



# Supporting Access to Climate Finance for Small and Intermediary Cities: A Guide for Project Preparation Facilities

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## EXECUTIVE SUMMARY

Cities with fewer than 1 million inhabitants accounted for 58% of the urban population in low- and middle-income countries (LMICs) in 2020 (OECD & UN Habitat, 2022). Furthermore, estimates show that small and intermediary cities will account for much of the future urban growth in the coming decades<sup>1</sup>. There is an urgent need to implement low-carbon development and facilitate adaptation to climate change impacts across a wide range of sectors, such as energy, transport, the built environment, urban ecosystem services, and water management in small and intermediary cities. However, often there are capacity and resource limitations in smaller municipal governments, and such cities struggle to compete with larger cities in similar contexts to access project preparation assistance and project financing for climate action. It is also important to highlight that fewer than 20% of the 500 largest cities in LMICs, and hardly any of the smaller cities, are considered creditworthy by international or national ratings, restricting their access to commercial finance.

Therefore, **this guide focuses on the role of Project Preparation Facilities (PPFs) in helping municipal governments and other public sector entities in small and intermediary cities unlock greater access to finance for climate infrastructure projects.** PPFs active in the urban climate finance space are well positioned to help these cities prepare sustainable projects and access finance – whether private or public, domestic or international. To do so, PPFs often need to tailor their support to best target the needs of small and intermediary cities. This guide divides both barriers and recommendations into three themes, which capture the most severe barriers to financing infrastructure projects: i) Addressing Municipal capacity and skills gaps and access to PPF support; ii) Addressing city and project size constraints; and iii) Addressing poor municipal creditworthiness, summarized below. PPFs can support each other in implementing strategies to support small and intermediary cities through knowledge sharing and collaboration.

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<sup>1</sup> In this guide, we have defined cities ranging in size from 10,000 to 200,000 residents as small, while intermediary cities may be larger depending on their national context and regional role.

**Figure 1:** Themes and recommendations to support bankable projects in small and intermediary cities

<b>Addressing municipal capacity, skills gaps, and access to PPF support</b>	<ul style="list-style-type: none"> <li>Create a call for proposals specifically for small and intermediary cities.</li> <li>Provide early-stage support to define and prioritize high-impact and feasible climate action projects.</li> <li>Use existing contextual knowledge previously acquired by the PPF to support other cities in the same country.</li> </ul>
<b>Addressing project size constraints</b>	<ul style="list-style-type: none"> <li>Design aggregation models that provide market access to small and intermediary cities.</li> <li>Facilitate partnerships and identify synergies between municipalities, municipal companies, and other entities like international organizations or national financial institutions.</li> </ul>
<b>Overcoming poor creditworthiness</b>	<ul style="list-style-type: none"> <li>Support the design and implementation of blended finance models with risk mitigation instruments to address the financial barriers for projects in smaller cities.</li> <li>Support the design of public-private partnerships that do not require municipal borrowing.</li> <li>Support cities to borrow from national or regional development banks, which can apply concessional rates, risk mitigation instruments, and technical assistance.</li> <li>Support municipalities to explore land value capture as a mechanism for cities to fund infrastructure projects and increase their own resources.</li> <li>Support the design and implementation of community-based instruments.</li> </ul>

## THEME 1: ADDRESSING GAPS IN MUNICIPAL CAPACITY, SKILLS, AND ACCESS TO PPF SUPPORT

The first theme addresses limited human resources and budget for training and skill development of typically small and intermediary city governments in LMICs. Municipalities often need a higher capacity to define and prioritize projects that can maximize climate impact within a specific context. They also experience a severe lack of access to support from PPFs. Strategies to overcome these barriers include, 1) creating PPF calls for proposals specifically for small and intermediary cities, 2) providing early-stage support to define and prioritize high-impact and feasible climate action projects, and 3) using existing contextual knowledge that was previously acquired by the PPF to provide support to other cities in the same country.

## THEME 2: ADDRESSING CITY AND PROJECT SIZE CONSTRAINTS

The smaller size and the limited scalability options of green infrastructure projects in small and intermediary cities often present a challenge for financing, particularly where transaction costs for each project tend to be high. There is also typically a need for coordination within and between cities to identify synergies and priority actions that can be jointly financed. To overcome this, PPFs can focus on 1) designing aggregation models that provide more viable financing opportunities for projects in small and

intermediary cities and 2) facilitate partnerships and identify synergies between municipalities, municipal companies, and/or other entities.

### **THEME 3: ADDRESSING POOR CREDITWORTHINESS**

Poor creditworthiness of a small or intermediary city severely restricts access to finance options for municipal governments and public entities by preventing borrowing on commercial terms. Poor creditworthiness of a municipality is usually consistent with poor public financial management processes and a very limited municipal ability to raise its own source revenue (OSR), from taxes and other sources.

PPFs are well positioned to support smaller cities by 1) designing blended finance and risk mitigation tools for specific projects, 2) supporting the design of PPP projects that do not require municipal borrowing, and 3) helping cities to borrow from national or regional development banks. PPFs can also explore land value capture as a mechanism for cities to fund infrastructure projects and focus on designing and implementing community-based finance (CBF) instruments.

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# 1. INTRODUCTION

Through this guide, we identify successful strategies that project preparation facilities (PPFs) can support to unlock greater access to finance for climate adaptation and mitigation infrastructure projects in small and intermediary cities, despite a wide range of barriers, including a lack of creditworthiness. In this guide, we have defined cities ranging in size from 10,000 to 200,000 residents as small, while intermediary cities may be larger depending on their national context and regional role. Cities with fewer than 1 million inhabitants accounted for 58% of the urban population in low and middle-income countries (LMICs) in 2020 (OECD & UN Habitat, 2022). Furthermore, we expect small and intermediary cities to account for much of the future urban growth in the coming decades. In Africa, for example, a recent study estimates that between now and 2040, two-thirds of urban development will be in small and intermediary cities (AfDB, 2022).

Cities with fewer than 1 million inhabitants accounted for 58% of the urban population in low- and middle-income countries (LMICs) in 2020 (OECD & UN Habitat, 2022). Furthermore, estimates show that small and intermediary cities will account for much of the future urban growth in the coming decades. In the African continent, for example, it is estimated that between now and 2040, two-thirds of urban growth will be in small and intermediary cities (AfDB, 2022). However, these cities are often neglected in national and regional economic and urban development (OECD & UN Habitat, 2022). As there is a global limitation of resources available for urban climate finance, small and intermediary cities face significant hurdles in accessing finance more than larger cities, as smaller cities struggle to compete with larger cities in similar contexts.

Project preparation facilities (PPFs) that are active in the urban climate finance space are well positioned to help smaller cities prepare sustainable projects and access finance – whether this is private or public, domestic, or international. This guide aims to present practical actions that PPFs can take to better support small and intermediary cities, including tailoring their support to their specific needs and helping them to overcome critical barriers to financing climate action.<sup>2</sup>

## 1.1 CREDITWORTHINESS AND CLIMATE FINANCE IN SMALL AND INTERMEDIARY CITIES

Many financing approaches such as conventional debt financing, green and municipal bonds, and PPPs that involve municipal borrowing, will generally only be available to more creditworthy cities, where the cost of borrowing is lower due to the city's lower risk profile. Borrowing from debt markets comes with risks and even for larger cities. In developed as well as developing countries, some municipalities have acquired

<sup>2</sup> We developed this guide in partnership with the CCFLA Project Preparation Action Group (PPAG), which brings the city and climate-focused PPFs together to improve collaboration and knowledge sharing.



substantial levels of debt through bond issuances and private loans but have a low capacity to collect revenues from taxation and other sources, resulting in actual or de facto city bankruptcy (IFC, 2022). Such risks can be reduced in LMICs by international public climate finance via de-risking instruments that help to leverage private investment by guaranteeing repayments, for example. However, such an approach is not sustainable at scale or applicable in all contexts.

### Box 1. Defining ‘creditworthiness’ and the challenges in cities in LMICs

Creditworthiness is an assessment of the extent to which an entity is worthy of receiving credit. It is an opinion by third parties, often determined by a rating agency such as Moody’s, on whether debt service payments will be made fully and on time. A lender which has confidence in the long-term financial strength of the borrower and in the ability and willingness of the municipality to pay its obligations in full and on time will regard that municipality as creditworthy (World Bank, 2009).

It is important to highlight that less than 20% of the 500 largest cities in LMICs are considered creditworthy by national ratings, and only 4% have access to international markets, which makes this a wider issue of access to finance in all cities rather than just small and intermediate ones (World Bank 2013).

The ultimate goal for small and intermediary cities should be improving public financial management and creditworthiness. Initiatives such as the World Bank’s City Creditworthiness Initiative have shown that for every dollar invested in improving the creditworthiness of a city in a developing country, there is a potential to leverage more than 100x in private sector financing for low-carbon and climate-resilient infrastructure (IFC, 2022).

However, improving creditworthiness generally requires not only fiscal effort by cities but also long-term, structural reforms to improve the enabling environment, and the intergovernmental fiscal architecture, as demonstrated by the World Bank’s support to Lima in Peru (World Bank, 2017). Improving the enabling environment and the city’s creditworthiness can take many years. In the context of the global climate emergency, investment in climate action in small and intermediary cities must take place rapidly. It is also important to note that worsening climate change impacts and risks may further reduce cities’ creditworthiness, thereby placing even greater importance on a range of substitute options (World Economic Forum, 2021). **As such, this guide focuses on strategies and opportunities immediately available to PPFs supporting small and intermediary cities, despite poor municipal creditworthiness.**

## 1.2 THE PURPOSE AND STRUCTURE OF THIS GUIDE

This guide is designed to help PPFs to understand how best to tailor their support to small and intermediate cities to overcome barriers to financing climate mitigation and adaptation projects. Considering the multiple project financing barriers that cities face, the guide focuses on the role of PPFs in helping these cities in unlocking greater access

to finance for climate infrastructure projects across a wide range of sectors, **despite a lack of creditworthiness**. It is focused on PPF support to unlocking **options available to municipal governments** and other public or quasi-public sector entities at the city scale rather than a broader range of private sector project developers, who may well have high creditworthiness, even if they are located in a city with poor creditworthiness.

A range of project finance barriers experienced by municipal governments in small and intermediary cities are outlined in **Section 2**. **Section 3** covers recommendations to address these barriers, referencing relevant examples from cities. These take into consideration a wide range of contexts. PPFs using this guide are invited to reflect on these barriers and recommendations and consider whether and how they would apply to their work. **Section 4** concludes the guide with a recap of all recommendations.

**Annex 1** contains 10 case studies that discuss in more detail the ones referenced in the recommendations outlined in Section 3. The barriers and recommendations included in the guide were chosen due to their relevance to smaller cities and, whenever possible, linked to case studies that illustrate their applicability. **Annex 2** details all barriers, and **Annex 3** the PPF strategies identified during this guide's research process.

## 2. BARRIERS TO BANKABLE PROJECTS

Municipal governments in small and intermediary cities face many barriers to accessing finance for low-carbon development and adaptation across a wide range of sectors. Many of these are similar to the financing barriers faced in bigger cities but are often more acute. This section identifies the typical barriers faced by municipal governments and, where relevant, highlights how the challenges faced by small and intermediate cities differ from those of larger cities. This understanding underpins the suggested strategies in **Section 3** on how PPFs can tailor their support accordingly.

### 2.1 MUNICIPAL CAPACITY AND SKILLS AND ACCESS TO PPF SUPPORT

A shortage of capacity and skills of municipal staff in small and intermediary cities is a key barrier to defining and preparing bankable projects, which are viable for a range of financing options. Small and intermediary cities in LMICs often need more human resources and a budget for training and skills development. This gap can often translate into the low capacity of municipalities to define and prioritize projects that can maximize climate impact within a specific context. This is often due to a lack of knowledge of the basics of climate change and possible approaches to reduce GHG emissions and enable adaptation to climate impact. There is also often a lack of knowledge to identify and seek synergies between sectors or intended project impacts, which can make projects more transformational, for example, between nature-based solutions for urban flooding, mitigating urban heat, as well as providing public recreation and health benefits. In a scenario in which they need to compete with larger cities – that often have more resources and definitions through processes such as climate action plans of their climate priorities – small and intermediary cities fall behind in accessing PPF support.

Additionally, small and intermediary cities tend to have reduced capacity and resources to invest in technical and other relevant studies ahead of securing a project's finances. Municipal staff and private sector entities often have limited experience and knowledge in preparing concept notes and proposals for international climate finance providers, including complying with relevant international standards. In the context of poor creditworthiness, there tends to be limited knowledge among the municipal staff of the climate finance options that can help to overcome barriers related to poor creditworthiness.

Finally, investors are often discouraged by policy inconsistencies (particularly related to specific sectors such as energy feed-in tariffs or PPP framework regulations) and the lack of robust, efficient, and impartial domestic dispute resolution systems, in addition to the perceived or real difficulties of changing investment patterns due to institutional,

governance, and contractual or financial features present in the market. These types of poor enabling environment barriers can arise from limited knowledge and resources in municipal government, as well as other structural barriers, such as the limited autonomy of municipal governments to change or implement regulations, compared to national or state-level governments.

## 2.2 PROJECT SIZE AND COORDINATION

The smaller size and the limited scalability options of green or even conventional infrastructure projects in small and intermediary cities often present a challenge for financing. This barrier is especially severe for commercial or non-concessional finance, where transaction costs for each project tend to be high. If done individually by a small city, technical feasibility studies can also impose a prohibitive cost. In addition, small and intermediary cities need more purchasing power to negotiate better prices and terms when procuring equipment or services due to often limited understanding of the options available. A smaller project may also mean proportionately higher transaction costs.

There is also typically a lack of coordination between cities to identify synergies and priority actions that can be jointly financed. Small and intermediary cities often need more institutional processes and incentives to liaise with and coordinate action with other cities within a region or country. This results in barriers to scaling and replicating approaches between cities.

## 2.3 POOR CREDITWORTHINESS

Poor creditworthiness of a small and intermediary city severely restricts access to finance options for municipal governments and public entities by preventing borrowing on commercial terms. Where they can borrow, the limited fiscal space (typically measured as the Debt/GDP ratio) of many government entities also means that they are capped in the volume of finance they can borrow from domestic and international funders – and often, they are already close to or over the required percentage, set by the national government. The context of poor creditworthiness of a municipality is usually consistent with poor public financial management processes and a very limited ability to raise own source revenue (OSR) from taxes and other sources, which would typically be used to provide collateral in (non-project recourse) lending arrangements (UN Habitat 2022).

There are also project economic barriers, which are compounded in the context of a city with poor creditworthiness. High upfront costs and long periods before return on investment are key challenges. This economic barrier is specific to infrastructure projects, such as large-scale renewable energy projects. These projects often require high initial capital expenditures (Capex), as opposed to relatively low operating expenditures (Opex), making it easier to find an investor willing to finance if there are significant guarantees in place. Furthermore, there is often a mismatch between short lending terms and the longer investment cycle of infrastructure projects. Finance providers, especially commercial banks, tend to lend for 5-10 years, which is far too short for infrastructure projects, where 15+ years would be required (Floater et al. 2017).

Finally, there is often low maturity, lack of evidence of success, and high perceived risk of new technologies or approaches and commercial models being deployed for climate action. Low-carbon infrastructure projects, assets, or approaches are often innovative, especially in LMICs, and relatively untested compared to conventional approaches (for example, upgrading a public-owned bus fleet to electric buses). Sometimes the technology is familiar, but the business model may be uncommon in that jurisdiction, which increases the risk profile of a project. On the adaptation side, for example, a simpler and lower-cost option is to build vertical walls along an urban river to prevent flooding. However, it would be better to have vegetated and inclined embankments for resilience, flood prevention, and urban landscaping. The latter option can be difficult to negotiate or to prepare because standards are rigid, and it can be difficult for local governments to justify alternative designs and higher costs.<sup>3</sup>

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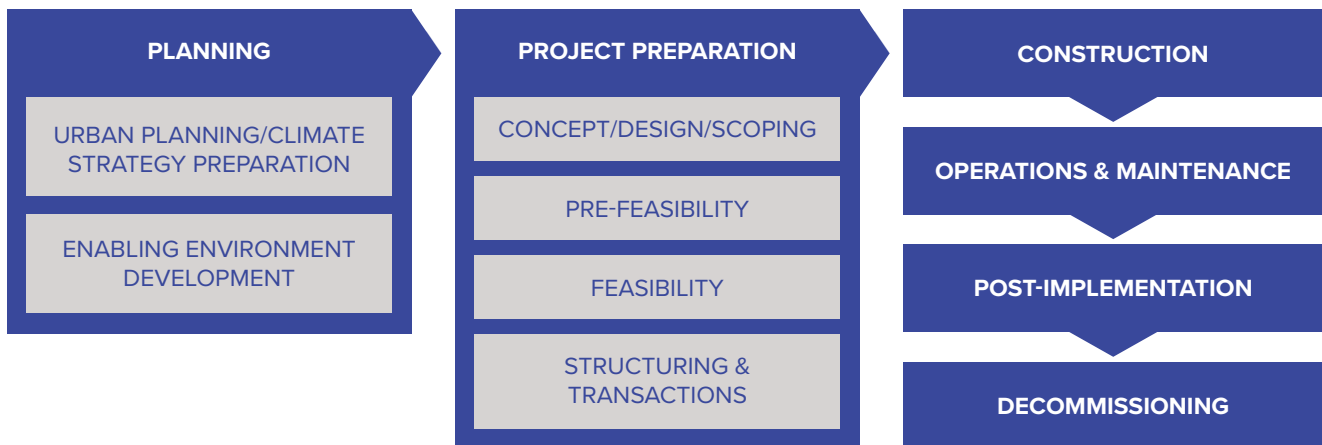
<sup>3</sup> Based on feedback from a CCFLA PPAG member organisation during the development of this Guide.

### 3. PPF STRATEGIES TO OVERCOME BARRIERS

Project preparation facilities (PPFs) are “organizations, initiatives, or institutions that support cities in developing bankable, investment-ready projects, typically from a project’s concept” (CCFLA, 2022c). PPFs can work in different stages of project development (see figure 1), but they share the same goal of successfully linking projects with viable financing. PPF support can go beyond the preparation of studies to involve activities such as facilitating partnerships, contributing to capacity building for its recipients, fostering knowledge production and exchange, and establishing project financing pathways.

For small and intermediary cities, the support provided by PPFs can be even more crucial due to the limitations of the available resources. This chapter presents **strategies organized in three themes**, tailored to small and intermediary cities through which project preparation facilities can help overcome the barriers identified in **Section 2**, with reference to case studies and further useful resources.

Figure 2: Project stages and project preparation support (CCFLA, 2022c)



#### Box 2. Defining ‘Bankability’

A project becomes ‘bankable’ when its risk-return profile meets the investors’ —whether public or private — criteria and can secure financing for the project to be implemented. While requirements can vary between investors, criteria for bankability often include financial and environmental pre-established goals and cashflows to cover costs and produce returns. In the context of poor creditworthiness, the risks of default must be mitigated, such as via blended finance or public finance guarantees, as discussed in Theme 3 below. More detailed considerations of bankability for low-carbon infrastructure projects can be found in CCFLA’s brief [‘What is Bankability?’](#) (CCFLA, 2022d).

A more comprehensive catalog of strategies to overcome typical financing barriers faced by small and intermediary cities is included in **Annex 3**. Note that many of these strategies can be applied together, for example, using a blended finance model to de-risk private sector investment and aggregation of small projects.

### 3.1 THEME 1: ADDRESSING MUNICIPAL CAPACITY, SKILLS GAPS, AND ACCESS TO PPF SUPPORT

A primary challenge often faced by cities – especially small and intermediary ones that have limited human and financial resources – is an in-depth understanding of the landscape of sustainable infrastructure, urban development, climate finance, and related policies and regulations, all of which are crucial for defining and preparing projects.

This lack of capacity also impacts cities’ ability to request support from well-positioned PPFs to reduce these obstacles presented to small and intermediary cities to access PPF support. This can be done by tailoring their selection process to allow for small and intermediary cities to apply for PPF support, helping small and intermediary cities define priority areas to focus on, and building country-specific calls for proposals.

#### RECOMMENDATION 1: CREATE A CALL FOR PROPOSALS SPECIFICALLY FOR SMALL AND INTERMEDIARY CITIES.

The support of PPFs is often available through competitive selection processes, in which cities put forward their application, outlining the project they would like support for and what type of studies and training they require. The competitive nature of the process puts cities with fewer resources and a weaker understanding of climate infrastructure in a disadvantaged position, competing with often larger cities with more resources, time, and planning capacity. To overcome this, PPFs could open selection processes targeting small and intermediary cities.

In 2018, the C40 CFF opened its city selection process for “cluster cities” in Colombia, having a set of secondary cities around an anchor city. The anchor city is a C40 member city, and the secondary cluster cities are non-C40 cities that could benefit from the CFF support. In the Colombia case, these projects had to be in the mobility sector, the same sector as CFF’s support for Bogotá as the anchor city. By extending its support to other cities, the CFF was able to create opportunities for economies of scale and give access to PPF support to cities that otherwise may not have been able to bring their projects to completion (See **Case Study 1**). (As this example suggests, to yield a more manageable and homogenous set of applications, calls may also be limited to a specific country or region rather than a global call.)

It is possible that tailoring the selection process to small and intermediary cities would require additional support in the application stage. PPFs should dedicate staff time

for outreach to these cities (for example, through city networks and partnerships with subnational entities) and in helping with the application process, for example, by designing application windows to be easier for small cities to complete, webinars for applicants in different languages with Q&A. The required information should be minimized so as not to overburden cities, and for this, PPFs may be able to use the [Harmonized Application Form](#) prepared by CCFLA.

## **RECOMMENDATION 2: PROVIDE EARLY-STAGE SUPPORT TO DEFINE AND PRIORITIZE HIGH-IMPACT AND FEASIBLE CLIMATE ACTION PROJECTS.**

Limited financial and staff resources are among the main barriers that cities face in preparing projects. While this is true for most cities in developing contexts, it is especially relevant to small and intermediary cities. Making sure these cities focus on the most impactful projects is equally relevant for future PPF support, as it will help assess whether their support will lead to long-lasting change.

This can be illustrated in the support offered by the Cities Development Initiative for Asia (CDIA), in partnership with Cambodia's Ministry of Public Works and Transport and the French Development Agency, to the Cambodian cities of Battambang, Chhlong, Kampot, and Kratie. CDIA supported these cities in preparing early-stage studies that would help them to identify priority sectors and areas to be improved in reducing climate disruption and building resilience from natural and climate-related hazards through inclusive urban climate adaptation (See **Case Study 2**).

It is worth flagging that this early stage and prioritization work is already done by some PPFs that provide early-stage support, such as the City Climate Finance Gap Fund. Nonetheless, this approach can be expanded and adopted by other PPFs to meet the scale of upstream demand from cities and strengthen the work of PPFs supporting later stages of project preparation.

Even in cases where full technical studies cannot be done due to restricted resources, PPFs can still provide limited support through a light-touch advisory to small and intermediary cities in contexts they're already working on (see Recommendation 3 below). This can be done, for example, by allocating a set number of hours for their local staff working in a specific national context to advising small and intermediary cities in the country in project identification prioritization.

## **RECOMMENDATION 3: USE EXISTING CONTEXTUAL KNOWLEDGE PREVIOUSLY ACQUIRED BY THE PPF TO SUPPORT OTHER CITIES IN THE SAME COUNTRY.**

It is often the case that PPFs support one city during a project preparation cycle and then phase out their support in that context or country. Instead, PPFs could use this existing contextual knowledge through the set-up of local PPF chapters, of country-specific calls for proposals, and to support South-to-South, city-to-city mentoring or



sharing of lessons. In this case, PPFs can use the knowledge acquired – and in some cases even reuse studies, such as regulatory ones, while complementing with new technical studies tailored for the new cities it supports (C40 CFF, 2021). By providing support to more than one city in the same context, PPFs can create economies of scale in the project development phase.

In the earlier stages of their project support, PPFs can dedicate their efforts to mapping relevant national and subnational stakeholders, fostering partnerships, understanding the local context, and often hiring local staff. Creating dedicated country-specific applications or national chapters (possibly through partnerships with local actors, e.g., national municipal associations or metropolitan coordinating bodies) would contribute to maintaining contextual knowledge and reducing the efforts outlined in the earlier stages of PPF work. It appears that PPFs have seldom used this strategy. It would be beneficial for PPFs to consider it in their future strategies. In Indonesia, for example, CDIA partnered with PTSMI, the national entity for infrastructure development, to help PTSMI to set up its own project preparation and capacity-building efforts.

Another effective way for PPFs to support cities through knowledge exchange is to foster knowledge building and sharing as explicit key performance indicators as part of their cooperation and respective Theory of Change (UNDP, 2022). This would allow the PPF to have specific resources – in terms of staff and budget - dedicated to replication and knowledge sharing in specific contexts. Also, in Indonesia, the C40 CFF, through its project preparation support for electric buses in Jakarta, facilitated a mentorship program through which Jakarta shared its knowledge and experiences with other Indonesian cities (See Case Study 3).

## ADDITIONAL RESOURCES

- [C40, 2020, Climate Action Planning Vertical Integration Guide](#)
- [CCFLA, 2021, The 2021 State of Cities Climate Finance Report](#)
- [CCFLA, Harmonized Application Form for Project Preparation Facilities](#)
- [CCFLA, Project Preparation Glossary](#)
- [CoM SSA, 2022, An introductory guide to climate finance for African cities](#)
- [GCoM, Multilevel Climate Action Playbook](#)
- [ICLEI, 2020, Climate finance decision-making tree](#)

## 3.2 THEME 2: ADDRESSING PROJECT SIZE CONSTRAINTS

One of the most common barriers faced by small and intermediary cities is the size of their projects. Projects in these contexts are usually seen as too small to attract finance, and the lack of scale results in higher unit costs, transaction costs, and loss of viability (UNDP 2022). Project preparation facilities can act as brokers and support cities and project developers to coordinate with other cities and partners to facilitate pooled

procurement, aggregation of projects, and pooled financing, depending on the most suitable model for each context (CCFLA, 2022a).

## **RECOMMENDATION 1: DESIGN AGGREGATION MODELS THAT PROVIDE MARKET ACCESS TO SMALL AND INTERMEDIARY CITIES**

While cities should each have their priorities and climate action plans, PPFs can play a role in identifying common themes or projects and develop technical studies to move these projects forward jointly. PPFs can significantly facilitate partnerships and dialogue between different stakeholders and contribute to technical studies that analyze the feasibility of deploying the financial mechanism.

This can be done through PPFs issuing a thematic call for proposals, where the PPF selects projects within a pre-defined sector or theme. It would then develop technical studies and capacity development activities that could apply to multiple cities and seek finance jointly.

One example can be found in the trust fund created by the Argentinean Mayor's Network for Climate Change (RAMCC). The trust fund was developed so that cities can conduct joint studies and procure public goods, allowing small and intermediary cities to access finance for energy efficiency projects that align with their priorities and climate action plans. RAMCC first identified energy efficiency as a common theme in several climate action plans. Cities that were members of the network led the process of producing technical studies and identifying the best technologies available for public street lighting. This culminated in a joint procurement process for LED lights, resulting in better technologies and prices for cities that individually would not have been able to access them (See **Case Study 4**). By tapping into economies of scale both in the preparation and in the financing stage, cities that individually would not have viable projects can, via aggregation, gain access to a wider pool of opportunities. The identification of a sector or theme can happen through partnerships with existing cities or subnational government associations, or, for PPFs that are a program within a city network, this can be done through internal coordination, possibly even through aligning performance indicators of different programs within a network.

## **RECOMMENDATION 2: FACILITATE PARTNERSHIPS AND IDENTIFY SYNERGIES BETWEEN MUNICIPALITIES, MUNICIPAL COMPANIES, AND OTHER ENTITIES LIKE INTERNATIONAL ORGANIZATIONS OR NATIONAL FINANCIAL INSTITUTIONS.**

Considering the context of the lack of creditworthiness of small and intermediary cities, PPFs can contribute to facilitating partnerships with international organizations or national financial institutions that can provide debt service reserve funds and partial guarantees to pooled projects, which can be a crucial factor in attracting market finance.

In these cases, it is anticipated that PPFs would also contribute by supporting the design of the financing model.

For example, to enable access to small and intermediary cities to finance water and sanitation, the State Government of Tamil Nadu created a pooled entity, the “Water and Sanitation Pooled Fund” (WSPF), which functioned as a special purpose vehicle targeting 13 smaller urban local bodies to finance water and sanitation services via raising capital market resources through a pooled mechanism. The pooled fund involved a debt service reserve fund capitalized by the State government, individual escrow accounts, and partial credit guarantees provided by USAID. (See **Case Study 5**).

This strategy is particularly viable in sectors and projects involving public procurement, such as in energy efficiency and renewable energy sectors. Joint procurement is not only more efficient and cost-effective but also gives smaller cities access to better technology. Sectors such as water and sanitation, where access to private finance is particularly challenging, would also benefit from the stronger partnership and stakeholder engagement, particularly between smaller cities and with residents, as outlined in the example above.

#### ADDITIONAL RESOURCES

- [CCFLA, 2021, Financial Aggregation for Cities](#)
- [EU Information on Green Public Procurement](#)
- [FMDV, 2021, Aggregation Interventions to Increase Urban Climate Finance](#)

### 3.3 THEME 3: OVERCOMING POOR CREDITWORTHINESS

PPFs can support municipal governments in understanding the options available to finance infrastructure in the context of poor creditworthiness. These include grant finance and, more importantly for finance at scale, access to debt finance options that become possible with risk mitigation or blended finance. In addition, a wide range of municipal finance strategies is available to small and intermediary cities, which do not require grant or debt financing. Examples include tax incentives, land value capture, accessing the international and voluntary carbon market, payment for ecosystem services, and community-based finance. A broader range of such approaches is included in the CCFLA’s Financial Instrument Toolkit, which presents a taxonomy of municipal climate finance instruments as well as relevant case studies (CCFLA, 2022b). Some of the most relevant strategies are described below, with reference to examples and useful resources.

## RECOMMENDATION 1: SUPPORT THE DESIGN AND IMPLEMENTATION OF BLENDED FINANCE MODELS WITH RISK MITIGATION INSTRUMENTS TO ADDRESS THE FINANCIAL BARRIERS FOR PROJECTS IN SMALLER CITIES.

Blended finance approaches use concessional international climate finance sources to mobilize additional finance, primarily from private and commercial sources. PPFs can support the design of blended finance and de-risking mechanisms for specific projects. To make this more cost-effective, smaller projects could be aggregated in terms of transaction costs, as suggested in Theme 2 above.

PPFs can enable partnerships and coordination, provide lessons learned from previous or ongoing examples and provide cities with technical support and coordination for designing blended finance models. PPFs can explore how risk mitigation instruments can make this viable, such as partial credit guarantees / subordinated debt or first-loss equity/loan loss reserve, which can cover payment defaults by the borrower or issuer up to a pre-determined amount. There is also an opportunity for smaller cities to obtain funding from larger blended finance funds or facilities, in which case PPFs can support cities in applying for appropriate funding support.

An example of a PPF enabling small cities to access project financing through a range of options is the EIB-funded Africa Sustainable Cities Initiative (ASCI). An EIB-funded initiative that provides technical assistance and capacity building in defining bankable projects as well as project financing support to secondary cities in four African countries. The most likely access to finance route is via EIB lending to a financial intermediary such as a national development bank. Still, the options of blended finance, enabled by grant funds from the European Commission blended with private sector investment, allowing risk mitigation via a first loss guarantee, is also on the table (See **Case study 6**).

## RECOMMENDATION 2: SUPPORT THE DESIGN OF PUBLIC-PRIVATE PARTNERSHIPS THAT DO NOT REQUIRE MUNICIPAL BORROWING.

A wide range of public-private partnerships (PPPs) are available. Many forms of PPPs have been used by cities with poor creditworthiness for many decades, for example, in sectors such as solid waste collection. Many PPPs can be achieved without the need for borrowing by a municipal government, which would be limited by poor creditworthiness. PPFs can provide technical support for developing studies and enabling conditions for suitable PPPs. Among the activities PPFs can support, the city can hold public consultations and meetings with companies and entrepreneurs in the relevant sector, helping to catalyze partnerships.

The example of Nagpur shows how an intermediary city (in the context of India) enabled a PPP model for the delivery of its water supply system, leveraging national government funds to de-risk private sector investment. Of a total of USD 70.5 million in initially

required capital expenditures, 70% was provided by a grant from the government of India's Jawaharlal Nehru National Urban Renewal Mission, which makes public funds available to enable PPP projects. The remaining 30% was provided by the contracted private operator, with this investment to be repaid via revenues from water users (See **Case Study 7**).

### **RECOMMENDATION 3: SUPPORT CITIES TO BORROW FROM NATIONAL OR REGIONAL DEVELOPMENT BANKS, WHICH CAN APPLY CONCESSIONAL RATES, RISK MITIGATION INSTRUMENTS, AND TECHNICAL ASSISTANCE.**

PPFs can support municipal governments in accessing commercial finance indirectly through financial intermediaries. National or regional development banks or green investment funds are established to facilitate private investment into domestic low-carbon, climate-resilient infrastructure. Using innovative transaction structures, risk-reduction and transaction-enabling techniques, and local market expertise, development banks can channel private investment, including institutional investors, into climate projects across various sectors. PPFs can facilitate partnerships and collaborations with development banks. They can support the development of bankable projects and share knowledge through developing institutional linkages with national governments. Developing partnerships with financial institutions can be a lengthy process, reinforcing the point explored in Section 3.1 on the importance of PPFs establishing a local chapter or preserving contextual knowledge. PPFs linked to wider institutions, such as development banks or international agencies, are well-positioned to connect them with small and intermediary city governments. Matchmaking between municipal governments and development bank financing is an important role for PPFs to play in the context of poor municipal creditworthiness, and a much-needed step following the development of viable climate action projects, resulting from the support outlined in Theme 1. Sometimes a development bank has its own internal PPF, as in the case of the Development Bank of South Africa (DBSA).

DBSA recently established its Climate Finance Facility (CFF), which is an intermediary enabling local access to climate finance. CFF uses a blended finance approach to give loans to cities and independent project developers, helping to increase investments in climate-related projects in Southern Africa. CFF also provides credit enhancements by offering subordinated debt tranches and tenor extensions to increase the bankability of climate projects in cities of the region and crowd-in investments from project sponsors and commercial banks. In 2022, the CFF designed a credit enhancement package for bankable water reuse projects for small and intermediary cities across South Africa. (See **Case Study 8**).

## RECOMMENDATION 4: SUPPORT MUNICIPALITIES TO EXPLORE LAND VALUE CAPTURE AS A MECHANISM FOR CITIES TO FUND INFRASTRUCTURE PROJECTS AND INCREASE THEIR OWN RESOURCES.

Land value capture has long been an effective method for cities to finance certain types of infrastructure, including transport, water supply, urban parks, and green and blue spaces, which often synergize with nature-based solutions for more resilient cities. Implementing land value capture requires understanding the jurisdiction, calculating land value returns, and strengthening governmental capacities for tax collection. There are also different instruments within land value capture, such as betterment contributions, charges for building rights, inclusionary housing, zoning, linkage, or impact fees, among others. PPFs can support cities in understanding these different approaches and help tailor the models to specific cities' needs. However, LVC usually requires a strong regulatory environment to be effective.

An example of LVC is the use of betterment levies for infrastructure renewal in Colombia, which have been applied since 1921. In Manizales, betterment levies generate municipal own-source revenues to finance urban infrastructure projects. Betterment levies account for almost 50% of the city's property tax revenues and have contributed to at least eight projects in road, urban development, and infrastructure improvements. According to Colombian law, the betterment levy is calculated by i) the Cost of the construction project, ii) The value added to the properties, and iii) The capacity of the property owners to pay the levy. The municipalities ensure that levies are affordable to the property owners to encourage regular payments (See **Case Study 9**).

## RECOMMENDATION 5: SUPPORT THE DESIGN AND IMPLEMENTATION OF 'COMMUNITY-BASED INSTRUMENTS.

Community-based Finance (CBF) is funding from multiple sources, including community members, directed to and through civil society organizations, enabling grassroots populations to lead the design and delivery of development interventions in their area of influence (GIZ 2022). CBF enables greater decentralization of climate and development finance through participatory community involvement in the design and implementation of projects such as slum upgrading and housing development, flood management, water and sanitation, mini-grid renewable energy, and natural resources management.

PPFs can support municipal governments to identify and co-create solutions rooted in local needs and communities rather than imposed as larger commercial models. This entails the meaningful participation of community representatives in defining climate vulnerability and effective and inclusive climate action. PPFs can also facilitate a platform for dialogue between municipal government and community representatives, and other relevant stakeholders such as domestic finance entities. Finance can be raised by community members or organizations, or members of a diaspora, which can offer significant financial resources (Gelb et al. 2021). Most CBF models also source finance

from DFIs or national government sources to combine with community sources. There are also some examples of blended finance to leverage private sector investment. PPFs can also explore the role of decentralized finance opportunities as part of CBF, such as crowdsourcing, potentially supported by digital fundraising platforms.

An example of community-based finance is the Asian Coalition for Community Action (ACCA), which has delivered housing and slum upgrading work and financing approaches for over 15 years. The ACCA creates a framework for public grants and asset transfers from the national government matched by community savings and other income to deliver key housing, environmental, and infrastructure improvements. The ACCA provides a development finance model sufficient to make meaningful improvements to informal settlements but at a scale to allow participation by people with low and unstable incomes. The financial mechanism is rooted in community savings groups networked at a city level through community development fund (CDF) committees (See **Case Study 10**).

## ADDITIONAL RESOURCES

- [C40 Finance Facility, 2017, Explainer: How to Finance Urban Infrastructure](#)
- [CCFLA Taxonomy on Municipal Climate finance Instruments Financial Instruments Toolkit](#)
- [CCFLA, 2021, Leveraging National Development Banks to Enhance Financing for Urban Infrastructure](#)
- [Cities Support Program, 2017, Land-based Financing Tools to Support Urban Development in South Africa. World Bank](#)
- [Farvacque-Vitovic, C. and Kopanyi, M. 2014, Municipal Finances: A Handbook for Local Governments](#)
- [GIZ, 2022, Community-based Finance in Urban Development](#)
- [GIZ, 2022, Land Value Capture for Urban Development](#)
- [Infra PPP Database by DT Global](#)
- [NDC Partnership, Climate Finance Explorer. Web-resource](#)
- [OECD and Lincoln Institute of Land Policy, 2022, Global Compendium of Land Value Capture Policies](#)
- [OECD, Blended Finance Publication Centre](#)
- [UNDP & Finance in Common, 2022, The Role of Public Development Banks in Scaling up Sustainable Finance](#)
- UN-Habitat & CCFLA, forthcoming, Financing Climate Investment in Intermediary Cities: A Guide for Local Leaders.
- [World Bank PPP Knowledge Lab](#)

## 4. CONCLUSIONS

Small and intermediary cities often face similar financial challenges as larger cities in low and middle-income countries. But small cities face deeper challenges and fewer resources to meet them. PPFs are especially well positioned to support municipal governments to overcome the many barriers, better define viable climate action projects, and identify strategies to finance infrastructure and services. To address these challenges, the following strategies are recommended for PPFs:

### THEME 1: ADDRESSING MUNICIPAL CAPACITY AND SKILLS GAPS

- **Create calls for proposals specifically for small and intermediary cities.** PPFs should make an active effort to reach and provide project preparation support to small and intermediary cities. This should be done by targeted selection processes, reducing applications' paperwork burden, and partnering with subnational actors that can help gain access to small and intermediary cities.
- **Provide early-stage support to define and prioritize high-impact and feasible climate action projects.** PPFs should expand their work upstream to help cities identify strategic projects that would maximize climate change mitigation and adaptation, as well as multiple co-benefits such as improved public health and ecosystem restoration.
- **Use existing contextual knowledge previously acquired by the PPF to support other cities in the same country.** A PPF's experience in one context can be adapted to new projects through country-specific application calls. Alternatively, the low-hanging fruit for PPFs is to support knowledge exchange within a country they are already supporting, and such actions can create a catalytic effect.

### THEME 2: ADDRESSING CITY AND PROJECT SIZE CONSTRAINTS

- **Design aggregation models that provide market access for small and intermediary cities.** PPFs should identify priority projects that are of common interest for several cities to develop joint technical studies and, if possible, to create aggregated financing models or joint procurement for services.
- **Facilitate partnerships and identify synergies between municipalities, municipal companies, and other entities.** PPFs should identify key partners, such as higher governmental bodies or philanthropies, that can provide services such as debt service reserve funds or pooled guarantees to attract private finance to contexts without creditworthiness.



## THEME 3: ADDRESSING POOR CREDITWORTHINESS

- **Support the design of blended finance and risk mitigation for specific projects.** This can address private sector investment barriers for projects in smaller cities. PPFs can enable partnerships and coordination, provide lessons learned from previous or ongoing examples and provide cities with technical support and coordination for designing blended finance models.
- **Support the design of PPP projects that do not require municipal borrowing.** PPFs can provide technical support for the development of studies and enabling conditions for suitable PPPs and help to catalyze partnerships.
- **Support cities to borrow from national or regional development banks.** Financial intermediaries can apply concessional rates, risk mitigation instruments, and technical assistance to small and intermediary cities.
- **Support municipalities to explore land value capture as a mechanism for cities to fund infrastructure projects.** PPFs can support cities in understanding different LVC approaches and help to tailor the model that would best be applied in a specific city or sector.
- **Support the design and implementation of ‘community-based finance (CBF) instruments.** PPFs can support municipal governments to identify and co-create solutions rooted in local needs and communities rather than imposed as larger commercial models. Finance can be sourced from community savings and members of a diaspora, as well as IFIs, with the potential to de-risk additional private sector investment.

Collaboration and knowledge sharing between PPFs can strengthen the implementation of these strategies. The Cities Climate Finance Leadership Alliance enables knowledge sharing and collaboration through Project Preparation Action Group (PPAG) and the Leadership for Urban Climate Investment (LUCI) initiative.

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# ANNEX 1: CASE STUDIES

The following case studies illustrate how barriers to project bankability have been overcome by strategies deployed by PPFs, to enable climate investments in small and intermediary cities.

Case Study 1: Public Bike-Sharing Systems in Colombian Cities – A City-Cluster Approach	
Country: Colombia	City: Bogota, Cali, Montería and Bucaramanga
PPF Provider: C40 CFF	Sector: Urban mobility/cycling
Barriers addressed: <ul style="list-style-type: none"> <li>• Low capacity in developing technical / feasibility studies for climate action projects.</li> <li>• Limited knowledge of climate finance options available in the context of poor creditworthiness.</li> <li>• Lack of coordination and learning between cities.</li> </ul>	Strategies used: <ul style="list-style-type: none"> <li>• <b>Use existing contextual knowledge</b> previously acquired by the PPF</li> <li>• <b>Seek integrated multi-sector and transformational solutions</b> through appropriate coordination and integrated project development.</li> </ul>
<p>In its first cycle of operations, the CFF supported Bogotá in preparing the Medio Milenio Cycling Highway project, a 25km bikeway. In its second cycle, <b>the PPF expanded its support to Bogotá as well as smaller and intermediary Colombian cities</b> for public bike-sharing systems, <b>aiming to build on the contextual knowledge previously acquired in Colombia</b>. In addition to Bogotá, Cali, Montería, and Bucaramanga, we built on CFF’s experience working with Colombia and prepared a cluster of public bike-sharing system projects.</p> <p>The cluster of cities counted on a designated senior project advisor, supporting all cities in developing technical studies and implementing capacity development activities. This senior project advisor facilitated the coordination with the cities, the joint definition of project measures such as technical studies or capacity development activities, and embedding topics such as gender, inclusion, climate adaptation, and good governance.</p> <p><b>While the technical studies were developed at the city level, working simultaneously with multiple cities created economies of scale and contributed to the efficient use of resources. Topics such as applying national regulatory guidelines for financing sources or finance and market studies</b> applied to all cities. Moreover, the PPF support further allowed for holistic knowledge transfer and peer learning between the partner cities.</p> <p>However, it should be emphasized that the PPF needs to remain attentive to local particularities in each city and that the compatibility of working in one sector and context does not imply the applicability of “one size fits all” solutions.</p>	
<b>Additional information</b> <ul style="list-style-type: none"> <li>• C40 Cities Finance Facility Website. Available at: <a href="https://www.c40cff.org/projects/colombia-public-bike-sharing">https://www.c40cff.org/projects/colombia-public-bike-sharing</a></li> <li>• C40 Cities Finance Facility. 2021. De pilotos a sistemas modernos: los sistemas de bicicletas compartidas en Colombia. Available at: <a href="https://www.c40cff.org/knowledge-library/de-pilotos-a-sistemas-modernos-de-bicicletas-compartidas-en-colombia">https://www.c40cff.org/knowledge-library/de-pilotos-a-sistemas-modernos-de-bicicletas-compartidas-en-colombia</a></li> <li>• C40 Cities Finance Facility. 2021. Lecciones Aprendidas: La implementación de un sistema de bicicletas compartidas en Bogotá. Available at: <a href="https://www.c40cff.org/knowledge-library/lecciones-aprendidas-la-implementacion-de-un-sistema-de-bicicletas-compartidas">https://www.c40cff.org/knowledge-library/lecciones-aprendidas-la-implementacion-de-un-sistema-de-bicicletas-compartidas</a></li> </ul>	

Case Study 2: Assessment of Climate Vulnerability and Adaptation in Cambodian cities	
Country: Cambodia	Cities: Battambang, Chhlong, Kampot, Kratie
PPF Provider: Cities Development Initiative for Asia (CDIA)	Sector: Climate Adaptation
Barriers addressed: <ul style="list-style-type: none"> <li>• Low capacity to define and prioritize climate action.</li> <li>• Low capacity in the development of technical / feasibility studies for climate action projects.</li> <li>• Lack of urban and climate policy and strategy to guide project development.</li> </ul>	Strategies used: <ul style="list-style-type: none"> <li>• <b>Define and prioritize</b> high-impact and feasible climate action projects</li> </ul>
<p>As one of the most vulnerable countries to climate change, Cambodia often suffers from flooding, drought, and windstorms, all of which have increased in frequency. In this setting, Cambodian cities struggle with infrastructure while also experiencing high urban growth.</p> <p>Cambodian cities have significantly limited resources to address these challenges. They, therefore, need to concentrate their efforts on the most effective, efficient, and relevant sectors and projects to address their climate vulnerability.</p> <p>In this context, the Cities Development Initiative for Asia (CDIA), in partnership with Cambodia’s Ministry of Public Works and Transport and with support from the French Development Agency (AFD) and the European Union, conducted a Climate Vulnerability and Adaptation Assessment (CVAA) in the cities of Battambang, Chhlong, Kampot, Kratie.</p> <p>The assessment identified priority sectors and areas to prioritize from a perspective of inclusive climate adaptation. However, it also stressed that for technical responses such as infrastructure investments to be effective, they need to be coupled with broader institutional changes, including cities’ autonomy and financial management for the operation and management of climate projects. While addressing institutional changes may be beyond their realm of operation, a PPF supporting the Cambodian cities would, from the beginning, have a greater understanding of the setting for their support to maximize impact.</p> <p>The study also recommended priority interventions, which have been included in subsequent feasibility studies for AFD’s investment in “Sustainable Development of Cambodian cities: Implementation of Inclusive Urban Projects in Secondary Cities.” As illustrated in this case study, understanding priority areas are necessary so that cities know what to prioritize and, subsequently, request support for feasibility studies and financing in a more informed manner.</p>	
<b>Additional information</b> <ul style="list-style-type: none"> <li>• CDIA. 2020. Project Profile: Climate Vulnerability and Adaptation Assessment. Available at: <a href="https://cdia.asia/project/climate-vulnerability-and-adaptation-assessment/">https://cdia.asia/project/climate-vulnerability-and-adaptation-assessment/</a></li> <li>• CDIA. 2020. Reinforcing Climate Change Adaptation Investments with Capacity Development. Available at: <a href="https://cdia.asia/2020/04/27/reinforcing-climate-change-adaptation-investments-with-capacity-development/">https://cdia.asia/2020/04/27/reinforcing-climate-change-adaptation-investments-with-capacity-development/</a></li> <li>• CDIA. 2020. Stakeholder Consultations Cap Off Climate Vulnerability Study in Cambodia. Available at: <a href="https://cdia.asia/2020/02/18/stakeholder-consultations-cap-off-climate-vulnerability-study-in-cambodia/">https://cdia.asia/2020/02/18/stakeholder-consultations-cap-off-climate-vulnerability-study-in-cambodia/</a></li> </ul>	

### Case Study 3: Knowledge exchange for electric Bus Rapid Transit Deployment

Country: Indonesia	City: Jakarta and Bandung Metropolitan Area in West Java Province
PPF Provider: C40 Cities Finance Facility	Sector: Urban transport
<p>Barriers addressed:</p> <ul style="list-style-type: none"> <li>• Low capacity in the development of technical / feasibility studies for climate action projects</li> <li>• Limited knowledge of climate finance options available in the context of poor creditworthiness</li> <li>• Lack of coordination and learning between cities</li> </ul>	<p>Strategies used:</p> <ul style="list-style-type: none"> <li>• Define and prioritize <b>high-impact and feasible</b> climate action projects</li> <li>• <b>Use existing contextual knowledge</b> previously acquired by the PPF</li> <li>• Seek <b>integrated multi-sector and transformational solutions</b> through appropriate coordination and integrated project development.</li> </ul>
<p>The CFF cooperated in its previous phase with the city of Jakarta, Indonesia, to support the project preparation of electric buses procurement. One main pillar of CFF's support to the city was developing a business case for the e-bus deployment on Jakarta's Bus Rapid Transit system, the biggest in the world. A senior project advisor facilitating the cooperation was located in the city. Small and intermediary cities in Indonesia lack access to project preparation support and an in-depth overview of climate finance options available. However, the institutional arrangement in Indonesia allows for project replication, and knowledge exchange between cities can prove to be highly beneficial in this context.</p> <p><b>CFF's project preparation support included targeted knowledge and lessons learned exchange with other relevant cities and institutions.</b> This allowed for further expansion of institutional knowledge gained from the engagement with relevant political and financial institutions and knowledge acquired during the preparation of feasibility and technical studies.</p> <p><b>Collaborating closely with Jakarta's city officials, CFF has facilitated a mentorship program through which Jakarta shared its knowledge and experiences from the e-bus project with other cities in Indonesia,</b> namely the cities of Kota Bandung, Kota Cimahi, Kabupaten Bandung Barat, Kabupaten Bandung, Kabupaten Sumedang, which jointly form Bandung's Metropolitan Area.</p> <p>The exchange program, with the city of Jakarta acting as a mentor, included 20 individual sessions, technical webinars, city-to-city learning formats, and in-person site visits. With facilitation from the CFF, 30 officials of the West Java Provincial Government, the Bandung Basin Management Body, and PT Jasa Sarana directly learned from city officials from Jakarta about institutional frameworks, financial aspects, environmental and social safeguards, procurement, legal and regulatory frameworks, and benefits of e-buses among other topics. A Project Implementation Unit as a steering structure, whose institutionalization was also guided by the CFF, revised legal and regulatory frameworks and supported the identification of e-bus routes. The mentorship program also drew the attention of Indonesia's National Agency for Development and Planning, as other cities in the country are also in different stages of developing electric bus rapid transit systems and could be interested in this format as well.</p>	
<p><b>Additional information</b></p> <ul style="list-style-type: none"> <li>• C40 Cities Finance Facility. 2019. Jakarta is spearheading Indonesia's e-bus transition! Available at: <a href="https://www.c40cff.org/news-and-events/jakarta-is-spearheading-indonesias-e-bus-transition-cff-supports-transjakartas-pilot-for-electric-buses">https://www.c40cff.org/news-and-events/jakarta-is-spearheading-indonesias-e-bus-transition-cff-supports-transjakartas-pilot-for-electric-buses</a></li> <li>• C40 Cities Finance Facility. Electric Buses for Jakarta's Sustainable Urban Mobility. Available at: <a href="https://www.c40cff.org/projects/jakarta-electric-bus">https://www.c40cff.org/projects/jakarta-electric-bus</a></li> <li>• C40 Cities Finance Facility. Jakarta's vision of zero-emission transport. Available at: <a href="https://www.c40cff.org/knowledge-library/jakartas-vision-of-zero-emission-transport">https://www.c40cff.org/knowledge-library/jakartas-vision-of-zero-emission-transport</a></li> </ul>	

### Case Study 4: Joint procurement for LED light for public street lighting in Argentinian cities

Country: Argentina	City: 30 Municipalities in Argentina, members of the Argentinian Network to Combat Climate Change
PPF Provider: Red Argentina de Municipios frente al Cambio Climático (RAMCC)	Sector: Energy efficiency for public lighting
<p>Barriers addressed:</p> <ul style="list-style-type: none"> <li>• Project ticket size is too small to attract investors.</li> <li>• Lack of scale and, therefore, high prices for innovative tech solutions.</li> <li>• Lack of coordination between cities to identify synergies and priority actions that can be jointly financed.</li> </ul>	<p>Strategies used:</p> <ul style="list-style-type: none"> <li>• <b>Aggregation of projects</b> to increase economies of scale</li> <li>• <b>Facilitate partnerships and identify synergies</b> between municipalities, municipal companies, and/or other entities.</li> <li>• Define and prioritize <b>high-impact</b> and feasible climate action projects</li> </ul>
<p>Red Argentina de Municipios Frente al Cambio Climático (RAMCC) has structured a Trust that pools local municipalities to execute climate projects at the subnational level, <b>facilitating aggregation at the supply- and demand-side of climate infrastructure projects.</b></p> <p>To access the RAMCC trust fund, cities must have climate action plans completed to be able to identify relevant and priority projects, and municipalities interested need to contribute with their investment for their share of the procurement.</p> <p>To date, the fund has focused on joint procurement of LED lights for public street lighting. The <b>Network has procured the development of technical studies</b>, which have been jointly conducted to identify the best quality products and services, <b>providing market access to cities that would not have had the capacity to retrofit their street lighting individually.</b></p> <p>Through promoting joint procurement, the Trust Fund has enabled economies of scale, reduced transaction costs, facilitated access to better prices, and enabled municipalities to achieve outcomes that they would not have reached individually. While the purchase of LED lights was made exclusively through cities' investments, the Trust Fund has received external financial support for joint technical and legal studies, tapping into economies of scale to have studies jointly prepared and making studies cheaper and accessible for the cities. The joint tendering process has also proven attractive for companies, as they gain access to markets in several municipalities they were previously not working with.</p> <p>So far, the RAMCC Trust Fund has promoted four collective purchases of LED lighting. The first one involved eight municipalities, and the second counted 12 municipalities. Given its replicability potential, the model is likely to be expanded to other sectors in the future.</p>	
<p><b>Additional information</b></p> <ul style="list-style-type: none"> <li>• Pinko N, Negreiros P, Wetherbee C, Tonkonogy B. 2022. Financial Aggregation for Cities. Cities Climate Finance Leadership Alliance. Available at: <a href="https://citiesclimatefinance.org/publications/financial-aggregation-for-cities/">https://citiesclimatefinance.org/publications/financial-aggregation-for-cities/</a></li> <li>• RAMCC. Fideicomiso RAMCC. Available at: <a href="https://www.ramcc.net/fideicomiso.php">https://www.ramcc.net/fideicomiso.php</a></li> </ul>	

### Case Study 5: Pooled Finance and a Blended Finance Approach in The Water and Sanitation Pooled Fund (WSPF) in Tamil Nadu

Country: India	City: 13 Urban Local Bodies (Municipalities) in the State of Tamil Nadu
PPF Provider: Support from the World Bank and USAID	Sector: Water, sanitation, and waste management
<p>Barriers addressed:</p> <ul style="list-style-type: none"> <li>• Project ticket size is too small to attract investors.</li> <li>• Lack of scale and, therefore, high prices for innovative tech solutions.</li> <li>• Low procurement leverage on national or international markets.</li> <li>• National regulations that prevent local authorities from directly accessing climate finance.</li> <li>• Lack of coordination between cities to identify synergies and priority actions that can be jointly financed.</li> </ul>	<p>Strategies used:</p> <ul style="list-style-type: none"> <li>• Facilitate <b>partnerships and identify synergies</b> between municipalities, municipal companies, and/or other entities.</li> <li>• <b>Pooling can be aided by credit enhancements</b> such as debt service reserve funds and partial guarantees.</li> </ul>
<p>To attract more private finance for infrastructure investment in cities, the State of Tamil Nadu, in partnership with the World Bank and USAID, created a Development Fund with a focus on public-private partnerships. From its early stages, it became clear that the Fund primarily served large municipalities (known in India as Urban Local Bodies, or ULB). Small and intermediary cities were excluded from using the Fund due to barriers such as incapacity to deal with transaction costs like bond issuance fees, legal expenses, and lack of creditworthiness that often refrain small and intermediary cities from accessing capital markets. These restrictions were particularly relevant for the water and sanitation sector, which was one of the areas in which cities in the State had the most need for financing.</p> <p>To address these restrictions, the State Government of Tamil Nadu created a pooled entity, the “Water and Sanitation Pooled Fund” (WSPF), which functioned <b>as a special purpose vehicle targeting smaller urban local bodies to finance water and sanitation services via raising capital market resources through a pooled mechanism.</b></p> <p>The pooled fund involved a debt service reserve fund capitalized by the State government, individual escrow accounts for each urban local body, local debt service reserve funds, and a state revenue intercept mechanism. This was complemented by a partial credit guarantee provided by USAID on the Fund’s debt service reserve fund.</p> <p>State or other higher instances of government can be the key to unlocking finance, especially in India, where decision-making around public finance often happens at the state level. In these instances, Project Preparation Facilities can build on experiences such as this one by working with State or National Governments <b>to jointly assess challenges that are common to sectors or areas of interest to small and intermediary cities and create tailored solutions</b> such as the Water and Sanitation Pooled Fund of Tamil Nadu. <b>PPFs could play a significant role in a) identifying the common challenge, b) facilitating partnerships and dialogue between different levels of government, and c) contributing to technical studies to prove the feasibility of the financial mechanism to be deployed.</b></p>	
<p><b>Additional information</b></p> <p>World Bank Group. 2016 Pooled Municipal Bond Issuance in Tamil Nadu (India). Available at: <a href="https://documents1.worldbank.org/curated/en/702211472040099035/pdf/107974-BRI-P159188-BlendedFinanceCasesIndia-PUBLIC.pdf">https://documents1.worldbank.org/curated/en/702211472040099035/pdf/107974-BRI-P159188-BlendedFinanceCasesIndia-PUBLIC.pdf</a></p>	



### Case Study 6: EIB support to Secondary Cities via the African Sustainable Cities Initiative

<b>Country:</b> Multiple countries in Africa	<b>City:</b> Multiple secondary cities
PPF Provider: European Investment Bank (EIB)	Sector: Multiple, including water, waste management, energy, and transport.
<b>Barriers addressed:</b> <ul style="list-style-type: none"> <li>• Inability of a municipality or a municipal corporation to borrow from domestic or international capital markets due to poor creditworthiness.</li> <li>• Mismatch between short lending terms and the investment cycle of infrastructure projects.</li> <li>• High upfront costs and the long period before return on investment.</li> <li>• Limited capacity to raise own source revenue (OSR).</li> </ul>	<b>Strategies used:</b> <ul style="list-style-type: none"> <li>• Define and prioritize high-impact and feasible climate action projects</li> <li>• Strengthen the internal capacity of staff to prepare bankable projects, including demonstrating cash-flow/revenue generation plans to enable project recourse.</li> <li>• Support the design and implementation of blended finance models (possibly with a revolving fund component) with risk mitigation instruments that can address the financial barriers for projects in smaller cities.</li> </ul>
<p>The overriding objective of the African Sustainable Cities Initiative (ASCI) is to enhance access to finance to enable investment for secondary cities in Sub-Saharan Africa, thereby contributing to the delivery of much-needed infrastructure and services, in line with SDG 11 and the New Urban Agenda. Secondary cities have been chosen as the focus for this technical assistance support because they generally have high needs with lower capacities, and donor funds usually tend to be deployed to larger cities.</p> <p>The purpose of ASCI is to enable a selected number of secondary cities in Sub-Saharan Africa to enhance access to finance for their sustainable urban infrastructure needs via an integrated, planning-led, multi-sector approach. The TA operation will provide capacity development support for selected secondary cities; develop municipal financing strategies; foster greater access to investors; and provide advisory support targeting specific projects. Ten cities are currently in the selection process across four countries: Kenya, Uganda, Ghana, and Cote d'Ivoire. ASCI is taking a multi-sector approach, aligning with the EU Delegation country priorities to select high-impact climate action projects across the water, waste management, energy, and transport sectors.</p> <p>Most cities are not creditworthy, so EIB is considering the following mechanisms to enable municipalities to access finance for the projects that are eventually defined via ASCI:</p> <ul style="list-style-type: none"> <li>• Lending through a creditworthy counterpart such as a domestic development bank or a commercial bank with a developmental mandate. The financial intermediary could also be a national or city-level public utility entity that is creditworthy.</li> <li>• The EIB could work with the European Commission to provide grant funds for the first loss in a guarantee instrument. Although this blended finance approach is not a very likely option for ASCI may be possible and could be implemented as a portfolio approach if there are 20 or 30 projects across ten cities. EIB and the EC must assess the likely default rate across the portfolio. This approach has been used before by EIB for SME financing.</li> <li>• EIB is also considering aggregation of small projects via country or sector alignment as the small scale of viable projects is an issue. EIB don't have a minimum project or investment size, but they are looking for something in the order of 10s of millions.</li> </ul> <p>Overall, more PPFs like this are required, focusing on intermediary cities and the ability to support municipal governments to define bankable projects and access finance despite poor creditworthiness.</p>	
<b>Additional information</b> <ul style="list-style-type: none"> <li>• GFA Consulting Group. African Sustainable Cities Initiative (ASCI). Available at <a href="https://www.gfa-group.de/projects/African_Sustainable_Cities_Initiative_ASCI_3966799.html">https://www.gfa-group.de/projects/African_Sustainable_Cities_Initiative_ASCI_3966799.html</a></li> </ul>	

### Case Study 7: PPP model for water supply in Nagpur, India

<b>Country: India</b>	<b>City: Nagpur</b>
PPF Provider: Jawaharlal Nehru National Urban Renewal Mission	Sector: Water supply
<b>Barriers addressed:</b> <ul style="list-style-type: none"> <li>• Limited knowledge of climate finance options available in the context of poor creditworthiness.</li> <li>• Inability of a municipality or a municipal corporation to borrow from capital markets.</li> <li>• High up-front costs and the long period before return on investment.</li> </ul>	<b>Strategies used:</b> <ul style="list-style-type: none"> <li>• <b>Strengthen the internal capacity of staff</b> to prepare bankable projects, including demonstrating cash-flow/revenue generation plans to enable project recourse.</li> <li>• Support the <b>design of PPP</b> projects that don't require municipal borrowing.</li> </ul>
<p>The city of Nagpur became responsible for providing water supply services in the early 2000s when the state government of Maharashtra devolved this authority to the local level. At this time, the city began to outsource water supply functions via a series of small maintenance and operations arrangements but struggled to manage multiple fragmented contracts over time. To ensure a single point of accountability and improve service quality, the city's elected officials and employees of the Nagpur Municipal Corporation agreed to pursue a PPP arrangement to overcome a lack of technical capacity and insufficient service revenues.</p> <p>Nagpur used a PPP model by partnering with national government and private service providers to finance improvements to the infrastructure and operations of its water system. The municipal government first formed a subsidiary called Nagpur Environmental Services Limited (NESL) to manage the process, taking responsibility for the procurement of water supply services.</p> <p>In 2011, a PPP contract was signed between NESL and private operators Veolia and Vishvaraj. This is a 25-year performance improvement agreement under which the private operators must implement initial performance improvement projects within five years. The operator will collect user charges in an escrow account, to be used for payment of obligations for raw water purchases and payments back to the operator, with any shortfall in collections to be provided from the city's general budget.</p> <p>Of a total of US\$70.5 million initially required capital expenditures, 70% was provided by a grant from the government of <b>India's Jawaharlal Nehru National Urban Renewal Mission, which makes public funds available to enable PPP projects.</b> The remaining <b>30% was provided by the contracted private operator, with this investment to be repaid via revenues for water users.</b></p> <p>The case shows how a municipal government acted as a true partner in mobilizing financing for resilient infrastructure. The city also overcame a lack of technical capacity and insufficient service revenues by partnering with both the national government and private entities to finance improvements to the infrastructure and operations of its water system, providing immediate economic and climate resilience benefits to local residents whose quality of life depends on a reliable, affordable water supply.</p>	
<b>Additional information</b> <ul style="list-style-type: none"> <li>• FSD Africa. 2021. Financing Africa's Urban Opportunity: The Why, What and How of Financing Africa's Green Cities. Available at: <a href="https://www.fsdafrica.org/publication/financing-africas-urban-opportunity-the-why-what-and-how-of-financing-africas-green-cities/">https://www.fsdafrica.org/publication/financing-africas-urban-opportunity-the-why-what-and-how-of-financing-africas-green-cities/</a></li> </ul>	

Case Study 8: Development Bank South Africa (DBSA) Climate Finance Facility	
Country: South Africa	City: Multi-city
PPF Provider: Development Bank South Africa (DBSA)	Sector: Climate change mitigation and adaptation
Barriers addressed: <ul style="list-style-type: none"> <li>• Inability of a municipality or a municipal corporation to borrow from domestic or international capital markets due to poor creditworthiness.</li> <li>• Mismatch between short lending terms and the investment cycle of infrastructure projects.</li> <li>• High upfront costs and the long period before return on investment.</li> <li>• Limited capacity to raise own source revenue (OSR).</li> </ul>	Strategies used: <ul style="list-style-type: none"> <li>• Support cities to borrow from <b>Development Banks</b>, which can apply concessional rates, risk mitigation instruments, and technical assistance.</li> </ul>
<p>DBSA is a development finance institution wholly owned by the Government of South Africa. The bank seeks to “accelerate sustainable socio-economic development in the Southern African Development Community (SADC) by driving financial and non-financial investments in the social and economic infrastructure sectors.” DBSA’s Climate Finance Facility (CFF) was formed in 2018 after DBSA recognized that Southern Africa is exceptionally prone to the adverse effects of climate change as the region experiences droughts and irregular rainfall periods. Mitigating the effects and the need to shift the national economy away from fossil fuels comes at a high price for the region. The CFF tackles this by forming attractive value propositions for the private sector to invest beyond public resources. The projects eligible for support are infrastructure projects and businesses that work towards climate change adaptation and mitigation. This can include projects to move city energy reliance to decentralized systems, urban distributed solar farms, and water efficiency projects.</p> <p>The CFF is pioneering the green bank model to de-risk and increase the bankability of climate projects to encourage private sector investment. CFF uses a blended finance approach to give loans that can increase investments in climate-related projects in South Africa. CFF also provides credit enhancements by offering subordinated debt tranches and tenor extensions to increase the bankability of climate projects in cities of the region and crowd-in investments from project sponsors and commercial banks.</p> <p>In 2022, the CFF designed a credit enhancement package for bankable water reuse projects for small and intermediary cities across South Africa. The objective is to upgrade or expand existing wastewater treatment plants and target new wastewater treatment plants to find solutions for equitable water costing. This project seeks to increase the awareness of municipalities across the country on how to treat effluent water for reuse. The national attempt comes with the idea to mitigate challenges that are faced by several small and intermediary cities in South Africa rather than tackle them in isolation; this reduces the transaction costs with a single program that can be implemented.</p> <p>The facility uses its capital to fill market gaps and crowd-in private investment that targets infrastructure projects toward climate change adaptation and mitigation. PPFs can support smaller cities in seeking financing support from national development bank intermediaries such as the DBSA CFF. The CFF itself could also be considered a PPF, helping to design bankable projects that its development bank parent can then finance.</p>	
<b>Additional information</b> <ul style="list-style-type: none"> <li>• Green Climate Fund. 2019. GCF and DBSA partnership to boost climate investments in the Southern Africa region. Available at: <a href="https://www.greenclimate.fund/news/gcf-and-dbsa-partnership-boost-climate-investments-southern-africa-region">https://www.greenclimate.fund/news/gcf-and-dbsa-partnership-boost-climate-investments-southern-africa-region</a></li> <li>• Green Climate Fund. 2020. 2020 Annual Performance Report for FP098: DBSA Climate Finance Facility. Available at: <a href="https://www.greenclimate.fund/sites/default/files/document/fp098-apr2020.pdf">https://www.greenclimate.fund/sites/default/files/document/fp098-apr2020.pdf</a></li> <li>• Convergence. 2019. Case Study: Development Bank of South Africa’s Climate Finance Facility. Available at: <a href="https://greenbanknetwork.org/wp-content/uploads/2019/07/Convergence_Climate_Finance_Facility_Case_Study_2019.pdf">https://greenbanknetwork.org/wp-content/uploads/2019/07/Convergence_Climate_Finance_Facility_Case_Study_2019.pdf</a></li> </ul>	

### Case Study 9: Betterment levies for infrastructure renewal in Manizales, Colombia

Country: Colombia	City: Manizales
PPF Provider: N/A	Sector: Infrastructure
Barriers addressed: <ul style="list-style-type: none"> <li>• Inability of a municipality or a municipal corporation to borrow from capital markets.</li> <li>• High upfront costs and the long period before return on investment.</li> <li>• Limited capacity to raise own source revenue (OSR).</li> </ul>	Strategies used: <ul style="list-style-type: none"> <li>• Explore <b>land value capture</b> as a mechanism for cities to fund infrastructure projects</li> </ul>

Betterment levies in Colombia are compulsory charges imposed by the government on properties to cover the costs of specific improvements that can generally benefit the public and property owners. Established in 1921, **betterment levies play a key role in financing public work and greatly contribute to the municipal ability to provide infrastructure and services across Colombia.** The value of the levy is calculated based on the cost of the public project and distributed across the beneficiaries according to the degree of benefit that they would gain. The payment capacity is calculated based on socio-economic studies for residential uses. For commercial uses, the payment capacity is based on the rent.

**In Manizales, betterment levies are used to generate the municipal's own-source revenues to finance urban infrastructure projects.** Betterment levies account for almost 50% of the city's property tax revenue and have contributed to at least eight projects in urban renewal and infrastructure improvements. The betterment levy can help the local government accommodate infrastructure expansion and sustainable urban development to mitigate the effects of urban expansion as well as possible infrastructure development for climate change adaptation and mitigation.

According to Colombian law, the betterment levy is calculated by the 1—cost of the construction project, 2. The value added to the properties, and 3—the capacity of the property owners to pay the levy. The municipalities ensure that levies are affordable to the property owners to encourage regular payments. In the case of Manizales, a dual appraisal method is used where an initial appraisal creates a map of the area of intended development with land prices before an infrastructure project and a second map after the project is implemented. This helps the property owners understand the value generated by the project and levy distribution.

Manizales funded four major road and urban development projects within the last three years through a single levy on 80 percent of the city's properties. This makes the betterment levy a viable financial instrument to fund urban development projects that can sustain public-generated revenue by incentivizing property owners to pay the levy by offering greater public benefits. The key factor in the success of the betterment levy is a fair distribution model, generating significant social value from the project and maintaining ethical standards while administering the levy.

#### Additional information

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- CRISIL. 2019. Report on land value capture tools applicability (Revised). Available at: [https://www.eda.admin.ch/dam/countries/countries-content/vietnam/en/sdc-publications/can-tho-report-land-value\\_EN.pdf](https://www.eda.admin.ch/dam/countries/countries-content/vietnam/en/sdc-publications/can-tho-report-land-value_EN.pdf)
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Case Study 10: Community-based Finance via the Asian Coalition for Community Action (ACCA)	
Country: 19 countries in South and Southeast Asia	City: 230 cities in South and Southeast Asia
PPF Provider: Asian Coalition for Housing Rights (ACHR)	Sector: Housing and slum upgrading
Barriers addressed: <ul style="list-style-type: none"> <li>• Inability of a municipality or a municipal corporation to borrow from domestic or international capital markets due to poor creditworthiness.</li> <li>• Mismatch between short lending terms and the investment cycle of infrastructure projects.</li> <li>• High upfront costs and the long period before return on investment.</li> <li>• Limited capacity to raise own source revenue (OSR).</li> </ul>	Strategies used: <ul style="list-style-type: none"> <li>• Support the design and implementation of community-based finance instruments that build on the role of people and communities.</li> </ul>
<p>The Asian Coalition for Community Action (ACCA) was established in 2008 as an initiative of the Asian Coalition for Housing Rights (ACHR), and it continues to be active and effective today. Building from the experience of a decade of engagement with the Thai Government, including delivery of subsidy and loan programs for housing upgrading (through the <b>Baan Mankong Initiative</b>), ACCA was designed to support community-led upgrading initiatives that could be expanded, in partnership with local government, to a city-scale (Community Act Network, 2022).</p> <p>Operating across 19 Asian countries and focused on community-led planning and implementation of settlement upgrading, ACCA creates a framework for public grants and asset transfers from the national government matched by community savings and other income to deliver key housing, environmental, and infrastructure improvements. They are intended to make a real difference in the lives of community members while also unlocking the power of collective action, demonstrating the impact of decentralized development, and improving the negotiating position of communities to access more investment and support.</p> <p>Despite individual projects being kept intentionally small-scale, settlement groups form a larger body by coming together at a city and national level to share knowledge and problem-solving across ACHR membership. <b>The networking provides visibility and enables groups to engage and negotiate with the municipal and federal government on issues of land access and tenure, and infrastructure finance (Boonyabantha and Kerr, 2018).</b> The participatory development model has been effective in leading to city-community partnerships, ongoing dialogue, and planning reforms to make housing upgrading more affordable.</p> <p>ACCA provides a development finance model sufficient to make meaningful improvements to informal settlements but at a scale to allow participation by people with low and unstable incomes. The financial mechanism is rooted in community savings groups networked at a city level through community development fund (CDF) committees. The CDF provides structures to involve a wide group of stakeholders and potential funders in settlement upgrading without diluting community control over the use of resources. The extended networks of stakeholders at the city level allow pressure for changes in public policy and regulations governing land use and housing while creating a precedent for the co-financing of settlement upgrading. Using the CDF to elevate the discussion to the city level is vital to generate the scale of public and private investment needed to improve infrastructure and access to services to settlements.</p> <p>There is an important role for PPFs to be aware of possible community-based financing models and to link cities or communities with relevant entities such as ACCA to help convene communities to design and finance projects further. Some PPFs may be able to replicate the CBF approach themselves, acting as ACCA has done, in terms of enabling community participation and leveraging additional financing from other sources.</p>	
<b>Additional information</b> <ul style="list-style-type: none"> <li>• Asian Coalition for Housing Rights. Asian Coalition for Housing Rights. Available at: <a href="http://www.achr.net">http://www.achr.net</a></li> <li>• Community Act Network. 2022. Learning City-wide Baan Mankong Housing Program: Nakhon Sawan Thailand. Available at: <a href="https://www.youtube.com/watch?v=pzDIFFfsf4Y">https://www.youtube.com/watch?v=pzDIFFfsf4Y</a></li> <li>• Boonyabantha, S. and Kerr, T. 2018. Making people the subject: community-managed finance systems in five Asian countries. <i>Environment and Urbanization</i>. 30(1): 15 – 24. Available at: <a href="https://doi.org/10.1177/0956247817751335">https://doi.org/10.1177/0956247817751335</a></li> <li>• IIED. 2012. Rethinking Finance for Development: The Asian Coalition for Community Action (ACCA). Available at: <a href="https://www.iied.org/10619iied">https://www.iied.org/10619iied</a></li> <li>• GIZ. 2022. Community-based Finance in Urban Development. Available at: <a href="https://germany-wuf11.global/resource/community-based-finance-in-urban-development-how-community-based-finance-contributes-to-sustainable-urban-development-and-its-opportunities-for-german-development-cooperation/">https://germany-wuf11.global/resource/community-based-finance-in-urban-development-how-community-based-finance-contributes-to-sustainable-urban-development-and-its-opportunities-for-german-development-cooperation/</a></li> </ul>	

# ANNEX 2: CATALOGUE OF BARRIERS

Ref.	Barrier Title	Barrier description	Relevant Strategies
<b>1</b>	<b>Municipal staff capacity and awareness barriers</b>		
1.1	Low capacity to define and prioritise climate action.	Small and intermediary cities have limited human resources and budget for training and skills development. This can often translate into low capacity of municipalities to prioritise projects that can maximise climate impact within a specific context.	1.1 Define and prioritise high impact and feasible climate action projects 1.3 Seek integrated multi-sector and transformational solutions through appropriate coordination and integrated project development. 1.4 Support municipal governments to link climate action projects to national policy and foster public sector partnerships
1.2	Low capacity to define project impact in terms of GHG emission reduction and climate risk reduction (mitigation and adaptation).	It is important to define the intended mitigation and/or adaptation impact of a climate investment, such as GHG (or purely CO <sub>2</sub> ) emission reduction and resilience to the impacts of climate change. Such skills are often limited in small and intermediary cities with poor creditworthiness, in the public and private sectors.	1.1 Define and prioritise high impact and feasible climate action projects 1.4 Support municipal governments to link climate action projects to national policy and foster public sector partnerships 1.5 Strengthen internal capacity from staff to prepare bankable projects, including demonstrating cash-flow / revenue generation plans to enable project recourse.
1.3	Low capacity to define synergies and co-benefits between aspects of climate action.	Lack of knowledge to identify and seek synergies, which can make projects more transformational. For example, between nature-based solutions for urban flooding, mitigating urban heat, as well as providing public recreation and health benefits.	1.3 Seek integrated multi-sector and transformational solutions through appropriate coordination and integrated project development.
1.4	Low capacity in development of technical / feasibility studies for climate action projects.	Technical/feasibility studies are needed to define the project parameters and desired impact. This includes economic and commercial aspects, such as projected cash-flow etc.	1.2 Use existing contextual knowledge previously acquired by the PPF 1.5 Strengthen internal capacity from staff to prepare bankable projects, including demonstrating cash-flow / revenue generation plans to enable project recourse.
1.5	Low capacity to prepare projects that meet international requirements for international financial institutions, as well as to adhere to multilateral development banks' reporting processes.	Municipal staff and private sector entities often have limited experience and knowledge relating to preparing Concept Notes and Proposals for international climate finance, including relevant international standards.	1.2 Use existing contextual knowledge previously acquired by the PPF 1.5 Strengthen internal capacity from staff to prepare bankable projects, including demonstrating cash-flow / revenue generation plans to enable project recourse.
1.6	Limited knowledge of climate finance options available in context of poor creditworthiness.	There tends to be limited knowledge among municipal staff and independent project developers of climate finance options that can help to overcome barriers related to poor creditworthiness, current risk and other challenges set out here, such as via concessional finance, blended finance, credit enhancement instruments etc.	2.3 Identify viable debt financing and risk mitigation models and strategies 2.3.2 Support the design and implementation of viability gap grant finance models and blended finance models and revolving fund models that can address the needs of projects in smaller cities. 2.3.3 Support the design of PPP projects that don't require municipal borrowing

1.7	Low capacity of national and municipal governments to direct intergovernmental fiscal transfers (IFTs) towards high impact climate action.	IFTs are often a principal source of income for small and intermediary cities, particularly if there is a lack of fiscal decentralisation. Directing IFTs towards well defined mitigation and adaptation projects could be an important aspect of climate action, but it is often constrained by limited knowledge of how projects can contribute to high-impact climate action.	2.2 Support national and municipal governments to direct intergovernmental fiscal transfers towards high impact climate action
<b>2 Access to Finance / Finance Sector Characteristics</b>			
2.1	Inability of a municipality or a municipal corporation to borrow from domestic or international capital markets due to poor creditworthiness.	Poor creditworthiness highly restricts the ability of a municipal government or corporation to borrow from commercial finance entities. Poor creditworthiness is due to little confidence in the long-term financial strength of the borrower, and in the ability and willingness of the municipality to pay its obligations in full and on time. This is often caused by poor public financial management and the low ability to raise own source revenue from taxes and other sources.	2.1 Support cities to access climate finance grant funding to cover partial or total costs. 2.3.1 Support the design and implementation of concessional loans and /or viability gap models to fund projects. 2.3.2 Support the design and implementation of blended finance models (possibly with revolving fund component) with risk mitigation instruments, that can address the finance barriers for projects in smaller cities. 2.3.3 Support the design of PPP projects that don't require municipal borrowing. 5.2 Explore land value capture as a mechanism for cities to fund infrastructure projects. 5.3 Support cities to access funding from international and voluntary carbon market (Carbon Credits) for specific projects or initiatives. 5.4 Support the design of Payment for Ecosystem Services (PES) approaches to fund adaptation projects such as parks and natural resources management. 5.5 Support the design and implementation of 'community based instruments' that build on role of people and communities.
2.3	Limited lending ability of domestic investors for climate projects	Limited local currency balance sheets means that local investors cannot support many projects. They need to prioritize and end up investing in more commercially attractive non-climate projects.	2.1 Support cities to access climate finance grant funding to cover partial or total costs. 4.1 Support cities to borrow from Development Banks, which are able to apply concessional rates, risk mitigation instruments and technical assistance. 4.2 Support cities to borrow from Municipal Development Funds, set up by central governments to enable long-term credit for municipal infrastructure projects. 5.1 Cities can provide tax incentives to accelerate the transition to sustainable practices, through tax exemption and specific credit lines. 5.3 Support cities to access funding from international and voluntary carbon market (Carbon Credits) for specific projects or initiatives. 5.4 Support the design of Payment for Ecosystem Services (PES) approaches to fund adaptation projects such as parks and natural resources management. 5.5 Support the design and implementation of 'community based instruments' that build on role of people and communities.

2.4	International financial institutions tend not to invest in domestic finance instruments because of FX risks and limited local counterparties	Foreign exchange (FX) risks and interest rate risks, in addition to inflation, can often result in a low attractiveness of projects or unviable costs of capital in small and intermediary cities, especially in the contexts of LMICs. Secondly, the limited role of domestic intermediary institutions and instruments is also an impediment, as even if international investors are interested they will not have the right de-risking mechanisms to invest.	4.1 Support cities to borrow from Development Banks, which are able to apply concessional rates, risk mitigation instruments and technical assistance. 4.2 Support cities to borrow from Municipal Development Funds, set up by central governments to enable long-term credit for municipal infrastructure projects
2.6	Mismatch between short lending terms and the investment cycle of infrastructure projects.	Finance providers, especially commercial banks, tend to lend for limited amount of years (5-10) which is far too short for infrastructure projects, where 15+ years is required	2.1 Support cities to access climate finance grant funding to cover partial or total costs. 2.3.1 Support the design and implementation of concessional loans and /or viability gap models to fund projects. 4.1 Support cities to borrow from Development Banks, which are able to apply concessional rates, risk mitigation instruments and technical assistance. 4.2 Support cities to borrow from Municipal Development Funds, set up by central governments to enable long-term credit for municipal infrastructure projects. 5.3 Support cities to access funding from international and voluntary carbon market (Carbon Credits) for specific projects or initiatives. 5.4 Support the design of Payment for Ecosystem Services (PES) approaches to fund adaptation projects such as parks and natural resources management. 5.5 Support the design and implementation of ‘community based instruments’ that build on role of people and communities.
<b>3 Project Economic Challenges</b>			
3.1	Low maturity of technologies and business models being deployed / High perceived risk/lack of evidence of success for new technologies and business models.	Climate mitigation or adaptation infrastructure, assets or approaches are often innovative and relatively untested compared to conventional approaches (for example, upgrading a public-owned bus fleet to electric buses). Sometimes it is not a technology that is new, but a certain business model that is uncommon in a certain jurisdiction. Project developers may struggle to find adequate experts in the local supply chain and investors may lack confidence in new approaches that have a limited evidence base.	2.1 Support cities to access climate finance grant funding to cover partial or total costs. 2.3.1 Support the design and implementation of concessional loans and /or viability gap models to fund projects. 2.3.2 Support the design and implementation of blended finance models (possibly with revolving fund component) with risk mitigation instruments, that can address the finance barriers for projects in smaller cities.
3.2	High upfront costs and long period before return on investment.	Project costs are often high due to enhanced risks embedded in the businesses as well as high upfront costs. This barrier is specific to infrastructure projects and to some climate projects, such as large-scale renewable energy projects. These projects often require high capital expenditure (Capex) whilst operating expenditures (Opex) options are limited, making it challenging to find an investor willing to finance unless there are significant guarantees in place.	2.3.1 Support the design and implementation of concessional loans and /or viability gap models to fund projects. 2.3.2 Support the design and implementation of blended finance models (possibly with revolving fund component) with risk mitigation instruments, that can address the finance barriers for projects in smaller cities. 5.2 Explore land value capture as a mechanism for cities to fund infrastructure projects



3.3	Project ticket size is too small to attract investors, including international public finance.	The smaller size and the limited scalability options of green infrastructure projects in small and intermediary cities often present a challenge for investment. This is especially severe for commercial or non-concessional finance, where transaction costs are high. The lack of scale can also result in high prices for innovative solutions such as locally produced energy efficient building materials.	3.1 Facilitate partnerships and identify synergies between municipalities, municipal companies and/or other entities 3.2 Aggregation of projects to increase economies of scale 3.3 Pooling can be aided by credit enhancements such as debt service reserve funds and partial guarantees.
3.4	Lack of scale and therefore high transaction costs for innovative solutions.	A downside of the low economies of scale is the resulting high price for innovative tech solutions such as locally produced e-bikes, which do not make for a feasible economic model for investors.	3.1 Facilitate partnerships and identify synergies between municipalities, municipal companies and/or other entities 3.2 Aggregation of projects to increase economies of scale 3.3 Pooling can be aided by credit enhancements such as debt service reserve funds and partial guarantees.
3.5	Low procurement leverage on national or international markets.	Small cities lack the purchasing power to negotiate better prices and terms when procuring equipment or services.	3.1 Facilitate partnerships and identify synergies between municipalities, municipal companies and/or other entities. 3.2 Design aggregation models such as pooled finance for projects, to increase economies of scale.
3.6	Low creditworthiness of off-takers and customers.	Project investments are often at higher risk if the customers or users of a product or service have unreliable creditworthiness and may fail to consistently repay instalments or user fees. This may relate to water supply user fees, for example.	2.3.1 Support the design and implementation of concessional loans and /or viability gap models to fund projects. 2.3.2 Support the design and implementation of blended finance models (possibly with revolving fund component) with risk mitigation instruments, that can address the finance barriers for projects in smaller cities.
<b>4</b>	<b>Governance / Institutional</b>		
4.1	Dependence of cities on intergovernmental transfers for all or the majority of their budget	The implication is that the funding is very limited and cannot be used for other objectives, leading to limited financial innovation or ability to fund climate action.	2.2 Support national and municipal governments to direct intergovernmental fiscal transfers towards high impact climate action
4.2	Variation in degree of autonomy in municipal government decision making.	Varied jurisdictional arrangements can make it challenging for investors - and often even for cities - to understand what mandate and degree of autonomy they have in infrastructure project development. This is even more relevant in projects that may go beyond one urban area; thus involving trans-jurisdictional mandates. However, this would depend by the country and topic, and climate policy might be less of an issue.	2.2 Support national and municipal governments to direct intergovernmental fiscal transfers towards high impact climate action
4.3	Poor or inconsistent regulatory environment / Political uncertainty.	Investors are often discouraged by policy inconsistencies (particularly related to specific sectors such as energy feed in tariffs or PPP framework regulations) and the lack of strong, efficient, and impartial domestic dispute resolution systems, in addition to the perceived or real difficulties of changing investment patterns due to institutional, governance, and contractual/financial features present in the market.	2.3.1 Support the design and implementation of concessional loans and /or viability gap models to fund projects. 2.3.2 Support the design and implementation of blended finance models (possibly with revolving fund component) with risk mitigation instruments, that can address the finance barriers for projects in smaller cities.

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4.4	Lack of fiscal decentralisation.	Small and intermediary cities often lack autonomy to manage their own finances, or approve climate finance interventions that may directly target cities rather than being coordinated at the national level.	2.2 Support national and municipal governments to direct intergovernmental fiscal transfers towards high impact climate action
4.5	National regulations that prevent local authorities from directly accessing climate finance.	Linked to the point above, many small and intermediary cities are prevented, by local regulations and mandates from international banks, from direct engagement with international climate finance entities which could help overcome creditworthiness challenges via credit enhancement instruments, etc.	2.2 Support national and municipal governments to direct intergovernmental fiscal transfers towards high impact climate action 3.1 Facilitate partnerships and identify synergies between municipalities, municipal companies and/or other entities.
4.6	Limited capacity to raise own source revenue (OSR).	The context of poor creditworthiness of a municipality is usually consistent with a very limited ability to raise OSR, which would normally be used to provide collateral in (non-project recourse) lending arrangements.	5.2 Explore land value capture as a mechanism for cities to fund infrastructure projects
4.7	Lack of urban and/or climate policy and strategy to guide project development.	Many small and intermediary cities in LMICs have inadequate or outdated urban plans and strategies, climate action strategies or sector specific strategies. There is also a lack of vertical integration between national policy such as Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) and sub-national policy and practice.	1.1 Define and prioritise high impact and feasible climate action projects 1.4 Support municipal governments to link climate action projects to national policy and foster public sector partnerships
4.8	Lack of coordination between cities to identify synergies and identify priority actions that can be jointly financed.	Small and intermediary cities often lack the institutional processes to liaise with and coordinate action with other cities within a region or country, which could support aggregation of projects and learning and knowledge sharing processes.	1.2 Use existing contextual knowledge previously acquired by the PPF. 3.1 Facilitate partnerships and identify synergies between municipalities, municipal companies and/or other entities. 3.2 Aggregation of projects to increase economies of scale. 3.3 Pooling can be aided by credit enhancements such as debt service reserve funds and partial guarantees.

# ANNEX 3: CATALOGUE OF STRATEGIES

Ref.	Strategy Description	Barriers Addressed (from BARRIERS Tab)	What PPFs Can Do (to support the strategy)	Potential challenges for strategy implementation	Case Studies to illustrate (Link to CASE STUDIES Tab)
<b>Theme 1: Technical Assistance for Project Pipeline Development</b>					
<b>Rationale / Strategy: Support municipalities and/or to independent project developers to define areas of high mitigation and adaptation impact, seek integration with urban plans and policy, define specific projects, prioritise projects and support in the preparation of bankable projects.</b>					
1.1	Define and prioritise high impact and feasible climate action projects	1.1 Low capacity to define and prioritise climate action. 1.2 Low capacity to define project impact in terms of GHG emission reduction and climate risk reduction (mitigation and adaptation). 4.7 Lack of urban and/ or climate policy and strategy to guide project development.	PPFs can support cities by developing a list of priority action and tangible projects; developing shortlisted projects into viable and bankable projects that can attract international climate finance or private sector investment. Early-stage support is still one of the crucial steps to move projects from planning into implementation. PPFs working with one specific project in a city can use their existing connections with the city administration to provide low touch support in flagging other relevant infrastructure projects. Alternatively, they can also use their contextual knowledge of working in a country to help other cities in the same context to identify promising projects.	As it's a very early-stage strategy focusing on plans, it needs to have a clear tie-in with further implementation plans.	1. Sustainable Urban Economic Development Programme (SUED) in Kenya, FCDO. 16. The Gap Fund: Quantifying the economic and social benefits of nature-based solutions. 27. Assessment of Climate Vulnerability and Adaptation in Cambodian Cities.
1.2	Use existing contextual knowledge previously acquired by the PPF	1.4 Low capacity in development of technical / feasibility studies for climate action projects. 1.5 Low capacity to prepare projects that meet international requirements for international financial institutions. 4.8 Lack of coordination between cities to identify synergies and identify priority actions that can be jointly financed.	Focus on replication of successful cases - rather than starting support from secondary city from zero. Open calls for proposal in the same sector/country where it previously supported other city, and complement these existing study with technical/feasibility ones that can be developed jointly, creating economies of scale in the project development phase. In practical terms, this may mean PPFs opening call for proposals that are country or context specific. Another effective way of PPFs supporting cities through knowledge exchange is to create specific knowledge KPIs as part of their work and ToC. This would allow the PPF to have specific resources - staff and budget-wise - dedicated to replication and knowledge sharing in specific contexts. It is worth noticing that what is meant by knowledge sharing in this case involves activities such as workshops, city-to-city learning and in person and site visits.	Technical and capacity needs may differ among cities supported.	2. CFF cycling infrastructure project preparation support to smaller and intermediary cities in Colombia. 3. CFF e-mobility project preparation support to smaller and intermediary cities in Mexico. 11. CFF facilitation to support Jakarta share its technical and financial learnings with the province of West Java and the Bandung Metropolitan area, comprised of 5 municipalities.

Ref.	Strategy Description	Barriers Addressed (from BARRIERS Tab)	What PPFs Can Do (to support the strategy)	Potential challenges for strategy implementation	Case Studies to illustrate (Link to CASE STUDIES Tab)
1.3	Seek integrated multi-sector and transformational solutions through appropriate coordination and integrated project development.	1.1 Low capacity to define and prioritise climate action. 1.3 Low capacity to define synergies and co-benefits between aspects of climate action.	PPFs can help cities identify transformational projects, that can involve different sectors, and provide technical support to move such projects further. This includes linking them with partners/other organisations that have the knowledge and resources to advance the project. One of the first actions for PPF support is to develop stakeholder mapping to identify and engage with relevant potential partners.	There's a risk that technical studies are prepared by external parties and handed over to the city, without transferring the knowledge and increasing the city's capacity. PPFs need to ensure that building capacity is part of their work with cities to promote transformational change at the institutional level.	20. Financing Sustainable Mobility as a Road to Urban Integration (Circuito Sur) 23. Technical Assistance to enable synergies in water access and public lighting.
1.4	Support municipal governments to link climate action projects to national policy and foster public sector partnerships.	1.1 Low capacity to define and prioritise climate action. 1.2 Low capacity to define project impact in terms of GHG emission reduction and climate risk reduction (mitigation and adaptation). 4.7 Lack of urban and/ or climate policy and strategy to guide project development.	Develop studies focused on potential links with national policies, and focus on the creation of partnerships with national and other municipal governments. This can help avoid future bottlenecks on national legislation in the future, as well and enable space for aggregation of projects from different municipalities in the same country that could benefit from a similar intervention	The support that PPFs offer, especially in early stages, are limited. Focusing on national policies and potential future partnerships may not be among top interventions that the PPF would choose to focus on with the city	15. The Gap Fund: Affordable and green housing in the Greater Dakar region. 23. Technical Assistance to enable synergies in water access and public lighting.
1.5	Strengthen internal capacity from staff to prepare bankable projects, including demonstrating cash-flow / revenue generation plans to enable project recourse.	1.4 Low capacity in development of technical / feasibility studies for climate action projects. 1.5 Low capacity to prepare projects that meet international requirements for international financial institutions.	PPFs can support cities in understanding the different financial options of projects, as well as the existing requirements for those, linking projects to finance since the early stages of PPF support. These should be done in a way that strengthens internal capacity and builds knowledge within the city, so that the learnings can be later used by city staff in other projects. Also support city /project developer to enable them to demonstrate cash-flow / revenue generation plans to enable project recourse to be the collateral. Ideally capacity building needs to cover transferrable knowledge, rather than being context or sector specific, so that municipalities can scale climate finance projects, and replicate learning with different projects within the same city	High turnaround of technical staff in city administration. Timeframe of PPF support is often too short, to span from early stage support to a stage where a viable financing model can be identified or developed.	19. Bus Rapid Transit system in Metro Makassar. 28. The EIB's Africa Sustainable Cities Initiative (ASCI) 34. Climate Finance Accelerator (BEIS).

**Theme 2: Grant Finance and Debt Finance with Risk Mitigation**

**Rationale / Strategy: Support cities and project developers to understand the grant and debt climate finance options that are possible even in the context of poor creditworthiness, or can mitigate poor creditworthiness, with the objective of supporting projects to eventually graduate from requiring climate finance support.**

2.1	Support cities to access climate finance grant funding to cover partial or total costs	All of the Category 2 Barriers	Support cities in assessing existing grant options, and prepare necessary documentation to apply for grant. This will be particularly relevant for adaptation projects that have no revenue generation potential.	Grant agreement processes can be lengthy, which each granting entity requiring a different set of documents.	28. Africa Sustainable Cities Initiative (ASCI) - (Specific project subject to interview)
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Ref.	Strategy Description	Barriers Addressed (from BARRIERS Tab)	What PPFs Can Do (to support the strategy)	Potential challenges for strategy implementation	Case Studies to illustrate (Link to CASE STUDIES Tab)
2.2	Support national and municipal governments to direct inter-governmental fiscal transfers towards high impact climate action	1.7 Low capacity of national and municipal governments to direct intergovernmental fiscal transfers (IFTs) towards high impact climate action. 4.1 Dependence of cities on intergovernmental transfers. 4.2 Variation in degree of autonomy in decision making. 4.4 Lack of fiscal decentralisation. 4.5 National regulations that prevent local authorities from directly accessing climate finance.	Support national and/or city governments to develop or enhance low-carbon and resilient urban development strategies; develop a list of priority action and tangible projects that should benefit from national government funding.	Political misalignment between national and municipal government reduces intergovernmental transfers. Decision-making is not purely made based on impact potential of projects	39. ICMS-Ecológico or ICMS-E: Ecological fiscal transfers for cities in Brazil
2.3	Identify viable debt financing and risk mitigation models and strategies (as set out below)	1.6 Limited knowledge of debt and risk mitigation climate finance options available in context of poor creditworthiness. All of the Category 2 Barriers	Support to municipal government or project developer on viable debt financing, enabled by risk mitigation instruments, in context of poor creditworthiness. It is important to strike the right balance between concessionality and moving to a market-based system.	Find the right level of concessionality that doesn't over-burden project developers in terms of debt.	18. The Gap Fund: Low-carbon and affordable mobility.
<b>Potential viable debt plus mitigation financing models include:</b>					
2.3.1	Support the design and implementation of concessional loans and / or viability gap models to fund projects.	3.1 Low maturity of technologies and business models being deployed. 3.2 High upfront costs and long period before return on investment. 4.3 Poor or inconsistent regulatory environment / Political uncertainty.	Support the design of a commercial loan or viability gap finance arrangement. Enable partnerships and coordination. In most cases, concessional loans will come from a multi-lateral development bank will require a sovereign guarantee by a national government, which will usually pass on the loan money either as debt and/or partial grant to city governments.	level of complexity may be incompatible with timeframe of PPF support, especially if project is in earlier stage. High competition for concessional finance.	13. Sub-National Climate Finance Initiative (SnCF) 28. Africa Sustainable Cities Initiative (ASCI) 29. Africa Water facility - (Specific project subject to interview)
2.3.2	Support the design and implementation of blended finance models with risk mitigation instruments, that can address the finance barriers for projects in smaller cities.	1.6 Limited knowledge of climate finance options available in context of poor creditworthiness. 3.1 Low maturity of technologies and business models being deployed. 3.2 High upfront costs and long period before return on investment. 3.6 Low creditworthiness of off-takers and customers.	Support the design of instruments and facilities that can provide blended finance, possibly with a revolving fund component. Enable partnerships and coordination. Provide lessons learned, technical support and coordination for the design of the instrument. Explore how risk mitigation instruments can also make this viable, such as partial credit guarantees / subordinated debt or first-loss equity / loan loss reserve, which can cover payment defaults by the borrower or issuer up to a pre-determined amount.	Often too complex; challenges in getting different investors together and agree on the characteristics and terms of the instruments. For Revolving Funds, it may be possible that the repayment abilities vary and are difficult to estimate early in the design of the instrument. Market fluctuations and/or political or institutional uncertainty beyond control of city impact perception of risk	27. GCF Private Sector Facility: Partial Credit Guarantee 28. Africa Sustainable Cities Initiative (ASCI) 33. Guarantees via the EBRD's Municipal Infrastructure and Industrial Resilience (MIIR)

Ref.	Strategy Description	Barriers Addressed (from BARRIERS Tab)	What PPFs Can Do (to support the strategy)	Potential challenges for strategy implementation	Case Studies to illustrate (Link to CASE STUDIES Tab)
2.3.3	Support the design of PPP projects that don't require municipal borrowing	1.6 Limited knowledge of climate finance options available in context of poor creditworthiness. 2.1 Inability of a municipality or a municipal corporation to borrow from capital markets. (TBC)	Provide technical support for the development of studies and enabling conditions for creating of PPPs. Among the activities supported, the city can hold public consultations and meetings with companies and entrepreneurs in the relevant sector.	The PPP issues can be very contextual. There is a need for a robust regulatory environment that covers PPP models.	4. Energy Performance Contract Model for Water Loss Reduction in Emfuleni, South Africa. 22. CFF support to the city of Curitiba in the development of the technical studies necessary for the development of solar power plants in a deactivated landfill under a PPP model. 24. PT Sarana Multi Infrastruktur (PTSMI), Indonesia
<b>Theme 3: Supporting the Aggregation of Projects to Increase Scale</b>					
<b>Rationale / Strategy: Support cities and project developers to coordinate with other cities and partners to facilitate pooled procurement, aggregation of projects and pooled financing, depending on the most suitable model for each context.</b>					
3.1	Facilitate partnerships and identify synergies between municipalities, municipal companies and/or other entities.	3.3 Project ticket size is too small to attract investors. 3.4 Lack of scale and therefore high prices for innovative tech solutions. 3.5 Low procurement leverage on national or international markets. 4.5 National regulations that prevent local authorities from directly accessing climate finance. 4.8 Lack of coordination between cities to identify synergies and identify priority actions that can be jointly financed.	Develop partnerships with existing cities or subnational government associations, that can more efficiently support the replication and aggregation of projects supported by PPFs	Cities may have different priorities and project development timelines. High complexity requires strong coordination. There needs to be a leading city (which would end up having more power) unless the members can agree on terms.	9. RAMCC Trust Fund: Joint procurement for LED lights for public street lighting 5. Pooled Finance and a Blended Finance Approach in The Water and Sanitation Pooled Fund (WSPF) in Tamil Nadu
3.2	Design aggregation models such as pooled finance for projects, to increase economies of scale.	3.3 Project ticket size is too small to attract investors. 3.4 Lack of scale and therefore high prices for innovative tech solutions. 4.8 Lack of coordination between cities to identify synergies and identify priority actions that can be jointly financed.	Provide support to multiple projects in same national/subnational contexts, that have similar technical needs and that can be aggregated to seek for finance jointly  Develop specific line of support to cities that focuses on aggregation and scalability potential of projects	Very challenging in general - would need to identify investors, such as institutional investors, with large funding availability especially in the refinancing space. Cities need to identify similar needs and align timing of intervention.	8. GreenStreet Africa: Aggregation of distributed solar projects. 9. RAMCC Trust Fund: Joint procurement for LED lights for public street lighting. 10. European City Facility (EUCF)
3.3	Pooling can be aided by credit enhancements such as debt service reserve funds and partial guarantees.	3.3 Project ticket size is too small to attract investors. 3.4 Lack of scale and therefore high prices for innovative tech solutions. 4.8 Lack of coordination between cities to identify synergies and identify priority actions that can be jointly financed.	Facilitate partnerships with international organisations or national FIs that can provide debt service reserve funds and partial guarantees. Support the design of the financing model.	TBC	5. Pooled Finance and a Blended Finance Approach in The Water and Sanitation Pooled Fund (WSPF) in Tamil Nadu

Ref.	Strategy Description	Barriers Addressed (from BARRIERS Tab)	What PPFs Can Do (to support the strategy)	Potential challenges for strategy implementation	Case Studies to illustrate (Link to CASE STUDIES Tab)
<b>Theme 4: Supporting Cities to Borrow from Financial Intermediaries (with risk mitigation instruments) to Fund Climate Action</b>					
<b>Rationale / Strategy: Support cities and project developers to access development capital market finance indirectly, through financial intermediaries.</b>					
4.1	Support cities to borrow from National Development Banks, which can apply concessional rates, risk mitigation instruments and technical assistance.	2.2 Low maturity and fewer options due size of financial markets. 2.3 Lack of local-currency financing, leading to limited balance sheet of local investors. 2.4 Lack of local-currency financing, leading to limited instruments that local banks can offer to attract larger international investors. 2.7 Mismatch between short lending terms and the investment cycle of infrastructure projects. 4.8 Lack of coordination and learning between cities and other entities.	Facilitate partnership and collaboration with development banks. Support and develop bankable projects etc. Share knowledge through developing institutional linkages with national governments. PPFs that are linked to wider institutions, such as banks or international agencies, are well positioned to engage relevant institutions.	Misalignment between national and local government can create barriers to municipal access to MDB funding	25. Development Bank of South Africa (DBSA) Climate Finance Facility: An intermediary enabling local access to climate finance. 28. Africa Sustainable Cities Initiative (ASCI) - Intends to support selected cities access finance from financial intermediaries such as National Development Bank.
4.2	Support cities to borrow from Municipal Development Funds, set up by multi-lateral banks, development finance institutions or central governments to enable long-term credit for municipal infrastructure projects.	2.2 Low maturity and fewer options due size of financial markets. 2.3 Lack of local-currency financing, leading to limited balance sheet of local investors. 2.4 Lack of local-currency financing, leading to limited instruments that local banks can offer to attract larger international investors. 2.7 Mismatch between short lending terms and the investment cycle of infrastructure projects. 4.8 Lack of coordination and learning between cities and other entities.	Facilitate partnership and collaboration with development banks. Support and develop bankable projects etc. Share knowledge through developing institutional linkages with national governments. PPFs that are linked to wider institutions, such as banks or international agencies, are well positioned to engage relevant institutions.	A suitable municipal development fund may not be available in the relevant country or sub-region in which a PPF is supporting a city.	26. FINDETER, Colombia 36. The Bangladesh Municipal Development Fund
<b>Theme 5: Support Cities to Implement Finance Instruments that don't rely on municipal borrowing</b>					
<b>Rationale / Strategy: Support municipal governments to identify and prepare innovative financing models that bypass the need for borrowing.</b>					
5.1	Cities can provide tax incentives to accelerate the transition to sustainable practices, through tax exemption and specific credit lines	2.3 Lack of local-currency financing, leading to limited balance sheet of local investors.	Help cities identify what are areas in which they can support citizens and businesses through easily implementable solutions, that fall under the municipalities' jurisdiction and decision-making power	Not suitable for cities with little or no OSR generation capability. By providing tax cuts to land tax, the city will risk reducing one of their few sources of revenue. Cities already struggle with capacity and coordination to develop and fund 'normal' projects, especially infrastructure ones, let alone infrastructure projects with a (strong) climate element.	21. City of Palmas solar PV tax incentives , Brazil.

Ref.	Strategy Description	Barriers Addressed (from BARRIERS Tab)	What PPFs Can Do (to support the strategy)	Potential challenges for strategy implementation	Case Studies to illustrate (Link to CASE STUDIES Tab)
5.2	Explore land value capture as a mechanism for cities to fund infrastructure projects	2.1 Inability of a municipality or a municipal corporation to borrow from capital markets. 3.2 High upfront costs and long period before return on investment 4.6 Limited capacity to raise own source revenue (OSR)	Implementing land value capture requires understanding of the jurisdiction, calculating land value return and strengthening governmental capacities for tax collection. There are also different instruments within land value capture; such as betterment contributions, charges for building rights, inclusionary housing and zoning, linkage or impact feed, among others. PPFs can support cities in understanding these different approaches, and help to tailor the model that would best be applied in a specific city.	Out of date or insufficient land registries. Weak institutional capacity to enforce tax collection; predominance of informal settlements	35. Betterment levies for infrastructure renewal
5.3	Support cities to access funding from international and voluntary carbon market (Carbon Credits) for specific projects or initiatives.	All of the Category 2 Barriers	Support cities to understand the role of the international and voluntary carbon markets and how city governments could fund a project in this way, including applying a robust emissions reduction methodology and considering to monitoring and validating measures.		38. New initiative to fund smart city projects via carbon credits in Chennai, India
5.4	Support the design of Payment for Ecosystem Services (PES) approaches to fund adaptation projects such as parks and natural resources management.	All of the Category 2 Barriers	Support cities to develop capacity in payment for ecosystem systems, whereby finance is available from user fees or from other sources such as crowdfunding donations, and to design a specific initiative for a sector such as flood risk mitigation, urban parks. Explore methods to incorporate crowdfunding and the use of digital solutions where appropriate.		37. Supporting Ulaanbaatar with scoping a Payment for Ecosystem Services approach for urban forest conservation.
5.5	Support the design and implementation of 'community-based instruments' that build on role of people and communities.	All of the Category 2 Barriers	Identify and co-create solutions that are rooted in local needs and communities rather than imposed as larger commercial models. Finance can come from community members or organisations, or members of a diaspora. Focus on Decentralised finance opportunities, potentially supported by use of digital infrastructure etc. Typical projects include housing, water and sanitation and local roads and pavements.	TBC	32. The Gungano Fund: Community fund for infrastructure investment. 40. The Asian Coalition for Community Action (ACCA)



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