

## Policy Brief

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# Leveraging National Development Banks To Enhance Financing For Climate-Smart Urban Infrastructure

**Directed to National Development Banks**

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### KEY TAKEAWAYS

- While National Development Banks (NDBs) are well positioned to scale up financing for climate-smart urban infrastructure, only a small minority finance local governments or green infrastructure.
- This research evaluated the demand (cities) and supply (NDBs) side barriers of climate-smart urban infrastructure financing to identify actionable opportunities to scale up NDB financing for climate-smart urban infrastructure. Twelve maturity dimensions were identified across NDBs' strategic, financial, operational, and business parameters, representing areas of opportunities and specific actions that can be taken to capture them.
- Overcoming barriers faced by cities and NDBs also requires close collaboration between stakeholders, including national governments and DFIs. Each key stakeholder identified can play a role individually and collaboratively in bridging the gap in financing green urban infrastructure.

Investments in climate adaptation and mitigation measures in cities' infrastructure will determine the resilience and wellbeing of all communities for years to come. Inaction on climate change in cities will lead to increased inequality both within and among countries. Climate change can have significant financial implications that can create a threat to the stability of the financial system, by disrupting business operations and increasing unexpected expenditures. Up to US\$ 4 trillion worth of assets are at risk from climate change in cities worldwide.<sup>1</sup>

At the same time, infrastructure needs are most acute in cities, and even more so in developing countries and smaller cities. Infrastructure financing needs are estimated at US\$ 4.1-4.3 trillion per year from 2015 to 2030.<sup>2</sup> Making infrastructure low-emissions and climate-resilient will require additional costs of US\$ 0.4-1.1 trillion per year.<sup>2</sup> However, climate-resilient infrastructure is estimated to have a favourable benefit-cost, with the World Bank estimating that investing US\$ 1 trillion in the incremental cost of making infrastructure more resilient in developing countries would generate US\$ 4.2 trillion in benefits.<sup>3</sup>

To close the investment gap in climate-smart urban infrastructure, National Development Banks (NDBs) have the potential to play a stronger role. Sitting at the nexus of public policy and the financial system, NDBs are well positioned to scale up financing for green urban infrastructure. Based on their strong local knowledge and proximity to cities, they are the ideal intermediaries to channel funds for climate-smart urban infrastructure and provide technical assistance and project preparation support for local governments.

This analysis from the Cities Climate Finance Leadership Alliance (Alliance) aims to provide a conceptual framework that looks at the essential dimensions that must be in place to enhance the role of NDBs in financing climate-smart urban infrastructure. The research builds on the main conclusions from the Alliance's Policy Brief on "Enhancing the Role of National Development Banks in Supporting Climate-Smart Urban Infrastructure".<sup>4</sup>

This latest research has focused on:

- **Cities as the demand side of green<sup>5</sup> urban infrastructure financing.** The analysis is based on interviews with six municipalities to develop key insights on the challenges in accessing finance for green urban infrastructure projects, particularly from national development banks. The research and analysis on common barriers and key enablers for cities is presented.

1 CDP, <https://www.cdp.net/en/climate>

2 Cities Climate Finance Leadership Alliance (Alliance). "The State of Cities Climate Finance 2015." Alliance, 2015, [ccfia.wpengine.com/wp-content/uploads/2015/12/CCFLA-State-of-City-Climate-Finance-2015.pdf](https://www.ccfia.wpengine.com/wp-content/uploads/2015/12/CCFLA-State-of-City-Climate-Finance-2015.pdf).

3 Global Commission on Adaptation. "Urban Resilience Infrastructure: an Imperative in a Climate Uncertain World." The Rockefeller Foundation, 20 Sept. 2019, [www.rockefellerfoundation.org/blog/urban-resilience-infrastructure-imperative-climate-uncertain-world/](http://www.rockefellerfoundation.org/blog/urban-resilience-infrastructure-imperative-climate-uncertain-world/).

4 Cities Climate Finance Leadership Alliance (Alliance). Enhancing the Role of National Development Banks in Supporting Climate-Smart Urban Infrastructure. Alliance, 2020. [https://www.climatepolicyinitiative.org/wp-content/uploads/2020/08/Enhancing\\_the\\_Role\\_of\\_National\\_Development\\_Banks\\_in\\_Supporting\\_Climate\\_Smart\\_Urban\\_Infrastructure.pdf](https://www.climatepolicyinitiative.org/wp-content/uploads/2020/08/Enhancing_the_Role_of_National_Development_Banks_in_Supporting_Climate_Smart_Urban_Infrastructure.pdf)

5 There is no widely accepted definition of "green infrastructure", but for the purpose of this memo, we refer to all low carbon, climate resilient infrastructure.

- **The supply side of green urban infrastructure financing, and specifically the role of NDBs.** The research focuses on the barriers and opportunities that NDBs face in financing green urban infrastructure. Based on the interviews with ten NDBs globally, the study develops a “maturity” model of the key attributes required by an NDB to successfully support green urban infrastructure finance.

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**NDBs can play a central role in enhancing the support for municipalities throughout the climate-smart infrastructure lifecycle from concept, design and scoping to pre-feasibility, feasibility and implementation stage. However, only 4% of Public Development Banks are specifically mandated to finance local governments, and even fewer NDBs have a green infrastructure-focused mandate.**

## **Barriers and Opportunities for NDBs to Provide Financing to Cities for Green Urban Infrastructure**

In most countries, NDBs have a responsibility to finance the transition towards a low-carbon, climate-resilient economy to improve the health and well-being of their citizens, and enhance their ability to achieve their development mandate. NDBs are a critical development financing arm of the national government and can be leveraged to advance the national and international climate goals and commitments as well as contribute to the achievement of the Sustainable Development Goals (SDGs).

The research and interviews with NDBs and municipalities identified a number of barriers that NDBs face when seeking to provide climate-smart urban infrastructure financing to specially to cities. These barriers were identified at the policy, legal and regulatory frameworks level, institutional level and financial level.

**Table 1.** Barriers for NDBs Financing Climate-Smart Urban Infrastructure

Policy, Legal and Regulatory Barriers	Institutional Barriers	Financial Barriers
<ul style="list-style-type: none"> <li>• Legal structure can limit the flexibility and ability of the NDB to take higher risks</li> <li>• Unspecific / broad mandate can hinder the NDB’s focus and prioritization of climate-smart infrastructure projects</li> <li>• Fragmented policies and lack of coordination at the national and sub-national level can interrupt project design and implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of resources and sectoral expertise in climate infrastructure financing to identify and structure projects</li> <li>• Lack of bankable projects pipeline or capacity to support municipalities with designing, developing and implementing climate-smart infrastructure projects</li> <li>• Weak internal capacity to support municipalities through TA or PPF</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient capitalization can impede on ability to finance green infrastructure projects with upfront capital requirements</li> <li>• Lack of access to international funds and dedicated resource mobilization to match needs of green infrastructure projects with financing</li> <li>• Weak fiscal capacity</li> <li>• Limited access innovative capital or de-risk instruments to finance climate-smart urban infrastructure projects.</li> </ul>

While there are many potential barriers, there are also opportunities for NDBs to provide climate-smart urban infrastructure financing to cities, as summarized below.

**Figure 1.** Enablers for NDBs to Finance Climate-Smart Urban Infrastructure

<b>Bankable Infrastructure Projects Pipeline Platforms</b>	NDBs are creating platforms to pool bankable infrastructure projects to attract private sector investments.
<b>Capacity Building</b>	NDBs are helping local governments in capacity building to enhance their access to diverse sources of finance.
<b>Dedicated Fund</b>	NDBs have funds dedicated to sustainable infrastructure projects which helps NDBs prioritize the resources for this sector.
<b>Resource Mobilization</b>	NDBs have a dedicated unit or staff that mobilize resources from donors to the specific needs of local governments and infrastructure projects (PPF & TA).
<b>International Climate Funds’ Accreditation</b>	Climate fund accreditation enhances the capacity of NDBs to support green infrastructure projects.
<b>Green / Sustainable Bonds</b>	NDBs that issue green bonds can support green urban infrastructure projects.

## The NDB Maturity Model for Financing Climate-Smart Urban Infrastructure

NDBs that finance infrastructure have different capacities and may face different constraints based on their size, structure and local financing needs. Nevertheless, common themes have emerged in the challenges and opportunities NDBs globally face at the strategic, financial, business and operational level. Twelve dimensions have been identified and developed to define – in normative terms – what constitutes a mature NDB’s ability to finance climate-smart urban infrastructure.

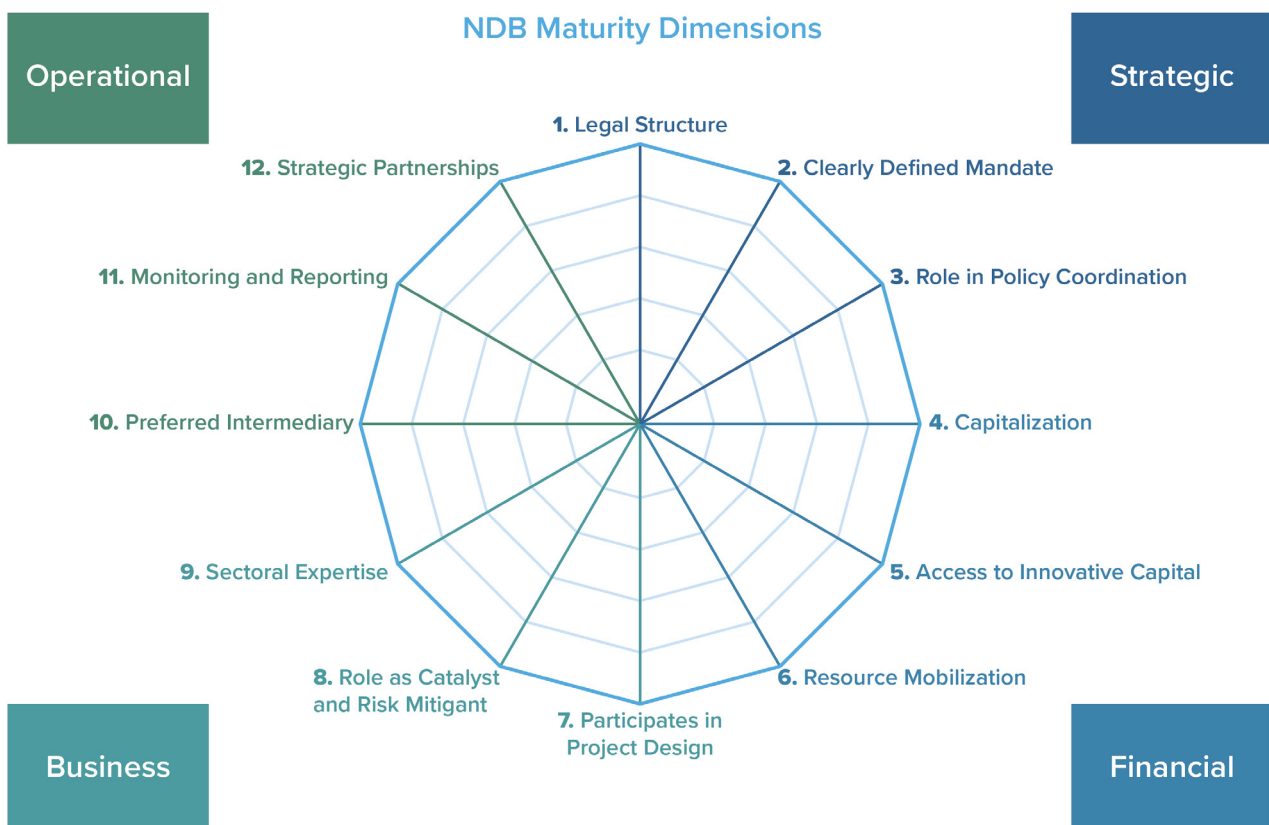
### About the NDB Maturity Model Dimensions and Parameters:

Based on the 12 main dimensions explored, each of these dimensions is presented in a positive value statement intended to define what “mature” means for each area. Each dimension is scored out of 5, based on our assessment, with 5 being a fully fledged NDB capable of optimizing climate-smart urban infrastructure financing.

It is not enough to be very strong in one area or parameter. One stronger area does not necessarily offset a weaker area. The most mature NDBs are those that find a balance between all four parameters. For a strong and mature NDB, the harmony or balance among the four common parameters, and the four key dimensions within each parameter, is as important (if not more important) than the absolute “scores” of individual dimensions or parameters.

The NDB maturity scale is intended to create a standard and consistent measure of comparison for NDBs financing green urban infrastructure.

Figure 2. The NDB Maturity Model



The below table summarizes the twelve dimensions of the NDB Maturity Model, which evolved from the barriers and enablers NDBs face in financing climate-smart urban infrastructure. These dimensions provide evidence-based analysis to develop the recommendations for several key stakeholder groups.

**Table 2.** Summary of the NDB Maturity Model Dimensions

Parameters	Dimensions
<b>Strategic</b>	<ol style="list-style-type: none"> <li>1. The Bank’s <b>legal structure</b> is established in an Act or specific legislation</li> <li>2. The Bank has a <b>clearly defined mandate</b> to support green infrastructure as well as local governments.</li> <li>3. The Bank has a <b>strategic policy role</b> with a seat at the policy table, plays a convening role in developing a green urban infrastructure strategy, coordinates among ministries, provides policy recommendations and supports in the operationalization of the project.</li> </ol>
<b>Financial</b>	<ol style="list-style-type: none"> <li>4. The Bank’s <b>size of equity</b> is sufficient to support climate smart urban infrastructure deals.</li> <li>5. The Bank has <b>access to innovative capital sources</b> to fund a range of green infrastructure projects.</li> <li>6. The Bank has a <b>devoted resource mobilization unit to access blended finance or grant funds</b> from international DFIs.</li> </ol>
<b>Business</b>	<ol style="list-style-type: none"> <li>7. The Bank <b>participates in project design</b> for green urban infrastructure at the national level or at the origination phase.</li> <li>8. The Bank acts as a <b>catalyst and de-risking instrument</b> to facilitate bankable infrastructure projects using various forms of guarantees, project preparation facilities and technical assistance to support municipalities.</li> <li>9. The Bank has the <b>sectoral expertise</b> of climate smart urban infrastructure financing.</li> </ol>
<b>Operational</b>	<ol style="list-style-type: none"> <li>10. The Bank is the <b>preferred intermediary</b> for international climate funds.</li> <li>11. The Bank <b>sets indicators to monitor and report</b> on green urban infrastructure transactions.</li> <li>12. The Bank has <b>strategic partnerships</b> with diverse sources of finance to channel funds to green infrastructure projects.</li> </ol>

## Recommendations

The analysis of the supply and demand for climate-smart urban infrastructure financing has led to actionable opportunities that NDBs can take to enhance their capacity to support local governments.

It is recommended that NDBs:

## STRATEGIC

1. Encourage national governments to provide NDBs a suitable legal structure that allows the flexibility to take higher risks and provide longer tenors, which are necessary for financing climate-smart urban infrastructure.

### **Case Study 1: PT SMI's Legal Structure Enables Flexibility to Take Higher Risk and Provide Longer Tenors (Indonesia)**

PT Sarana Multi Infrastruktur (Persero) (PT SMI) was established as a limited liability company (LLC), meaning it is bound by the same regulations as other financial institutions in Indonesia and also treated as a state owned enterprise in which the government owns 100% of its share. PT SMI follows the regulation of Financial Service Authority (FSA) as an infrastructure financing agency and is categorized as a non-bank financial institution (NBFI) and does not take third party deposit. Having a statutory arrangement as an NBFI allows PT SMI more flexibility to take more risk and provide longer tenors, which are needed for transactions such as climate-smart infrastructure and technologies. This would enhance its ability to deliver on their development mandate.

2. Encourage national governments to give NDBs a mandate that includes a climate focus for infrastructure and urban development to support local governments. This will enable NDBs to align with the Paris Agreement and contribute to their national climate goals and commitments such as the Nationally Determined Contributions (NDCs). With the mandate secured, develop a strategy to pursue and promote climate-smart urban infrastructure, with clear objectives and priorities in advancing projects. NDBs may adopt international standards for green lending, sustainability and risk management including Equator Principles and the Task Force on Climate-Related Disclosures (TCFD).
3. Seek a seat at the national policy table on the policy, legal and regulatory issues pertinent to development, urban and green finance, in order to promote coordinated policies and alignment across ministries and agencies.

## FINANCIAL

4. Build a strong relationship with the Ministry of Finance to ensure political commitment to supporting the NDB's (renewed mandate) and sufficient capitalization to be able to execute this mandate.
5. Make greater use of innovative capital, notably accessing dedicated pools of capital from institutional investors, achieving economies of scale by aggregating multiple projects, and offering low and fixed interest rates and long repayment terms.
6. Mobilize additional resources by raising resources from international climate funds, institutional investors, and DFIs to support local government needs.

## BUSINESS

7. Strengthen planning, project design and improve its ability to perform credit and investment appraisals by enhancing internal capacity to support city mandates and structures for long term planning and implementation of climate investment at scale.
8. Develop and utilize de-risking instruments such as guarantee programs, equity programs or credit support mechanisms to catalyze private sector investments, as well as developing its internal capacity to structure innovative instruments.
9. Deepen NDB sectoral expertise and build internal capacity to identify and structure green infrastructure projects.

### **Case Study 2: Mexico Projects Hub (Proyectos México) is an Online Platform Initiated by Banobras and the Mexican Government to Catalyze Local and International Private Investments in Infrastructure and Energy Projects Across Mexico**

In 2017, the Mexican government and implementing partner, Banobras, created the Mexico Projects Platform, so that domestic and international stakeholders could access information on major government infrastructure and energy projects. The online platform consolidates, standardizes, and promotes official project profiles, linking investment projects with domestic and foreign investors and encouraging long term financing. The platform also hosts a knowledge hub which promotes best practices to facilitate project execution, provides direct assistance for investor questions, and requests follow-up on investment projects to learn from stakeholder experiences in the platform. Information on the platform is consistently updated based on communication with official sources, which is then provided to stakeholders through the platform's registration program, ensuring registered stakeholders receive automatic alerts regarding their projects of interest. The platform advances the visibility of projects sponsored by government entities; establishes transparency regarding projects' performance and presents comparability in investment opportunities.

In 2018 alone, 34 sources of official project information and 11 sources of cross-sectional information made it possible to present more than 700 investment opportunities between new projects, active-projects, and vehicles listed on the two stock exchanges in Mexico. The hub is visited by 40,000 users per month on average.

## OPERATIONAL

10. Make use of international climate fund accreditations to enhance governance, resource management, policies and processes of climate projects. This can improve project track records, improve access to financing from climate funds and the ability to receive technical assistance to de-risk investments, and have positive reputational benefits.
11. Strengthen monitoring and reporting via improved data collection and capturing social, environmental and climate impacts



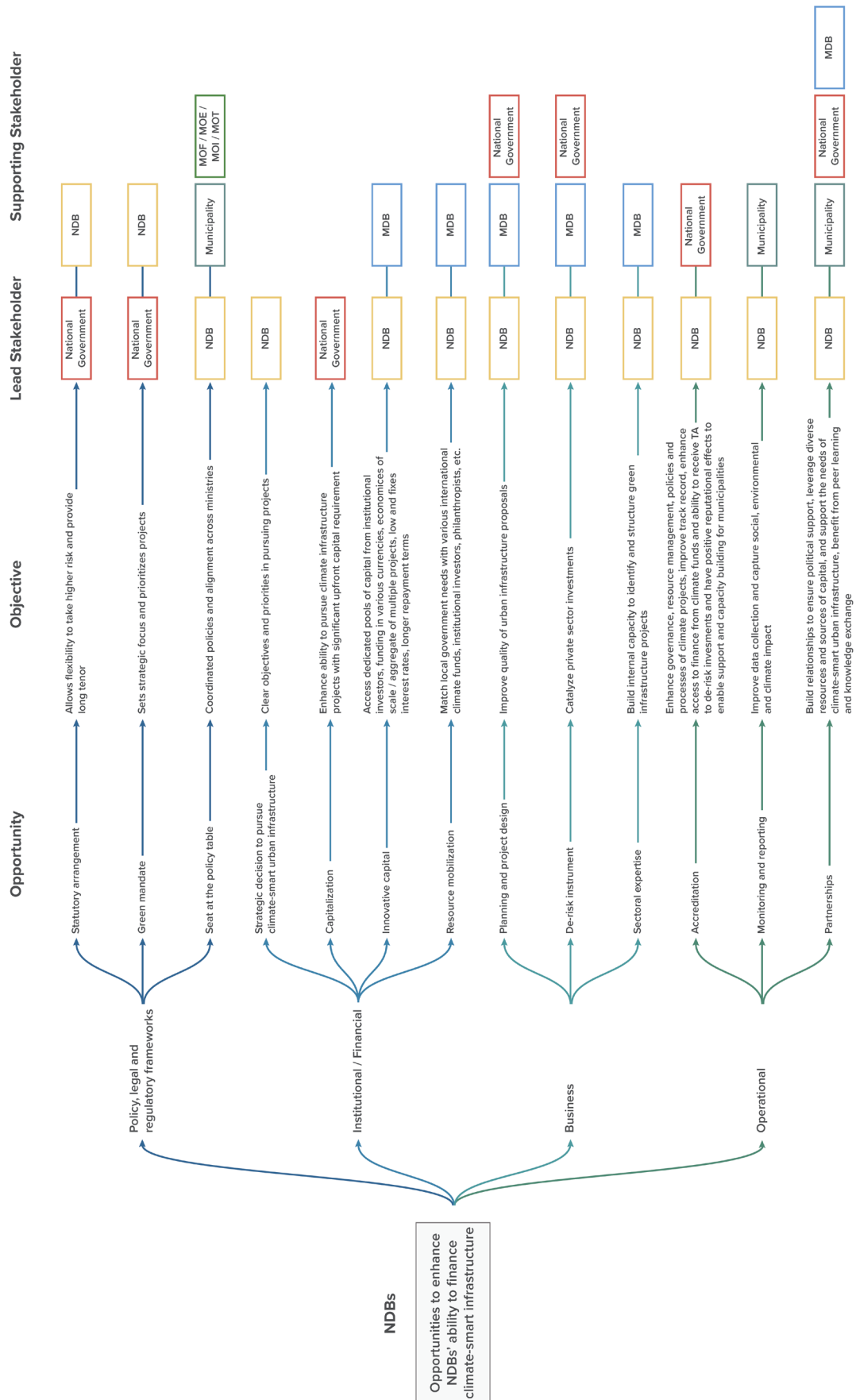
12. Develop strategic partnerships and build relationships to ensure political support, leverage diverse resources and source of capital, support the needs of green urban infrastructure projects, and benefit from peer learning and knowledge exchange. This may include participation in global forums for green investments banks and NDBs, as well as engaging with other local and regional development banks to streamline functions. Work with local governments to strengthen their financial capacity and knowledge on international climate finance players, objectives of concessional funds and assessment criteria for climate-smart urban infrastructure projects.

**These opportunities are summarized in the following mind map, which also highlights the supporting stakeholders who must be engaged for effective achievement of each dimension's primary objective. Different stakeholder groups must support cities and NDBs in overcoming barriers, as this responsibility cannot fall solely on either party. In other words, overcoming the barriers is not solely in the purview of NDBs or cities. Each key stakeholder identified in the mind map can play a role individually and collaboratively in supporting NDBs to effectively bridge the gap in financing green urban infrastructure.**

**The full knowledge product 'Leveraging National Development Banks To Enhance Financing for Climate-Smart Urban Infrastructure' includes further case studies and examples of how NDBs are implementing the recommendations listed above.**

**Access the knowledge product on the [Alliance website](#).**

**Figure 3:** Mind map of opportunities to enhance NDBs' ability to finance climate-smart urban infrastructure and relevant stakeholders



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## ABOUT THE CITIES CLIMATE FINANCE LEADERSHIP ALLIANCE

The Cities Climate Finance Leadership Alliance (the Alliance) is a coalition of leaders committed to deploying finance for city level climate action at scale by 2030. It is the multi-level and multi-stakeholder coalition aimed at closing the investment gap for urban subnational climate projects and infrastructure worldwide. Climate Policy Initiative (CPI) serves as Secretariat for the Alliance. Funding for the Alliance's activities is jointly made available through two German government ministries: The Federal Ministry for Economic Cooperation and Development (BMZ) and the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU).

## CONTACT

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