for project decision-making, demonstration, and procurement processes to determine high-quality financing schemes and project proposals.

## **Case 8: Resilient Cities Action Package (ReCAP21) for Bangladesh, Mauritania, and Rwanda**

### **Background**

ReCAP21 enabled selected cities in Bangladesh, Mauritania, and Rwanda to implement plans and measures for a resilient recovery from the coronavirus disease (COVID-19) pandemic and strengthened their capacities for long-term resilience planning.

Around the world, cities were fighting the pandemic against a backdrop of multiple existing shocks and stresses and emerging vulnerabilities, while striving to put equity, economy, and climate action at the center of their recovery approaches. Declining revenues created budgetary shortfalls for cities around the world, forcing local governments to defer infrastructure projects and capital investments. This stifled job growth and local economic activity and affected cities' abilities to deliver essential services. On the other hand, the compounding impacts of COVID-19 and climate change shed new light on the deep inequities confronting cities around the world, revealing immense problems and highlighting opportunities for new approaches. As cities planned for recovery and investment in key services and infrastructure, they also needed to address the underlying stresses exposed by the pandemic.

Smart, green investments and interventions with resilience principles in mind can create a triple dividend: helping cities boost their economies, improving equity, and preparing communities for inevitable climate and health threats. In times of multiple crises and global economic downturn, progress on sustainable development needs to be galvanized. National and local governments must build back stronger, fairer, and greener than before. Cities drive national economies, while the urban poor are particularly hard hit by COVID-19 and the current inflation. Therefore, urban centers must be at the heart of a long-term plan for sustainable and inclusive development.

### **Strategy/Approach**

The ReCAP21 project was commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) with a volume of €1 million and implemented by the German Agency for International Cooperation (GIZ) in cooperation with ICLEI, R-Cities, and Cities Alliance from May to December 2021. It supported selected cities in Bangladesh, Mauritania, and Rwanda in the implementation of plans and measures for a resilient and sustainable recovery from the COVID-19 pandemic. For the implementation of ReCAP21, innovative cooperation was found with partner organizations (see above) for Rwanda and Bangladesh as well as with the GIZ field structure in Mauritania, which made it possible to

jointly exchange methods in the field of green recovery and resilience, to further develop expertise on this and to try out approaches in practice.

ReCAP21 addressed the challenges described above with the following:

- (i) Increasing the capacity for combatting future public health threats (including primary health care, health management, public life);
- (ii) Identifying priority recovery action packages (short- and medium-term planning) cross-sectorally with high resilience value;
- (iii) Supporting the implementation of small-scale measures (with positive reciprocal effects between pandemic resilience and ecological, social, and economic goals);
- (iv) Developing long-term resilience plans; and
- (v) Global knowledge exchange on resilient recovery in cities.

### Impact

- (i) Program implemented in **3** countries and **5** cities;
- (ii) **1** guide on green recovery and resilience with **3** case studies (see sources);
- (iii) implementation of **3** exemplary infrastructure measures (water, energy, and building sector) in **3** cities;
- (iv) Cooperation between **4** partners: ICLEI, Cities Alliance, R-Cities, and GIZ;
- (v) **2** Talanoa Dialogues between national and subnational level;
- (vi) **2** webinars on green recovery/resilience;
- (vii) **2** Resilience Fundamental Trainings for **4** cities;
- (viii) **6** Green Recovery/Resilience Tools developed for digital platform City WORKS;
- (ix) **12** green/resilient recovery priorities identified in **4** cities;
- (x) **6** projects submitted to the Transformative Actions Program (TAP) pipeline; and
- (xi) **4** projects screened for improvement and **4** pitches to Gap Fund and other project preparation facilities.

### How Does This Initiative Support the Cities to Develop Their Capacities?

The main purpose of ReCAP21 was to provide technical and capacity-building support to local governments in the Global South that would make an impact in fundamentally shifting the traditional economic recovery planning processes towards transformations that ensure holistic

resilience. This was enabled by the involved organizations providing three approaches for local governments to move towards an urban transformation and a resilient recovery process (GIZ: City WORKS Toolkit; ICLEI: GreenClimateCities Program; Covenant of Mayors



Sub-Saharan Africa: SEACAP Toolbox; R-Cities: Resilient Recovery Framework). In total, these three different approaches/entry points provide local governments with the practical support to identify comprehensive solutions that range from finance and physical interventions to cultural practices and governance arrangements that may contribute to achieving more resilient societies.

The guide developed from the learnings of the program is openly accessible and offers cities three key entry points. The first proposes five practical tools for cities that cover topics from harmonizing local government's urban strategies to developing tailored risk assessments and climate-resilient interventions. The second key entry point is highlighted in the National–Local Dialogues and Resilient Recovery: Insights from the Field. The National–Local Dialogues showcase practical examples of how multilevel governance can be fostered through the implementation of local dialogues in Rwanda and Bangladesh. The Insights from the Field demonstrate four cases in which the resilience assessment tools have been implemented in different settings and urban contexts. The third entry point is showcased in the TAP, which supports local governments in exploring project opportunities and accessing finance for their implementation.

#### Sources:

- [ReCAP21 Guide on Connecting Green and Resilient Recovery](#)
- [ReCAP21 General Factsheet](#)
- [ReCAP21 Urbanet Article](#)
- [ReCAP21 City WORKS Extension on Resilience](#)

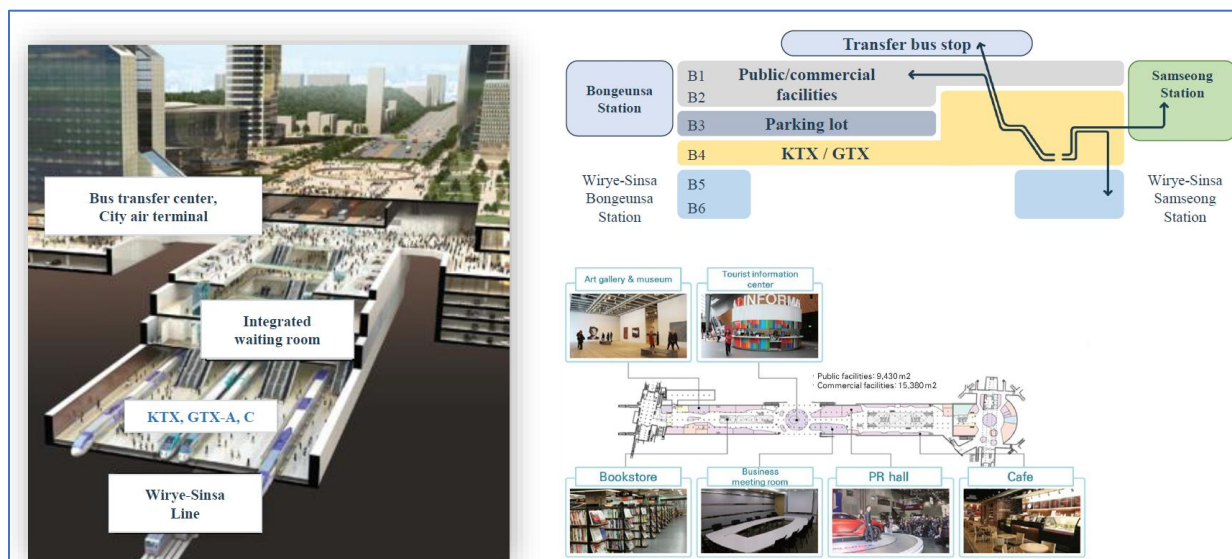
## Urban Infrastructure Development and Service Delivery

### Case 9: Leveraging Land Value Capture for Public Transportation—Centered Mixed-Use Development in the Yeongdong-daero Underground Complex in Seoul, Republic of Korea

#### Background

The Yeongdong-daero Underground Complex, to be located under the planned Hyundai Global Business Center, is envisioned to serve as a human-centered, future-oriented public transport hub for the area, and is slated to be completed in 2028. It will feature a metropolitan complex transfer center to be a hub for various modes of public transportation, including buses, rail, and metro. The transfer center will be built on six floors in 150,000 m<sup>2</sup> of underground space. On the ground level, an ecofriendly green public square will be created. The bus transfer center and city air terminal will be placed on the first and second basement floors. The third floor will have a parking lot such that the complex can provide park and ride functionalities, absorbing private car users into the public transport network. The fourth basement floor will have four metropolitan railway stations for moving across the country through the KTX, GTX A, C, and Samseong–Dongtan railway lines. On the fifth and sixth basement floors, a light railway station connecting the suburbs and downtown will be located. Meanwhile, commercial, public, and cultural facilities will be located on the first and second basement floors, including an art gallery, a museum, a tourist information center, business meeting rooms, and a PR hall.

**Figure A3.4: Yeongdong-daero Underground Complex**



Gangnam is an area that was newly developed in the 1970s, with the purpose of dispersing the rapidly increasing and highly concentrated population of Seoul. The urban functions of

Gangnam centered around international business along the Teheran-ro Road, and global conventions and commerce along the Yeongdong-daero Road. With the turning of the millennium, Gangnam's industrial prominence as a global business hub representing the Republic of Korea grew significantly, and the 2030 Seoul Plan (the city's urban master plan) elevated the semi-central district into a main-central district to enhance Gangnam's global competitiveness. With the increasing strategic focus on Gangnam as a business hub, Seoul Metropolitan Government's strategic focus is on raising the city's global competitiveness by strengthening urban and regional connectivity through the development of human-centered future-oriented public transit hubs. To that end, the Yeongdong-daero Underground Complex in Yeongdong district of Gangnam will be developed as an international multi-use complex that is connected to six planned railway stations, metro lines, bus routes, and the adjacent Jamsil MICE Sports Complex.

**Figure A3.5: Yeongdong-daero Underground Complex Location**



However, despite these ambitions, Seoul Metropolitan Government faced significant hurdles in raising the capital required for the project, owing to fiscal constraints on infrastructure investments. First, local governments in Republic of Korea have less control over their tax

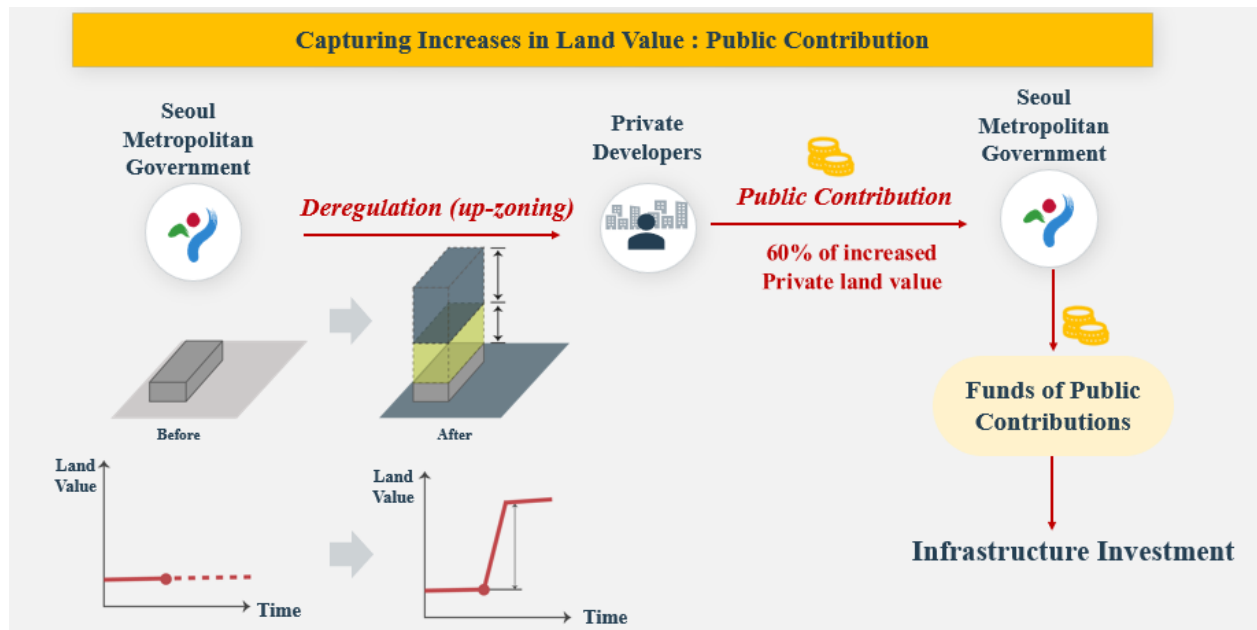
revenues compared with in many other countries. In 2021, local revenues accounted for more than 20% of total government revenues in most Organisation for Economic Co-operation and Development countries but only 18% in Republic of Korea. Second, much of the budget is already committed to mandatory policy spending, such as social support programs like Medicare and Social Security. In Seoul, 68% of the budget is mandatory spending, leaving only 31% discretionary. Lastly, social welfare spending is increasing in Seoul as a result of an aging population and low birth rates, leaving little room for additional infrastructure investment, with these constraints likely to become more severe in the future. Therefore, Seoul Metropolitan Government’s infrastructure investment approach has shifted away from relying on public procurement and state-owned enterprises to engaging more actively in public–private partnerships.

### Strategy/Approach

The Mixed-Use Development of Yeongdong-daero Underground Complex project is one of the largest development initiatives of areas adjacent to subway stations in Republic of Korea. It utilizes ‘public contributions,’ a form of land value capture mechanism leveraging private capital, as the main funding instrument for the project.

The term “public contribution” refers to cash paid by a private sector developer that is dedicated to the installation of public facilities and infrastructure, which comes from a portion of additional revenue gained as a result of changes to urban planning for a particular lot or area. In other words, this mechanism allows for the recovery of a portion of development costs through increases in private land value, resulting from an alteration of land use regulations. To illustrate, when Seoul Metropolitan Government allows up-zoning for private developers, land value increases as a result of higher possible floor area ratios. Private developers are then obliged to pay 60% of the increment in land value as a public contribution. Seoul Metropolitan Government accumulates these contributions in a dedicated fund for public contributions, which can then be earmarked for infrastructure investment.

### Figure A3.6: Public Contribution Instrument Overview



The Mixed-Use Development of Yeongdong-daero Underground Complex project is an example of a development project that utilizes this instrument. In 2016, Seoul Metropolitan Government allowed Hyundai Motor Company to develop a 79,000 m<sup>2</sup> site located in Yeongdong district into a business complex that features a 105 story building: the Hyundai Global Business Center. However, the proposed site was a residential zone; Seoul Metropolitan Government allowed for up-zoning the site into a commercial zone, enabling the proposed development to proceed. In return, Hyundai Motor Company paid a portion of the increased land value resulting from the up-zoning as a public contribution, which amounted to \$13 billion. Seoul Metropolitan Government was then able to utilize these public contributions to develop the underground transit facilities and public spaces that composed the Yeongdong-daero Underground Complex.

**Figure A3.7: Yeongdong-daero Underground Complex Project Model**



**Impact**

Although the project is still currently being implemented, the Yeongdong-daero Underground Complex is projected to serve as a central transportation hub for approximately 580,000 public transit users (train and buses) daily, greatly reducing travel time and public transport convenience for residents in the wider metropolitan area. The project is also expected to contribute towards the creation of an additional 12,000 new jobs, and to generate production inducements effects worth \$2.2 billion, and value-added effects worth \$700 million.

**How Has the City Developed the Capacities to Achieve the Above Results?**

In order to attract more private investment and land value capture opportunities, Seoul Metropolitan Government has introduced the “pre-negotiation system.” This is a procedure in which private developers and public entities engage in prior discussions to ensure the feasibility of urban planning changes and that public interests are secured when a private developer seeks to develop a site of over 5,000 m<sup>2</sup>. The system aims to promote balanced urban development and to activate private development projects by increasing the profitability of private developers through zoning changes and introducing a mechanism to divert a portion of development profits towards public infrastructure as public contributions.

In order to facilitate widespread knowledge and usage of this system, Seoul Metropolitan Government has established an online integrated counseling center through which all necessary information for stakeholders is openly available. Landowners who wish to utilize

private land can submit an inquiry, including on the location, area, development purpose, and objectives of the target area. The inquiry is then sequentially reviewed, and counseling is provided on how to engage with the city in detail. Furthermore, Seoul Metropolitan Government has introduced “pre-consultation” to support the planning phase of projects. If landowners and private developers who wish to pursue a development initiative through the pre-negotiation system have only a rough development concept, the city offers consultation to simultaneously establish a detailed development plan and conduct pre-negotiations, significantly simplifying the process for potential private sector partners in engaging with the city government. In addition, Seoul Metropolitan Government has shortened unnecessary project periods by providing “planning consultation,” in which experts in various fields review data together and derive alternatives when issues arise during the negotiation process.

## Case 10: Abu Dhabi Public–Private Partnership Framework to Facilitate Private Financing in the Infrastructure Sector

### Background

The Abu Dhabi Investment Office (ADIO) has outlined the public–private partnership (PPP) framework to be followed in the Emirate of Abu Dhabi. The Abu Dhabi PPP Law was introduced in 2019, followed by the Partnership Projects Guidebook in July 2020, which was made effective from 31 August 2020. The PPP framework was launched as part of the \$13.6 billion (AED 50 billion) Ghadan 21 accelerator program to boost Abu Dhabi's economy.

The regulations and the PPP framework in Abu Dhabi provide a robust legislative structure to support long-term private sector investment in the procurement and delivery of infrastructure assets.

The stakeholders involved in the development of the PPP framework include Abu Dhabi Executive Office, the Department of Finance, and Abu Dhabi Department of Economic Development.

### Strategy/Approach

The framework clarifies projects that can be approved in accordance with the PPP Law and enhances Abu Dhabi's ability to procure PPP projects across a wide range of sectors. It provides a consistent and clear procedure in line with international best practice. Furthermore, the program represents a clear signal of the Abu Dhabi government's commitment to PPP as a delivery model for major infrastructure projects.

The framework is underpinned by a four-stage process that covers the entire life-cycle of a project. At each stage, clear deliverables and key elements are specified. The government can propose projects in response to an identified need, but private sector providers are also encouraged to propose projects in the form of unsolicited proposals. This collaborative process promotes efficiency, transparency, and consistency, and allows for rigorous analysis and management of the proposed project throughout its lifetime, taking into consideration returns on investment, compatibility with the government's strategic aims, and community benefit.

### Impact

As a result of the PPP framework, ADIO announced in February 2020 its plans to procure infrastructure schemes worth \$2.72 billion. ADIO has since announced tenders in collaboration with the Abu Dhabi Department of Municipalities and Transport, and with Zayed City Schools in collaboration with the Abu Dhabi Department of Education and



Knowledge (in 2021). Furthermore, the Abu Dhabi Chemical Derivatives Company entered into agreements in 2022 with eight United Arab Emirates-based investors to invest in a portfolio of chemicals projects worth \$4 billion in the first PPP in the Abu Dhabi petrochemicals sector.

In January 2023, ADIO, in collaboration with Khalifa University, launched a PPP tender to deliver the accommodation and associated facilities for 3,250 students in Abu Dhabi, showcasing the efficiency of the PPP framework in expanding the role of the private sector in delivering public sector infrastructure and services for the education sector as well.

### **How Has the City Developed the Capacities to Achieve the Above Results?**

The government has identified partnership projects as a method of (i) accelerating infrastructure investment; (ii) accessing private finance; and (iii) improving the planning, delivery, quality, and sustainability of public assets and services.

ADIO developed a robust governance structure and stage-gate approval process consistent with global best practices and those best suited to the country's market. The progress was accelerated through (i) developing a PPP regulatory framework; (ii) providing clarity to the market in terms of the government's PPP strategy and its phasing, with an initial focus on availability-based PPP projects; (iii) developing the market in terms of promoting PPPs with seasoned international investors; and (iv) investing in structured technical workshops to assist in developing the local market in terms of PPP knowhow to ensure full participation from local investors, developers, contractors, and so on. The PPP guidebook and Supplementary Procurement Procedures of unsolicited proposals (the procurement manual) augment the effectiveness of the PPP regulations.

In terms of PPP policy development, the government has worked hand in hand with the Department of Finance of Abu Dhabi to complete the PPP accounting and budgeting policy specifically designed for Abu Dhabi's social infrastructure PPP program. The government has developed various guidance documents covering important procurer topics, such as value for money, discount rate methodology, and project selection criteria/suitability assessment.

#### **Sources:**

- Abu Dhabi Investment Office. [Infrastructure Partnerships. Public-Private-Partnerships](#)
- Abu Dhabi Investment Office. [Infrastructure Partnerships](#)
- Abu Dhabi Investment Office. [Infrastructure Partnerships. Partnership Projects Guidebook](#)
- Abu Dhabi Investment Office. [Infrastructure Partnerships. Supplementary Procurement Procedure: Unsolicited Proposals](#)

- Emirates News Agency. News Article on “Abu Dhabi Investment Office Launches Khalifa University Student Accommodation Tender Process”

## Case 11: European Union—InvestEU Advisory Hub

### Background

The InvestEU program supports sustainable investment, innovation, and job creation in Europe. It is built on three pillars.

- (i) The InvestEU Fund, expected to mobilize at least €372 billion of public and private investment through an European Union (EU) budget guarantee of €26.2 billion, supports investments by implementing partners such as the European Investment Bank (EIB) Group, the European Bank for Reconstruction and Development (EBRD), and other international financial institutions and national promotional banks. The EU budget guarantee increases their risk-bearing capacity.
- (ii) The InvestEU Advisory Hub, the second pillar of InvestEU, provides project advisory, capacity-building, and market development advisory support to public and private project promoters. Advisory support provided by the InvestEU Advisory Hub is fully aligned with EU headline policy priorities and objectives covered by the InvestEU program (e.g., climate, green and digital transition, support to small and medium-sized enterprises [SMEs], inclusive growth, and social investments). The advisory support is delivered through a number of advisory initiatives focused on four thematic policy sectors (also known as the four InvestEU policy windows): sustainable infrastructure; research, innovation and digitalization; SMEs; and social investment and skills.
- (iii) Finally, InvestEU Portal is an online database of investible EU-based projects, mostly start-up companies and SMEs seeking investments from private investors.

### Strategy/Approach

The InvestEU Advisory Hub:

- (i) Supports the identification, preparation, development, structuring, procurement, and implementation of investment projects;
- (ii) Enhances the capacity of promoters and financial intermediaries to implement financing and investment operations; and
- (iii) Supports awareness-raising and preparatory activities for investment areas that show a clear market gap.

The InvestEU Advisory Hub provides advisory support through six advisory partners. The EIB is the main advisory partner, implementing 75% of the advisory support actions, funded from the EU budget. The rest of the advisory partners, including the EBRD, the Council of

Europe Development Bank, and three national promotional banking institutions, implement the remaining 25% of advisory support funded by the InvestEU program.

## Impact

The advisory activities performed by the EIB under three specific advisory initiatives embedded under the InvestEU Advisory Hub (i.e., Joint Assistance to Support Projects in European Regions [JASPERS], InvestEU European Local ENergy Assistance [ELENA], and Circular City Centre [C3]) are particularly relevant in this context:

- (i) JASPERS: Since 2005 JASPERS has been assisting national, regional, and local authorities including cities in preparing high-quality, bankable infrastructure projects. It is cost-free for beneficiaries as the advisory costs are covered by the European Commission and the EIB. JASPERS has a multidimensional team of 100+ engineers and economists to prepare financially sustainable and economically viable projects in EU member states, but also in neighboring, pre-accession countries. Those projects were then successfully implemented with financial help of the EU and the EIB.
- (ii) InvestEU ELENA: InvestEU ELENA provides grant-funded advisory assistance to cities and municipalities across all EU member states to generate and develop sustainable investment programs in energy efficiency, integrated renewable energy, and sustainable transport in cities. InvestEU ELENA assists in developing bankable investments, including aggregation of smaller-size projects. An InvestEU ELENA grant covers up to 90% of the technical support cost needed to prepare the investment project for implementation and financing. Assistance in creating solid and sustainable business and related technical plans is expected to attract funding from private banks and other sources while substantially contributing to the EU investment objectives under the European Green Deal. InvestEU ELENA advisory support also contributes to building up the capacity of grant beneficiaries to develop bankable investments. The summary of each ELENA project is available in the ongoing and completed projects lists.
- (iii) C3: C3 is a competence and resource center within the EIB, which aims to support EU cities in their circular economy transition. It shares resources and practical information to support city-level circular action. It also provides circular city advisory services to support cities in their circular transition with a particular focus on productive investments targeting circular transition projects in the urban environment. Finally, it also helps raise awareness about relevant advisory and funding opportunities for circular projects. C3 helps cities address many of the linear problems they struggle with today, and to become more regenerative, resilient, clean, livable, and attractive to both

citizens and companies. C3 was launched in October 2021, and is currently in a pilot phase.

**Source:** InvestEU. [InvestEU Advisory Hub](#).

## Case 12: The C40 Cities Finance Facility’s Capacity Development Approach—Solarizing Public School Rooftops in Quezon City, Philippines

### Background

The C40 Cities Finance Facility (CFF) is a United Nations Framework Convention on Climate Change award-winning project preparation facility that focuses on three components: preparing climate-relevant infrastructure projects for financial readiness, linking to finance, and replication and scale-up.

The CFF uses the project preparation process as a vehicle to address capacity needs in cities to realize the cities’ projects. Therefore, capacity development is a key pillar of CFF support, aiming to strengthen the individual and institutional capacities of partner cities with the objective of enabling them to implement similar projects independently in the future. Embedding capacity development activities directly in the project preparation processes enables the city to refine the project approach, replicate it, and allow for timely realization.

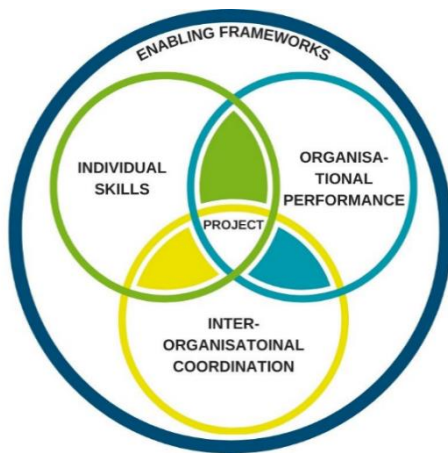
The Quezon City Government, Philippines, aspires to build a livable and green city for its ~3 million inhabitants. With the support of the C40 CFF, the Quezon City Government has identified financing for the installation of solar photovoltaic power (PV) systems on 50 public school and hospital rooftops throughout the city. Combined, the 50 solar installations will provide an annual 3,880 megawatt-hour (MWh) of clean energy. The project will help reduce greenhouse gas emissions by minimizing the consumption of electricity from fossil-fueled power plants, increasing energy security, and providing an opportunity to upscale the project to the archipelagos. It will also result in savings for schools and hospitals through lower electricity bills, which in turn can be used to fund educational projects and equipment. As public schools were closed during the coronavirus disease (COVID-19) pandemic, the city upscaled the initial project from school rooftops only to also include public health facilities.

One of the most significant barriers to city administrations developing innovative climate change infrastructure projects is access to finance. Financial institutions are often cautious to invest in transformative and ground-breaking projects unless they see robust preparation and sound business cases in place. With the support of the CFF, the city was able to identify a financing mechanism for the project through a plastic bag tax. The CFF supported Quezon City to renegotiate existing electricity contracts—from a flat-rate to a demand-based contract—to internalize savings resulting from the project.

### Strategy/Approach

To ensure the longevity of impacts, the CFF aims to create sustainable, systemic improvement in partner cities’ capacities, therefore contributing to transformational change. Each partner

city goes through an individual capacity assessment to receive a tailored support package that addresses key constraints the city is facing. A dedicated learning and training plan is developed and implemented jointly with the partner cities, based on the findings of the capacity development assessment, and monitored closely during and after the implementation phase.



The CFF draws on the distinction of three different levels of capacity development: individual skills and competencies, organizational performance, and inter-organizational coordination and cooperation systems. In addition, the CFF has identified the importance of strengthening the capacities of local entities to improve the enabling frameworks in the given sector and the strategic/normative context.

### Impact

To address challenges relating to organizational performance, the CFF provides an embedded expert in the city accompanying project management and decision-making processes. The embedded expert supports the city to establish an effective steering structure for the project and supports city focal persons to foster an environment of cooperation and trust across city departments and project stakeholders.

Capacity development activities enable city officials to plan, structure, and implement climate action projects, thereby contributing to the replication and upscaling of the projects. In addition, experiences and best practices are documented in knowledge products for other cities to draw from. Capacity development activities addressing key barriers relating to individual skills and competencies are aligned with the technical and financial project preparation process and integrated into the operational plan.

In QC, a 15-session training conceptualized as a mentorship program enabled city officials to better understand the intricacies of the energy sector—especially regulations and contracting modalities, collecting energy data independently, and applying digital applications for remote planning and maintenance—and successfully upscaled the project to additional sites. A key success was the adoption of software tools to plan and operate complex solar PV systems remotely—of special significance during COVID-19. The city staff was trained to provide the

training city internally to other departments and even conducted the training in three other Filipino cities and to the staff of the national development bank on a mentorship basis.

*“Through workshops with the CFF, the administrative team gained advanced knowledge of the technical side and how to support our colleagues in their hands-on work. We help regarding gathering data, smooth coordination between all colleagues, and securing political backing from the city government.”*

*Elena Liwayway Baskiñas, Acting Admin Officer, Office of City Administrator, Quezon City Government*

The 3 MW PV systems will be erected in 3 city-owned hospitals and up to 50 public schools. It is financed as part of the municipal green fund, which is fed by a municipal plastic bag tax. Annually, the project will amount to \$750,000 in electricity cost savings for the municipality and reduce carbon dioxide emissions by over 1,000 tons per year. The \$2.6 million procurement will be finalized during 2023. The project has a high replication potential of up to 5,000 public rooftops.

### **How Does This Initiative Support the City to Develop Its Capacities?**

A key aspect of the process in Quezon City entailed city staff preparing key components of the project internally. Involving city staff in every step of the process allowed them to carry out necessary steps on their own, which strengthens them for future application. The trained city staff replicated their knowledge and skills to further staff of other city departments and three other Filipino cities, as well as to staff of the national development bank. The CFF’s approach found the right balance between teaching and practical hands-on experience, which sets it apart from other technical assistance models.

**Source:** Solarizing Public School Rooftops in Quezon City—Impact Brief



## Case 13: ICLEI (Local Governments for Sustainability)—A Transition to Decentralized Renewable Energy for Brazil’s Youngest Planned City

### Background

Palmas is the state capital of Tocantins, located in the northern region of Brazil’s. It is the country’s youngest planned city, dating from 1989, and is now home to over 300,000 inhabitants. Brazil has extensive hydroelectric infrastructure, with around 48% of its energy sourced from dams, and Palmas is no exception. The city is home to seven hydroelectric dams over the Tocantins River with a total capacity of 12.8 gigawatt (GW)—but has some of the highest electricity costs in the nation. Hydroelectric power is connected to the national grid as per the stipulation of the Brazilian National Energy Regulation that the energy produced in each state go to the national grid to be sold in public tenders to local distributors.

This system creates inequalities between states as larger cities purchase more energy and are able to access lower prices while states with smaller populations, such as Tocantins, cannot take advantage of these economies of scale. Additionally, hydropower has proved increasingly unreliable in the country as a result of climate change-induced weather pattern changes. Fast-growing and dynamic, Palmas in particular needs to cater to the economic needs of an ever-increasing population while preserving its biodiverse environment. The city launched the Palmas Solar Program in 2015 in order to reaffirm its commitment to becoming the “ecological capital” of Brazil and to transition to a more decentralized, resilient model of energy production.

### Strategy/Approach

The project aimed to increase decentralized renewable energy use and adoption by private consumers, and used several different financial strategies to achieve this goal:

- (i) Tax incentives were provided for private sector adoption of decentralized solar energy generation in homes or businesses. Up to 80% subsidy of the municipal taxes—the Property and Urban Land Tax and the Real Estate Transfer Tax—was provided to participants for a period of 5 years.
- (ii) The solar photovoltaic (PV) installations were connected to the state electricity grid instead of the national grid, allowing surplus electricity to return to the power grid. A bi-directional metering system was used to track net consumption from each beneficiary in order to charge them only for the net electricity used.
- (iii) In order to mitigate the loss of tax revenue from the incentives provided through the Palmas Solar Project, the municipality increased the Property and Urban Land Tax prior to program launch. Overall, R\$7,800,000 (\$1,449,275) was invested in the solar energy market, which the city recovered during the first years of implementation.



- (iv) Additionally, the city invested R\$50,000,000 (\$9,290,225) in solar energy equipment for public facilities and schools, which is being installed through collaborations with local enterprises.

Palmas' utility board, the Technical and Scientific Congress of Engineering and Agronomy, was a key stakeholder in this project as it set technical guidelines and distribute energy in the area. Over 400 beneficiaries were part of the program as of 2019 and adoption was predicted to continue its increase pattern.

### **Impact**

The project has been successful in increasing the use of decentralized solar PV energy, with positive impacts on the economy and the environment:

- (i) As of 2020, the total installed capability is 3,860 kilowatt hours, with over 400 beneficiaries involved in the solar project. Private partners received a full return on investment within 2 years as well.
- (ii) Over 20 local solar enterprises were formed as a result of the policy, which stimulated the local replacing the tax revenue from the subsidies given to participants.
- (iii) Predicted climate benefits include a reduction in greenhouse gas emissions by 16,000 tons of carbon dioxide, a reduction in air pollution, an increase in biodiversity, and greater resilience.

### **How Has the City Developed Its Capacities to Achieve the Above Results?**

Palmas adapted the solar project as a formal part of its municipal budget. It modified the law, specifically the tax laws; this legislative inclusion of the project lends emphasis to the initiative. Additionally, the program is in line with Brazil's National Energy Strategy and Nationally Determined Contribution goals. It is mediated by the National Agency for Electric Energy, which guarantees national support to the program.

Local energy contexts and potential are also crucial to project success. Feasibility studies were conducted through partnerships with academic institutions and engineers in order to ensure that households were capable of generating the requisite levels of energy to justify the investment. Simulations were conducted by Palmas in order to identify potential risks and opportunities, thereby making implementation safer and smoother.

The program was deliberately designed to be open-ended, with seasonal objectives set to enable project officers to adapt to emerging needs. Regular monitoring and evaluation of the program is also conducted by officials in order to respond to contextual changes and enable planning of complementary initiatives to maximize the project's impact.

**Source:** ICLEI. Transformative Actions Program. [Palmas Solar Program](#).



## Case 14: World Bank–Tianjin Urban Transport Improvement Project

### Background

As a result of continuous economic and social development in Tianjin, the number of motor vehicles in densely populated areas has been subject to a sharp increase. Rapid growth in travel by motor vehicle in the city has led to traffic congestion and negative impacts on the urban ecological environment, undermining sustainable development. The urban public transport system has not fully played its role fully, with low use of green transport by urban residents, such as walking, cycling, and taking the bus, and low travel efficiency during peak hours.

### Strategy/Approach

In order to promote the development of non-motorized traffic and green transport, to encourage city residents to travel by walking, cycling, subway, etc., and to improve the urban green travel environment and urban quality, Tianjin Urban Transport Improvement Project (with World Bank financing) has been implemented, with the following major components: (i) a green transport improvement project in the core zones of the central urban area—to reconstruct part of the road network in the central urban area, optimize the layout of sidewalks and non-motorized lanes, increase the proportion of the special area for non-motorized traffic on the roads, improve traffic facilities, and promote sidewalks, greening and streetscape lighting; (ii) a subway connection project—to improve the transport environment around subway stations, renovate roads around stations, enhance the environment around station exits, improve and increase connection facilities such as bus bays and platforms, and optimize shared bicycle parking spaces; and (iii) construction of a new bus station and a supporting mechanical parking building.

### Impact

The construction of this project has significantly improved the travel environment for citizens, increased the efficiency of travel by motor vehicle, guaranteed the safety of non-motor vehicles and pedestrians, reduced the traffic accident rate, contributed to alleviating traffic congestion, improved the traffic environment, and enhanced travel quality and traffic safety.

### How Does This Initiative Support the City to Develop Its Capacities?

The capacity-building activities of local government focus on the following: establishing a coordination and promotion mechanism and solving existing problems in a timely manner; actively liaising with supervisory departments to reduce the time limit on the preliminary examination and approval of projects; strengthening finance management and meeting the

needs of project construction in a timely manner; strengthening safety and quality supervision and management, aiming at eliminating potential safety hazards; improving public participation; and ensuring the concept of “green transport” is deeply rooted among the people.



## Case 15: Transit-Oriented Development in Ahmedabad, India

### Background

Ahmedabad exemplifies an incremental approach to the implementation of Transit-Oriented Development (TOD). After struggling with declining ridership on public transit, in 2009 the city introduced a modern Bus Rapid Transit System (BRTS) called '*Janmarg*'. The operational success of the *Janmarg* catalyzed the use of policy directives that leverage the BRT to implement TOD. This city aims to curb sprawl by promoting a compact city structure with higher densities in zones with good access to public transit. The development plan emphasizes mixed land-use, high densities, public transportation, a grid-based pedestrian circulation network and a market-driven approach to land utilization for developing the city's central business district.

### Strategy/ Approach

- (i) **Transit Integration:** The TOD project focused on integrating multiple modes of public transportation, including the existing bus network and the proposed metro rail system, with the development of transit-oriented neighborhoods.
- (ii) **Compact Development:** The project promoted mixed-use development, where residential, commercial, and recreational spaces were integrated into the same area. This approach aimed to reduce travel distances and encourage walkability.
- (iii) **Pedestrian-friendly Infrastructure:** The TOD project prioritized the creation of pedestrian-friendly infrastructure, including wide sidewalks, dedicated bicycle lanes, and safe crossings, to encourage non-motorized modes of travel.
- (iv) **Affordable Housing:** The project aimed to provide affordable housing options within the TOD neighborhoods, ensuring access to housing for various income groups and reducing the need for long commutes.
- (v) **Public Spaces and Amenities:** The TOD project incorporated green spaces, parks, community centers, and public facilities within the neighborhoods, creating vibrant and inclusive spaces for residents.
- (vi) **Non-Motorized Transport:** The project encouraged the use of bicycles and walking as primary modes of travel by providing dedicated lanes, bike-sharing systems, and pedestrian-friendly pathways.
- (vii) **Placemaking:** The TOD programme provided areas to create public realm that are designed according to specific context or need of the area and characteristics of the space including conversion of private spaces into community space by creation of pedestrian pathways.

## Impact

The TOD project in Ahmedabad helped achieve the following advantages:

- (i) **Reduced Congestion:** The implementation of the TOD project resulted in a significant reduction in private vehicle usage, leading to reduced traffic congestion in the city.
- (ii) **Improved Accessibility:** The development of compact, mixed-use neighborhoods around transit stations enhanced accessibility to various amenities and services, reducing travel distances for residents.
- (iii) **Increased Public Transportation Usage:** Integrating various modes of public transportation within the TOD neighborhoods led to an increased usage of buses and the newly introduced metro rail system.
- (iv) **Sustainable Development:** The project created sustainable neighborhoods by incorporating green spaces, implementing eco-friendly infrastructure, and promoting renewable energy usage.
- (v) **Improved Quality of Life:** The TOD project positively impacted the quality of life for residents by providing affordable housing options, creating vibrant public spaces, and fostering a sense of community.
- (vi) **Resource Mobilization for Financing Urban Infrastructure:** The programme generates revenue through sale of additional FSI for infrastructure development, operations and maintenance. This enhances the long-term sustainability of TOD.

These impacts demonstrate the effectiveness of transit-oriented development in addressing urban challenges and creating more sustainable and livable cities.

## How Does This Initiative Support Cities to Develop Their Capacities?

- (i) **Integrated Planning:** The TOD project promoted integrated planning by bringing together various stakeholders, including urban planners, transportation authorities, housing agencies, and community representatives. This collaborative approach helped build the capacity of the city in coordinating and aligning different sectors towards a common goal of sustainable development.
- (ii) **Knowledge Sharing and Expertise:** The implementation of the TOD project involved the engagement of experts and consultants in urban planning, transportation, and sustainable development. These experts provided their knowledge and expertise to support the city in developing its capacities in TOD practices. Through knowledge sharing, training programs, and workshops, city officials and professionals could learn from best practices and apply them to future urban development initiatives.
- (iii) **Technical Assistance:** The TOD initiative provided technical assistance to the city authorities and relevant agencies. This assistance included conducting feasibility

studies, impact assessments, developing design guidelines, and providing support in implementing sustainable transportation and land-use strategies. This technical assistance helped build the capacity of the city to implement effective TOD projects and manage urban growth more sustainably.

- (iv) **Institutional Strengthening:** The TOD project strengthened the city's institutional capacity to manage and implement sustainable urban development initiatives. This involved establishing dedicated departments or units within the city administration to oversee transit-oriented development projects, develop regulations and guidelines, and monitor the progress and outcomes of the initiatives. The city was better equipped to handle future urban development challenges by strengthening its institutional capacity.
- (v) **Monitoring and Evaluation:** The TOD project emphasized the importance of monitoring and evaluation to assess the impacts and effectiveness of the implemented measures. By establishing monitoring frameworks and evaluation systems, the city gathered data, analyzed the outcomes, and learned from the experience. This monitoring and evaluation process helped the city build its capacity for evidence-based decision-making and adaptive management of urban development projects.

**Source:** [Transit Oriented Development for Indian Smart Cities – Case Study of Ahmedabad, National Institute of Urban Affairs \(NIUA\)](#)





## Urban Governance

### Case 16: ADB—Urban Governance and Infrastructure Improvement Project in Bangladesh

#### Background

*Pourashavas* (secondary towns) had poor infrastructure and services owing to inadequate governance, low community participation, deficient management, and limited financial resources.

- (i) Many did not have the institutional arrangements (e.g., committees, forums, etc.) for communities to collectively express their needs, preferences, and ideas to elected representatives and officials.
- (ii) They were generally managed by untrained staff and experienced delays in hiring staff for approved posts. Also, these towns could not generate sufficient revenues. From 2000 to 2002, only 29% of *pourashavas* collected more than half of their estimated holding tax, their most important revenue source. They depended on national government budgetary transfers, which accounted for more than half of the total funds for most of them.
- (iii) Further, women and the poor lacked access to essential services and had few livelihood opportunities despite their potential to contribute to the economy. They were also subjected to practices and norms that undermined female prosperity and safety, such as child marriage, domestic abuse, and unequal pay for equal work.

Urban Governance and Infrastructure Improvement Projects (UGIIPs)—supported and financed by the Asian Development Bank (ADB) since 2002—help achieve inclusive growth in Bangladesh through improving urban governance and infrastructure. They promote increased community participation and enhanced capacity of local governments to deliver services to the people.

#### Strategy/Approach

In 2022, ADB approved the First UGIIP, offering participating *pourashavas* performance-based financing: *pourashavas* receive funding for infrastructure improvement on meeting governance performance criteria. To holistically develop the *pourashavas*' capacity, ADB and the government introduced the Urban Governance Improvement Action Program (UGIAP), the centerpiece of the UGIIP strategy. This has been refined by each of the three successive UGIIP projects (Second UGIIP, Third UGIIP, and Additional Financing to Third UGIIP). The UGIAP under the Third UGIIP covered seven key areas of good governance, with as many as 28 sub-activities (see figure).

Approaches focused on strengthening local resource mobilizations were on (i) increasing stakeholders’ (taxpayers’) confidence in fair and transparent decisions through town-level coordination committees and ward committees; (ii) improving billing, collection, record management, and staff skills on municipal tax; (iii) conducting periodic tax assessment and reassessment; (iv) adopting pro-poor and gender-responsive budgeting (allocation of 2% of own-source budget for implementing poverty reduction action and implementation of the gender action plan); and (v) increasing tax performance.

**Figure A3.8: Key Areas of Governance Improvement in Urban Governance and Infrastructure Improvement Projects**



### Impact

The UGIIPs transformed 96 *pourashavas* in Bangladesh. Their performance-based fund allocation has proven effective.<sup>5</sup> UGIIPs have successfully improved financial capacity, service capacity, and residents’ awareness and participation. The UGIIPs have demonstrated that urban services can be improved by addressing local governance and institutional capacity.

Since the Third UGIIP began, all project *pourashavas* have nearly doubled their demand for holding and non-holding taxes, from \$6 million–\$11 million before the project to \$13 million–\$22 million. Collection efficiency before the Third UGIIP ranged from 30–40% to 80% of all holding taxes, and 100% of non-holding taxes were successfully collected. The increased revenue enabled *pourashavas* to achieve the mandatory UGIIP reforms of paying overdue bills, remaining current on electricity and telephone bills, and remaining on schedule with debt servicing; many of these accounts had been overdue and in deep arrears. Additionally, increases in local revenues have created resources for funding local public services, socioeconomic development, kindergartens, and campaigning for girl education.

<sup>5</sup> ADB. 2012. *The Urban Governance and Infrastructure Improvement Project in Bangladesh: Sharing Knowledge on Community-Driven Development*. Manila.



Major impacts achieved under the UGIIPs include the following:

- (i) The Local Government (Pourashava) Act 2009 institutionalized many UGIIP reforms, such as the formalization of standing committees such as (a) residents' awareness and participation committees, (b) town-level coordination committees and ward committees, (c) women and children's affairs committees, and (d) Poverty Reduction and slum improvement committees—resulting in enhanced public participation.
- (ii) The computerization of tax and accounting records led to increased tax collection efficiency.
- (iii) Climate change design considerations were introduced in road, drainage, water supply, and sanitation design standards.
- (iv) The development and implementation of *pourashava*-level gender action plans and poverty reduction action plans using *pourashavas*' own-source revenue brought dynamic changes to individual lives, communities, and towns through livelihood training and infrastructure improvements in slum and poor neighborhoods.

The approach adopted under the UGIIPs has been recognized in Bangladesh for its effectiveness, and there is high demand among *pourashavas* to participate in the UGIIP scheme. The government has replicated performance-based resource allocation in its annual budget allocation to *pourashavas* with set minimum criteria. Many externally funded projects are increasingly adopting this approach with customized criteria.<sup>6</sup>

### **How Have the Cities Developed Their Capacities to Achieve the Above Results?**

To increase *pourashavas*' capacities, the UGIIPs offered (i) financial incentives to achieve meaningful reforms; and (ii) technical assistance and capacity building to implement the reforms, including tax administration and local revenue enhancement. The chance to earn infrastructure funds was the incentive mechanism for reforms and strategy for shared growth.

UGIIPs established standing committees as mechanisms for involving the public more directly in municipal business, including but not limited to planning the annual *pourashava* budget, managing community development plans, and implementing development plans. UGIIPs informed the Local Government (Pourashava) Act of 2009 to recognize these standing committees. The committees are responsible for preparing and implementing development plans. They played a major role in implementing the UGIIPs through

---

<sup>6</sup> Japan International Cooperation Agency. 2013. *Northern Bangladesh Integrated Development Project*. Tokyo; and World Bank. 2013. *Municipal Governance and Basic Urban Services Improvement*. Washington, DC.

disseminating the scope of the UGIAP and the obligations and benefits of meeting the governance criteria.

**Sources:**

- ADB. 2022. *Incentivizing Change: How Governance Reforms Are Changing the Urban Landscape of Bangladesh.* Manila.
- ADB. 2015. *Strengthening Municipal Governance Through Performance-Based Budget Allocation in Bangladesh.* Manila.
- ADB. 2012. *The Urban Governance and Infrastructure Improvement Project in Bangladesh: Sharing Knowledge on Community-Driven Development.* Manila.

## Case 17: Smart City Mission India – Integrated Control and Command Centre

### Background

The Integrated Control and Command Centre (ICCC) is a centralized facility that efficiently manages and monitors various urban services and systems. Its primary purpose is to integrate data from multiple sources, analyze it in real time, and provide actionable insights to city authorities for effective decision-making and improved service delivery. It is a key component of the Smart City Mission, a national initiative to transform 100 cities in India into smart cities. Some of the key features and functions of the ICCC include:

- (i) **Data integration:** The ICCC integrates data from various sources, such as sensors, internet of things (IoT) devices, surveillance cameras, public utilities, transportation systems, weather stations, and social media feeds. This data is collected in real time and provides a holistic view of the city's operations.
- (ii) **Command and control:** The ICCC is a central command and control hub, enabling city officials to monitor and manage different urban services and systems. It allows centralized control over street lighting, waste management, water supply, traffic management, public safety, emergency response, and other essential services.
- (iii) **Real-time monitoring and alerts:** The ICCC provides real-time monitoring of various urban parameters and alerts city officials in case of any anomalies or emergencies. For example, it can detect abnormal traffic patterns, identify areas with high pollution levels, or pinpoint incidents of crime or fire. This enables prompt action and efficient resource allocation.
- (iv) **Predictive analytics:** The ICCC utilizes advanced analytics and machine learning algorithms to analyze historical and real-time data. This helps in predicting trends, identifying patterns, and making data-driven decisions. For instance, it can predict traffic congestion, optimize waste collection routes, or detect potential flood-prone areas based on rainfall patterns.
- (v) **Citizen services:** The ICCC facilitates citizen engagement by providing access to information and services through digital platforms. It enables residents to report issues, request services, and receive updates on city developments. This promotes transparency, accountability, and citizen participation in urban governance.
- (vi) **Emergency response:** In case of emergencies like natural disasters, accidents, or public health crises, the ICCC plays a crucial role in coordinating and mobilizing resources. It enables quick dissemination of information, real-time coordination between agencies, and efficient deployment of emergency services.

### Strategy/ Approach

The strategy ensures that the ICCC effectively integrates various urban services and systems, addresses city-specific challenges, fosters stakeholder engagement, and promotes sustainable and inclusive urban development. The approach consists of the following:

- (i) **Mission guidelines:** The Smart Cities Mission provides a framework and guidelines for implementing the ICCC. It outlines the objectives, scope, and key components of the ICCC and its integration with other smart city initiatives.
- (ii) **Phased implementation:** Implementation of the ICCC follows a phased approach. Cities prioritize services and systems based on their impact and feasibility. Implementation is carried out in stages, starting with a few pilot projects and gradually expanding to cover the entire city. This approach allows for learning, testing, and making necessary adjustments along the way.
- (iii) **Data integration and interoperability:** This involves establishing protocols, standards, and systems for collecting, aggregating, and processing data from various sources. The aim is to ensure seamless data exchange and compatibility between different systems integrated into the ICCC.
- (iv) **Capacity-building:** Cities focus on capacity-building to enhance their expertise and capabilities in managing the ICCC. This involves training city officials, staff, and relevant stakeholders on the use of new technologies, data analytics, decision-making processes, and governance frameworks related to the ICCC.
- (v) **Monitoring and evaluation:** Continuous monitoring and evaluation mechanisms are established to assess the performance and impact of the ICCC. Key performance indicators are defined to measure progress and identify areas for improvement. Regular reviews and feedback loops are put in place to ensure the ICCC aligns with the evolving needs of the city.
- (vi) **Knowledge-sharing and replication:** Cities participating in the Smart Cities Mission share their experiences, best practices, and lessons learned from implementing the ICCC. This facilitates knowledge-sharing among cities, enabling them to replicate successful models and avoid common pitfalls.

## Impact

The impact of ICCCs have been significant in a number of areas, including:

- (i) **Improved traffic management:** ICCCs have helped improve traffic management by optimizing traffic flow, reducing congestion, and improving road safety. In Agra, 63 junctions equipped with Adaptive Traffic Control Systems, along with Intelligent Traffic Management Systems at 43 junctions, have helped improve green light time distribution

and have reduced traffic congestions by creating a smoother flow of traffic, and can detect traffic signals 24\*7 for a 100 meter road segment.<sup>7</sup>

- (ii) **Increased public safety:** ICCCs have helped increase public safety by monitoring suspicious activity and providing real-time information to law enforcement officials. With the help of city surveillance system and video evidence, Raipur police had solved 1,700+ cases by 2021.<sup>8</sup>
- (iii) **Reduced waste disposal costs:** ICCCs have helped reduce waste disposal costs by optimizing waste collection and disposal and promoting recycling. Smart bin sensors in over 900+ bins have improved the collection of waste and generated immediate alerts in cases of service-level agreement violation in New Delhi.<sup>9</sup>
- (iv) **Improved water management:** ICCCs have helped improve water management by optimizing water usage, reducing water leakage, and promoting rainwater harvesting. In Coimbatore, monitoring of water supply and management through supervisory control and data acquisition (SCADA) helped in reducing water complaints and in the immediate resolution of water leakages.<sup>10</sup>
- (v) **Enhanced disaster management:** ICCCs have helped enhance disaster management by providing real-time information on the situation and coordinating the responses of various agencies. In Puducherry, the ICCC early warning system helps in the timely evacuation of vulnerable citizens leading to a reduction in the loss of lives.<sup>11</sup>
- (vi) **Functioned as COVID-19 “war rooms” during the pandemic:** ICCCs functioned as war rooms for COVID-19 management and, along with other smart infrastructure developed under the mission, helped cities in fighting the pandemic through information dissemination, improving communication, predictive analysis, and supporting effective management. In Bengaluru, the data dashboard reported real-time data, such as the number of people in quarantine with their contacts, availability of medical personnel, and hospitals all across the city.<sup>12</sup>

## How Does This Initiative Support Cities to Develop Their Capacities?

Implementation of ICCCs has supported cities in building their capacities in technology adoption, data management, stakeholder engagement, urban planning, decision-making, emergency management, and knowledge-sharing. It enables cities to leverage digital

<sup>7</sup> [ICCC Smart Cities – Agra Mobility Case Study](#)

<sup>8</sup> [ICCC Smart Cities – Raipur Safety and Security Case Study](#)

<sup>9</sup> [ICCC Smart Cities – NDMC Water, Sanitation, and Hygiene Case Study](#)

<sup>10</sup> [ICCC Smart Cities – Coimbatore Water, Sanitation and Hygiene Case Study](#)

<sup>11</sup> [ICCC Smart Cities – Puducherry Disaster Management Case Study](#)

<sup>12</sup> PIB. 2020. [Smart City Missions Integrated Data Dashboards Being Used at ICCC to Monitor COVID-19.](#)

solutions, optimize resources, and improve their overall governance and service delivery capabilities. A few of these are described below:

- (i) **Technology adoption:** Establishment of an ICCC requires adoption of advanced technologies such as IoT, data analytics, artificial intelligence, and communication systems. By implementing these technologies, cities have developed their technical capacities and expertise in managing and leveraging digital solutions for urban management.
- (ii) **Data management and analytics:** Cities have developed data management capabilities to handle diverse datasets, ensure data quality and privacy, and derive actionable insights from the data. This includes skills in data analytics, data visualization, and data-driven decision-making.
- (iii) **Emergency preparedness and response:** By integrating emergency response systems, monitoring capabilities, and communication networks, cities have improved their capacity to handle crises, coordinate emergency services, and disseminate timely information to the public.

**Source:** Ministry of Housing and Urban Affairs. [ICCC](#)



## Capacity Building

### Case 18: European Union—URBACT

#### Background

Since 2002, URBACT has been driving change all over Europe by enabling cooperation and idea exchange among cities within thematic networks, by building the skills of local stakeholders in the design and implementation of integrated and participatory policies, and by sharing knowledge and good city practices. URBACT proposes capacity-building activities and tools for city representatives and urban professionals.

#### Strategy/Approach

URBACT has developed a series of processes and tools, as a part of the URBACT Method. It encourages cities to rethink centralized governance structures and shift towards more inclusive and holistic models. URBACT's participatory approach recognizes that sustainable urban development is driven by action-oriented strategies, which are co-created and implemented with local people.

For the period 2021–2027, URBACT IV integrates the crosscutting European Union (EU) priorities of digital, green, and gender-equal policy-making into its activities. In addition, for the first time, URBACT provides support to towns and cities in EU pre-accession countries—Albania, Montenegro, North Macedonia, Bosnia-Herzegovina, and Serbia. Their participation in the URBACT program is financed by the EU's Instrument for Pre-Accession Assistance (IPA). The program is co-financed by the European Regional Development Fund with a budget of over €79 million and by the IPA with a budget of €5 million for the period 2021–2027.

#### Impact

URBACT is widely recognized for building the skills of city staff and stakeholders in designing and implementing integrated policies in a participatory way. Capacity-building activities include workshops, universities, a national campus, online interactive sessions, and practical tools to be used in a collaborative way.

#### How Does This Initiative Support Cities to Develop Their Capacities?

While most capacity-building activities are reserved for cities that are involved in networks, the URBACT Toolbox is open to all within and beyond URBACT. The Toolbox provides a comprehensive set of guides, videos, and templates for all stages of the action-planning

process—from analyzing problems to measuring results, while engaging with local stakeholders and sharing knowledge.

**Source:** [URBACT](#)

## Case 19: European Union—European Urban Initiative

### Background

Launched in 2022, the European Urban Initiative (EUI) provides support for cities to improve and increase their capacity in designing sustainable urban development strategies, policies, and projects.

### Strategy/Approach

The EUI is an essential tool to support cities of all sizes, to build capacity and knowledge, to support innovation, and to develop transferable and scalable innovative solutions to urban challenges of European Union (EU) relevance. EUI has a total European Regional Development Fund (ERDF) budget of €450 million for 2021–2027 to create and offer opportunities and an environment for implementing bold urban strategies. These projects test new solutions, techniques, and planning models, building capacities and sharing knowledge in sustainable urban development.

EUI takes its roots in a strong commitment to strengthen the urban dimension of EU policies and the conviction of the EU that cities must be involved in the design and implementation of policy responses to their local challenges.

### Impact

The capacity-building component of EUI seeks to improve and increase the capacities of cities in the design of sustainable urban development policies, strategies, and practices in an integrated and participative way. It also contributes to the design and implementation of these policies and action plans on a local, regional, and national level. This element encompasses cooperation with URBACT IV networks of cities, as well as peer learning activities and Urban Development Network-type capacity-building.

The EUI provides different levels of assistance:

- (i) Supporting urban authorities with up to 80% direct co-financing and up to €5 million from the ERDF, allowing EU cities to experiment as testbeds for their innovative idea and transferring it to other cities;
- (ii) Strengthening capacities of cities in the design of sustainable urban development strategies, policies, and practices in an integrated and participative way; and
- (iii) Providing a knowledge environment for cities to ensure easier access to horizontal and thematic knowledge and to share the know-how on sustainable urban development.

### How Does This Initiative Support Cities to Develop Their Capacities?

Building on previous Urban Development Network activities, European Commission Joint Research Center knowledge, and the Technical Assistance and Information Exchange mechanism, as well as Urban Innovative Actions capitalization work, these activities aim to:

- (i) Improve the capacities of cities to design and implement sustainable urban development strategies, policies, and practices in an integrated and participative way; and
- (ii) Improve the quality of the design and overall implementation of sustainable urban development strategies, policies, and practices.

There are three key activities:

- (i) City-to-city exchanges;
- (ii) Peer reviews; and
- (iii) Capacity-building events.

**Source:** European Urban Initiative. [Capacity-building for Cities](#).

## **Case 20: The ABC of Successful Investment Projects Preparation – Project Preparation and Readiness Program for Public Officials to Deliver Sustainable Infrastructure Investment Projects at the Subnational Level**

### **Background**

The ABC of Successful Investment Projects Preparation – Project Preparation and Readiness Program (or the PreP course) was designed by FELICITY (Financing Energy for Low-Carbon Investment – Cities Advisory Facility), an initiative financed under the German International Climate Initiative (IKI) and implemented jointly by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in cooperation with the European Investment Bank (EIB). Until 2022, FELICITY supported the preparation of sustainable, climate-friendly infrastructure projects in Brazil, Ecuador, Indonesia, and Mexico to realize their emission mitigation potential in the areas of energy, transport, waste, and wastewater. FELICITY worked on closing the gap between urban development planning and infrastructure project financing by providing tailored support to financial intermediaries and cities to make their low-carbon infrastructure projects bankable for EIB lending. One area of work was delivering capacity-building in local governments and institutions, and specifically improving capacities for project preparation and implementation.

The PreP course was part of this objective and was designed for participants to acquire knowledge on the local preparation of bankable, low-carbon infrastructure projects. The initial idea of the PreP was adapted during COVID-19, and the training was delivered in cooperation with the Government of Mexico, the Cities Climate Finance Leadership Alliance (CCFLA), and C40 Cities Finance Facility (C40 CFF) in an online format comprising a series of live webinars between September and November 2020. The material has subsequently been uploaded to an online learning platform, making it accessible to participants all over the world.

### **Strategy/Approach**

The PreP online course aims to offer project promoters a series of webinars and courses. The course is available in Spanish and English and seeks to provide an overview of the phases required in the formulation and presentation of low-carbon investment projects that are resilient to the impacts of climate change. The course also seeks to equip participants with access to networks, international organizations, content experts, and other relevant resources.

The target audience includes municipal project promoters and public authorities (ministries) as well as national development banks. It comprises a mix of obligatory and voluntary sessions, 11 recorded webinars, presentations shared by speakers, introductory readings of each topic/session, assessment activities, participation in exchange and discussion forums,

additional resources, videos, readings, etc. The learning material is now available as an e-learning course (soon on the e-learning platform [atingi](#)).

## Impact

Various stakeholders were engaged in the development of the training program, including more than 40 national and international panelists from institutions like CCFLA, the Inter-American Development Bank (IDB), the Mexican National Development Bank Banobras, the C40 Cities network, and others. The course was delivered live in cooperation with the Government of Mexico, with more than 100 participants, mainly from Mexico. However, the course also reached a global audience, with participants from a total of 18 countries. At the end of the guided version of the training, 82 participants submitted their own project proposals. A total audience of about 2,000 professionals was reached overall by PreP.

The course delivered knowledge on preparing and financing urban infrastructure projects across different sectors and along different stages of the infrastructure project lifecycle, on identifying challenges and opportunities for resilient and low-carbon financing projects, and on different important elements of making infrastructure projects bankable, like conducting cost-benefit analyses and social and environmental impact assessments. It also aimed to improve the capacity of policy-makers to apply a gender lens in their infrastructure work and identify opportunities of digitalization. Delivering inputs on water, waste management, energy efficiency, transportation and mobility, and ecosystem-based adaptation, the course targeted various sectors, from which participants could choose the most relevant for their own work.

In future, the course will be replicated in other regions of the world and more concise global introductory e-learning will be developed.

## How Have Local Governments Developed Their Capacities to Achieve the Above Results?

Participant feedback was very positive. Respondents highlighted their learning experience concerning requirements for project finance and how to improve the chances of receiving finance for an infrastructure project. They also emphasized their acquisition of knowledge on the different stages of the infrastructure project lifecycle, how to incorporate environmental themes, and how different institutions could help with financing in different project stages.

## Sources:

- Link to the e-learning: <https://ccfla-prep.org/en/> (please be aware that the course will soon be available on [atingi](#))



- Link to the PreP flyer: [https://iki-alliance.mx/wp-content/uploads/GIZ\\_PreP\\_en.pdf](https://iki-alliance.mx/wp-content/uploads/GIZ_PreP_en.pdf)

## Case 21: The Five Steps for Cities Program in the Russian Federation – Positive and Rapid Urban Transformation for All Citizens

### Background

Human capital largely determines the economic growth of a city, region, and country. At the same time, improving quality of life does not always depend directly on economic growth or the implementation of large-scale investment projects. People are concerned about everyday things: old and dark porches creating a sense of danger; not enough containers for separate waste collection; lack of places for young people to meet and socialize in their neighborhood; lack of events in residential areas, parks, and other green areas close to home.

All this reinforces the trend of young people in the Russian Federation leaving smaller cities for larger cities. Consequently, there is a shortage of specialists to work in manufacturing and agricultural enterprises and to develop local businesses.

In this context, the State Development Corporation, VEB.RF, has developed the Five Steps for Cities program, which offers ready-made low-cost project solutions aimed at improving the lives of city dwellers.

### Strategy/Approach

This program is an instrument for interaction between the state corporation and cities of the Russian Federation. Any city can participate in the program on an application basis. As a result, the total number of participants is more than 350 cities. Given the heterogeneity of cities, participants have been graded into five groups (A/B/C/D/E), based on population size and level of socioeconomic development.

The program consists of 5 directions (“steps”), for each of which there is a palette of 36 project solutions (tracks) for the transformation of public spaces and filling urban life with rich events. Among them, priority tracks that must be fulfilled are highlighted.

Participants of the program make a list of tracks to be implemented, based on the proposed palette. The main rule for track selection is as follows:

- (i) Cities of groups A, B, C select at least three tracks in each of the five steps, two of which are priority.
- (ii) Cities in groups D, E select at least one track in each of the five steps.

**Step 1 “City nearby”** – comfortable environment and functional diversity close to home:

- pocket parks (priority);
- stop pavilions;
- dog walking areas (priority);



- conversion of post offices;
- renovation of residential building entrances (priority);
- clean grocery storefronts.

**Step 2 “Save the planet”** - environmental impact reduction and environmental education:

- cleaning up riverbanks and water bodies;
- tree planting and maintenance (priority);
- separate waste collection points (priority);
- fandumats – plastic bottle recycling device (priority);
- environmental trails;
- ecological corners in schools, universities.

**Step 3 “Breathe life”** – expanding the possibilities of using urban spaces:

- public art involving residents (priority);
- neighborhood youth centers (priority);
- test landscaping of abandoned areas;
- urban artefacts;
- temporary pedestrian spaces;
- temporary car park improvements (priority).

**Step 4 “Add energy”** - creating conditions for healthy lifestyles:

- cycling infrastructure (priority);
- farmers’ markets, fairs, and community gardens (priority);
- inclusive play and sports grounds (priority);
- sites for extreme sports;
- service points in parks;
- facilities for winter sports.

**Step 5 “Gather your own”** – a city that opens up opportunities for creativity and is filled with vibrant events:

- city picnics (priority);
- open bike rides;
- local music events;
- workshops on urban environment development (priority);
- healthy food festivals;
- backyard sports competitions;
- film screenings;
- practical urban laboratories;
- ecological lectures and workshops;
- swap parties (eco-parties with an exchange of things) (priority);
- eco-walks;

- city tours.

The timeframe for the Five Steps for Cities program is from May 2022 to March 2024. The program is implemented in three phases:

### **Stage 1: Project selection**

The collection of citizens' ideas on the program website – from 16 May to 5 August 2022 – and the selection of projects by the city administrations – until 30 September 2022.

### **Stage 2: Work on projects**

Implementation of projects and submission of project evaluation reports – from 30 September 2022 to December 2023.

### **Stage 3: Project evaluation**

Final evaluation of projects, selection of best projects of the program – from January to March 2024.

Direct executors of the program are administrations of urban municipalities. The program does not envisage allocation of funding for project implementation, but at the same time provides methodological recommendations on possible sources of funding in the context of each track. Moreover, the program provides an opportunity for businesses to build communication with city administrations and contribute to their development.

## **Impact**

At the moment, the program is in the second stage of project implementation, but some results have already been achieved:

- (i) More than 150 partnership applications have been received, from small, medium and large businesses and individual entrepreneurs.
- (ii) To involve young people in project implementation, partnership programs have been formed with the largest Russian investment technology corporation VKontakte, the Federal Agency for Youth Affairs, the Presidential Platform Russia – “Land of Opportunities,” and the Russian autonomous non-profit organization Agency for Strategic Initiatives to Promote New Projects.
- (iii) To date, more than 800 projects have been implemented across the country (in total, over 3,000 projects are planned to be implemented by cities).

## How Have Cities Developed Their Capacities to Achieve the Above Results?

The program contains detailed explanations for municipalities in terms of not only technical implementation of the proposed 36 tracks but also public involvement tools and various sources of funding, both budgetary and extra-budgetary.

The program is a clear box solution and can be replicated in any territory. It is also a platform for communication between municipalities and exchange of experiences and best practices.

The actual implementation by local authorities of more than 800 projects demonstrates the effectiveness of the program.

### Sources:

- <https://finance.rambler.ru/economics/48462490-veb-rf-zapustil-novuyu-programmu-po-uluchsheniyu-kachestva-gorodskoy-sredy/?ysclid=lhrl9mx7hy82164436>
- <https://tass-ru.turbopages.org/turbo/tass.ru/s/obschestvo/15424833>
- <https://expert-ru.turbopages.org/expert.ru/s/2022/09/12/rossijskiye-goroda-khotyat-stat-luchshe/>
- <https://reo.ru/tpost/bknekm8pd1-reo-stal-pervim-partnerom-programmi-veb>
- [https://www.ekburg.ru/news/adm\\_v\\_smi/10/89987-pyat-shagov-dlya-gorodov-v-god--letiya-ekaterinburga-programma-dast-impuls-vazhnyim-preobrazovaniyam/?ysclid=lhrl86dnnb411823811](https://www.ekburg.ru/news/adm_v_smi/10/89987-pyat-shagov-dlya-gorodov-v-god--letiya-ekaterinburga-programma-dast-impuls-vazhnyim-preobrazovaniyam/?ysclid=lhrl86dnnb411823811)
- <https://yakutskcity.ru/press-tsentr/yakutsk-uchastvuet-v-programme-veb-rf-5-shagov-dlya-gorodov-po-izmeneniyu-gorodskoy-sredy/?ysclid=lhrl90019214741732>
- <https://kvobzor-ru.turbopages.org/turbo/kvobzor.ru/s/news/i46540>
- <https://taganrogprav-ru.turbopages.org/turbo/taganrogprav.ru/s/taganrog-voshel-v-programmu-veb-rf-5-shagov-dlya-gorodov/>

## Case 22: The National Urban Learning Platform in India

### **Background**

The Ministry of Housing and Urban Affairs of the Government of India introduced the National Urban Learning Platform (NULP) to develop the capacities of urban development practitioners, engage various actors to play a role in upskilling the staff, and thereby address urban challenges.

The objective is to create an Urban Learning Platform, supplementing traditional capacity-building with online learning to enhance the skills of urban practitioners in an ever-changing ecosystem. The main elements of NULP include a marketplace via a mobile-first approach; simple to use tools to create, share, and consume content; collating demand dynamically from the field; reward and recognition frameworks; and user feedback to ignite a culture of social learning in the community of urban practitioners. NULP aims to empower India's urban functionaries, administrators, elected representatives, civil society, industry actors, and other ecosystem players to build smart, inclusive, sustainable, and resilient cities. NULP is built on tenets of peer learning where such users are learners and creators of content sharing on-the-ground experience, success stories, and insights.

### **Strategy/ Approach**

This program encompasses key aspects of a capacity-building and leadership development initiative in the city's ecosystem at this scale. The primary underlying approach is co-creation through participation by cities and identification of areas where skills-building is required.

- (i) **Inform** benefits envisioned from creating learning opportunities and the need for continuous upskilling;
- (ii) **Assess** the readiness of participating cities to devise a better suited onboarding plan;
- (iii) **Establish** a governance structure in line with city's development goals;
- (iv) **Source** high-quality resources in the urban domain through partnerships;
- (v) **Enhance** the platform to improve upon itself and cater to the end users changing needs;
- (vi) **Track** platform-level key performance indicators for informing data-driven decisions for the platform; and
- (vii) **Drive** participation and adoption among learners through continuous content curation, management, engagement, and knowledge exchange.

### **Impact**

- (i) **Knowledge-sharing:** NULP is a central repository of urban-related knowledge, including research reports, policy documents, case studies, and success stories. Urban

professionals from different cities and organizations can contribute and access this information, promoting knowledge-sharing and learning across the country.

- (ii) **Capacity-building:** NULP offers online training courses, webinars, and workshops to enhance the skills and capacities of urban professionals. These programs can cover various aspects of urban development, such as urban planning, governance, smart cities, sustainable development, and more.
- (iii) **Collaboration and networking:** NULP facilitates collaboration and networking among urban professionals. It may include discussion forums, virtual communities, and networking opportunities, enabling professionals to collectively connect, exchange ideas, and form partnerships to address urban challenges.
- (iv) **Best practice exchange:** NULP features a platform for sharing best practices and innovative solutions in urban development. Urban professionals can showcase successful projects and initiatives, allowing others to learn from their experiences and replicate effective strategies in their own contexts.

### How Does This Initiative Support Cities to Develop Their Capacities?

The NULP has launched an urban learning challenge, the ॐRban (Urban) Learnathon, intending to recognize and celebrate best practices and innovations in the form of urban solutions, and to foster collaborative learning. The 10 indicative themes on innovative urban solutions cater to Municipal Finance; Town Planning & Housing; Urban Mobility & Accessibility; Sewerage & Sanitation; Environment & Climate; Social Aspects; Water Supply & Management; General Administration; Data Governance & Analytics; and Urban Management & E-Governance.

At the end of the Learnathon, NULP will have the best urban solutions and ideas from municipal, smart city, and state employees, which ultimately redefines peer-to-peer learning.

#### Sources:

- [National Urban Learning Platform](#)
- [NULP – An Ecosystem Approach to Capacity Building](#)
- [Strategic Approach to Empower Urban India’s Capacity Building Communities](#)