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HOW NATIONAL GOVERNMENTS CAN INCREASE FINANCE FOR SUBNATIONAL CLIMATE ACTION

Implementation options, proven financial techniques, and coordination frameworks

In support of the COP 28 Presidency Initiative
Coalition for High Ambition Multilevel Partnerships (CHAMP)

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This report was commissioned by the C40 x GCoM Bloomberg Philanthropies Joint Programme in support of the Coalition for High Ambition Multilevel Partnerships (CHAMP) for Climate Action aimed at enhancing cooperation between national and subnational governments in the planning, financing, implementation, and monitoring of climate strategies. The report presents implementation options, proven financial techniques, and coordination frameworks based on mainstream recognized expert research, leveraging the plethora of studies conducted by Multilateral Development Banks, other development partners, the United Nations, the International Monetary Fund, and the private sector, including international rating agencies.

The report is authored by Dr. Barbara Samuels, Executive Director of the Global Clearinghouse for Development Finance, a nonprofit organization dedicated to mobilizing finance for development. She was assisted by co-author Emilie Maehara, Head of Finance Engagement and Partnerships for the C40 x GCoM Joint Programme. Contributions were also made to the report by over 25 expert practitioners from governments (national, subnational), Multilateral Development Banks, bilateral development agencies, and the private sector.*

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The findings, interpretations, and conclusions expressed in this report reflect the authors' assessments and do not necessarily represent the positions of the sponsoring organizations, the interviewed experts, or their respective institutions. The accuracy of information, including that from expert sources, is not guaranteed.

* The list of interviewees is provided at the end of the report.

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EXECUTIVE SUMMARY

OBJECTIVE

This report is aimed at defining implementation options for national governments to significantly scale up finance for subnational climate action in close partnership with subnational governments, development partners, and the private sector.

Given the objective of identifying actions with impact across countries, the report is directed primarily at national governments – both national leaders and technical staff – with a focus on finance ministries as well as planning, urban, and environment ministries. Given their shared accountability for the formulation and implementation of national urban, climate, and development agendas, these ministries are also accountable for mobilizing finance to deliver green, healthy, and resilient communities. Subnational climate action is core to national development plans, budgets, and policies, underpinning the required national public investment in people, productivity, and prosperity.

FOCUS

Given the urgent need to increase finance for subnational climate action, the report identifies a range of potential actions that can be employed at scale immediately for high impact by national governments, including those governments constrained by high debt levels and low institutional capacity. To achieve the required short-term results within the next five years toward 2030 to meet national climate and development goals, given the current significant impediments to finance, proactive leadership from national governments can serve to immediately mobilize finance from development partners and private financers.

As documented extensively by expert studies and evidenced by the existing lack of funding for subnational climate action detailed in this report, direct finance from development partners and private financers for individual subnational climate projects is well below the required amounts, given systemic barriers. For example, the low amounts of debt provided for subnational urban projects in developing countries have been directed mainly toward individual larger projects in major cities.*

The report focuses on identifying a range of immediate and practical actions that national governments can undertake. It does not address the longer-term actions and reforms that require longer time frames, such as improving city creditworthiness, decentralization, and building the capacities of subnational governments to develop and finance projects.[1]

A specific focus is on identifying finance solutions that take into account the large debt burdens of Low- and Middle-Income Countries (LMICs), which limit public finance from both governments and development partners. Given the large gap in public funding for subnational climate action, national governments need to scale up targeted, proven financing approaches and national programs that effectively tackle affordability constraints and unlock public and private capital without relying on greatly expanding fiscal sovereign loans, grants, and guarantees.

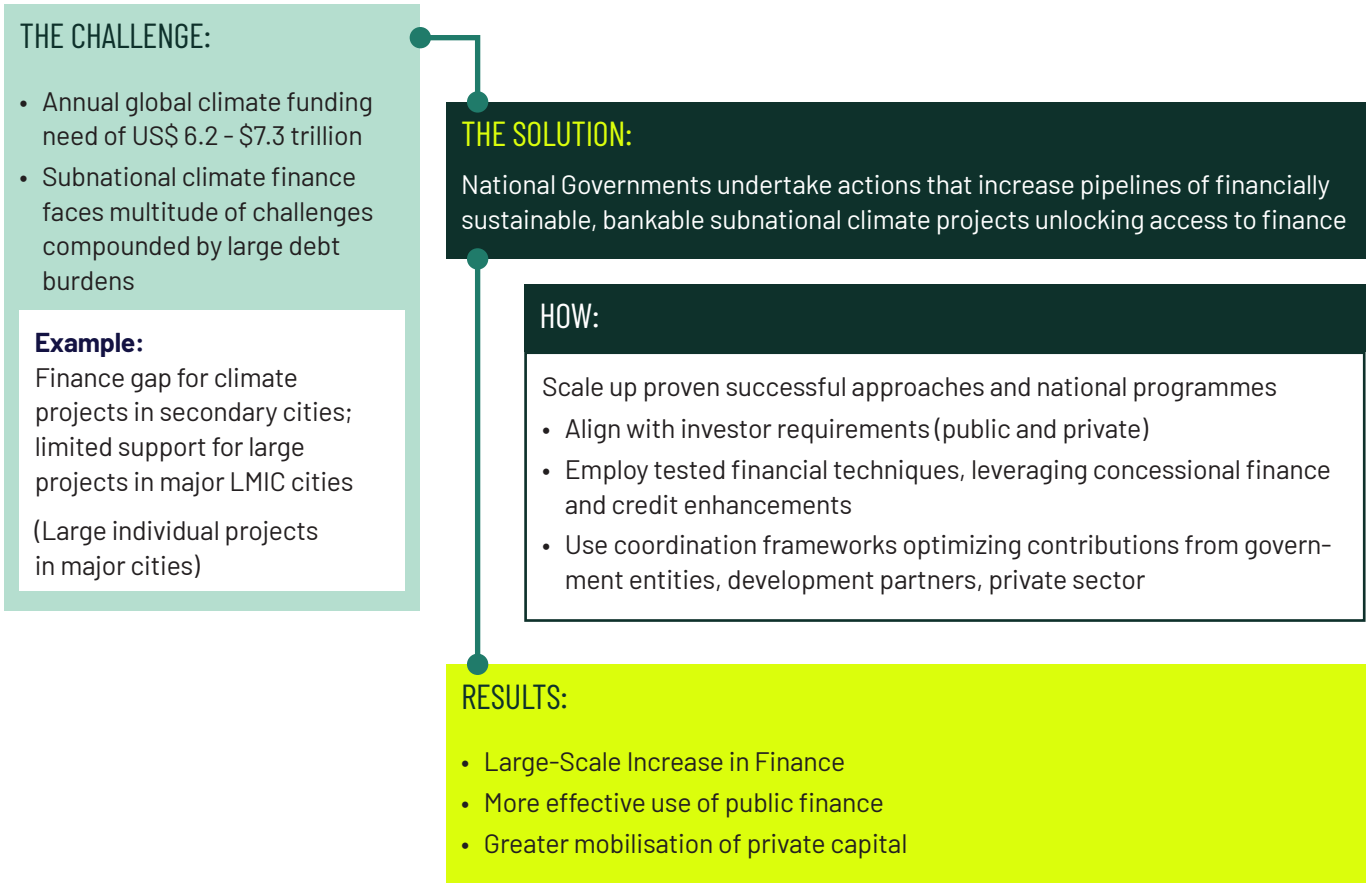
Citing successful approaches used worldwide to mobilize finance, the report provides examples of proven financial techniques, national programs, and coordination frameworks among government entities, development partners, and the private sector to increase effectiveness and impact. While many subnational climate actions need to be financed entirely with grant funding, national governments can scale up the use of proven financial approaches such as blended finance and project finance coupled with credit enhancements to increase pipelines of financially sustainable, bankable projects that meet the requirements of both public and private financiers.

* Based on a review by the co-author of annual reports of Multilateral Development Banks, the urban divisions of these banks finance only around 100 projects a year (excluding projects implemented by finance for sectoral programs), with an average project size of US$ 100 million. These projects are limited to the largest cities in developing countries.

To the extent possible, subnational climate projects need to be able to operate over the longer term based on their funding sources, which may consist of 100% public funding, a mix of project revenues and public funding, or be funded 100% by project revenues.*[2]

Development partners, the United Nations Framework Convention on Climate Change (UNFCCC), and the International Monetary Fund (IMF) underline the importance of mobilizing much greater amounts of private sector finance. Of the US$ 6.2–7.3 trillion of global climate finance required annually,** the UNFCCC and IMF estimate that 70–90% is required to come from the private sector, citing the importance of more strategic use of concessionary finance and credit enhancements (Figure ES1).

Figure ES1. Immediate Solutions for National Governments to Scale Up Finance for Subnational Climate Action



* As the term "bankability" is often associated only with commercial banks and private financiers, it is important to clarify that its common usage today by both public and private financiers reflects the requirements set forth by their respective credit units to ensure that a project is financially sustainable, operationally viable, and able to operate successfully over the long term, delivering the expected services and benefits (i.e., the project will not terminate its expected services and can pay its debt service or provide the expected returns). In addition, many private financiers today (e.g., impact investors) are to some degree in alignment with public financiers requiring some type of demonstrated development impact. Notably, while some projects are self-funded through project revenues, many projects in both developed and developing countries are bankable, as they are funded by the government or a mix of public and private finance, and such funding is considered credible and certain. Therefore, private and public financiers will consider a project "bankable" if the project's projected revenues (from the project and committed public funding sources) cover projected expenses (including debt service) within an acceptable margin tested for stress scenarios.

** A 2023 study estimates that, to deliver on the goal of net zero greenhouse gas emissions, US$ 6.2 trillion in climate finance is required annually between now and 2030 and US$ 7.3 trillion by 2050 (in contrast with current financing of around US$ 1 trillion). See Climate Policy Initiative (CPI) and Allen & Overy, How Big Is the Net Zero Financing Gap? (San Francisco: 2023)
CPI estimates from 2024 of required finance under the 1.5-degree Celsius scenario are of the same magnitude: US$ 7.4 trillion of annual climate finance needed through 2030 (contrasted with current financing of around US$ 1.3 trillion). See CPI, Global Landscape of Climate Finance 2024 (San Francisco: 2024)

The report details the specific actions that national governments can undertake in close coordination with development partners and the private sector to increase subnational climate finance.

While this report is aimed at national governments in LMICs, it sets forth implementation options relevant to countries worldwide that have proven to increase access to both public and private finance. As each country has different constraints, priorities, and enabling environments, the report presents an array of implementation options that can be adjusted as seen fit by national governments.

THE SCOPE OF SUBNATIONAL CLIMATE ACTION

Given that cities alone account for 70% of greenhouse gas emissions, the large-scale benefits of subnational climate action to citizens are embedded in both the Sustainable Development Goals (SDGs) and international climate goals.[3] Subnational climate action includes improved local infrastructure services such as water and sanitation, waste management, sustainable transportation, clean energy, energy-efficient buildings, and disaster prevention and recovery (e.g., flood management). Consequently, reducing climate risk in subnational jurisdictions protects people, property, and livelihoods from climate disasters, helping to reduce budgetary outlays following extreme climate events while safeguarding national economies and enabling prosperity.

Investing in subnational climate action pays multiple returns to national governments worldwide, delivering essential solutions to address the climate crisis. Subnational climate action improves public health outcomes and reduces public health expenditure, enhances affordability for households and productivity, increases access to economic opportunities and boosts competitiveness, spurs innovation, creates green jobs, and fosters the growth of the green economy, including opportunities for small and medium-sized enterprises (SMEs). Research by the Coalition for Urban Transitions shows that investments in low-carbon measures in cities alone could provide a return of at least US$ 23.9 trillion by 2050 and offer countries competitive advantages as cities seek to attract global talent and investment.[4]

CHALLENGES OF SUBNATIONAL CLIMATE ACTION

Global climate experts have stated across numerous studies that the five years to 2030 will be decisive in limiting global heating to 1.5 degrees Celsius and preventing the most catastrophic effects of climate change, requiring increased finance and collaboration among levels of governments, development partners, and the private sector.[5]

National governments around the world are being called upon to take ambitious action to reduce greenhouse gas emissions while facing societal pressures such as rising inequality, high inflation, rapid urbanization, and heavy debt burdens. At the same time, extreme storms, heatwaves, wildfires, and droughts are increasingly draining precious resources. For example, across the African continent, countries are losing up to 5% of their gross national products (GDPs) to climate change and spending up to 9% of their national budgets on extreme climate events.[6]

Subnational governments, consisting of states, regions, provinces, cities, districts, and other subnational jurisdictions, are critical to addressing the climate crisis given their primary roles at the front lines of climate action and public service delivery. According to the World Bank, cities alone generate 80% of global GDP.[7] Sectors that are critical to tackling emission reductions – such as energy, buildings, transportation, water, sanitation, and waste – are often operated or overseen by subnational governments with very limited resources and limited abilities to access additional public finance and mobilize private finance.

Today, the main bottleneck in achieving subnational climate action is the lack of finance at scale, handicapping subnational governments and related entities in implementing their subnational climate plans and projects.

Limits of government public finance: National and subnational governments, especially those in LMICs, face daunting challenges in increasing finance for subnational climate action, given large fiscal deficits and limits on increasing external debt from development partners and the private sector.

Both the World Bank and the IMF state that public finance in LMICs has become severely constrained:

- In its 2024 International Debt Report, the World Bank reports the risk of a solvency crisis in LMICs given the significant increase of US$ 633 billion to their combined 2023 debt stock of US$ 8.8 trillion and the resulting high payments on external debt (US$ 1.4 trillion), coupled with net transfers on external debt owed to bondholders (US$ 13.8 billion). These debt payments have reduced the availability of finance for LMIC governments in critical areas such as infrastructure delivery (e.g., water, sanitation, energy, transportation, etc.), health, education, disaster prevention, and the environment. The World Bank states that the financial strain has been "fiercest for the poorest and most vulnerable countries."[8]
- As of October 31, 2024, the IMF reports that 67 LMICs are in or at risk of debt distress based on the most recently published data.[9] The current sovereign debt levels of national governments is therefore a major concern for the IMF given its role in overseeing country public debt limits and debt distress situations.[10]

Therefore, large national fiscal burdens in LMICs and other governments reduce the public finance and intergovernmental fiscal transfers available to subnational governments.

National limits on subnational borrowing: Subnational governments cannot borrow absent approval through either specified related national regulations or one-off approvals.* According to the IMF, the rationale for national governments regulating the ability of subnational governments to contract debt is based on the need to ensure continued public service delivery and overall macroeconomic stability.[11]

Therefore, effective approaches to subnational climate finance in each country face the challenge of ensuring alignment with specific national regulations and conditions in close coordination with national regulatory authorities.

Lack of financial sustainability/bankability for some subnational climate projects: The challenge of contracting debt to finance subnational climate action is compounded by the nature of subnational climate action itself. Some subnational climate projects across developing and developed countries do not generate enough revenue to cover debt service costs or return sufficient profits to attract equity capital.

- As a result, many subnational climate projects need to secure funding from the subnational government's own-source revenues or from the national government (intergovernmental fiscal transfers, grants, concessionary loans).
- However, the availability of grants from national and subnational LMIC governments and their development partners is severely limited.
  - CPI reports that debt has been the most common financial instrument used to channel climate finance globally (US$ 766 billion or 61% of the total), followed by equity (US$ 422 billion or 33%) and grants (US$ 69 billion or 5%).
  - Moreover, according to CPI, total worldwide grant and concessional finance has consistently remained below 7% of total climate flows from 2011 to 2022 and needs "to increase and become more strategically coordinated."[12]

Therefore, it is critical to conduct expert finance analysis of the potential ways subnational climate projects can achieve financial sustainability, thereby enabling the targeted use of public funding to mobilize additional finance from public and private sources.[13]

* Even countries recognized as having a decentralized regulatory system enforce strict regulations limiting the ability of subnational governments to mobilize finance. For example, the OECD/UCLG World Observatory on Subnational Government Finance and Investment (SNG-WOFI) states that, for Colombia: "...subnational government borrowing is regulated by strict prudential rules, in particular the 1997 Traffic Light Law that classified subnational governments according to liquidity and solvency indicators. In 2003, the Law 819/2003 tightened borrowing restrictions. This required departments and large municipalities to obtain satisfactory credit ratings from international rating agencies before being able to borrow on the market." See OECD/UCLG, "2022 Country Profiles of the World Observatory on Subnational Government Finance and Investment: Colombia"

Competition for scarce public funding: Many factors within LMIC governments and development partners create intense competition for limited public funding.

- Given high debt burdens and strict IMF guidance, national governments have limited sovereign capacity to borrow, provide guarantees, and assume contingent liabilities, resulting in intense competition for the available limited access (if any). This results in intense domestic competition for this limited funding among the various government ministries, agencies, and entities, including subnational governments.
- Likewise, development partners themselves have limited funding, determined on a specific country basis. Even if a country is not classified by the IMF as being in risk of debt distress, development partners are constrained by the country ceiling established by their internal treasury department based on their own internal assessments. [14] Therefore, there is intense competition within development partner organizations from the many departments (sectoral, climate, urban, etc.) for securing allocations of funds constrained by country ceilings.

Heightened role of private capital: Given the above-cited constraints on LMIC public financing internally and from development partners, Multilateral Development Banks and UN Member States have continued to focus their funding gap solutions on mobilizing much greater levels of private capital.

- Of the US$ 6.2–7.3 trillion of global climate finance required annually, the UNFCCC and IMF estimate that 70–90% is required to come from the private sector.[15]
- The new finance goals agreed to by Member States at the 29th Conference of the Parties to the UNFCCC (COP 29) reflect the need for increased private finance, with new annual finance targets of US$ 300 billion provided by developed countries to developing countries and the much larger annual target of US$ 1.3 trillion (these targets include both public and private finance).[16]

Although the UNFCCC and the IMF state that that private sector needs to provide the dominant share of required climate finance requirement worldwide, expert studies document the difficulty of mobilizing private finance in LMICs.* However, the 2024 CPI report on climate finance states signs of increased private sector investment and potential growth in areas previously funded by public finance, currently representing 60% in middle-income countries.[17]

Therefore, to optimize the mobilization of private finance for subnational climate action, proactive actions are required, leveraging the existing levels of public finance.

Weak enabling environments and institutional capacity, small projects, and low creditworthiness: LMICs also face the daunting challenges of poor enabling environments and institutional weaknesses, including the lack of technical and finance capacity. These challenges affect national and subnational governments – in particular, secondary cities – given the lack of adequate resources and capacity to develop projects that meet the investment requirements of both public and private financiers.

In addition to limited available funding, common impediments include small project sizes that are not economical given prohibitively high transaction costs and the lack of creditworthiness. As a result, as noted earlier, the low amounts of debt in LMICS for subnational projects have been limited mainly to larger projects in major cities.

* Developing countries will face significant challenges in mobilizing these extremely high levels of private capital mobilization given the perceived high risk levels and requirements for large amounts of concessional funding and guarantees. As stated in the Net Zero Financing Roadmap: "This [dominant share of private finance] includes significant regional variation reflecting differences in financial market maturity, political conditions and the broader enabling environment for business and investment, ranging from 50% in Africa as the continent has a stronger reliance on public climate finance." See UNFCCC Race to Zero Campaign, Net Zero Financing Roadmap (2021). For example, in Nigeria public finance represents 70% of climate finance, mainly in the form of debt from development banks. See CPI, Landscape of Climate Finance in Nigeria (San Francisco: 2024), pp. iv–vi.

Wide universe of subnational climate action: Finally, additional challenges arise from the diverse range of participants implementing subnational climate action and from the multitude of subnational governments:

- Subnational climate action is delivered in both developed and developing countries by a wide range of public and private actors, including national governments, subnational governments, public and private sector utilities, development partners, SMEs, large corporations, energy service companies (ESCOs), public-private partnerships (PPPs), community service organizations, philanthropies, and other entities.
- There are over 1 million subnational governments worldwide – including at the state, provincial, county, and municipal levels – with diverse structures, as evidenced in reports from the Organisation for Economic Co-operation and Development (OECD) and others.[18]

Therefore, national governments are needed to coordinate and focus across the many public and private actors integrating subnational governments effectively in achieving subnational climate action.

Given the wide spectrum of challenges, there is global consensus on the need to mobilize private capital among governments, development partners, the IMF, and UN Member States – leveraging limited public finance from governments and development partners to scale up the number of financially sustainable, bankable projects ("pipelines") that meet the requirements of both public and private financiers.

OPPORTUNITIES TO INCREASE FINANCE FOR SUBNATIONAL CLIMATE ACTION

Despite these daunting challenges, national governments can adopt proven financial techniques and collaboration frameworks to unlock finance for subnational climate action. Key factors underlying opportunities include:

- **Underutilized capital:** For decades, leading public and private financiers have reported underutilized surpluses of available finance due to the lack of financially sustainable, bankable projects ready for investment.*
- **Private capital for climate and impact investment:** This large amount of underutilized capital is increasing as many public and private financiers share mandates to scale up their climate and impact investments.[19]
- **Proven financial techniques:** The use of proven financial techniques can unlock the existing amount of public and private finance and attract greater amounts of capital, including pension fund and other institutional investment from both domestic and international markets.

The potential for mobilizing more capital for climate action has been documented by both development partners and the private sector. For example, the International Finance Corporation (IFC) states that cities in emerging markets around the globe have the potential to attract more than US$ 29.4 trillion in cumulative climate-related investments in six key sectors by 2030.[20] A plethora of initiatives and funds provide evidence of greater private sector climate finance. For example, at its launch, the Glasgow Financial Alliance for Net Zero (GFANZ), a global coalition of leading financial institutions in the UN's Race to Zero campaign, represented more than US$ 130 trillion in cumulative climate-related investments by 2030.[21]

While both public and private financiers require investments to have risk-return profiles that meet their internal investor criteria of operating sustainably over the long term, bankability requirements and concerns related to the enabling environment and institutional capacity can be met through blending public and private finance and using credit enhancements such as first loss, guarantees, and the ringfencing of revenues for debt service payments.

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* Both public and private financiers commonly report having funds that they cannot invest due to the lack of acceptable projects that meet their internal due diligence requirements. To illustrate, the 2017 Business Twenty (B20) Taskforce stated: "The investment gap in infrastructure is not the result of a shortage of capital.... there is ample supply of long-term finance, interest by the private sector is high and the benefits are obvious. The main challenge is to find bankable and investment-ready projects." See Glory K. Jonga, "Developing Bankable Transport Infrastructure Projects: Case Studies, Experiences and Learning Materials for LLDCs and Transit Countries," presentation to the UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, May 18–20, 2021.

The critical importance of significantly scaling up blended finance and risk mitigation is underlined in the UN's 2015 Addis Ababa Action Agenda (AAAA), endorsed by all Member States.* The rationale is that blended finance can be used in specific projects and funding vehicles through combining funds from different sources to leverage scarce amounts of public funds and to unlock access to private investment, resulting in larger pipelines of financial sustainable, bankable subnational climate projects.

Sources of funding for a project can be combined from various sources, substituting 100% public funding with a mix of funding from the private sector, the public sector, and project revenues. According to Convergence, the global network for blended finance set up in support of the AAAA, blended finance has recently mobilized around US$ 213 billion in developing countries.**

The practicality of scaling up blended finance is evidenced by the success of a select number of subnational projects across both developed and developing countries that have used a range of blended finance approaches – from 100% public funding to a mix of project revenues and public funding, to 100% project-generated revenues.*** Therefore, significantly scaling up proven financial techniques, blended finance, and credit enhancements can create larger pipelines of financially sustainable, bankable subnational climate projects that unlock access to public and private capital.

The ability to develop and maintain bankability in LMIC infrastructure projects despite weak enabling environments and institutional capacity has been demonstrated in multiple types of successful financial approaches, in some cases achieving the favorable credit ratings needed for pension fund and other institutional investment. Examples include:

- **Project and structured finance:** Bankability can be achieved through using structured and project finance projects, as the structuring of the project can mitigate credit and performance risk. Empirical studies (notably from the international rating agency Moody's Investor Service) have shown conclusively that properly structured projects have lower default rates than corporate loans, even in developing countries experiencing macroeconomic volatility.[22]
- **Ringfencing of revenues and other funds for debt payments:** Bankability can be achieved through the use of escrow accounts earmarked for serving debt. In countries where commercial banks are constrained in providing loans to utilities and other companies, such techniques can often be used to meet their internal credit requirements.
- **Pooled finance facilities:** Small projects can be aggregated to meet financier requirements and to ensure economies of scale for climate impact.
- **Energy performance contracts:** Providers of energy-efficient equipment and services can often be mobilized through the provision of energy performance contracts that guarantee payments.
- **Revenue, project, and sustainability-linked bonds:** The scaling-up of bonds can be engineered through the use of ringfenced revenues for debt payments and other credit enhancements such as guarantees.
- **Co-financing:** The use of co-financing instruments such as blended finance techniques like A/B loan syndications can be used to attract private sector financing.
- **Targeted use of grant funding:** Climate projects often have high start-up costs for capital expenditures (CAPEX). The bankability of projects can be achieved by using grants to buy down the costs of equipment, land, and experts, reducing CAPEX costs that need to be covered by service fees. Grant funding can be provided by development partners and philanthropies (international, regional, and national).
- **Targeted use of concessional loans:** The bankability of a project can be improved through low-cost concessionary loans that reduce the project's fees and loan interest payments.

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* See the Addis Ababa Action Agenda of the Third International Conference on Financing for Development agreed to by all UN Member States in 2015. Given the lack of adequate public finance and the existing leading role of the private sector in financing climate solutions in developed countries, the dominant structuring approach is "blended finance" for individual projects combining sources of public and private sector finance with credit enhancements.

** See the Convergence website

*** For examples of proven finance approaches for subnational projects that have been used in Europe, the United States, and a few developing countries, see Global Fund for Cities Development (FMDV), Creating the Local Financing Framework for Sustainable Development Goals: The Potential Catalytic Role of Subnational Pooled Financing Mechanisms (2015). The report was authored by Dr. Barbara Samuels and launched at the Addis Ababa 2015 International Conference on Financing for Development on July 15, 2015.

- **Use of credit enhancements:** Given the importance of credit enhancements, the World Bank, European Union Gateway, and other development partners have scaled up the use of a wide range of credit enhancements, from guarantees to first loss facilities to the ringfencing of revenues and establishment of financial guarantors.*[23]

The report provides details and examples of these various financial approaches.

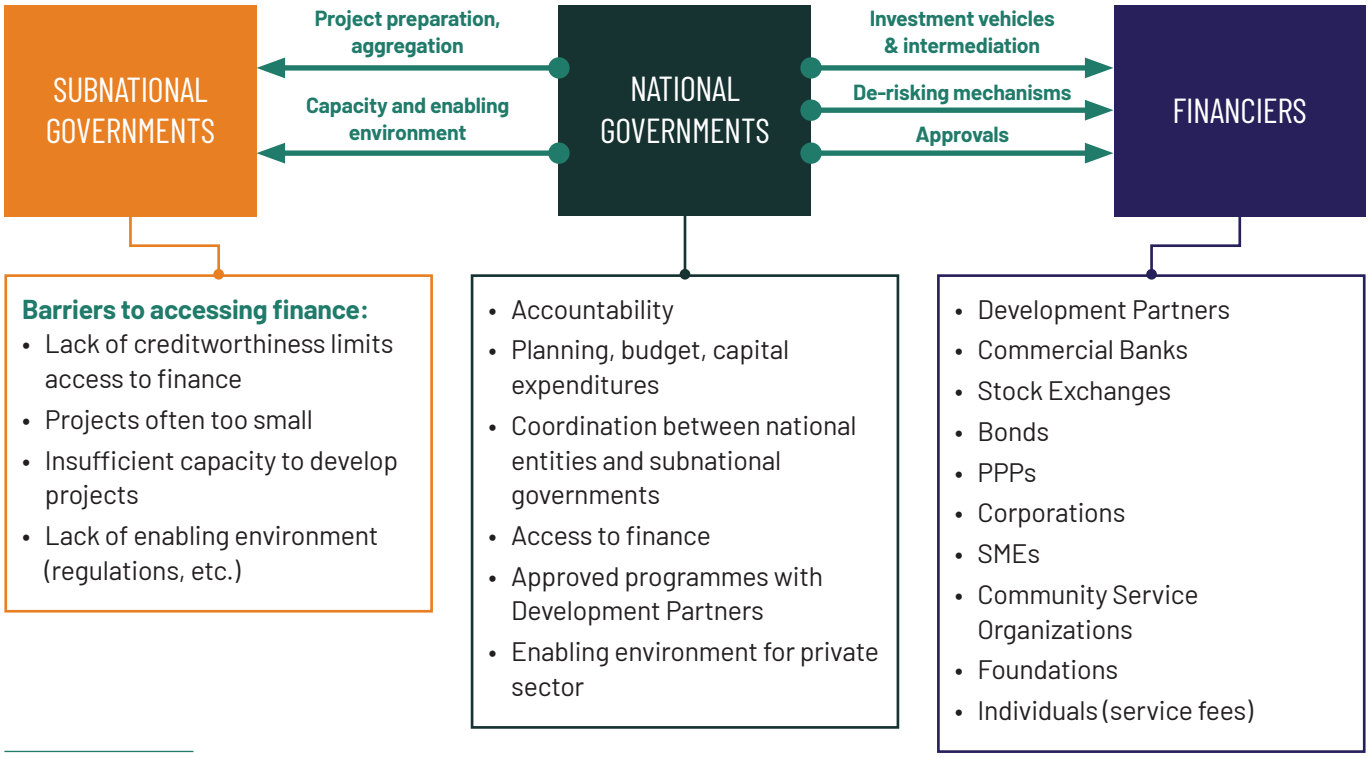
OPPORTUNITIES FOR NATIONAL GOVERNMENTS

As a result of the wide array of challenges and the preconditions to realize opportunities, national governments are foundational leaders needed to support subnational climate action. They can provide this support with national programs, financial techniques, and coordination frameworks that mitigate the weaknesses of enabling environments and institutional capacity and scale up pipelines of projects that are financially sustainable over the longer term.

Proven financial techniques used worldwide demonstrate that national governments can adopt and scale up successful approaches to financing subnational climate action, creating new partnerships and launching new national programs at scale. Such approaches can enhance technical cooperation with subnational governments, development partners, and the private sector to transform local climate investment needs into pipelines of financially sustainable, bankable projects integrated into country investment plans and budgets. While continued progress in building effective decentralization programs is critical, targeted actions can be undertaken immediately across countries with the leadership of national governments to increase finance for subnational climate action.

National governments can serve as gateways and bridges to connect local investment needs to the supply of public, private, domestic, and international capital. They are pivotal actors in addressing systemic barriers on the demand side (e.g., creditworthiness, small project sizes, lack of capacity to structure bankable projects, etc.) and on the supply side (e.g., sovereign fiscal and borrowing constraints, limited resources for pipeline development, etc.). As outlined in Figure ES2, national governments can improve the enabling environment through legal, regulatory, and policy frameworks; support project preparation and aggregation through national programs; develop investment vehicles and intermediation through public and private sector financiers; employ de-risking mechanisms; and provide the required approvals across the project development and finance life cycle.

Figure ES2. Why Are National Governments Essential in Scaling Up Finance for Subnational Climate Action?



* Examples include the newly launched World Bank Guarantee Platform, the EU Gateway guarantee €4 billion facility, and country financial guarantors such as Nigeria's Infrastructure Credit Guarantee Company Limited (InfraCredit).

The national government actions outlined in Figure ES2 require the establishment of coordination frameworks to ensure effective targeted actions that include essential participants, as noted in the next section.

COUNTRY-DRIVEN SOLUTIONS FOR SUBNATIONAL CLIMATE ACTION

National governments can effectively catalyze large-scale investment and mobilize capital using a country-led, multilevel approach to coalesce support and accelerate investment from Multilateral Development Banks and other development partners as well as from the private sector, unlocking private capital with strategic use of concessional finance (grants and concessionary loans) and credit enhancements.

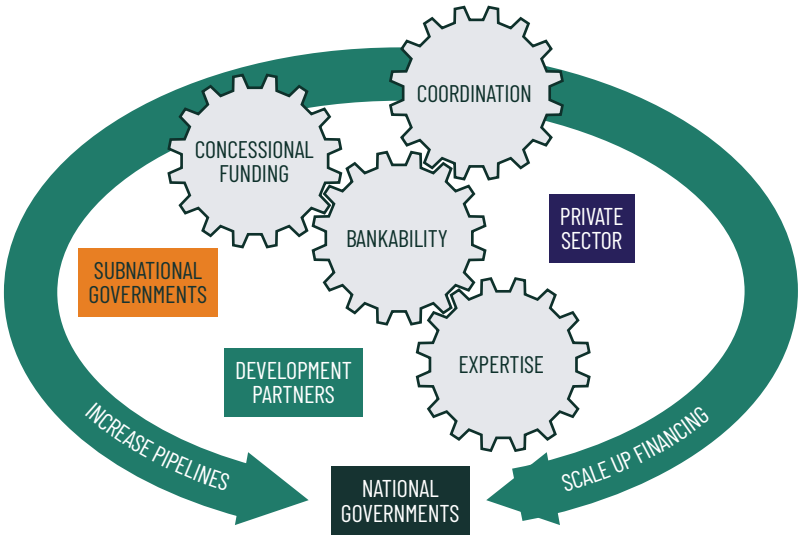
This country-based approach is fully aligned with the outcomes of the ongoing discussions of multilateral development bank reform, focused on developing country-led climate platforms to address coordination failures and to deliver much greater volumes of investment required to meet climate and development objectives. At the Spring 2024 World Bank meetings, the heads of Multilateral Development Banks issued a document stating that the banks are supporting governments "in the design of country platforms, which have significant potential to bring together key stakeholders to achieve better results around a country-led development program, typically with a multi-year thematic or sectoral focus."[24]

The development of country-led platforms for climate action can enable a multiyear programmatic approach (as opposed to a project-by-project approach) based on investment priorities defined by the national government. This programmatic approach allows for the clear identification of priorities, finance gaps, and roles that need to be filled by development partners and the private sector based on the deployment of their respective financial and non-financial capacities. A programmatic approach can employ a mutually reinforced combination of policy reform, investor engagement, external support, coordinated finance, and technical assistance to accelerate increased investments at scale, making strategic use of scarce concessional funding, proven financial approaches, and de-risking approaches to mobilize private finance.

It is especially important for country-led platforms to be designed to overcome the many coordination gaps that impede the development of financially sustainable, bankable climate projects. These include the coordination gaps specific to subnational climate investment (e.g., among subnational and national governments, ministries and national institutions, etc.) as well as the common coordination gaps with and between development partners and the private sector.

Country-led platforms can also address on a large scale, with higher impact and effectiveness, the common project characteristics that systematically impede access to finance, such as small project costs and creditworthiness below the minimum requirements of investors. Figure ES3 illustrates key elements of a country-led platform to create an enabling environment for mobilizing subnational climate action finance. Key functions of country-led platforms include the use of coordination frameworks, concessional funding, and expertise to meet the requirements of public and private financiers for financially sustainable, bankable projects.

Figure ES3. Key Functions of Country-Led Platforms for Scaling Up Subnational Climate Finance



While such country-wide coordination is challenging, the report provides examples of national governments that are now implementing such approaches in concert with their development partners and the private sector. The report also provides multiple examples of successful experiences in LMICs of existing components of such country platforms, such as existing national project preparation facilities for subnational projects or existing units for interdepartmental and multilevel coordination on climate finance.

National governments could also take advantage of the strong catalytic potential of the Vertical Climate and Environmental Funds (VCEFs)* to scale up country-led platforms, as recommended in the report Accelerating Sustainable Finance for Emerging Markets and Developing Economies from the G20 Independent High-Level Expert Group Review of the Vertical Climate and Environmental Funds.[25]

As all climate action inherently consists of subnational climate action, it is critical to integrate the role of subnational governments in identifying needs and opportunities as well as in monitoring progress in proposals to VCEFs. Thanks to the highly concessional funds that they provide, VCEFs can strengthen their impact by helping national governments establish or strengthen national investment coordination platforms supporting policy work, planning, project preparation, and implementation, as well as mobilizing co-financing from Multilateral Development Banks and leveraging private investment. A focus of such investment coordination platforms on scaling up subnational climate action would have a decisive impact on climate goals and the SDGs.

Notably, national climate action ecosystems include a wide range of public and private financiers and intermediaries, from national and subnational governments (through their own budgets and entities such as development banks, public banks, green funds, public utilities, etc.), to development partners, to government-regulated financial mechanisms (such as bond markets, stock exchanges, domestic financial systems), to the private sector (e.g., commercial banks, private utilities, funds, partners in PPPs, foundations, community service organizations, service fees by individuals, etc.).[26] National governments can use the implementation options outlined in this report to leverage the limited amount of public investment, which is especially critical given the current constraints on sovereign lending and guarantees affecting many LMICs and other countries.

The Coalition for High Ambition Multilevel Partnerships Pledge (CHAMP Pledge **) provides political momentum to accelerate subnational climate finance at the country level. Endorsed by 74 Negotiating Parties to the Paris Agreement as a COP 28 Presidency Initiative, the CHAMP Pledge provides the political commitment, framework, and critical foundation for multilevel collaboration and new policymaking and related implementation modalities to help narrow the climate finance gap.

* The four VCEFs are: 1) the Global Environment Facility (GEF), which has the broadest mandate serving six different international conventions related to climate and the environment; 2) the Adaptation Fund (AF), which supports small-scale, locally led adaptation with an emphasis on direct access and country ownership; 3) the Climate Investment Funds (CIF), which have a long track record of collaboration on climate action with six Multilateral Development Banks; and 4) the Green Climate Fund (GCF) which has a mandate to invest equally across mitigation and adaptation, and an emphasis on direct access, private sector engagement and on scaling projects or programs.

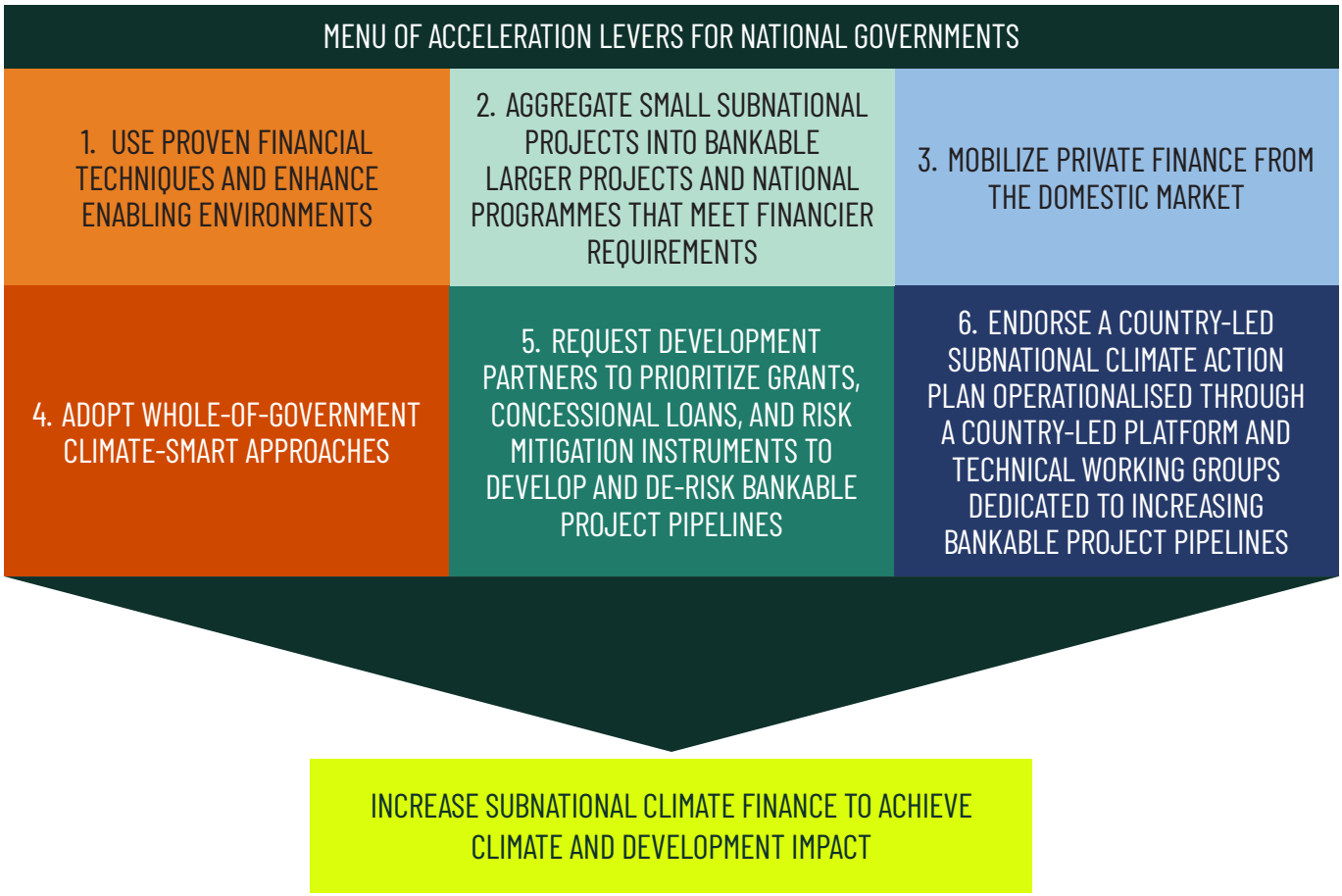
** See the CHAMP Pledge

MAIN RECOMMENDATIONS:

ACCELERATION LEVERS FOR NATIONAL GOVERNMENTS

National governments cannot immediately achieve the full scope of required subnational climate action; however, there is a range of immediate, high-impact acceleration levers that can, in the short term, significantly increase finance for subnational climate action. Acceleration levers that can be implemented by national governments are summarized in Figure ES4.

Figure ES4. Menu of Acceleration Levers for National Governments



Possible actions for each of the above acceleration levers are listed below.

1. USE PROVEN FINANCIAL TECHNIQUES AND ENABLING REGULATORY FRAMEWORKS TO INCREASE FINANCE OF SUBNATIONAL CLIMATE ACTION.

National governments can refine and adapt proven finance approaches for subnational climate action to advance their national climate and development objectives and create enabling regulatory frameworks for mobilizing finance through the domestic financial system (banks, bond issuance, stock exchanges).

POSSIBLE ACTIONS:

- National governments ask their accountable finance functions in the finance ministry, central bank, stock market exchanges, and other regulators to work with development partners and the private sector in creating enabling regulatory frameworks for financing subnational climate action.
- National governments require the use of proven finance techniques such as project and structured finance, and ringfencing of revenues and other funds for debt payments. They can build on success stories, such as expanding territories of utilities, creating pooled finance and other facilities through bankable legal special purpose vehicles, on-lending through intermediaries such as commercial banks and national/subnational development banks, etc.

2. AGGREGATE SMALL SUBNATIONAL PROJECTS INTO BANKABLE LARGER PROJECTS AND NATIONAL PROGRAMS THAT MEET FINANCIER REQUIREMENTS.

A primary impediment to financing subnational climate action is that subnational projects are usually small, especially in secondary cities, and therefore do not meet the requirements of either public or private financiers. For decades, a select number of national governments have proven the effectiveness of aggregation mechanisms, using national programs and pooled finance.[27] However, as explained in the report, these approaches still need to be scaled up in LMICs.

POSSIBLE ACTIONS:

- National governments ask subnational governments to identify priority sectoral investment needs and optimal ways to mobilize and implement subnational climate actions that can serve as a foundation to design a program for pooling investment in multiple cities.
- National governments officially request development partners to expand their country programs targeting multiple cities, creating new subnational climate intermediation and investment vehicles.
- National governments engage finance experts to support the above processes and to develop bankable projects based on aggregation (e.g., utilities, structured finance projects, pooled finance facilities, subnational climate funds, PPPs, bonds, etc.) that meet the investment requirements of public and private sector financiers (e.g., Multilateral Development Banks, bilateral donors and banks, development partners, export credit agencies, commercial banks, institutional investors, equity investors, philanthropies, etc.).

3. MOBILIZE PRIVATE FINANCE FROM THE DOMESTIC MARKET.

As set forth by the UN, World Bank, and financial experts worldwide for decades, the private sector has massive amounts of finance that could potentially be invested in development and climate action, provided that there are investment vehicles that meet bankability and investment requirements.

POSSIBLE ACTIONS:

- National governments engage the national entities accountable for domestic finance (e.g., central bank, finance ministry, stock markets, utility regulators, etc.) in creating an enabling environment for finance from commercial banks, institutional investors, corporations, and individuals.
- National governments request multilateral and bilateral development banks to lend in local currency whenever possible in line with the current recommendations on multilateral development bank reform, thereby eliminating the risk of higher debt service payments resulting from the depreciation of national currencies against hard currency-denominated loans. Despite higher local interest rates, matching local currency revenues with local currency debt is considered an international best practice that reduces default risk and financial crisis.[28]
- National governments set up expert coordination venues that engage the full spectrum of the domestic private sector inputs required to create bankable projects: financiers (e.g., banks, funds, bondholders, corporations, foundations, users), project owners (e.g., utilities, SMEs, corporations, etc.), and expert services (e.g., engineering and consultants, transaction advisors, lawyers, rating agencies, etc.).

4. ADOPT WHOLE-OF-GOVERNMENT CLIMATE-SMART APPROACHES.

The challenge of effective intergovernmental coordination and effective institutional frameworks is well documented. Moreover, even small projects often require high-level expertise and technologies* that are more accessible and can be scaled up at the national level, such as flood management. Larger projects in key infrastructure sectors can also be implemented through existing public sector entities (such as utilities, SMEs, corporations, state-owned enterprises) and use performance-based contracts and loans with Multilateral Development Banks and private sector companies, such as energy service companies (ESCOs) that are increasingly being used in Africa.[29]

POSSIBLE ACTIONS:

- National governments can set up whole-of-government approaches through standards, guidelines, regulations, and policies that integrate climate-smart approaches.
- National governments can request support in terms of technical assistance and funding from their development partners in setting up these approaches, including performance-based finance.
- National governments can engage private sector providers of climate-smart technologies, materials, and processes (e.g., high-efficiency water pumps, off-grid solar energy, bulk procurement of solar streetlights, etc.).

* Analysis shows that digital technologies, if scaled across industries, could deliver up to 20% of the 2050 reduction needed to hit the International Energy Agency net zero trajectories in the energy, materials and mobility industries. These industries can already reduce emissions 4–10% by quickly adopting digital technologies. See World Economic Forum, "Digital Solutions Can Reduce Global Emissions by Up to 20%. Here's How," May 23, 2022

5. REQUEST DEVELOPMENT PARTNERS, INCLUDING THE CLIMATE FUNDS, TO PRIORITIZE GRANTS, CONCESSIONAL LOANS, AND RISK MITIGATION INSTRUMENTS TO DEVELOP BANKABLE PROJECT PIPELINES THAT ARE INTEGRAL TO PRIVATE SECTOR MOBILIZATION.

National governments can optimize access to finance by presenting development partners with targeted requests that leverage each partner's capacities in alignment with the specific actions required to unlock access to both public and private finance. Experienced finance experts will be needed to integrate proven financial techniques and approaches that meet the requirements of public and private financiers and develop a cohesive, coordinated approach. The use of risk mitigation and grants is critical to achieving the requirements for financial sustainability and bankability. Requests can be facilitated by the NDC Partnership when related to the implementation of Nationally Determined Contributions (NDCs).

POSSIBLE ACTIONS:

National governments officially request development partners to assist in scaling up subnational climate finance, notably:

- Increase the amount of concessional loans and grants in blended finance structures to achieve bankability and mobilize significant finance from commercial banks, institutional investors, foundations, and other investors.
- Employ risk mitigation, such as first loss, guarantees, co-finance, on-lending, use of ringfencing funds for debt service, and other credit enhancements.
- Increase local currency financing, thereby reducing risks to countries from currency depreciation that creates unsustainable debt burdens.
- Employ innovative finance techniques that optimize the ability to mobilize private finance (e.g., aggregation, structured finance, blended finance, co-funding, pooled finance facilities, on-lending, credit enhancements, access to local currency, etc.), as set forth in the ongoing multilateral development bank reform campaign.[30]
- Officially include subnational climate action in the country's revised NDCs and related official requests through the NDC Partnership (NDCP). National NDCP focal points can integrate proposals for the development of tailored country-level mechanisms, such as structuring platforms and investment vehicles to support the scaling up of subnational climate action as a priority in the country's NDC requests.
- Prioritize scaling up country-level pipelines of bankable subnational climate projects and creditworthy investment vehicles in programming discussions with the climate funds.*

* National governments can integrate and scale up subnational climate actions in the framework of national technical assistance programs supported by climate funds. See, for example, the Readiness Program deployed by the Green Climate Fund and ALIDE focused on "Enhancing Climate Finance and Investment in LAC Banking Sector"

6. ENDORSE A COUNTRY-LED SUBNATIONAL CLIMATE ACTION PLAN OPERATIONALIZED THROUGH A COUNTRY-LED PLATFORM AND TECHNICAL WORKING GROUPS DEDICATED TO INCREASING BANKABLE PROJECT PIPELINES.

As the accountable government entity, national governments – in coordination with subnational governments, development partners, and the private sector – can serve as essential national facilitators in developing a results-based operational plan and implementation vehicles for developing and financing bankable subnational climate projects.

POSSIBLE ACTIONS:

National governments can provide the required leadership and resources by setting forth concrete actionable plans, coordination frameworks, and implementation vehicles staffed with the required specialized experienced finance and climate experts:

- Develop and implement a Country-Led Subnational Climate Action Plan based on country objectives and circumstances.
- Create a Country-Led Platform that serves as a coordination vehicle among government entities (national, subnational), development partners, and the private sector.
- Set up targeted Technical Working Groups with the specialized finance and climate experts who can develop pipelines of bankable projects.

The national government may need to integrate the above actions into existing country-led initiatives and platforms.

The above examples of possible cross-cutting acceleration levers and actions can be customized by each national government based on its priorities and circumstances.

BENEFITS OF PROACTIVE NATIONAL GOVERNMENT LEADERSHIP

In conclusion, each national government can customize value-added effective approaches based on their priorities and circumstances, scaling up the use of proven financial techniques and coordination frameworks for increasing finance for subnational climate action.

Table ES1 summarizes: 1) key factors limiting access to finance for subnational climate action ("business as usual"); 2) examples of scaling approaches based on proven financial techniques and coordination frameworks; and 3) the benefits of scaling approaches to increase finance for subnational climate action.

Table ES1. Value of New Finance Approaches for Subnational Climate Action

BUSINESS AS USUAL No or Limited Access to Finance	EXAMPLES OF SCALING APPROACHES Based on Proven Financial Techniques and Coordination Frameworks	BENEFITS OF SCALING APPROACHES Increasing Finance
Reliance on sovereign loans and guarantees	Development of bankable projects that do not require sovereign loans or guarantees (e.g., ringfencing revenues, blended finance, credit enhancements)	• Greater access to finance from public and private financiers
Limited ability of technical expertise and project development funds to develop bankable projects	Increased finance assistance through project preparation funds and finance hubs	• Better-designed projects that achieve climate and development goals at scale
Subnational governments not considered creditworthy cannot access finance	Earmarking of intergovernmental funds to be used as credit enhancements to unlock other funding New methods in increasing property and other tax revenues and own-source revenues Finance channelled through intermediaries	• Subnational governments and entities can access greater amount of finance
Smaller-size projects have limited routes to access finance	Aggregation of projects (e.g., use of national sectoral programs to fund local climate actions, pooled finance facilities, bulk procurement, etc.)	• Ability to reduce costs and access climate-smart approaches • Larger size results in greater climate and development impact
Lack of finance provided by domestic capital markets	Development of bank regulations required to scale up use of project finance techniques Development of regulations related to stock exchanges and bonds that facilitate finance of subnational climate projects	• Ability to access commercial bank finance • Ability to access domestic finance from local bonds and stock exchanges (including individual, corporate, and institutional investment)
Limited ability of subnational governments and entities to access finance	Earmarked national government funding for subnational climate projects Development of policies and regulations that enable prudent investment and borrowing of subnational governments and entities	• Ability to blend national government funding with other finance sources • Subnational governments have defined roadmap for improving fiscal capacity and greater autonomy • Some subnational governments are able to access funding and fund projects in part or totally

Therefore, National Governments can increase finance for development and climate action, leveraging the political commitment and foundation of CHAMP for multilevel collaboration and partnership.

The following sections provide more information on implementation options, proven financial techniques, and collaboration frameworks, with illustrative examples that national governments can use to increase finance for subnational climate action.

1. NATIONAL GOVERNMENTS HAVE AN ESSENTIAL ROLE IN SCALING UP FINANCE FOR SUBNATIONAL CLIMATE ACTION

1.1 WHY NATIONAL GOVERNMENTS ARE ESSENTIAL

National governments have a pivotal role to play in undertaking the urgent actions required to scale up subnational climate finance. Key national ministries and agencies are accountable for finance decisions; the allocation of finance; and national regulatory, legal, and policy frameworks, including those related to subnational governments. National governments are the gateway for obtaining finance from development partners for subnational climate action, as they "own" the national development strategies and therefore are accountable as sovereign states for formally requesting support from development partners. For these reasons, national governments are best placed to create the enabling conditions to mobilize finance from multiple public and private sources for subnational climate action.

By signing the CHAMP Pledge,* national governments have acknowledged their pivotal role and their commitment to assist subnational governments and other entities to scale up the development of project pipelines and investment vehicles. The Pledge states that national governments are committed to:

> **"...include relevant subnational government projects (encompassing mitigation and adaptation) in climate-related investment priorities (including those directly and indirectly related to [Nationally Determined Contributions]) and strive to help them secure the resources necessary from public and private financial institutions, as applicable, to begin or scale up implementation, including but not limited to supporting project preparation, pipeline development, aggregation of projects, new financial instruments or policy reform at local, national, regional and global levels as needed."**

By assisting subnational governments, national governments can fulfil their national development plans and climate ambition, enabling significant global impact in achieving the goals of the Paris Agreement. For example, urban areas currently contribute 70% of global greenhouse gas emissions and are expected to account for 80% by 2100.[31] Staying below the threshold of 1.5 degrees Celsius of global temperature rise therefore requires the massive decarbonization of cities and other subnational jurisdictions. Recent analysis estimates a very large and systemic subnational climate financing requirement of US$ 4.3-6.0 trillion annually, which is well above the current annual funding.

The scale of the challenge is evidenced by recent statistics on subnational climate finance:

- Annual global urban climate investment has been only US$ 831 billion from both public and private sources, representing 19% of the annual global urban climate finance requirement.**
- Only 2% (US$ 1.1 billion) of urban climate-related financing from Multilateral Development Banks has been channeled directly to city governments without a sovereign guarantee.[32]

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* The Coalition for High Ambition Multilevel Partnerships (CHAMP) Pledge provides political momentum to accelerate subnational climate finance at the country level. Endorsed by 74 Negotiating Parties to the Paris Agreement as a COP 28 Presidency Initiative, the CHAMP Pledge provides the political commitment, framework, and critical foundation for multilevel collaboration and new policymaking and related implementation modalities to help narrow the climate finance gap. See COP28 CHAMP Pledge

** The Climate Policy Initiative (CPI) estimates that urban infrastructure investment needs for climate mitigation (excluding adaptation) are US$ 4.3 trillion annually from now until 2030 and more than US$ 6 trillion annually from 2031 to 2050. In 2021–2022, an annual average of US$ 831 billion was invested in urban climate finance, reflecting a doubling between 2017 and 2022. Most of this increase (US$ 391 billion) represents additional finance over time, especially for mitigation activities in transportation, energy systems, buildings, and other infrastructure. Improvements to CPI's methodology and data sources account for the remaining growth (US$ 57 billion). See CPI, The State of Cities Climate Finance 2024 (San Francisco: 2024)

Systematic barriers impede subnational climate finance:

- **Demand-side barriers** often restrict subnational governments' access to both public and private finance. Barriers include the lack of creditworthiness for the great majority of subnational governments, small project sizes that do not meet the requirements of both public and private financiers,* and the lack of capacity/expertise to structure bankable climate projects.
- **Supply-side barriers** restrict subnational governments' access to public funds, notably the limited ability of national governments and their development partners to increase their finance contributions for subnational climate action due to sovereign fiscal and borrowing constraints. An additional barrier is the lack of projects that meet the requirements of financiers, resulting from the low level of public sector resources devoted to structuring bankable subnational climate investments that meet public and private sector requirements.

National governments can potentially play a unique and transformative role in overcoming these barriers:

- **On the demand side**, national governments can increase the capacity building of the government (national and subnational) and project owners to structure pipelines of bankable projects through project preparation and aggregation, meeting the requirements of financiers for creditworthiness and for larger project sizes.
- **On the supply side**, national governments can provide investment vehicles, intermediation, and de-risking mechanisms to unlock finance for subnational climate action.

National governments therefore have an essential role in unlocking access to finance for subnational climate action.

1.2 THE NEED TO SCALE UP PIPELINES OF BANKABLE CLIMATE PROJECTS AND CLOSE THE FINANCE GAP

According to the United Nations (UN), the global financing gap for achieving climate goals and the Sustainable Development Goals (SDGs) represents only 1% of existing global financial assets. For decades, leading organizations have documented the underutilized surplus of available finance for development and climate goals across the public and private sectors.[33] However, access to both public and private sector sources of finance are impeded by the lack of bankable projects and legal investment entities that meet the investment requirements of financiers.**

Experts from the UN, the International Monetary Fund (IMF), and multinational development banks underline the huge potential for private sector investment in climate action. According to the UN Framework Convention on Climate Change (UNFCCC) and the IMF, the private sector has the potential to provide 70–90% of the total climate finance required to reach net zero greenhouse gas emissions globally.[34] The most recent finance statistics from the Climate Policy Initiative (CPI) indicate that the private sector represents 50% of global climate finance and 49% of total urban climate finance.[35] In contrast, multinational development banks represent only 7% of total climate finance flows.[36]

With regard to middle-income developing countries (excluding China), CPI reports that public finance has consistently accounted for around 60% of total climate finance, with private finance increasing from 43% to 47% of the total finance from 2018 to 2022.[37] This increase in private finance in middle-income developing countries mirrors that of climate finance in developed countries, where climate action is funded mainly by private finance sources, which range from commercial banks, funds, small and medium-sized enterprises (SMEs), public-private partnerships (PPPs), corporations, foundations, and community service organizations, to household purchases and public service fees for water, sanitation, transportation, and other local public services.

* For example, a review by the co-author of annual reports of Multilateral Development Banks indicated that the urban divisions of these banks (excluding projects implemented by sectoral programs) finance around 100 projects a year, with most project sizes between US$ 25 million and US$ 100 million. These projects are limited to the largest cities in developing countries.

** Development experts worldwide have noted the lack of projects that satisfy the requirements of both public and private sector financiers, meeting both financial and development criterion. As early as 2014, the president of the World Bank stated: "We have several trillions of dollars in assets represented today looking for long-term, sustainable and stable investments. The real challenge is not a matter of money but a lack of bankable projects – a sufficient supply of commercially viable and sustainable infrastructure investments." See "World Bank Launches Public-Private Infrastructure Plan," Reuters, October 9, 2014. The present report addresses the current impediments to finance for subnational climate projects. However, there is potential for scaling up large constellations of blended finance credit-enhanced vehicles with wider, more robust definitions of bankability. For a robust analysis of "bankability" as applied to water projects, see Wilder McCoy and Klaas Schwartz, "The Water Finance Gap and the Multiple Interpretations of 'Bankability'," Journal of Water, Sanitation and Hygiene for Development, Vol. 13, No. 1 (2023), pp. 19–29

National governments in Low- and Middle-Income Countries (LMICs) have limited or no ability to increase their sovereign lending or grants to subnational governments or to provide the needed large amounts of sovereign guarantees. Moreover, LMIC development partners (Multilateral Development Banks and bilateral partners) also face limited space in their loan country ceilings and scarce availability of grants. In this context, "blended finance," which combines different types of public and private finance and credit enhancements, has been widely promoted in recent years as a crucial structuring approach to mobilize greater private finance for climate action.* This focus on blended finance underscores the convergence of public and private requirements for creditworthiness and bankability.[38]

The importance of meeting bankability requirements is confirmed by global analysis of finance instruments used by financiers of climate action, which shows that 55% of global climate finance is for creditworthy projects and 40% is for balance sheet financing of legal entities considered creditworthy.[39] In short, bankability requirements are applied to both projects and legal entities such as governments, utilities, and companies.

Overcoming sovereign constraints therefore requires scaling up the bankability of projects and project sponsors to massively unlock both development partner support (loans, grants, risk mitigation) as well as private finance.

A specific report focus is on LMICs, identifying a range of potential actions that can be immediately employed at scale for high impact by national governments, including those governments constrained by high debt levels and low institutional capacity. The report focuses on leveraging concessional funding, preserving countries' sovereign fiscal capacity, and unlocking the vast potential of private investment.

1.3 THE WIDE, HIGHLY IMPACTFUL RANGE OF POTENTIAL NATIONAL GOVERNMENT ACTIONS

The wide range of national government actions for increasing subnational climate finance can be tailored to each country based on its unique objectives and circumstances. This report focuses on scaling up options that can be facilitated by national governments, outlining actions to greatly increase finance for subnational climate action at the country level in close partnership with subnational governments, development partners, and the private sector.

Specifically, there are six potential Acceleration Levers** that national governments can consider in delivering on subnational climate action:

1. Use proven financial techniques and enhance enabling environments to develop bankable pipelines of subnational projects (e.g., project finance techniques such as ringfencing of debt payments).
2. Aggregate small subnational projects into bankable larger projects and national programs that meet financier requirements.
3. Mobilize private finance from the domestic market (especially through local currency finance).
4. Adopt whole-of-government climate-smart approaches.
5. Request development partners to prioritize grants, concessional loans, and risk mitigation instruments (e.g., guarantees, first loss, unfunded risk participations, etc.) to develop bankable project pipelines and investment vehicles (e.g., intermediation, pooled finance facilities, subnational climate funds, etc.).
6. Endorse a Country-Led Subnational Climate Action Plan operationalized through a Country-Led Platform and Technical Working Groups dedicated to increasing bankable project pipelines.

* See the Addis Ababa Action Agenda (AAAA) of the Third International Conference on Financing for Development agreed to by all UN Member States in 2015. Given the lack of adequate public finance and the dominant role of the private sector in financing climate solutions in developed countries, the main structuring approach is "blended finance" combining sources of public and private sector finance with credit enhancements. According to Convergence, the global network for blended finance, blended finance has mobilized around US$ 213 billion in capital toward sustainable development in developing countries to date. See Blended Finance on Convergence.finance.

** See Executive Summary for details.

To facilitate the ability of national governments to deliver on effective subnational climate action, Section 2 of this report provides examples of enabling conditions and implementation options based on reported best practices and existing country experiences. Effective action guidelines encompass institutional arrangements, investment vehicles, finance techniques, methodologies, preconditions for success, and practical checklists that can be used to scale up the successful development and finance of subnational climate projects.

Practical ways to increase finance for subnational climate action can be implemented through multiple channels. These include expanding financial intermediation through government agencies and commercial banks, implementing development partner country programs (sovereign and non-sovereign), and developing pipelines of bankable investments that meet the requirements of development partners and the private sector. Given the focus on national government facilitation in the development of country-wide enabling conditions, this report does not cover regional or global funds, project preparation, and building the capacities of subnational governments to develop and finance individual projects.

Subnational climate action encompasses the following:

- **Local public services – such as water and sanitation, waste, renewable energy, building efficiency, transportation systems, and street lighting – as well as disaster recovery and prevention programs such as flooding management.** Climate projects at the subnational level are critical to a country's citizen welfare, security, and overall sustainable development.
- **The wide spectrum of entities in the subnational climate ecosystem that have roles in achieving subnational climate action.** These include national governments (ministries, regulatory and other agencies, state-owned enterprises; different kinds of subnational governments (e.g., cities, states, provinces, counties, districts, etc.); utilities (public, private, PPPs); private sector participants (e.g., SMEs, corporations, energy service companies [ESCOs], financiers, service companies, etc.), nonprofit organizations (e.g., community service organizations, cooperatives, philanthropies, etc.); and a range of financial sources (e.g., national and subnational governments, commercial banks, funds, SMEs, bondholders, participants in stock markets, consumers, etc.).

Section 2 of the report is focused on providing national governments with practical focal action areas. It outlines underlying enabling conditions that national governments can create and illustrates specific actions with country examples.

2. FIVE KEY FOCAL ACTION AREAS FOR INCREASING FINANCE FOR SUBNATIONAL CLIMATE ACTION

Governments often establish key objectives and focal areas as the baseline for designing and implementing their national plans, policies, programs, and budgets; these are also tied to performance metrics to enable monitoring and progress reports. Toward this end, national governments may consider using the following five focal areas to frame their implementation plans in alignment with the report's recommendations on acceleration levers. These focal areas are discussed in greater detail in the subsequent sections, which provide implementation options and existing country examples.

1. Activate the Country's Ambition

Strong, continuous national government leadership is required to activate demand for subnational climate action, ensuring ownership across the finance ministry, line ministries, development banks and funds, and other national government entities. All national finance functions need to integrate subnational climate action into existing programs and to recognize the requirements of public and private financiers. Given competing priorities and the inherent friction among public sector entities, national governments will need to ensure that senior and technical government officials understand that subnational climate action is a non-negotiable, mandatory requirement that needs to be fully integrated into all national development objectives, plans, and budgets.

2. Implement Country-Led Action Plans & Platforms

The national government can promote and utilize proven financial techniques and national coordination frameworks to meet the investment requirements of public and private financiers, engage experienced finance practitioners, and allocate earmarked concessional funding to achieve bankability and de-risk subnational climate investments.

3. Improve the Enabling Environment and Public Institutional Capacity

Although challenges and solutions differ among countries, each national government can increase access to finance by implementing specific actions aimed at improving the enabling environment and institutional capacity, with a focus on subnational climate action. The national government can increase finance for its subnational governments through improving regulatory, legal, and policy frameworks, with a focus on increasing fiscal transfers and own-source revenues, improving creditworthiness, and enabling access to other sources of finance.

The national government can also play a catalytic leadership role by promoting and facilitating the use of various proven financial techniques and instruments, such as blended finance, issuance of local and international bonds, intermediation through national entities and commercial banks, and ambitious country programs that scale up financing for subnational climate action.

4. Increase the Effectiveness and Level of Support from Development Partners

The national government can ensure the optimal use of development partner support by:

- enhancing the understanding of development partner objectives, programs, instruments, and requirements;
- assessing how to leverage potential development partner support in concert with public resources and private sector capital;
- allocating complementary roles among development partners, the government, and the private sector; and
- formulating proposals targeted at specific development partners that align with the analysis of optimizing subnational climate action.

The proposals to development partners from national governments can include the full spectrum of required support from grants and concessional lending, on-lending facilities through commercial banks and public sector entities, and equity to technical assistance, risk mitigation, and credit enhancements to crowd-in contributions from the private sector. This report includes an example of a checklist that national governments can use to understand and assess the potential of instruments and support provided by development partners.

5. Increase the Effectiveness and Level of Contributions from the Private Sector

Likewise, the national government can ensure the optimal use of contributions from the private sector by:

- enhancing the understanding of the varied range of private sector contributions and requirements (including commercial banks, SMEs, corporations, funds, credit rating agencies, foundations, community service organizations, project developers, consulting companies, etc.);
- assessing how to leverage private sector contributions in concert with public resources (government and development partner resources);
- allocating complementary roles among development partners, the government, and the private sector; and
- formulating proposals targeted at specific private sector entities that align with the analysis of optimizing subnational climate action.

The proposals to private sector entities from national governments can include the full spectrum of potential private sector contributions, encompassing capital (debt, equity, grants); expertise (finance, technology, climate, sector, etc.), and services (e.g., project development and operation, management of public services, climate-based technology provisions, issuance of bonds and stocks, provision of credit ratings to meet requirements of institutional investors, etc.). This report includes an example of a checklist that national governments can use to understand and assess the potential of instruments and support provided by private actors.

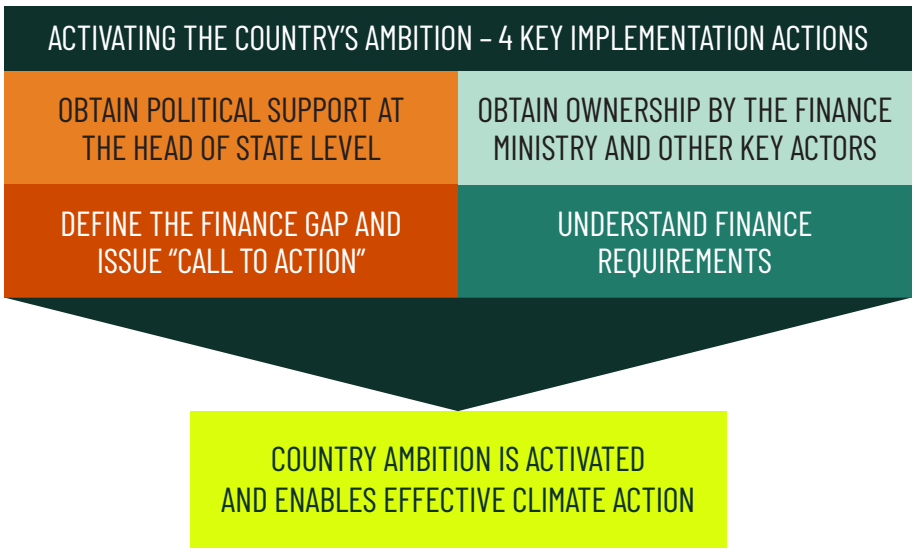
The following sections present a range of potential implementation options in each of the above five focal areas, while also providing illustrative examples.

2.1 ACTIVATING THE COUNTRY'S AMBITION

To be successful in achieving the scaling up of finance for climate projects at the subnational level, strong continuous national government leadership can activate demand across the national government for subnational climate action.

Four key implementation actions are summarized in Figure 1 and discussed in detail below, illustrated with examples from developing countries.

Figure 1. Activating the Country's Ambition – 4 Key Actions



1. Obtain Political Support at the Head of State Level

Implementation Option: Heads of State provide strong and consistent proactive leadership.

To activate the country's ambition, Heads of State can consistently communicate that success in scaling up subnational climate action is critical to the country's successful economic and social development as well as its climate ambition, integrating subnational climate action into existing programs and budgets.

EXAMPLES

Brazil: The Head of State launched the "Union with Municipalities for Reducing Deforestation and Forest Fires in the Amazon program" in April 2024, providing for BRL 730 million (US$ 142 million) in investments to promote sustainable development and combat deforestation and forest fires in 70 priority municipalities responsible for 78% of deforestation in the Amazon in 2022.

Philippines: In 2021, the Head of State signed an Executive Order (No. 138) that envisages significant devolution of responsibilities to subnational governments, including provisions to build up project planning and implementation capacity as well as transparency.

2. Obtain Ownership by the Finance Ministry and Other Key Government Actors

Implementation Option: National ownership of subnational climate action is promoted by the government across key government entities, including the finance ministry.

National ownership is ensured by the government, encompassing the finance ministry, other finance and planning functions, line ministries, and entities accountable for private finance (e.g., central bank, stock exchange, etc.), activating country demand for subnational climate action with concrete actions for mobilizing finance.

EXAMPLE

Tanzania: The Head of State supported the country's first subnational water bond issued by Tanga Urban Water Supply and Sanitation Authority (Tanga UWASA) in 2024. The 10-year water infrastructure green revenue bond was valued at TZS 53.12 billion (US$ 21 million), a historic capital market transaction that represented a first-of-its-kind Subnational Water Green Bond in Tanzanian and East African history. Political and transaction support was activated through the establishment of the National Municipal Taskforce comprising members from the Ministry of Finance, Ministry of Water, Ministry of Local Government (PMO-RALG), Capital Market and Securities Authority, Dar es Salaam Stock Exchange, Bank of Tanzania, and office of the Treasury Registrar. Supported by the President, the Minister made presentations to the Parliament and worked to operationalize the issuance of the bond with the related government agencies.

3. Define the Finance Gap and Issue a Call to Action

Implementation Option: The national government estimates the financing gap for subnational climate action and issues a "Call to Action."

The national government can activate the demand for subnational climate action by quantifying the finance need – that is, estimating the financing gap between climate ambitions and current finance as the basis for defining finance mobilization needs. To operationalize funding gap actions, the government could issue a "Call to Action," requesting support from across the government and from its development partners and the private sector. Subnational governments and other national actors can be instrumental in providing support in defining the finance gap, as shown in the following examples.

EXAMPLES

Argentina: The national government issued a report that estimates the annual sustainable financing gap at US$ 37 billion, given annual needs of around US$ 51 billion against actual annual finance of around US$ 14.1 billion, and used this estimate in its planning and investment outreach.[40]

Central African Republic (CAR): The national government has estimated its financing needs to achieve its Nationally Determined Contribution (NDC) over the decade 2021–2030 at US$ 1.8 billion, including $1.3 billion for mitigation and $443 million for adaptation. CAR reports that its contribution from its domestic resources is $280.5 million (16%). The financing gap has led to the CAR national government asking its international partners to fund the gap of $1.5 billion (84%).[41]

China: The National Center for Climate Change Strategy Research and International Cooperation calculated a climate financing gap of over CNY 1.6 trillion a year, given annual needs of CNY 3.5 trillion to meet its goals. However, it is estimated that public climate finance alone amounts to only around CNY 470 billion a year. The gap analysis has spurred actions of the Chinese national government to mobilize private sector finance.[42]

India: Odisha State, in its State Action Plan of Climate Change, estimated the amount of finance required to implement climate actions at around INR 72,279 crores over five years from 2018 to 2023. Based on current state budgetary allocations and using a best estimate of projections, Odisha State contributed around INR 38,317 crore, resulting in a financing gap of about INR 33,842 crore to be mobilized from other sources.[43]

4. Understand Finance Requirements

Implementation Option: Document the specific requirements to access public and private finance for subnational climate actions.

A limited understanding of finance requirements handicaps the ability of national governments to mobilize finance from development partners and the private sector. Senior government leadership will need to understand and recognize the specific finance requirements from public and private financiers to access funding, requesting government entities to take finance requirements into account in formulating their policies and financing strategies.

EXAMPLES

South Africa – Renewable Energy Program: The NDC Partnership cites South Africa's national renewable energy program – the Renewable Energy Independent Power Producer Procurement Program (REIPPPP) – as a best practice. The national government integrated the requirements for private sector finance into the request for proposal (RFP) process, resulting in the mobilization of US$ 16 billion in private sector investment. The REIPPPP is highlighted as a significant policy for enabling the achievement of climate change mitigation goals under South Africa's NDC.[44]

Thailand – Bangkok e-Bus Program: The NDC Partnership also recognizes the Bangkok e-bus program as a best practice. The government acknowledged upfront that the requirements for supplementary finance were necessary for the project's success. To operate e-buses on privately owned scheduled public bus routes in the Bangkok Metropolitan Region, carbon finance was provided by the KliK Foundation from the purchase of minimum 500,000 International Transferred Mitigation Outcomes (ITMO), leveling the total cost of ownership differential between baseline buses and the activity e-buses.[45]

2.2 IMPLEMENTING COUNTRY-LED ACTION PLANS AND PLATFORMS

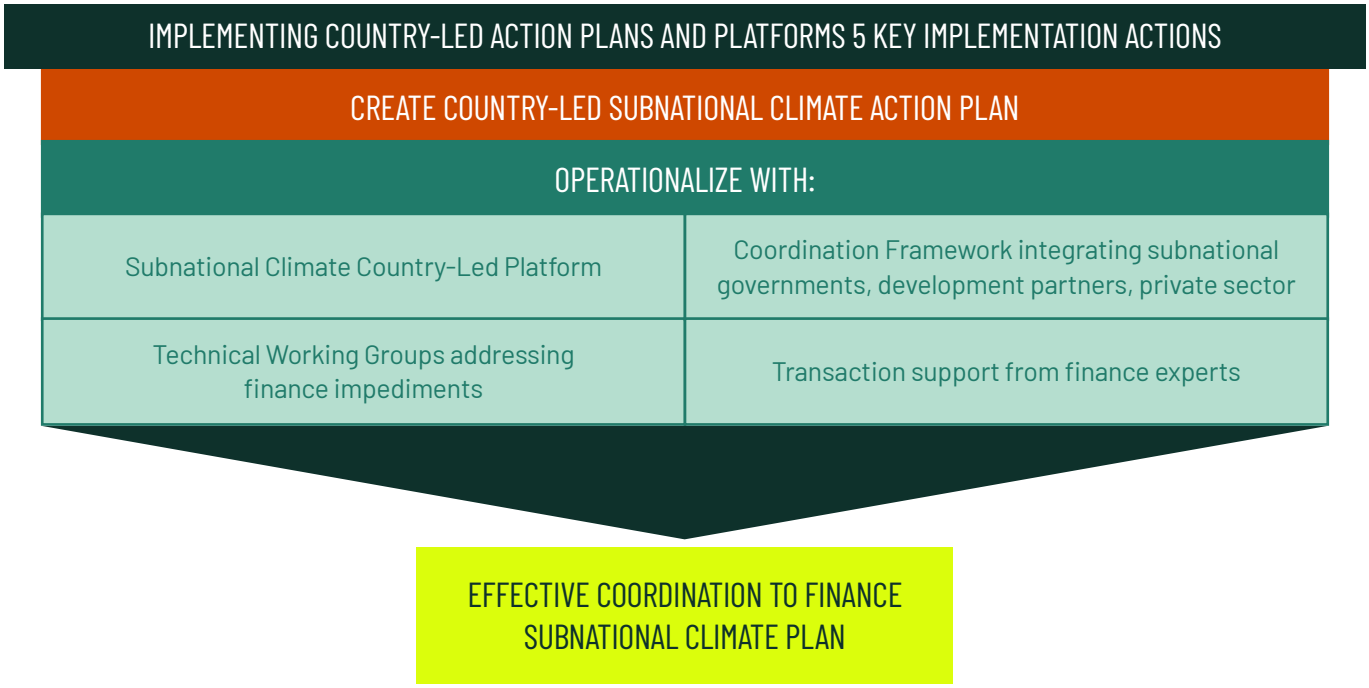
Key preconditions for the success of national governments in scaling up finance for subnational climate action include:

- strong ongoing support from the Head of State and key ministers (notably that of the finance ministry);
- integration of subnational climate project development and finance with existing programs;
- use of proven finance and credit enhancement techniques recognizing the requirements of public and private sector financiers; and
- ensuring an enabling national framework of regulations, laws, and policies for mobilizing finance from commercial banks, stock exchanges, pension funds, and other sources.

The profound challenge facing national governments is how to operationalize the scaling up of financing for subnational climate action. Financing subnational climate action requires extensive technical and political coordination across the many ministries and agencies of the national government (especially those regulating the financial system), local governments, development partners, and the private sector. Achieving results requires a country-owned and -led process that enables effective operational technical coordination across multitudes of interested parties in the public and private sectors, supported by high-level experienced professionals addressing coordination and technical gaps.

Key actions to develop and operationalize a country-led subnational climate plan are summarized in Figure 2 and discussed in detail below, illustrated with country examples.

Figure 2. Implementing Country-Led Action Plans and Platforms – 5 Key Actions



Implementation Option: Create a cohesive Country-Led Action Plan operationalized by a platform, coordination framework, technical working groups, and transaction support from specialized finance experts.

Country-Led Action Plans – implemented through platforms, taskforces, and technical working groups – are required to crowd-in development partner support of subnational climate actions, allocating roles based on finance requirements for specific types of projects, with specifications of deliverables, progress reports, and impact analysis.

A recognized challenge affecting development effectiveness is the massive number of development initiatives managed by different entities without sufficient coordination among them (not with the large array of relevant government entities from across the national government and with subnational governments). In response, many development partners have created urban/subnational development partners coordination working groups in countries, enabling them to better coordinate their respective programs. Examples include the Kenya Circular Economy Working Group, the Tanzania Energy Working Group, the Tanzania Decentralization Working Group, and the Uganda Local Development Partners Group, among others.

In recent years, this coordination has been strengthened toward more integrated partnerships with "country platforms for climate action," allowing joint programming, allocation of roles, and respective instruments, as recommended by the heads of Multilateral Development Banks at the World Bank and IMF Spring meetings of 2024.

Box 1 provides details on implementation options that can provide effective operational implementation capacity for national governments' dissemination of new finance approaches that increase finance for bankable subnational climate projects. These options are aimed at developing a country-level cohesive coordinated ecosystem for subnational climate finance, which is supported by high-level experienced finance and technical professionals addressing coordination and technical gaps among national and local governments, development partners, and the private sector.

Box 1. Implementation Options for National Governments to Create Country-Led Action Plans and Platforms

1. **Develop a Country-Led Subnational Climate Action Plan** based on national and subnational objectives and circumstances, leveraging finance from development partners and crowding-in private capital with proven finance techniques and credit enhancements:
   - Include specific outcomes with accountabilities and time frames.
   - Conduct regular meetings with progress reports.
2. **Create a robust implementation mechanism with a full-time secretariat ("Country-Led Platform"):**
   - Leverage existing mechanisms among development partners, such as Country-Led Platforms endorsed by Multilateral Development Banks.[46]
   - Focus on structuring pipelines of projects that meet the requirements of public and private financiers.
   - Ensure sufficient funding to cover the costs of developing projects, including the engagement of finance experts and transaction advisors developing credible technical studies that meet the requirements of targeted financiers.
   - Include representatives of subnational governments and the private sector.
3. **Focus the Country-Led Platform and related Subnational Climate Taskforces and Working Group(s) on targeted concrete deliverables:**
   - Documentation of the stated requirements of public and private financiers.
   - Identification of the gaps in meeting those requirements.
   - Allocation of roles among development partners (e.g., project preparation, grants, concessionary loans, risk mitigation, etc.).
   - Structuring of pipelines of subnational climate projects that meet financier requirements.
   - Time frames for financial close and operation.
4. **Create an Expert Finance Hub to support Climate Taskforces and Working Groups (above):** Hire highly specialized finance experts who can lead the paradigm shift from sovereign finance to creating bankable projects and investment vehicles that mobilize finance from the full array of public and private sources.
   - Given the lack of bankable subnational climate projects, significant investment is required to engage highly experienced professionals who are able to use blended finance and structured finance approaches combined with credit enhancements that meet the requirements of public and private financiers.
   - Aggregating subnational projects is critical, as is integrating climate-smart technologies, materials, and processes.
5. **Scale up additional grants and concessional funding to achieve bankability and de-risk private investment.**
6. **Develop performance metrics and reports to the key actors that can help mobilize finance and expertise and improve the enabling environment**, such as political decision-making bodies, development partner climate initiatives, donor working groups, and private sector venues.

EXAMPLES

Amazonia – Green Coalition (GC) of Development Banks: As an alliance of 20 development banks in Amazonia, the program's primary objective is fostering the sustainable, resilient, and inclusive development of one of the world's most important biomes. By thoroughly implementing the GC Action Plan, Green Coalition members have an initial aspiration to mobilize US$ 10–20 billion by 2030 for sustainable investments in the Amazon, aligned with the Green Coalition's mission. The focus will be on activities that align with social and environmental requirements, including the funding of initiatives that promote the conservation and restoration of the Amazon biome, reduce social and regional inequalities, and support the growth of SMEs with sustainable business models in the region. Established in the Green Coalition's governance, the international partners (the Inter-American Development Bank [IDB], the Development Bank of Latin America [CAF], and the World Bank) will work across members, in a coordinated way, to support the implementation of the Action Plan with technical and financial resources and through the secretariat (led by the IDB).[47]

Bangladesh Climate Development Partnership (BCDP): The Government of Bangladesh has launched a country-led climate and development platform with the support of the Asian Development Bank, the Asian Infrastructure Investment Bank, the IFC, the IMF, the World Bank, and other stakeholders. The BCDP is a cross-sector, multi-stakeholder, and multiyear partnership to drive climate actions at scale and with urgency to support low-carbon and climate-resilient development essential to achieve Bangladesh Vision 2041. The BCCP Platform promotes a whole-of-government approach to drive the national strategy and actively achieve climate outcomes.

- The BCDP will generate a robust pipeline of climate projects, integrated with a financing strategy. This integrated approach is expected to integrate climate risks into fiscal planning, improve the sensitivity of public investment management to climate-related challenges, bolster climate-related risk management for financial institutions (including climate stress testing), strengthen and institutionalize the monitoring and reporting of climate-related spending, and fortify disaster risk reduction and management.
- The BCDP is structured around the development of a national project preparation facility in support of a multiyear programmatic approach based on investment priorities defined by the national government. This multi-donor/multi-sector project preparation facility will support aggregation/scalability to attract private investments across Bangladesh, mainstreaming projects in development plans, while reducing the financial burden on the public sector. [48]

Egypt – Country-Led Platform for the Nexus on Water, Food and Energy (NWFE): Supported by Germany, the United States, and the European Bank for Reconstruction and Development (EBRD), the NWFE Energy Pillar is expected to unlock at least US$ 10 billion in private investment to install 10 gigawatts of solar and wind energy by 2028. The initiative will also include the retirement of 5 gigawatts of inefficient fossil fuel capacity by 2025, leading to a substantial reduction in natural gas consumption and greenhouse gas emissions, estimated at around 17 million tons of carbon dioxide equivalent per year.[49] It is a strong integrated framework providing a country-level coordination framework including legal, technical, and investment perspectives. It has a strong sectoral focus and expertise supporting joint comprehensive technical and investment feasibility studies. The platform prioritizes unlocking private capital through achieving project bankability and investability. It aims at maximizing the use of blended finance sources and diverse financing mechanisms, including guarantees, risk-sharing, and mitigation tools. It aims at scaling up the use of innovative financing tools.[50]

Tanzania – Municipal Taskforce: Tanzania was able to launch the country's first subnational water bond due to support from the Head of State and the Municipal Taskforce. Members of the Taskforce included the Ministry of Finance, Ministry of Water, Ministry of Local Government (PMO-RALG), Capital Market and Securities Authority, Dar es Salaam Stock Exchange, Bank of Tanzania, and office of the Treasury Registrar. Supported by the President, the Minister made presentations to the Parliament and worked to operationalize the issuance of the bond with the related government agencies.[51]

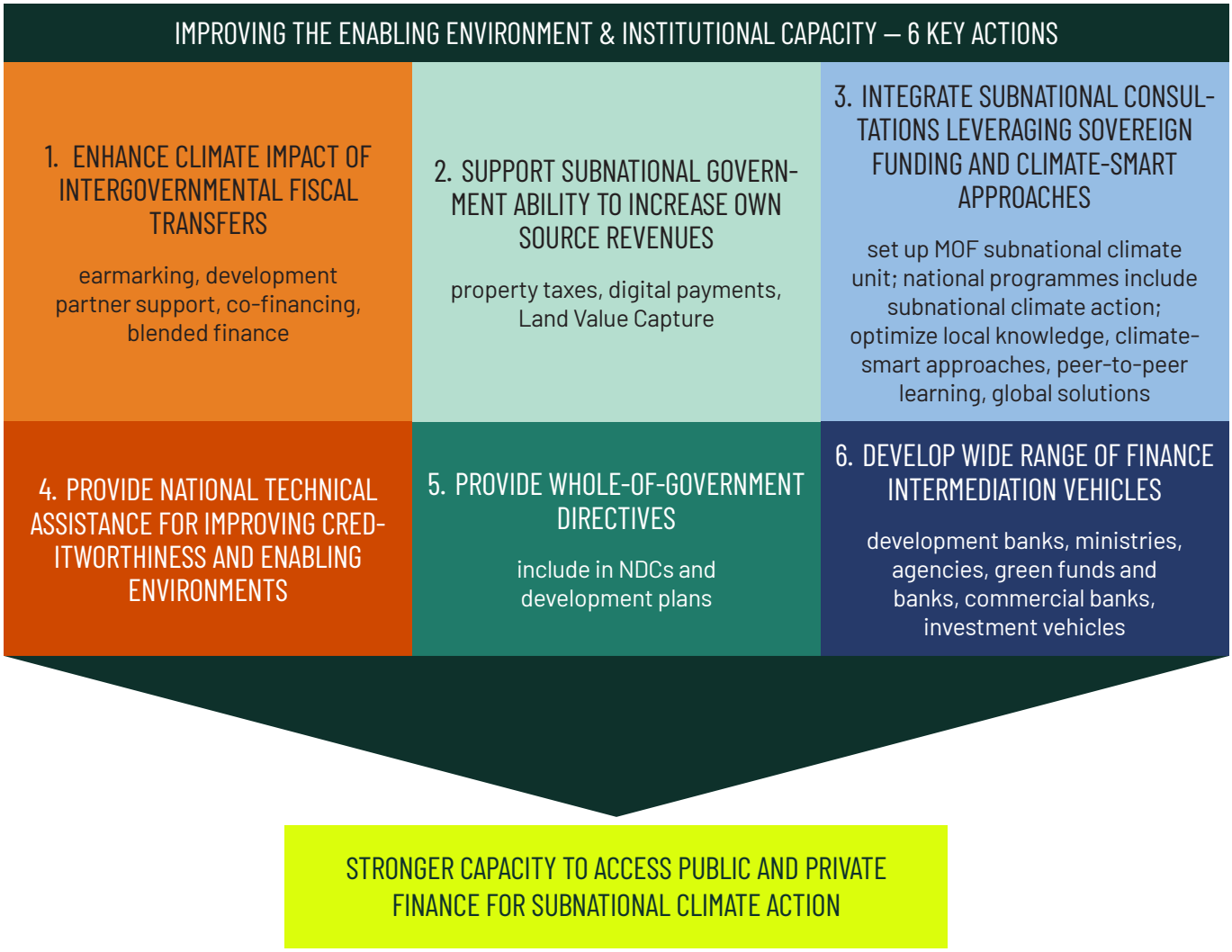
Uganda – Development Partners Working Group for Local Governance and Decentralization (DPWG-LGD): Operating since 2006, the Working Group was established to translate the principles of the Paris Agreement into practice in the field of Local Governance and Decentralization (LGD). Members are limited to development partners. The stated objective of the working group is to offer a platform for the international exchange of good practices and lessons learned by the participating development partners and to foster a cross-sectoral dialogue in the field of LGD, thereby contributing to improving aid effectiveness. In addition, the donor meetings aim at discussing possible peer review mechanisms to improve aid effectiveness and harmonization at the headquarters level in home offices.[52]

2.3 IMPROVING THE ENABLING ENVIRONMENT AND PUBLIC INSTITUTIONAL CAPACITY

National governments can undertake specific actions to improve the enabling environment and public institutional capacity, aimed at increasing access to finance for subnational climate action.

Six key actions are presented in Figure 3 and described in detail below, illustrated with implementation options and country examples.

Figure 3. Improving the Enabling Environment and Institutional Capacity – 6 Key Actions



1. Enhance the Climate Impact of Intergovernmental Fiscal Transfers

National governments can enhance the climate impact of intergovernmental fiscal transfers for subnational action via the earmarking of government funds, development partner support, and co-financing, including through blended finance vehicles.

Implementation Option One: Earmark intergovernmental fiscal transfers for subnational climate action.

National governments can designate existing fiscal transfers as being used exclusively for subnational climate actions. For example, specific allocations could be made for installing high-efficiency water pumps to reduce energy costs and increase volume, thereby reducing carbon emissions while increasing revenues and bankability.

Implementation Option Two: Secure grants and/or loans from development partners to increase fiscal transfers to subnational entities.

National governments can request support from development partners in complementing the level of intergovernmental fiscal transfers for subnational climate action. For example, performance-based grants could be secured to increase the amount and impact of funding available to subnational governmental entities that could be used for subnational climate action. For example, over the last two decades the World Bank has provided more than US$ 8 billion in urban performance grants; such funding could be allocated to subnational climate action.[53]

Implementation Option Three: Add blended finance vehicles (including climate and SDG bonds) to increase the amount of funds for subnational entities.

Blended finance can include combining national, state, and local government revenues as well as finance from the private sector and nonprofit organizations, including the issuance of climate and SDG bonds.

Implementation Option Four: Co-finance with private sector climate actions at the subnational level.

Legal entities can be established to serve as implementation partners to implement subnational climate action, contributing expertise and capital. Examples include local utilities, PPPs, and companies that receive funding from the national government and/or its development partners for specific subnational climate action.

EXAMPLES

India – Pooled Bond for Water Climate Action at the Subnational Level: One objective of the Tamil Nadu Climate Resilient Urban Development Operation between the Indian Government and the World Bank is to support Tamil Nadu Urban Infrastructure Financial Services (TNUIFSL) in resuming the municipal bond program for urban water systems. The program will enable greater finance for Urban Local Bodies (ULBs) in Tamil Nadu, covering: (a) pooled municipal bonds for multiple ULBs; and (b) stand-alone municipal bonds for larger ULBs.[54] TNUIFSL is a public-private partnership promoted by the Government of Tamil Nadu with equity participation from banks and financial institutions, namely ICICI Bank, Housing Development Finance Corporation (HDFC) Limited, and IL &FS Financial Services Limited. TNUIFSL acts as fund manager for the Water and Sanitation Pooled Fund (WSPF), a Trust established by the Government of Tamil Nadu in 2002 to mobilize resources from the capital market on pooled finance framework and to finance urban infrastructure projects implemented by ULBs.

Mexico – SDG Bonds: The Mexican government reports that its SDG Bond proceeds of US$ 1.48 billion were allocated to marginalized areas at the municipal level (US$ 538 million, 36%) and at the state level (US$ 940 million, 64%).[55]

2. Support the Ability of Subnational Governments to Increase Their Own-Source Revenues

The national government can provide support to subnational governments to increase their own-source revenues.

Implementation Option One: Implement a national property tax digitalization program using Geographic Information System (GIS)-enabled information systems.

Developing countries have an opportunity to increase local funding by using GIS-enabled tax information systems, resulting in increased property taxes that can be used for financing subnational climate action. The ratio of property tax revenue to total taxes in developing countries is currently low, averaging 0.4% in low-income countries, 1.04% in low-middle income countries, and 2.16% in high-middle income countries (compared with 5.6% in high-income countries) during the years 2010–2018. Satellite imagery tools and geolocalized data systems can help in detecting, registering, characterizing, and valuing properties.[56]

Implementation Option Two: Scale up the use of online digital payment systems.

The use of digital technologies is being used to reduce carbon emissions and also increase the ability to increase revenues, encompassing the collection of taxes and fees as well as infrastructure services (e.g., water, energy).

Implementation Option Three: Implement a national program of Land Value Capture.

Local governments can increase their direct funding through Land Value Capture, a financing tool that allows local governments to charge fees and taxes to developers and property owners and raise revenue that can then be reinvested in community and city services, including subnational climate action.

EXAMPLES

Brazil – Land Value Capture: The city of São Paulo used Certificates of Additional Construction Potential (CEPACs) to generate revenue for infrastructure projects such as public housing. Instead of applying for the right to build in a specific area, developers could purchase CEPACs on the stock market, generating revenue for the government. The Água Espraiada Urban Operation project raised BRL 2.9 billion (US$ 806 million) from CEPACs between 2004 and 2012.[57]

Mozambique – Local Revenue Enhancement: The Cities and Climate Change Project (3CP) financed by the World Bank provided support to 26 municipalities aimed at strengthening institutional capacity for local revenue enhancement and land use management. The support included annual performance-based transfers to municipalities and a technical assistance program targeting municipal officials. Local revenue grew by 114%, and its share in total revenue increased from 19% in 2013 to 24% in 2018.[58]

3. Integrate Subnational Consultations into National Climate Plans and Leverage Sovereign Funding and Climate-Smart Solutions

The national government can integrate subnational consultations into national climate plans and leverage sovereign funding and climate-smart solutions (e.g., municipal, water and sanitation, renewable energy, transport, disaster, etc.).

Implementation Option One: Set up a Subnational Climate Unit at the Ministry of Finance, prioritizing the development of finance solutions.

Given the dominant approval role of the Ministry of Finance in allocating and approving finance, a dedicated unit – staffed with finance experts and accountable for achieving results in financing subnational climate action – could be set up, with staff consulting on an ongoing basis with subnational governments, the private sector, and civil society.

Implementation Option Two: Require all ministries to conduct meaningful consultations with subnational entities and to integrate them into sovereign programs.

The national government could systemically integrate representatives of subnational governments into its national development plans and budgeting, aligning with NDCs and climate plans.

Implementation Option Three: Ensure an integrated optimal interface between subnational climate plans and sovereign programs, leveraging both local knowledge and climate-smart approaches.

A best practice is the development of subnational climate plans:

- ensure optimal use of local knowledge, including nature-based solutions;
- ensure optimal use of national, regional, and international knowledge, using the available technologies for assessing climate risks and developing climate-smart and bankable solutions;
- leverage the role of local government associations; and
- include the private sector (financiers, equipment and service providers, corporations, SMEs, ESCOs, etc.), philanthropies, and civil society (local organizations, community service organizations, etc.).

Implementation Option Four: Undertake actions to expedite peer-to-peer learning and resource exchange through transnational networks, enabling the adoption of solutions being developed worldwide.

Options include:

- The national government encourages local governments, businesses, and other stakeholders to join transnational networks.
- Create regional chapters of transnational networks and affiliation arrangements between transnational networks and national groups.
- Increase recognition in global platforms of the pivotal importance of subnational action and the full range of local actors on the ground.

EXAMPLES

Kenya – Climate Finance Unit at the National Treasury: Kenya has established a Climate Finance Unit to mobilize and manage climate change financing within the National Treasury. The functions of the National Treasury are core to the climate financing requirements and management at the international, national, and subnational levels. While responsibility for overall development policy formulation and planning sits at the national level, both the National Climate Change Action Plan (NCCAP) and the Climate Change Act place substantial responsibility on county governments to implement climate action on the ground.

Morocco – National Disaster Risk Management (DRM) Program: The Moroccan government has established a national disaster risk management program under the Ministries of Finance and Interior coordinating all DRM activities implemented by subnational governments, other central government line ministries, and other national entities. The Moroccan national government borrowed US$ 200 million from the World Bank, with support from the Global Facility for Disaster Reduction and Recovery (GFDRR), the Organization for Economic Co-operation and Development (OECD), and the Swiss government. The program includes a "Resilience Fund" to incentivize financing of disaster risk reduction and resilience investments. To date, the fund has committed over US$ 30 million to co-finance more than 40 projects, selected from applications submitted to a national competition.

Senegal – Countrywide Public Lighting Program: The Senegalese Minister for Finance and the Budget approved contracts in 2018 and 2022 with the French company Fonroche Lighting to supply and install solar streetlights under the supervision of the Ministry of Petroleum and Energy, with the aim of rolling out solar public lighting to the entire country. The national government signed loans from the French Export Credit Agency Bpifrance Financement and the French commercial bank Société Générale. The Islamic Corporation for the Insurance of Investment and Export Credits (ICIEC), a multilateral credit and political risk insurer, has signed an agreement with UK bank Standard Chartered to provide risk mitigation for breach of contract (i.e., Non-Honoring of Sovereign Financial Obligation).

4. Provide National Technical Assistance for Improving Creditworthiness and Enabling Environments

The national government can provide technical assistance for improving the creditworthiness of subnational entities and the national enabling environment. For example, the national government can create conducive legal, regulatory, and policy frameworks, and request support from development partners and the private sector, including technical assistance, grants, concessionary loans, risk mitigation (e.g., structuring credit enhancements, first loss, guarantees, etc.).

Implementation Option One: Improve the national enabling regulatory, legal, and policy environment.

Examples of changes to the national regulatory frameworks include the following:

- Enable subnational entities to secure finance from public and private financiers with prudent safeguards.
- Ensure that banking regulations enable commercial banks to provide loans to creditworthy subnational entities and have the ability to use proven structured finance techniques (e.g., ringfencing of debt payments, credit enhancements, guarantees, etc.).
- Ensure that pension funds can provide finance to creditworthy subnational climate projects that meet their fiduciary requirements.

Implementation Option Two: Provide extensive technical support to subnational entities to increase their creditworthiness.

- Provide funding for capacity building, securing support from specialized professionals to comply with the due diligence requirements of financiers.
- Provide training and expert support related to how to assess creditworthiness, climate actions, and solutions (e.g., leading solutions for energy efficiency, building efficiency, flood control, etc.).

Implementation Option Three: Focus on entities such as utilities and state-owned enterprises that can generate revenues and meet the requirements of public and private financiers.

Worldwide, most funding for subnational climate action is provided to the specific public or private sector entity accountable for the delivery of services (e.g., water, sanitation, energy, transportation, etc.).

Implementation Option Four: Set up national agencies and banks that can provide technical assistance, creditworthiness assessments, and funding to support subnational entities.

Subnational entities need support from the national government in delivering social services such as water and sanitation, transportation, renewable energy, building efficiency, etc.

Implementation Option Five: Develop local currency finance options and capital markets.

The optimal sources of finance are from the local market in local currency, optimizing support from local banks and institutional investors, eliminating foreign exchange risk and unacceptable liabilities for borrowers.

EXAMPLES

Colombia – Development Bank Findeter: As a national development bank with a subnational mandate, Financiera De Desarrollo Territorial S.A. (Findeter) supports subnational climate action such as renewable energy and public lighting. Findeter functions as a second-tier lender and provides discounted loans to domestic commercial banks that lend to local entities to finance infrastructure projects. Since 2020, Findeter has strengthened its role as a local development bank by financing key sectors through special and direct lines of credit to subnational governments. Aligned with the National Development Plan for 2022-2026, Findeter also provides direct loans to special purpose vehicles and community-based organizations providing investment projects.

Colombia – Non-Sovereign Loan in Local Currency to Municipality of Barranquilla from Agence Française de Développement (AFD): The €120 million loan from AFD to the city is denominated in local currency (Colombian pesos), eliminating the risk of higher loan payments of a hard currency loan resulting from the depreciating of the host country's currency. The loan provides the city with budget support in the implementation of "I am Barranquilla," the 2020-2023 Development Plan dedicated to implementing sustainable climate actions, including adaptation to climate change, biodiversity, environmental protection, disaster risk management, and social inclusion, especially for women.

Kenya – Water Services Regulatory Board (Wasreb): As a regulatory state corporation, Wasreb supports the improvement of the creditworthiness and financial sustainability of Kenya's subnational county-based Water Service Providers (WSPs) by allowing financing of operations, capital cost recovery, and a return on capital that sustains services through ongoing investments. Wasreb provides "Commercial Viability Criteria" and implements annual ratings of each WSP, creating the foundational basis for increasing the ability of WSPs to secure loans from commercial banks and institutional investors.

5. Provide Whole-of-Government Directives and Include Them in NDCs and Development Plans

The national government can provide whole-of-government directives to the key government functions required to scale up subnational climate actions, in coordination with accountable ministries. This includes the finance ministry and other ministries accountable for planning, which are the key national entities responsible for finance and budgets, as well as line ministries accountable for key sectors that relate to subnational public services and other subnational climate actions.

Implementation Option One: Endorse subnational climate action as an integral part of climate and development plans, including in the specific objectives and targets in NDCs.

Implementation Option Two: Involve all relevant government entities in support of specific subnational climate projects.

Implementation Option Three: Disseminate the program and its results widely in public forums to build support and market momentum.

Implementation Option Four: Require regular progress reports.

EXAMPLES

Rwanda – Kigali E-Moto Program: The objective of the approved Mitigation Action Facility (former NAMA) project in Rwanda's capital city Kigali, "Accelerating the deployment of e-motos in Rwanda," is the large-scale adoption of electric motorcycles ("e-motos"), reducing greenhouse gas emissions and delivering development co-benefits. The program is aimed at activating the e-moto market by increasing the supply of e-motos and charging stations and cultivating e-moto demand and access to finance. The E-Moto Credit Enhancement Facility will provide first loss funding to banks, and the E-Moto Rebate Scheme provides selected low-income (and female) operators with subsidies to lower e-moto down payments. The project reflects a whole-of-government approach.

South Africa – Achieving a Just Energy Transition Partnership ("JETP"): Led by the South Africa Head of State in the Presidential Climate Commission (PCC), the JETP focuses on the transition of South Africa's energy from coal toward cleaner sources of energy. The JETP has mobilized US$ 8.46 billion in commitments from supporting development partners. One of the first tasks of the PCC was to design a just transition framework for South Africa, bringing coordination and coherence to just transition planning. The selection of PCC Commissioners reflects a whole-of-government approach, including subnational as well as finance-related representatives.

6. Develop a Wide Range of Finance Intermediation Vehicles

The national government can further develop a wide range of acceptable intermediation vehicles across the public and private sectors for financing subnational climate actions.

Implementation Option One: Develop an Intermediation Plan for Subnational Climate Action that enables the effective development and finance of subnational climate action.

Public and private sector intermediaries are designated as intermediaries to channel funding from the national government for subnational climate actions.

Examples of possible actions by intermediaries include the following:

- National and subnational development banks can provide funding to local governments and other entities implementing climate actions.
- Ministries and agencies can manage sector and thematic programs that facilitate the development and finance of subnational climate actions, ranging from finance, urban, local, and environmental government ministries to sectoral line ministries and agencies (e.g., Renewable Energy Agency, Investment Promotion Agency, etc.).
- Green funds and green banks can develop and finance subnational climate action.
- Commercial banks can provide loans to subnational entities and the private sector if they are considered creditworthy based on revenues and/or credit enhancements (e.g., debt escrow accounts, partial credit guarantees, etc.).
- Investment vehicles can channel funds, blending financing from public and private sources (including philanthropies and community service organizations) and employing credit enhancements.[59]

Implementation Option Two: Government agencies responsible for supervision, monitoring, and support (e.g., the central bank, finance ministry, national development banks, etc.) are set up to support effective financial intermediation, ensuring that there is good governance and no bureaucratic impediments.

Implementation Option Three: Notify development partners of a country's Intermediation Plan for Financing Subnational Climate Action, requesting them to consider providing funding, technical assistance, and risk mitigation to the specified intermediaries to enable the scaling up of finance, co-finance from other entities, and results.

Implementation Option Four: Strengthen the designated intermediaries to meet development partner requirements (if needed).

Implementation Option Five: Conduct monitoring and publish results.

EXAMPLES

Brazil – Subnational Bank Program: The US$ 125 million World Bank program "Southern Brazil Urban Resilience Program (SUL RESILIENTE)" is aimed at promoting natural disaster mitigation and urban resilience in 547 municipalities in southern Brazil to address natural disaster and extreme climate-related events. The Government of Brazil is the guarantor providing a sovereign guarantee to the Regional Bank of Development for the Extreme South (BRDE), which is the borrower, implementing agency, and financial intermediary at the subnational level. The credit line includes the following components: investment in local infrastructure, capacity building to strengthen the institutional capacity of selected municipalities, and capacity building to build BRDE's institutional capacity, including in assessing social and environmental risk, supporting its efforts to align its procedure and portfolio with the 2030 Agenda for Sustainable Development and the Paris Agreement. The credit line is primarily available to small and medium-sized municipalities facing significant disaster risks in southern Brazil but lacking access to the financing required to mitigate climate-specific challenges. Notably, the World Bank states that BRDE is licensed and supervised by the Central Bank of Brazil (BACEN) and shows adequate financial fundamentals.[60]

Cameroon – Subnational Development Bank FEICOM: The Cameroon government's Special Council Support Fund for Mutual Assistance (FEICOM) serves as an intermediary for funding from the national government and development partner funding of subnational projects. For example:

- In July 2023, Cameroon's Head of State signed a decree laying down the guidelines for the collection, centralization, distribution, and payment of the special excise duty to finance waste removal and treatment in decentralized communities. The dominant share of the taxes will be provided to FEICOM as the public financial institution in charge of local development for redistribution to communities and administrative districts.[61]
- France's AFD has historically supported FEICOM, and Germany's KfW development bank also channels funds through FEICOM, financing through grants or loans of sub-projects in selected medium-sized cities. Sub-projects (markets, bus stations, solar electrification, valley sanitation development) had to ensure proper commissioning and long-term maintenance of the structures, and, where appropriate, PPPs; assistance to medium-sized cities in sub-project planning, project management, improvement of revenue generation and collection, maintenance, and sustainable management of infrastructure, as well as financial management and pilot measures to improve transparency and citizen participation; advisory support services through the development of management tools and funding mechanisms and strengthening of FEICOM regional agencies; financing of infrastructure projects such as schools, hospitals, roads, and markets; and financing of 15 smaller cities that have received numerous r efugees from neighboring countries, now accounting for up to 30% of the population.[62]

2.4 INCREASING THE EFFECTIVENESS AND LEVEL OF SUPPORT FROM DEVELOPMENT PARTNERS

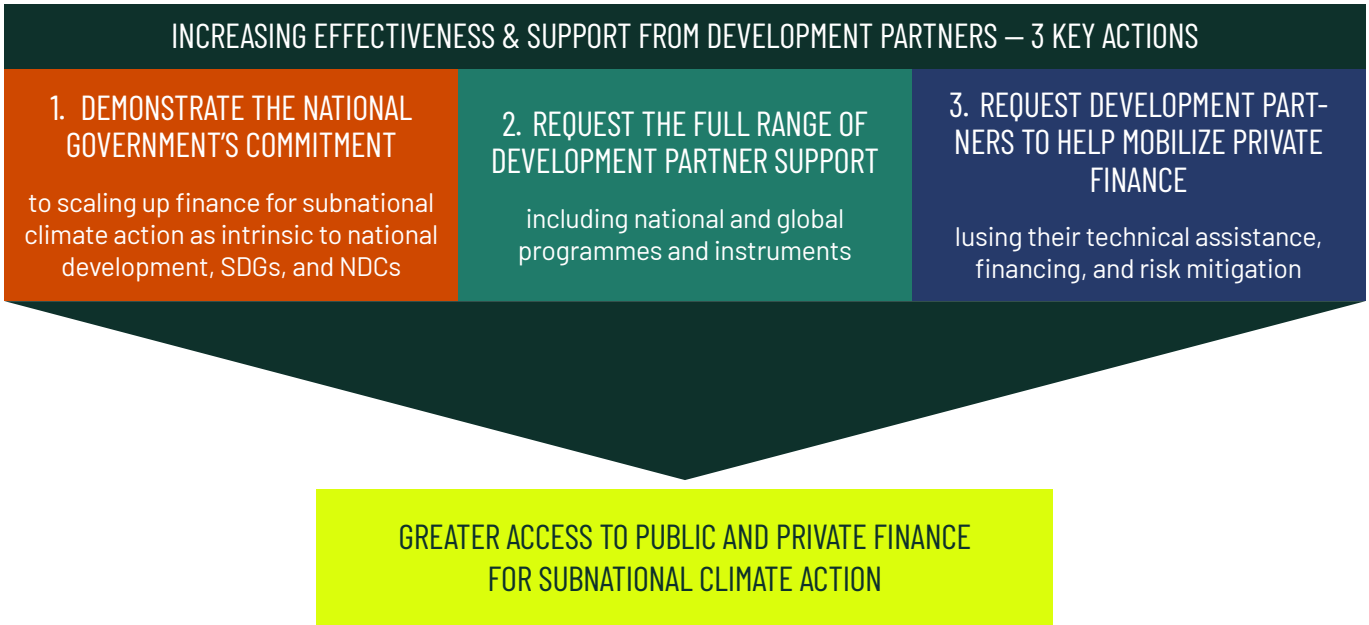
The national government can enhance its understanding of development partner requirements and their specific instruments and allocate complementary roles among them. The national government can also request development partners to de-risk and leverage the implementation of financing techniques that have proven to be successful in mobilizing private sector and other non-governmental capital to reach net zero greenhouse gas emissions globally.[63] The increasing reliance on private sector finance is reflected in the reported changes in the scale and type of development partner support.* The scaling up of subnational climate actions requires the use of proven financing techniques that result in creditworthiness without relying on sovereign guarantees.

A key challenge is to optimize the use of scarce concessional funding and increase its effective leverage. Grant and concessional finance represented consistently under 7% of total climate finance from 2011 to 2022.[64] Grants can be integrated into a project's funding structure to achieve bankability in a variety of ways to unlock finance. For example, they can be used as first loss and subsidies to mitigate risks and strengthen the project or company's ability to repay debt and provide equity returns. Another example of how grants can be used to achieve project bankability is to buy down the cost of equipment, thereby reducing debt service. In addition, co-financing has long been a successful approach for crowding-in private finance.

It is also critical to include the full spectrum of project sponsors and implementation partners for subnational climate projects: public, private, and nonprofit. National governments can engage the full range of possible support from the various units from development partners that can support the public and private project sponsors as well as related trade finance (e.g., export credit agency support of climate-smart equipment imports such as solar streetlights, energy-efficient water pumps, etc.).

National governments can take three key actions to increase the effectiveness and level of support from their development partners, as summarized in Figure 4 and detailed below, with implementation options and country examples.

Figure 4. Increasing Effectiveness and Support from Development Partners – 3 Key Actions



* A recent analysis reports that commercial financing from multinational development banks for blended finance grew 140% in 2023 from US$ 2 billion in 2022 to US$ 4.9 billion in 2023. In contrast, concessional funding from the public sector has been stagnant since 2018, with Official Development Assistance (ODA) totals dropping 45% from 2021 to 2023. Also, the use of concessional guarantees and risk insurance has increased, by over 40% in 2023 from 2021 and accounting for 43% of all concessional funding in 2023. See: Convergence, The State of Blended Finance 2024 (San Francisco: 2024), p. 9,

1. Demonstrate the Commitment to Scaling Up Finance as Intrinsic to National Development, SDGs, and NDCs

The national government can demonstrate that its commitment to scaling up finance for subnational climate action is intrinsic to national development and to achieving the Sustainable Development Goals and Nationally Determined Contributions.

Implementation Option One: Disseminate widely the national government's commitment to scaling up finance for subnational climate action, underlying the critical need for coordinated government support across all government ministries and agencies (e.g., finance ministry, line ministries, environmental ministry, national development bank, etc.).

To achieve the targeted climate and finance impact, a national understanding and embrace of the importance of climate actions at the subnational level is required. These actions are a key lever to achieve national development plans as well as the SDGs and NDCs. Subnational climate action is critical to the country's future and to citizens' well-being, including through improved local infrastructure services (e.g., improving water delivery through high-efficiency water pumps, digital monitoring of leaks, etc.), more and better green jobs (e.g., from needs to implement building efficiency, climate-proofing infrastructure, etc.), opportunities for SMEs through contracting for implementation, greater protection of people and property from climate disasters, etc.

Implementation Option Two: Demonstrate an inclusive whole-of-government and society approach required for success.

It is critical to engage key leaders in government, the private sector, and civil society, including development partners. Subnational climate projects may involve national governments, a range of subnational governments (e.g., states, provinces, counties, cities, districts, etc.), utilities owned by the public and/or private sector (e.g., PPPs, concessions, stock markets, bond holders, etc.), the private sector (e.g., SMEs, corporations, ESCOs, etc.), and nonprofit organizations (e.g., community service organizations, foundations, cooperatives, etc.).

Implementation Option Three: Ensure that development partners play an essential role through country programs that are funded through both sovereign loans as well as non-sovereign instruments aimed at unlocking private investment.

Options include:

- Develop subnational climate plans and aggregate them at the national level for coordinated and effective support.
- Create bankable/investable projects that meet finance requirements with optimal finance approaches based on a country's circumstances.
- Aggregate small subnational climate projects that do not meet the requirements of financiers into bankable pooled facilities, programs, funds, and legal investment entities that can access finance.
- Mobilize private capital through development partner support (e.g., project preparation funding of experts to structure bankable projects, grants, concessional finance, co-financing, risk mitigation instruments, development of local currency solutions, etc.).
- Identify climate-smart technologies, materials, processes, and reputable sources that can shape and enhance the national approach to subnational climate action (for example, the optimal energy-efficient pumps and how to install them into existing systems, how to decarbonize the transportation system with the optimal equipment and services, etc.).

EXAMPLE

European Bank for Reconstruction and Development – Municipal and Environmental Infrastructure (MEI) and Green Cities Program: The EBRD has a priority focus on mobilizing private capital for municipal and environmental infrastructure. The EBRD has the most decentralized city program, implementing innovative approaches to channel climate finance directly to cities, enabling effective planning and decision making at the city level. It has a cumulative investment of €12.4 billion in 620 projects in Europe, Central Asia, and Türkiye. The EBRD's MEI Strategy covers the Bank's activities in traditional urban sectors (i.e., water and wastewater, urban transportation, solid waste management, district energy, and energy efficiency). It also conducts expanded areas of operations such as climate adaptation, irrigation, integrated renewables, smart cities, industrial parks, facilities management, urban regeneration, cultural heritage, and circular economy. The EBRD strategy promotes diversified and innovative financing structures, including a strong focus on sub-sovereign lending, to address funding gaps and harness private capital.[65]

2. Request the Full Range of Support from Development Partners, Including National and Global Programs and Instruments

National governments can optimize support from development partners for subnational climate action by mobilizing the full range of their programs and instruments at the country, regional, and global levels across all project sponsors and implementation partners.

Implementation Option: Mobilize the full range of development partner instruments for subnational climate action (beyond direct finance from development partners' urban departments for individual projects, which is limited in scope).

The universe of actors involved in subnational climate action includes a wide array of entities across the public and private sectors, from the national government and subnational entities to utilities, SMEs, corporations, special purpose vehicles, community service organizations, and civil society at large. Therefore, national governments need to request development partners to expand their support, mobilizing the vast array of programs and instruments of development partners that can support the full range of project sponsors and financiers.

Moreover, subnational climate action in developing countries is usually limited to sovereign funding and guarantees, which is very limited given the fiscal constraints of both national governments and development partners. Therefore, the scaling up of subnational climate actions requires the use of proven financing techniques that result in creditworthiness without relying on sovereign guarantees. Ongoing deep coordination between national governments and non-sovereign departments accountable for the mobilization of private capital and developing innovative finance solutions is essential given the need for deep expertise in advisory, project finance, capital markets, and commercial lending.

Optimizing development partner support requires a mapping of their organization for identifying the various options of support:

- Technical assistance related to project development and advisory (e.g., project structuring, PPP advisory, ESCO support, strengthening of finance borrowers such as utilities and SMEs, etc.).
- Integration into sector programs such as water, sanitation, transportation, renewable energy, etc.
- Support in developing innovative finance techniques such as blended finance, credit enhancements, pooled finance facilities, etc.
- Use of climate-smart equipment, materials, and processes.

EXAMPLES

Peru – World Bank Program on Enabling Green and Resilient Development Policy Financing: The US$ 750 million World Bank program arranged with the Peruvian national government supports the creation of an enabling environment with specific frameworks and regulations advancing the adoption of climate action and finance, such as the creation of a Sustainable Bond Framework, implementation of the Building Information Modeling (BIM) methodology for public works, the development of more inclusive and efficient transit systems in cities, regulations to facilitate the expansion of renewables to close the electricity access gap, regulatory actions to promote energy efficiency in the public and private sector, legislation so that new buildings incorporate low-carbon technologies, and strengthening of the capacities for disaster risk management (DRM) at the subnational and sectoral level.[66]

South Africa – Project Preparation Funds for Municipalities: The national government's Energy Efficiency Demand Side Management (EEDSM) program, supported by the German Agency for Technical Cooperation (GIZ), provides a national framework for scaling up subnational climate action.

- The EEDSM program supports municipalities in their efforts to reduce electricity consumption by optimizing their use of energy. Selected municipalities receive grants for the planning and implementation of energy-efficient technologies ranging from traffic and street lighting to energy efficiency in buildings and water service infrastructure.
- The estimated electricity saving potential for traffic lights is up to 80%; for street lighting between 40-70%; for office buildings 20-30%; and 15-25% for pumps that are used for water provision and treatment.
- Based on the assessment and the municipality's proposal, the Department of Energy, through the EEDSM program, will offer the municipality a grant (or grants) to finance the planning and implementation of energy efficiency measures (energy-efficient traffic lights, streetlights and new LED lights on high masts, building lighting, and heating, ventilation, and air conditioning (HVAC), water infrastructure (i.e., water pumps) and energy-efficient wastewater treatment).[67]

Box 2. Checklist That National Governments Can Use for Mobilizing the Full Range of Development Partner Instruments

1. **Map development partners and their requirements at the country, regional, and global levels:**
   - It is important to include both the existing national programs and instruments of development partners in the country, as well as the full range of regional and global programs and instruments (e.g., grants, concessional loans, technical assistance programs, risk mitigation instruments, funds, innovative finance approaches, etc.).
   - The range of development partners includes Multilateral Development Banks, bilateral development partners, regional banks, export credit agencies, providers of risk mitigation (guarantees, insurance, foreign exchange hedging, etc.), and providers of technical assistance (e.g., project preparation funds, legal structuring and negotiation support, project structuring techniques that mitigate credit risks, etc.).
   - Development partners can also bring their national partners from the public and private sectors as part of their contribution to the country, so it is important to include them. Examples include national and subnational development banks, green banks, climate funds, commercial banks, utilities, providers of climate-smart equipment and services, and business associations.
2. **Conduct surveys of development partners to identify their full range of possible support functions:**
   - Are there existing in-country programs that can be used to scale up subnational action? For example, programs with line ministries that include critical sectors for subnational climate actions, such as water, sanitation, renewable energy, transportation, flooding, etc.?
   - What grant, loan instruments, and innovative finance programs are already available in the country and potentially from the head office? Construct a complete list, from grants and loans to co-financing (e.g., A/B loans) and risk mitigation (e.g., first loss, guarantees, etc.). Existing concessional finance could potentially be used to support project preparation facilities and other technical assistance.

- Can the development partner increase intergovernmental fiscal transfers to subnational governments and entities such as utilities for subnational climate action? For example, some Multilateral Development Banks (e.g., the World Bank) complement national government fiscal transfers to subnational entities with performance-based grants.[68]
- What intermediaries are now considered acceptable to channel financing to subnational governments, utilities, SMEs, private sector equipment and service providers, community service organizations, private sector companies, and/or climate action projects? The range of potential intermediaries used by development partners includes ministries, national and subnational development banks, climate funds, commercial banks, national portfolio companies, state-owned enterprises, etc.
- What funds can be allocated for planning and project preparation of subnational climate action? Normally, project preparation represents 5–12% of the total project cost. Percentages can be higher for small projects given the fixed costs of technical studies and advisory fees over a smaller cost basis.[69]
- Key costs include the full range of the project preparation life cycle from climate planning to experts (finance, legal, environmental, etc.) that can provide specialized support in project conceptualization and design, conducting acceptable feasibility and other technical studies (engineering, environmental, social, etc.), transaction advisory, legal advisory for finance, offtake contracts, risk mitigation support, etc.
- To meet the credit due diligence and financing requirements for blended finance and private sector financiers, there are several costs that are often not covered in traditional project preparation facilities or by development partner technical assistance. Can the development partner cover these costs required to achieve bankability? Examples of costs often not covered are transaction advisers (required to structure projects and investment); experienced project finance lawyers (needed to draft, negotiate, and finalize contracts for finance, management, land, partnerships, procurement and/or needed modifications to procurement rules and regulations, securing of permits, etc.); advisory from credit rating agencies, etc.
- What funding can be allocated to cover the high capital expenditures underlying most climate actions (mitigation and adaptation)? For example, grants can be used to achieve project financial sustainability and bankability by reducing the cost of capital expenditures (CAPEX).
- What kinds of risk mitigation can be provided? A wide range of risks undermine project financial sustainability and bankability, including credit risk, political risk, demand risk, foreign exchange risk, weather risk, etc. Development partners can unlock finance and reduce interest rates by providing affordable risk mitigation support (e.g., first loss, partial credit guarantees, political risk insurance, disaster insurance, unfunded risk participations, A/B loan structures, equity, mezzanine debt, local currency financing or currency swaps, etc.).
- What is the committed time for maintaining the support of the potential program(s)? New finance approaches often require four or more years to develop and implement.

3. **Create finance- and climate-focused urban/subnational development partners coordination working groups involving experts on a results basis:**
   - Significantly increase project preparation funding.
   - Scale up financing approaches that greatly increase grants and concessional loans to mobilize private capital for projects, including risk mitigation techniques and instruments.
   - Include high-level experienced finance practitioners and climate experts with backgrounds in executing financial approaches with private sector financiers, including consultations with rating agencies.

Box 3. Why Are Technical Assistance Providers Critical to Developing Pipelines of Bankable Projects?

Technical Assistance providers are often needed by national governments to support the development of pipelines of bankable projects by engaging finance experts, transaction advisors, engineers, sectoral experts, and other specialized experts.

1. **Support the development of one-off projects to achieve bankability**
   - Example: Service Delivery Mechanism (SDM), project preparation technical support for Africa's large Infrastructure projects, implemented by the African Union Development Agency (AUDA NEPAD) and funded by GIZ.[70]
   - Example: Covenant of Mayors in Sub-Saharan Africa, GIZ-implemented project preparation support for local government projects in Sub-Saharan Africa.[71]
   - Example: InfraVentures, IFC project development fund for developing bankable projects.[72]
   - Example: Infraco Africa and Infraco Asia, project preparation support in obtaining viability (Private Infrastructure Development Group).[73]
2. **Support national programs that develop pipelines of bankable projects**
   - Example: South Africa's Energy Efficiency Demand Side Management (EEDSM) project preparation funds for municipalities, with technical assistance provided by GIZ.[74]
   - Example: Ecuador supported structuring a pipeline of wastewater projects for secondary cities with the National Development Bank BDE, with technical assistance provided by Felicity (GIZ-EIB).[75]
   - Example: GIZ Serbia program to support seven projects with investment value of around €100 million (single project pipeline).[76]
3. **Use proven financial techniques to obtain bankability for local bonds**
   - Example: India's Pooled Bond for Water Climate Action at Subnational Level (Tamil Nadu Urban Infrastructure Financial Services), with technical assistance provided by the U.S. Agency for International Development (USAID) and the World Bank.[77]

3. Request Development Partners to Help Mobilize Private Finance, Using Their Technical Assistance, Financing, and Risk Mitigation

National governments can request development partners to support the implementation and scaling up of financial approaches that increase private finance, thereby leveraging limited public finance.

Implementation Option: Request development partner support in the implementation and scaling up of innovative private finance solutions, increasing the effective leverage of limited public finance to access private capital (debt and equity).

Options include:

- **Project-Based Finance:** A proven technique is "project finance," in which creditworthiness is based on the ability of the project itself to pay debt service with no recourse to the project owner. In this way, utilities can access finance even if their owners are not considered creditworthy (e.g.., an uncreditworthy subnational government or another entity can own a utility that could be considered creditworthy based on its ability to service debt and risk mitigation for political risk, credit risk, etc.). The new company is set up as a special purpose vehicle and financed based on a credit analysis of its ability to service debt based on its structure.
- **Proven Risk Reduction Through Financial Techniques and Credit Enhancements (e.g., Guarantees, First Loss, Co-Financing, etc.):** Existing legal entities can access private capital if they are considered creditworthy based on their audited financial statements. Concerns restricting access to capital can be addressed through the use of proven financial techniques such as ringfencing revenues in escrow accounts for serving debt and paying service contracts, co-financing (e.g., A/B Loans), the use of credit enhancements (e.g., first loss, credit and political risk guarantees, mezzanine debt, etc.). New innovative techniques are being developed for increasing local currency debt finance and risk mitigation.
- **Ways to Access Equity Finance:** For a public or private sector company (e.g., utility, SME, PPP, etc.) to be considered bankable, financiers will assess the amount of equity relative to the total amount of debt. Mobilizing equity is therefore critical to achieve bankability. Some development partners provide equity investments. Privately owned entities and funds implementing climate action can raise equity from institutional investors, funds, and the general public. Also, public-private partnerships often involve an equity contribution from the private sector.

Box 4. Implementation Options for Requesting Development Partners' Support in Scaling Up Proven Finance Solutions

- Inform development partners of the country's priority objective of scaling up finance for subnational climate action, asking them to provide detailed information on their suggestions on required actions and ways they can support the objective.
- Assess the suggestions from development partners, including input from:
  - appropriate national government entities (e.g., finance ministry, central bank, national and subnational development banks, PPP unit, stock exchange, investment promotion agency, etc.), and subnational governments (including their associations); and
  - private sector (experts, transaction advisors, banks, pension funds, SMEs, providers of equipment, rating agencies, etc.).
- Develop and implement a specific Action Plan that can serve as a cohesive national framework with fulltime expert staff:
  - capacitate the designated government officials with the knowledge required to achieve greater finance through trainings and on-the-job learning (e.g., best practices on proven financial techniques, instruments, examples, etc.);
  - provide budgets for hiring finance experts, etc.; and
  - consider the full menu of options: scale up project preparation facilities at the country level, create a national guarantee institution, etc.

EXAMPLES

Kenya – Acorn Housing Transaction, First Ever Green Bond: Acorn, the first purpose-built student accommodation (PBSA) provider in Kenya, has stepped in to fill the chronic shortage of student accommodation, issuing a bond enabling it to construct up to six green-certified student properties in Nairobi, creating clean, safe, and affordable accommodation for 5,000 students. The Private Infrastructure Development Group (PIDG) provided multiple types of support that were essential in enabling the successful bond issuance with proceeds of KES 4.3 billion:

- GuarantCo, a PIDG company that provides credit enhancement, provided investors with a partial credit guarantee to cover 50% of principal and interest due.
- The Emerging Africa Infrastructure Fund (EAIF), another PIDG company, is the largest single investor with participation of KES 1.28 billion, with other shares bought by Kenya pension funds.
- The PIDG Technical Assistance Facility provided Acorn with a part returnable grant to contribute toward the costs of issuing the bond, enabling the successful execution of the transaction.

As a result of the combined PIDG interventions, Moody's rated Acorn's medium-term note program B1, one notch higher than Kenya's sovereign rating of B2. This is the first non-governmental green bond rated by Moody's in Africa and will serve as an example for other corporate issuers who wish to seek funding from institutional investors, such as pension funds, and will help to kick-start the dormant bond market in Kenya. The bond is the first ever to achieve green certification in Kenya, which ensures that the program genuinely contributes to reducing carbon emissions.

Nigeria – InfraCredit: The Nigeria Government established InfraCredit in 2007 as an "AAA-" rated specialized infrastructure credit guarantee institution to mobilize long-term capital required by infrastructure entities and projects to unlock debt finance from pension funds, insurance firms, and other long-term investors, thereby deepening Nigerian debt capital markets.

- InfraCredit has had extensive ongoing support from the Nigerian Government and development partners. Initial funding was provided by the Nigeria Sovereign Investment Authority (NSIA) and Guarantco, the guarantee facility of the Private Infrastructure Development Group. Further support has been provided by KfW (€54.5 million subordinated capital), Africa Finance Corporation (investment of US$ 25 million), the African Development Bank (US$ 25 million in two subordinated loans and US$5 million partial credit guarantee), InfraCo Africa, part of PIDG (US$ 27 million equity), Leadway (US$ 5 million equity), and FSD (GBP 10 million toward a joint innovative risk-sharing facility for climate-aligned infrastructure).
- InfraCredit can only guarantee very strong creditworthy projects, as it has a "zero loss underwriting policy," meaning that it will only underwrite a portfolio that contains lower potential default frequency and loss severity characteristics. An example is InfraCredit's guarantees of three 20-year tenor bonds issued by the Lagos Free Zone Company being developed as the largest integrated port based special economic zone in Nigeria and intended to boost industrial development across Nigeria and West Africa. StanbicIBTC Capital Limited acted as Lead Issuing House / Bookrunner. Cardinalstone Partners Limited, FCMB Capital Market Limited, FSDH Capital Limited and Radix Capital Partners Limited acted as Joint Issuing Houses and Bookrunners for the transactions.[78]

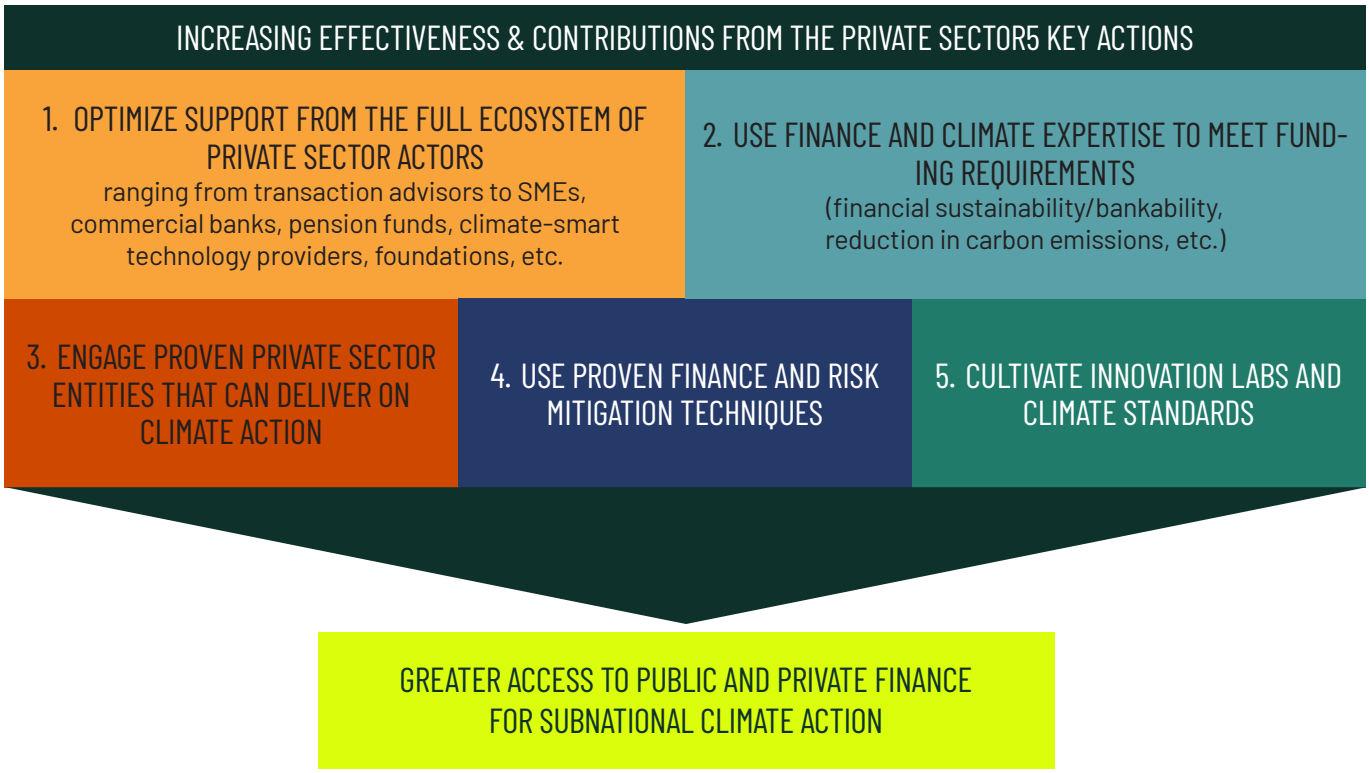
2.5 INCREASING THE EFFECTIVENESS AND LEVEL OF CONTRIBUTIONS FROM THE PRIVATE SECTOR

Given the heightened interest of the private sector in developing, implementing, and financing climate projects, national governments have the potential to increase the amount of private sector finance and support for bankable subnational climate projects. According to the IFC, there is a cumulative climate investment opportunity of US$ 29.4 trillion across six urban sectors in emerging market cities by 2030.[79]

Reinforcing the private sector's primary interest in investment, given the lack of adequate public finance for development generally, national governments and their development partners have prioritized the scaling up of private financing (debt and equity) as an integral part of their strategies to achieve the SDGs, NDCs, and national development objectives. Many development partners require projects to be co-financed by the private sector, often expecting private sector capital to be more than double their own contributions, with leverage up to seven times or more (e.g., some climate grants require that additional finance be more than seven times the amount of their grant*).

To be successful in increasing private sector support, national governments need to partner effectively with the various segments of the private sector ecosystem of capital and expertise. This section presents five key actions that national governments can employ to increase the effectiveness and level of private sector contributions to subnational climate action, as summarized in Figure 5 and detailed below with implementation options and illustrative examples.

Figure 5. Increasing Effectiveness and Contributions from the Private Sector – 5 Key Actions



1. Optimize Support from the Full Ecosystem of Private Sector Actors

National governments can develop a deep operational understanding of how the wide range of private sector experts and entities are essential to scaling up access to finance.

Implementation Option: To be effective in mobilizing private finance, national governments need to have a deep operational understanding of how the wide range of private sector experts and entities can be motivated and have the capacity to help scale up access to private finance.

* For example, the Mitigation Action Facility (formerly NAMA) requires leverage of more than seven times.

Box 5. National Government Implementation Options for Mobilizing the Full Range of Private Sector Expertise and Capital

1. **Assess the existing ecosystem of private sector actors required to scale up access to finance and ways to optimize private sector contributions in finance and expertise:**
   - Types of private sector actors required in building the ecosystem include transaction advisors, credit analysts, sector specialists, lawyers, accountants, sector specialists, technology experts, capital market experts, brokers, rating agencies, banks, pension fund managers, providers of services (concessionaries), corporates, ESCOs, SMEs, etc.
   - Types of activities to achieve bankability including technical support in project preparation (conceptualization, structuring, risk mitigation, business plans, financial and carbon emission models, contracts, negotiations, development of terms of reference and procurement, establishment of legal investment entities, etc.), structured and project finance, bank lending, development of capital markets, development of corporate, SMEs, ESCOs, PPPs, etc.*

For example:

- Transaction advisors, credit analysts, project finance lawyers, sector specialists, environmental engineers, accountants, service providers, and other specialized professionals – often working for small and large private sector companies – are needed to meet the requirements of both private and public sector financiers for financial sustainability and bankability.
- Commercial banks need to abide by the national banking regulations and to structure their transactions in accordance with credit due diligence and capital allocation requirements, including risk management.
- Stock exchanges and the supporting ecosystem of brokers, transaction advisors, lawyers, and accountants, rating agencies, and other private sector actors also need to abide by national regulations and reporting requirements, including risk management.
- Likewise, pension funds, insurance companies, sovereign wealth investors, corporations, SMEs, and philanthropic organizations, and other investors also have specific requirements and processes that they are required to adhere to.
- Performance-based energy contracts with private sector companies provide climate-smart equipment and services. Such companies can also provide finance in addition to advanced energy-efficient equipment and technical operational support over the duration of the contract. In more developed markets, such as Europe and the United States, private sector suppliers and ESCOs are well established and offer funded solutions to subnational governments.[80]

2. **Develop "fit-for-purpose" procurement processes to engage high-level experienced, specialized professionals:**
   - Assess constraints impeding effective procurement.
   - Develop Terms of Reference and selection processes based on best practices, with technical support from finance and climate experts.

3. **Build long-term domestic capacity to finance subnational climate action:**
   - Conduct extensive venues to scale up project preparation skills (e.g., integrate into university courses at business and law schools; set up internship programs with banks, funds, and advisory firms; etc.).
   - Conduct banker workshops in structured, project, and climate finance.
   - Set up ongoing exchanges with bankers, brokers, transaction advisors, and rating agencies on how to achieve bankability.

4. **Significantly increase the funding available for project preparation and market development to implement the above activities aimed at building the private sector ecosystem needed to achieve bankability of subnational climate projects.****

* Given the limitations of the report, it cannot provide details on the extensive activities involved in project development.

** Given the limitations of the report, it cannot provide details on project preparation facilities.

EXAMPLES

Kenya – Energy Efficiency Energy Services offered by a business association and the national government: In 2006, the Kenya Association of Manufacturers (KAM), a representative of manufacturing and value-add industries in Kenya, in conjunction with the Kenya Ministry of Energy and Petroleum Development, established the Centre for Energy Efficiency and Conservation (CEEC).

- The CEEC runs energy efficiency and conservation programs designed to help companies identify energy wastage and determine savings potential. The CEEC provides professional technical services for developing, designing, and implementing energy efficiency projects to suit the needs of commercial, institutional, and industrial consumers.
- The CEEC offers subsidized energy auditing services with support from the Ministry of Energy and Petroleum Development and the Danish International Development Agency (DANIDA) to companies providing recommendations for reducing energy costs by an average of 20%. In addition to regular training, the CEEC offers Certification Services in conjunction with the Association of Energy Engineers (AEE) located in the United States.[81]

South Africa – Renewable Energy Independent Power Producers Procurement Program (REIPPPP): In December 2023, the South African Department of Mineral Resources and Energy formally invited interested parties to register prospective bids, seeking an additional 1.8 gigawatts of solar capacity from independent power producers.[82] The REIPPPP has resulted in over 6,000 megawatts (of generation capacity being allocated to bidders across a variety of technologies, principally in wind and solar. The Norwegian IPP Scatec invested in developing a solar-plus-storage project of 540 megawatts and a battery energy storage system with a capacity of 225 megawatts / 1,140 megawatt-hours. The combination of solar photovoltaics with battery storage will allow for dispatchable power to be supplied during peak demand from the battery and improve grid stability, an issue that has been persistent in South Africa for years.

2. Use Private Sector Expertise to Achieve Financial Sustainability and Bankability in the Full Project Development Life Cycle

National governments can use private sector expertise to achieve financial sustainability and bankability in the full project development life cycle, from project conceptualization to operation.

Implementation Option: Use private sector expertise to achieve financial sustainability and bankability.

Highly specialized experts in credit due diligence and transaction structuring are needed to conceptualize and structure projects so that they meet the standards of private sector providers of capital (e.g., commercial banks, pension funds, debt and equity funds, etc.) as well as public sector providers of finance and risk mitigation (grants, concessional loans, guarantees, first loss, etc.).

Box 6. National Government Implementation Options for Mobilizing Private Sector Expertise to Achieve Bankability

1. **Use procurement processes that are streamlined with market-based compensation, ensuring the ability to engage the required specialized and experienced experts to create bankable/investable projects.**
2. **Use experts to design coherent project preparation processes that create "bankable/investable projects" from conceptualization to preparation, finance, and operation.**
3. **Integrate upfront the requirements of targeted public and private funders (debt and equity):**
   - Front-end the financial "bankability" analysis in the project conceptualization stage, involving targeted funders at project inception, systematically integrating their requirements.
   - Front-end optimal development and climate impact in the project conceptualization stage, ensuring that the project is designed to be climate-smart and to deliver local development impacts such as job creation and improved living standards, systematically integrating requirements.
   - Ensure that the project concept uses proven finance techniques that leverage public funding and reduce risk (e.g., offtake agreements, ringfence revenues, digital payment platforms, risk mitigation instruments, etc.).
4. **Consider the full spectrum of finance recipients:**
   - Local governments
   - State-owned enterprises / utilities
   - Public-private partnerships
   - Pooled finance entities (project aggregation)
   - Special purpose vehicles
   - Private sector suppliers and ESCOs
   - Use of intermediaries
   - National government ministries (finance ministry, line ministries)
   - National and subnational development banks
   - Commercial banks
   - Corporations/SMEs
5. **Where possible, implement project aggregation to reduce transaction costs, increase climate and development impact, and meet finance requirements (e.g., pooled finance, sector programs, climate themes such as flooding, river, disaster, etc.).**

EXAMPLE

South Africa – National Government Energy Efficiency in Public Buildings and Infrastructure Program (EEPBIP) growing the ESCO market: The EEPBIP (2019–2026) is aimed at enhancing private sector participation by leveraging public and private sector finance, growing the South Africa ESCO market, increasing skills, and supporting job creation and enterprise development.

- Use of a national government finance entity to provide a credit enhancement and contracting model: The Industrial Development Corporation (IDC) is implementing the financial component of the program through the establishment and management of a Partial Credit Guarantee, to provide security on loans to ESCOs implementing public sector projects through an energy performance contracting model.
- Support of development partners as implementation and funding: GIZ acts as the delivery organization on behalf of the Mitigation Action Facility.
- Mobilization of grants from a sister program: The national government has initiated a co-funding mechanism through alignment with the Municipal Energy Efficiency and Demand Side Management (EEDSM) Program. The allocated EEDSM grants given to a municipality may be utilized partially to undertake project preparation activities and pipeline / development and partially to fund equipment and other start-up costs (capital expenditures or CAPEX).[83]

3. Engage Proven Private Sector Entities That Can Deliver on Climate Action

National governments can engage private sector entities where appropriate to implement climate action, leveraging their commitments to shareholders and host governments to contribute to government climate goals.

Implementation Option: Use private sector entities to implement climate action.

Private sector entities can be engaged in targeted ways to deliver on climate actions, as implementers of projects and providers of climate-smart bankable solutions from equipment to digital applications. Private sector companies have financial incentives as well as shareholder and regulatory incentives to realign their products, services, and internal operations in line with net zero goals.

Box 7. National Government Implementation Options for Engaging Private Sector Entities in the Full Project Development Life Cycle, from Project Conceptualization to Operation.

1. Map potential high-impact private sector actions: National governments in coordination with subnational governments engage experts to map the existing and potential benefits of engaging private sector companies – both domestic and international – to advance the scaling up of subnational climate actions by sector. It is critical to engage private sector experts who understand the incentives and concerns of the private sector, including the ways to mitigate risks (e.g., payment, performance, construction, political, demand, etc.).

Two specific areas for private sector engagement are pivotal:

- **As implementors of subnational climate actions in local sectors (such as water, sanitation, waste management, renewable energy including rooftop solar, building efficiency, etc.):**
  - existing companies providing services that could be scaled up; and
  - companies operating in neighboring countries and regions that could be engaged (e.g., ESCOs, utilities, etc.).
- **As providers of climate-smart technology, materials, and processes, including digital platforms:**
  - existing companies in the country that are already providing digital solutions that could be scaled up;
  - companies operating in neighboring countries and regions that could be engaged; and
  - organizations that are focused on bringing digital solutions (for example, GMSA Digital Utilities Program).[84]

2. Request support from development partners to mobilize the private sector: National governments in coordination with subnational governments request development partners to provide targeted support that unlocks private sector engagement. Key areas for development partner support include:

- **Project preparation support:** As noted earlier, the lack of bankable projects is the major impediment to accessing capital for subnational climate action, and therefore much greater project preparation support is required. The engagement of highly experienced specialized experts is required at the start of the project life cycle at project conceptualization, encompassing transaction advisors, project finance lawyers, credit analysts, risk mitigation experts, sector specialists, and climate and development impact experts, etc. Such expert teams need to advise on the required project design required for bankability and climate requirements, including the potential for aggregation of projects into larger investment vehicles, revenue-enhancement options, ownership, governance, structuring, risk mitigation, and management.[85]
- **Support of one-stop sector investment programs:** Often subnational projects are too small to attract investment from both the private and public sectors. Significant expert support is therefore needed to create larger investment vehicles that aggregate small projects (e.g., pooled finance facilities, bonds, utilities, etc.). The focus of private sector engagement is for infrastructure sectors as well as cross-cutting programs such as digitalization.[86]
- **Risk mitigation:** Development partners can unlock private sector capital and services through the provision of a wide array of instruments and funding (e.g., grants to reduce capital expenditure costs, guarantees of payment, mitigation of political risks, provision of first loss funding, co-financing, mitigation of currency risks, etc.).
- **Public-private partnerships (PPPs):** Support in attracting proven service operators is required, optimizing the climate and development impact with development partner support.

3. Adopt national-level regulatory frameworks, policies, and programs: National governments develop policies, programs, regulations, codes, and standards that mobilize private sector capital, expertise, and services to scale up widespread subnational climate action, coordinating with subnational governments in their development and implementation. Examples of high-impact target areas include the following:

- **Widespread adoption of energy efficiency policies, regulations, energy audits, and other supporting programs, engaging private sector suppliers and contractors at the subnational level (SMEs, international companies):** The International Energy Agency (IEA) states: "The Net Zero Emissions by 2050 Scenario involves more than 40 energy efficiency milestones without which total final energy consumption would be around 30% higher by 2030. Most of these incorporate technologically mature solutions that can be scaled up very quickly." These milestones encompass areas in which national governments can coordinate with subnational governments in defining (or upgrading) the national energy efficiency implementation plan in which subnational governments reinforce and monitor compliance through local regulations, citizen engagement, and procurement specifications. Areas cited by the IEA include building efficiency, utilities delivering local services (e.g., water, renewable energy, transportation, public lighting, etc.), and appliance efficiency.[87]
- **Upgrading pumps at water utilities, reducing costs and increasing revenues, thereby improving bankability:** The IEA estimates that 3.5– 4% of the world's electrical energy is consumed by the water and wastewater sectors worldwide. Energy consumption could be reduced 15% by 2040 if energy efficiency and energy recovery measures were adopted.[88] National governments can coordinate with subnational governments in a national program to reduce climate emissions and enhance the bankability of local utilities.
- **Widescale adoption of digital applications, reducing carbon emissions and improving efficiency, monitoring, cost reduction, and bankability:** Analysis by Accenture, in collaboration with the World Economic Forum, shows that digital technologies, if scaled across industries, could deliver up to 20% of the 2050 reduction needed to achieve the IEA net zero trajectories in the energy, materials, and mobility industries. These industries can already reduce emissions 4–10% by quickly adopting digital technologies.[89] Notably, subnational climate actions are supported by the increased use of digital payment mechanisms: 1) digital payment systems increase the amount of payments and therefore the bankability of social services, and 2) digital payment systems reduce carbon emissions by using electronic technology for payments rather than requiring physical transport through mail and individual travel.[90] For example, mobile money is a game changer for revenue collection, as shown in Kenya with M-PESA, Africa's most successful mobile money service, providing access to financial services for millions of people. In addition, Internet of Things (IoT) devices provide new ways to monitor infrastructure services and automate processes. Combined with mobile payments, IoT devices enable pay-as-you-go (PAYG) service models and smart metering. Moreover, digital platforms and enterprise resource planning (ERP) apps are supporting more effective utility management and providing a foundation for digitalization across utility operations. National governments can work with subnational governments and the relevant financial service companies to scale up the use of digital payment systems.
- **Increasing use of renewable energy, decentralizing energy access and reducing blackouts while reducing costs and carbon emissions:** Around 75% of global investment in renewables comes from the private sector.[91] Countries have scaled up renewable investment through targeted programs with supporting regulations and support from development partners. National governments can coordinate with subnational governments in scaling up local renewable energy sources.
- **Reducing non-revenue water to improve bankability:** A key problem undermining the bankability of water projects, non-revenue water is the difference between water that is produced and water that is billed for. The global volume of non-revenue water has been estimated at 364 million cubic meters per day, equivalent to US$ 39 billion per year. For example, Kenya's non-revenue water is 42% on average (i.e., 42% of the water produced is either lost or not billed for).[92] Technology companies are providing intelligent diagnostic services for water management. One company reports that it is helping utilities and water companies in Latin America monitor and reduce water losses in distribution networks through advanced technology that includes machine learning and a 24/7 monitoring and analysis center.[93] Another technology company reports that a city using its GPS services has saved 232 million gallons in a year, resulting in a water cost savings of US$ 696,000.[94]

- **Reducing flooding and increasing water supply, a key subnational climate action and development objective:** For example, a smart water retention roof solution can increase the amount of rainwater captured on the roof, recycling excessive rainfall for use in buildings and reducing heat stress. One company states that its water attenuation tanks deliver four times more water for four times less CO_2 emissions.[95]
- **Setting specifications for more sustainable roads through advanced materials for decarbonization and climate resilience coupled with artificial intelligence (AI)-enabled decision support:** The Global Infrastructure Hub is working with eight multinational development banks to assess technology solutions that will be provided to national governments.[96]
- **Detecting soil moisture to help reduce disasters, protect property, and reduce road maintenance costs, reducing failure due to moisture, improving predictive and corrective maintenance, and improving drainage systems:** For example, one company uses a satellite-based solution to assess up to 40 linear miles and 1,400 square miles (64 kilometers and 3,600 square kilometers) at once.[97]

The examples below indicate the potential value of engaging the private sector for services and capital at scale, including the identification and widespread application of climate-related technology solutions.[98]

EXAMPLES

Philippines – Water Sector Using Private Sector Company: The largest private water concessionaire in the Philippines in terms of customer base, Maynilad Water Services, Inc., is using satellite imagery and AI to detect underground pipe leaks, to reduce network losses and recover more water supply for distribution, thereby reducing carbon emissions and improving bankability.[99]

Senegal – Government National Solar Streetlight Program Using Private Sector Equipment: The French company Farouche was contracted by the Senegalese Minister for Finance to supply solar streetlights under the supervision of the Ministry of Petroleum and Energy, with the aim of rolling out solar public lighting to the entire country.[100]

Governments Establishing National Private Sector Solar Programs: Afghanization, Côte d'Ivoire, Madagascar, Senegal, Togo, Uzbekistan, and Zambia have adopted Scaling Solar Programmes provided by the World Bank Group aimed at engaging private sector solar developers to develop and implement cost-effective utility-sized scaled private solar power programs in their countries. The Scaling Solar Program is a one-stop shop, bringing together a suite of World Bank offerings, including procurement, grants, loans, and risk mitigation. The program aims to make privately funded grid-connected solar projects operational within two years and at competitive tariffs. For example, in July 2015, Zambia's Industrial Development Corporation (IDC) held a competitive auction that attracted 48 solar power developers, 7 of whom submitted final proposals, yielding the lowest solar power tariffs in Africa to date.[101]

4. Use Proven Finance and Risk Mitigation Techniques to Scale Up Access to Private Capital

Implementation Option: To optimize their access to private capital, national governments can use proven finance techniques coupled with credit enhancements.

Box 8. Examples of National Government Implementation Options for Using Finance Techniques

1. **Prioritize the importance of scaling up proven finance techniques for subnational climate actions to mobilize private sector capital (debt and equity). Examples include proven project finance techniques such as ringfencing revenues and debt payments from other sources in earmarked bank accounts for debt service, set up separate project companies, secure offtake agreements, etc.**
2. **Prioritize the use of proven credit enhancement and risk mitigation techniques for subnational climate actions to mobilize private sector capital (debt and equity). Examples include:**
   - First loss
   - 100% guarantees
   - Partial credit guarantees
   - Partial political guarantees / political risk insurance
   - Other guarantees (demand, etc.)
   - Tenor extensions
   - Foreign exchange risk reduction
3. **Adopt national regulations needed to enable the use of proven finance techniques: In many countries, the national framework of regulations, laws, and policies may interfere with the use of global financial techniques. For example, the central bank may be perceived as restricting the ability of commercial banks to provide loans based on project finance and ringfencing techniques.**
   - **Scale up ecosystem-supporting proven finance and risk mitigation techniques in the country:** The national government can involve experienced financial experts to engage with government officials in developing a realistic impactful finance ecosystem (e.g., finance ministry, line ministries, PPP units, investment promotion agencies, renewable energy agencies, etc.), domestic providers of finance (e.g., commercial banks, fund managers, pension funds, etc.), a private sector ecosystem of finance providers (e.g., transaction advisors, project finance lawyers, brokers, rating agencies, etc.), and development partners providing support (project preparation assistance, risk mitigation support, debt and equity).
   - **Provide support to strengthen existing entities with strong credit fundamentals critical to subnational climate action:** Notably, finance providers are not able to provide loans directly to uncreditworthy subnational governments or other uncreditworthy entities. National governments can, however, devise programs to improve the creditworthiness of existing entities that have strong credit fundamentals with a track record of audited positive financial statements. For example, a water utility could become creditworthy by expanding its jurisdiction and/or by adopting high-energy water pumps to increase its revenues, reduce expenses, and improve its bankability.
   - **Map out ways to channel finance through creditworthy entities:** Finance experts in bankability can scan the country to identify creditworthy entities that might be suitable to implement subnational climate action or channel finance to other entities. Examples include subnational governments and utilities, state-owned enterprises, special purpose vehicles, PPPs, community service organizations, ESCOs, SMEs, and ESCOs.
   - **Identify the full spectrum of potential debt and equity finance:** Examples of sources include public sources as well as private sources such as commercial banks (including on-lending and co-financing), bonds, ESCOs, and PPPs.
   - **Develop a strategy and implementation plan for bulk procurement:** Advantages include reduced costs and the ability to ensure widespread use of optimal and compatible climate-smart technologies.

EXAMPLES

India – Clean Ganga Fund (CGF) Mobilizing Private Contributions: Established in 2015 as a trust under the Indian Trusts Act, CGF was established to enable Resident Indians, Non-Resident Indians, Domestic and Overseas Corporates / Trusts, and private companies to contribute toward conservation efforts on the Ganges River. As of year-end 2022, the total amount in the Clean Ganga Fund was INR 651.33 crore. In addition, the Trust had sanctioned 31 projects worth INR 360.97 crore on various projects: development of ghats and crematoria, afforestation, construction and conservation of kunds/ponds, afforestation, and in-situ bioremediation of drains. CGF is administered by a Board of Trustees consisting of members nominated by the Government of India. The Trust is chaired by the finance minister and consists of the secretaries of several ministries (Economic Affairs; External Affairs; Environment, Forests & Climate Change; Water Resources, River Development, and Ganga Rejuvenation), the Director General of the National Mission for Clean Ganga (NMCG), and Chief Secretaries of two Ganga Basin States in rotation. Currently, the Chief Secretaries of Uttar Pradesh and Uttarakhand States are members of the Board of Trustees. The Director General of NMCG is the Chief Executive Officer of the Trust.[102]

South Africa – Johannesburg First Bond Issue: An IFC guarantee for the City of Johannesburg's first municipal bond issue enabled it to considerably extend its maturity, refinancing high-cost bank debt, and securing long-term financing for infrastructure projects. Later bond issues did not require a guarantee.

Overall Impact of World Bank Partial Guarantees: According to the World Bank Independent Evaluation Group, most public agencies that accessed capital markets using the World Bank Partial Credit Guarantees (PCGs) subsequently accessed commercial markets again without guarantees. For example, in Jordan, the PCG helped the telecom utility become the first Middle Eastern corporation to tap the Eurobond market. The Jordan operation also involved the participation of the local capital market, facilitating the mobilization of domestic foreign exchange deposits. A Partial Risk Guarantee (PRC) enabled Colombia to reestablish access to U.S. capital markets at a time when investor interest was minimal. In Argentina, although the country was able to access non-U.S. capital markets at similar terms, a PCG enabled it to issue a significantly larger bond (US$ 1.2 billion) than would otherwise have been possible at the time.[103]

Public Utilities Accessing Bank and Stock Market Funding: Utilities in Latin America have successfully mobilized private sector capital for local infrastructure services through bank finance and stock markets. Noteworthy is Empresas Públicas de Medellín E.S.P. (EPM), a 100% state-owned municipality utility founded in 1953 located in Medellín, Colombia, that has mobilized essential finance from the private sector enabling the utility's expansion in the country and in other countries. Another success story is Sabesp, a mixed capital utility founded in 1973 that is 51% owned by the State of São Paulo and 49% owned by stockholders (Brazil and U.S. stock market exchanges), which is currently responsible for supplying water and collecting and treating sewage in the 376 municipalities of São Paulo state. Sabesp is one of the world's largest sanitation companies in both market capitalization and population served, supplying 28.7 million people with water and 25 million people with sewage collection services. Sabesp is responsible for around 30% of the investments in basic sanitation in Brazil. Between 2023 and 2027, it plans to invest around BRL 26.2 billion, focused on expanding water availability and security.[104]

5. Cultivate Innovation Labs and Climate Standards

National governments can cultivate Innovation labs and climate standards at the national and local levels.

Implementation Option: To facilitate the development of appropriate country and local finance solutions for climate projects, national governments can use innovation labs and climate standards to develop scaling-up options and to ensure quality compliance with climate standards.

National governments can opt to undertake the following actions:

- Identify types of innovative labs and standards worldwide that would advance a country's objectives in subnational climate action.
- Develop a project team for adapting the approach to meet a country's objectives in the context of its circumstances.
- Establish a results-based reporting system.
- Publicize results.

EXAMPLES

India – State Government of Tamil Nadu Advancing Technology Solutions and Standards: The Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT), established in 1971, has nurtured the development of 28 industrial parks including 6 special economic zones, spread over 16 districts in a total extent of about 38,538 acres. SIPCOT has established Industrial Innovation Centers. Through this initiative, the Government of Tamil Nadu intends to accelerate the adoption of technology in Industrial Projects in the State.[105] For example, SIPCOT has established desalination plants aimed at addressing water scarcity.[106] In addition, led by a State Minister and State Secretary to the Tamil Nadu Government, the state government has a venture, StartupTN, aimed at building an entrepreneurial ecosystem in Tamil Nadu to global standards.[107]

Widespread Adoption Worldwide by Cities of LEED Standards: More than 300 cities and communities across the globe are using LEED for Cities and Communities to communicate continuously improving environmental and climate performance. LEED for Cities and Communities helps local leaders create and operationalize responsible, sustainable, and specific plans for natural systems, energy, water, waste, transportation, and many other factors that contribute to quality of life – revolutionizing the way cities and communities are planned, developed, and operated to improve their overall sustainability and quality of life. The LEED (Leadership in Energy and Environmental Design) framework encompasses social, economic, and environmental performance indicators and strategies with a clear, data-driven means of benchmarking and communicating progress. Certification is typically initiated by private sector planners or developers, corporations, quasi-government authorities, universities, or non-governmental organizations.[108]

The above implementation options can be developed by each national government with their subnational governments, development partners, and the private sector based on priorities and circumstances using a country-led platform capacitated with specialized and experienced finance and climate experts.

3. CONCLUSION AND NEXT STEPS

In conclusion, national governments can greatly increase finance for subnational climate action, advancing progress toward meeting their national development and climate goals. Based on their unique and specific objectives, national governments can consider the adoption of new approaches based on proven financial techniques and coordination frameworks used across developing and developed countries.

Table 1 summarizes key aspects of the current impediments to finance ("business as usual"), examples of possible approaches that can unlock finance, and the resulting benefits.

Table 1. Value of New Finance Approaches for Subnational Climate Action

BUSINESS AS USUAL No or Limited Access to Finance	EXAMPLES OF SCALING APPROACHES Based on Proven Financial Techniques and Coordination Frameworks	BENEFITS OF SCALING APPROACHES Increasing Finance
Reliance on sovereign loans and guarantees	Development of bankable projects that do not require sovereign loans or guarantees (e.g., ringfencing revenues, blended finance, credit enhancements)	• Greater access to finance from public and private financiers
Limited ability of technical expertise and project development funds to develop bankable projects	Increased finance assistance through project preparation funds and finance hubs	• Better-designed projects that achieve climate and development goals at scale
Subnational governments not considered creditworthy cannot access finance	Earmarking of intergovernmental funds to be used as credit enhancements to unlock other funding New methods in increasing property and other tax revenues and own-source revenues Finance channelled through intermediaries	• Subnational governments and entities can access greater amount of finance
Smaller-size projects have limited routes to access finance	Aggregation of projects (e.g., use of national sectoral programs to fund local climate actions, pooled finance facilities, bulk procurement, etc.)	• Ability to reduce costs and access climate-smart approaches • Larger size results in greater climate and development impact
Lack of finance provided by domestic capital markets	Development of bank regulations required to scale up use of project finance techniques Development of regulations related to stock exchanges and bonds that facilitate finance of subnational climate projects	• Ability to access commercial bank finance • Ability to access domestic finance from local bonds and stock exchanges (including individual, corporate, and institutional investment)
Limited ability of subnational governments and entities to access finance	Earmarked national government funding for subnational climate projects Development of policies and regulations that enable prudent investment and borrowing of subnational governments and entities	• Ability to blend national government funding with other finance sources • Subnational governments have defined roadmap for improving fiscal capacity and greater autonomy • Some subnational governments are able to access funding and fund projects in part or totally

Below is a summary of key acceleration actions for national governments, as detailed in the beginning of this report.

3.1 RECOMMENDATIONS FOR NATIONAL GOVERNMENTS TO INCREASE FINANCE FOR SUBNATIONAL CLIMATE ACTION

National governments can undertake targeted transformative actions using working closely with subnational governments, development partners, and the private sector, as outlined below.

1. USE PROVEN FINANCIAL TECHNIQUES AND ENABLING REGULATORY FRAMEWORKS TO INCREASE FINANCE OF SUBNATIONAL CLIMATE ACTION.

National governments can refine and adapt proven finance approaches for subnational climate action to advance their national climate and development objectives and create enabling regulatory frameworks for mobilizing finance through the domestic financial system (banks, bond issuance, stock exchanges).

2. AGGREGATE SMALL SUBNATIONAL PROJECTS INTO BANKABLE LARGER PROJECTS AND NATIONAL PROGRAMS THAT MEET FINANCIER REQUIREMENTS.

A primary impediment to financing subnational climate action is that subnational projects are usually small, especially in secondary cities, and therefore do not meet the requirements of either public or private financiers. For decades, a select number of national governments have proven the effectiveness of aggregation mechanisms, using national programs and pooled finance. For example, across many European countries, national associations of local governments have financed small projects through larger financing vehicles (e.g., international and national bonds issued by their national local government associations, special purpose vehicles, pooled finance facilities, etc.).[109] However, as explained in the report, despite several efforts over the years, these approaches have not been scaled up successfully in LMICs.

3. MOBILIZE PRIVATE FINANCE FROM THE DOMESTIC MARKET.

As set forth by the United Nations, the World Bank, and financial experts worldwide for decades, the private sector has massive amounts of finance that could potentially be invested in development and climate action, provided that there are investment vehicles that meet bankability and investment requirements.

4. ADOPT WHOLE-OF-GOVERNMENT CLIMATE-SMART APPROACHES.

The challenge of effective intergovernmental coordination and effective institutional frameworks is well documented. Moreover, even small projects often require high-level expertise and technologies that are more accessible and can be scaled up at the national level, such as flood management.[110] Larger projects in key infrastructure sectors can also be implemented through existing public sector entities (such as utilities, SMEs, corporations, state-owned enterprises) and use performance-based contracts and loans with Multilateral Development Banks and private sector companies, such as ESCOs that are increasingly being used in Africa.[111]

5. REQUEST DEVELOPMENT PARTNERS, INCLUDING THE CLIMATE FUNDS, TO PRIORITIZE GRANTS, CONCESSIONAL LOANS, AND RISK MITIGATION INSTRUMENTS TO CREATE BANKABLE PROJECT PIPELINES THAT ARE INTEGRAL TO PRIVATE SECTOR MOBILIZATION.

National governments can optimize access to finance by presenting development partners with targeted requests that leverage each partner's capacities in alignment with the specific actions required to unlock access to both public and private finance. Experienced finance experts will to be needed to integrate proven financial techniques and approaches that meet the requirements of public and private financiers and develop a cohesive, coordinated approach. The use of risk mitigation and grants is critical to achieving the requirements for financial sustainability and bankability. Requests can be facilitated by the NDC Partnership when related to NDC implementation.

6. ENDORSE A COUNTRY-LED SUBNATIONAL CLIMATE ACTION PLAN OPERATIONALIZED THROUGH A COUNTRY-LED PLATFORM AND TECHNICAL WORKING GROUPS DEDICATED TO INCREASING BANKABLE PROJECT PIPELINES.

As the accountable government entity, national governments – in coordination with subnational governments, development partners, and the private sector – can serve as essential national facilitators in developing a results-based operational plan and implementation vehicles for developing and financing bankable subnational climate projects.

3.2 NEXT STEPS

The above examples of possible cross-cutting acceleration levers can be customized by each national government based on its priorities and circumstances. While the potential actions are easy to identify, implementation is always a challenge as the many different participants need to coordinate to deliver results.

Therefore, while the pathway is clear, success is dependent on each national government undertaking a leadership role that activates all required participants, each committed to realizing effective subnational climate action and each offering distinct contributions:

- **The national government**, as the dominant actor shaping the country's prospects and enabling the achievement of climate and development goals, can activate subnational governments, development partners, and the private sector.
- **Development partners** are committed to supporting their partner governments and can enable the mobilization of greater amounts of finance through their capacities for providing concessional finance (grants, loans), de-risking, technical assistance, and facilitation.
- **The private sector** is essential on multiple fronts, as experts in assisting the development of bankable projects that meet public and private finance requirements as well as by serving as financiers, project owners and developers, and providers of climate-smart technologies and processes.
- **Subnational governments**, at the front lines of climate action, can ensure the effective delivery of climate-smart social services at the local level, from diagnosing citizen needs to facilitating the delivery of services and disaster prevention. As the accountable government bodies at the front lines, they are essential in identifying priority investment needs, facilitating local climate mitigation and adaptation, and defining optimal ways to implement subnational climate action to ensure compliance with the NDCs and national development objectives.

In sum, national governments can decide to take immediate, high-impact action to implement practical and effective steps based on their specific priorities and circumstances to enhance the required technical cooperation among subnational governments, development partners, and the private sector in transforming subnational climate investment needs into effective subnational climate action.

ACRONYMS

AFD	Agence Française de Développement (French Agency for Development)
AI	Artificial Intelligence
BCDP	Bangladesh Climate Development Partnership
BNDES	Banco Nacional de Desenvolvimento Econômico e Social (Brazilian Development Bank)
BRL	Brazilian Real
BRDE	Banco Regional de Desenvolvimento do Extremo Sul (Regional Bank of Development for the Extreme South)
CAPEX	Capital Expenditure
C40	A global network of nearly 100 mayors of the world's leading cities united in action to confront the climate crisis
CEEC	Centre for Energy Efficiency and Conservation (Kenya)
CHAMP	Coalition for High Ambition Multilevel Partnerships
CNY	Chinese Yuan
CPI	Climate Policy Initiative
EBRD	European Bank for Reconstruction and Development
ESCO	Energy Service Company
FEICOM	Fonds Spécial d'Equipement et d'Intervention Communale (Cameroon Special Council Support Fund for Mutual Assistance)
Findeter	Financiera De Desarrollo Territorial S.A. (Colombia Financier of Territorial Development)
GCoM	Global Covenant of Mayors
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
IDB	Inter-American Development Bank
IEA	International Energy Agency
IFC	International Finance Corporation
IMF	International Monetary Fund
INR	Indian Rupee
KES	Kenyan Shilling
KfW	Kreditanstalt für Wiederaufbau (German Credit Institute for Reconstruction)
LMICs	Low- and Middle-Income Countries
MEI	Municipal and Environmental Infrastructure
NDC	Nationally Determined Contribution
OECD	Organization for Economic Co-operation and Development
PCG	Partial Credit Guarantee
PIDG	Private Infrastructure Development Group
PPP	Public-Private Partnership
REIPPPP	Renewable Energy Independent Power Producers Procurement Program (South Africa)
SDGs	Sustainable Development Goals
SMEs	Small and Medium-Sized Enterprises
TNUIFSL	Tamil Nadu Urban Infrastructure Financial Services
TZS	Tanzanian Shilling
ULBs	Urban Local Bodies
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
VCEFs	Vertical Climate and Environmental Funds
WSP	Water Service Provider

KEY TERMS

Bankability: A project is bankable when its risk-return profile meets investors' criteria from the public and/or private sectors. A project's revenues consist of: 1) cash flows generated by the project; 2) subsidies provided by the government and/or its development partners; and/or 3) earmarked payments from the government (e.g., taxes, commodity revenues, etc.). Key criteria include the probability of success, sufficient estimated cash flows to cover costs and produce returns that meet investor expectations (debt and equity), and whether the project will be implemented by a creditworthy entity. Although the assessment of whether a project is bankable may differ among specific financiers, all financiers need confidence that regulatory, environmental, social, and economic factors are unlikely to prevent the project from being completed and operated successfully. Bankability can be affected by risk factors at the project, city, national, regional, and global levels.

See: Fida Rana, "Preparing Bankable Infrastructure Projects," World Bank, September 26, 2017; and Cities Climate Finance Leadership Alliance (CCFLA), "What Is Bankability?" (2022).

Climate action projects: This report focuses on subnational climate action projects that can mobilize finance (debt and/or equity) from the public and/or private sectors. Such projects need to have a legal standing that meets the requirements of targeted investors. Such projects can be in the form of legal entities such as utilities, state-owned entities, corporate entities (large, SMEs, etc.), special purpose vehicles, PPPs, and community service entities. Such projects can encompass one or more activities and aggregate smaller projects (e.g., a pooled finance facility). Subnational climate projects comprise an array of mitigation and adaptation investments in local infrastructure and public services (e.g., water and sanitation, waste, renewable energy, building efficiency, transportation systems, street lighting, etc.), and disaster recovery and prevention programs such as flood management.

For examples by sector, see Global Clearinghouse for Development Finance, supported by GIZ and the European Union, "Finance Roadmaps for Climate Projects: How Can Local Governments in Sub-Saharan Africa Facilitate Access to Finance?" October 6, 2020.

Development partners: Development partners represent the full array of public sector partners that can support subnational climate action. They include Multilateral Development Banks (including regional funds and banks); bilateral development agencies and funds (including export credit agencies); other public sector entities including project preparation facilities, public funds and entities (such as the Private Infrastructure Development Group); and multinational agencies (including the IMF and UN agencies, such as the UN Development Program, the UN Capital Development Fund, the World Health Organization, the UN Children's Fund (UNICEF), the UN High Commissioner for Refugees, the UN Office for Project Services, the World Trade Organization, etc.).

Private sector: The private sector represents full array of private sector entities that can support subnational climate action. This includes commercial and investment banks, corporations, service providers, project developers, energy service companies (ESCOs), institutional investors (pension funds, insurance companies, etc.), sovereign wealth funds, foundations, rating agencies, etc.

Project preparation: The process of defining and developing an infrastructure project concept to the point that it becomes bankable, raising implementation financing from public and/or private sources.

See CCFLA, "What is Project Preparation?"

EXAMPLES OF FINANCE SOURCES FOR SUBNATIONAL CLIMATE ACTION

	POTENTIAL SOURCES OF FINANCE	HOW FINANCE IS DEPLOYED
PUBLIC FINANCE	**Subnational governments** • Property taxes • Provision of land • Land value capture • Other own-source revenues	• Subsize the cost of local public services • Fund disaster prevention and management • Blend contributions with private finance • Commit finance to serving debt
	National governments • Grants (through ministries) • Loans (through development banks) • Purchase agreements to buy services or goods • Guarantees of payments	• Direct to subnational governments through intergovernmental fiscal transfers • Direct to subnational entities (utilities, SMEs, PPPs, corporations, community service organizations, etc.) • Direct to projects through national sectoral and other programs • Funds channeled through development banks, green banks, climate funds, and other public entities • Blend contributions with private finance
	Development partners • Grants • Concessionary finance • On-lending through development banks and commercial banks • Co-financing with the private sector • Credit enhancements (e.g., first loss, guarantees, etc.)	Usually approved by national government: • National-level programs in water, sanitation, transportation, urban development, climate solutions, flooding, disaster prevention, management, etc. • One-stop-shop programs providing grants, loans, technical assistance and guarantees (e.g., World Bank Group Scaling Solar Program) • Blend contributions from the private sector
PRIVATE FINANCE	**Payments for services** (by individuals, businesses, other entities)	Used to pay for the cost of providing services
	Commercial banks	Used for creditworthy loans in line with internal due diligence requirements and national banking regulations
	Stock markets (national, international)	Used per financial disclosures
	Bond Issues (national, international) • Revenue bonds • General obligation bonds • Sustainability, green, and other bonds	Used per financial disclosures (e.g., revenue bonds for projects, general obligation bonds for operating costs and other capital expenditures)
	Equity from PPP partners	Negotiated amounts as specified in contracts
	Finance from energy service companies (ESCOs)	Negotiated amounts as specified in contracts
	Funds (debt and equity)	Negotiated amounts as specified in contracts
	Foundations (national, international)	Negotiated amounts as specified in contracts
	Community service organizations	Negotiated amounts as specified in contracts
	Funds to mobilize other funding (expatriate, corporate, foundation, and other contributions)	Per objectives set forth in fund (e.g., Trust: Ganga Clean Fund)

Sources: Finance typologies for climate finance used in CPI's Global Landscape of Climate Finance 2023 report; other finance types cited in finance studies, finance sources operationalized by national governments, and the author's experience in financing projects.

LIST OF INTERVIEWEES

Note: Additional interviews were conducted with experts who asked for confidentiality.

AFD

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Peter Malika, Global Head, Local Finance Initiative

ENDNOTES

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10 For the many definitional, technical, and operational issues arising in the determination and implementation of public debt limits, see IMF, Guidance Note on Debt Limit Policy (Washington, D.C.: 2021),

11 The IMF states: "…fiscal risks from subnational governments may be manifested in several forms:
• The central government may have to bail out a sub-national government if its debt becomes unsustainable due to excessive deficits, off-budget borrowing, guarantees to subnational enterprises, or subnational enterprises' unsustainable debt.
• Central government credit guarantees to subnational governments – directly or through central institutions – may be called.
• Central government loans to subnational governments may have to be written off or restructured, or their value may erode.
• Central transfers to subnational governments – conditional or unconditional –may need scaling up. Equalization grants may have to be increased if subnational resources decline. Conditional transfers, particularly those linked to priority programs, may increase if the subnational government does not have enough resources to fulfill its obligations under the program."
An IMF study that looked at the sources of shocks to government debt in 80 countries between 1990 and 2014 identified 13 instances of "macrocritical realizations of central government contingent liabilities from subnational governments, with an average cost of 3.7 percent of GDP and a maximum cost of 12 percent of GDP." See Elva Bova et al., The Fiscal Costs of Contingent Liabilities: A New Dataset (Washington, D.C.: IMF, 2016)

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13 Projects can generate revenue, or cost savings may be structured to become financial sustainable and bankable. Proven ways to "blend" finance have resulted in mobilizing finance from commercial banks, bond markets, and other sources. In contrast, projects that only represent costs with no potential for revenues or savings need to be 100% financed from grants from the governments and/or its development partners. One approach is set forth by Avinash Persaud, former advisor to Prime Minister Mia Mottley of Barbados, who initiated the Bridgetown Initiative aiming at promoting a global climate finance architecture that preserves debt sustainability in LMICs; see Bridgetown Initiative. The categorization is defined by Avinash Persaud as: "The smallest [bucket] is actually the hardest to fund. It's all of those things that don't generate any savings or profits… The second bucket is for those things that don't generate revenues but generate immediate savings. If I invest a dollar of borrowed money on stronger seawalls, more muscular flood defenses, more resilient health systems, I save several dollars…. The final bucket, the biggest bucket, is for those things for which there is a revenue attached." See Avinash Persaud, "The Climate Crisis Is Expensive — Here's Who Should Pay for It," TED Countdown Summit, July 2023

14 The World Bank Group Treasury Department explains its function as "Manage the World Bank's finances to enable all operations and lending," including 1) "By proactive balance sheet management to safeguard our triple-A ratings and our strong financial position", 2) "Through strategic funding to cost effectively raise funds from the global capital markets and provide concessional financing to our borrowing clients", and 3) "By managing and administering assigned internal and external portfolios effectively and delivering targeted excess returns within approved risk limits." See World Bank Group, "Treasury: About." Internal country ceilings of development partners take into account various factors and inputs often including input from the IMF and other finance providers as well as the host government. See, for example, World Bank, Sustainable Development Finance Policy of the International Development Association, April 23, 2020

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Requirement for private sector finance to reach 80% of total funding in middle-income countries (including China) and 90% (excluding China) from IMF, The Global Financial Stability Report (Washington, D.C.: October 2023), Chapter 3, p. 3

16 See COP 29 resolutions: "7. Calls on all actors to work together to enable the scaling up of financing to developing country Parties for climate action from all public and private sources to at least USD 1.3 trillion per year by 2035; 8. Reaffirms, in this context, Article 9 of the Paris Agreement and decides to set a goal, in extension of the goal referred to in paragraph 53 of decision 1/CP.21, with developed country Parties taking the lead, of at least USD 300 billion per year by 2035 for developing country Parties for climate action: (a) From a wide variety of sources, public and private, bilateral and multilateral, including alternative sources…." [emphasis added]. UNFCCC, "Decision -/CMA.6. New collective quantified goal on climate finance" (2024).

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37 CPI, Global Landscape of Climate Finance 2024 (San Francisco: 2024), pp. 21, 29.

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Senegal; Krause (2020) estimates this figure at 5% in Carrefour, Haiti. See Justine Knebelmann, Digitalisation of Property Taxation in Developing Countries: Recent Advances and Remaining Challenges (London: ODI, June 2022).

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110 Analysis by Accenture, in collaboration with the World Economic Forum, shows that digital technologies, if scaled across industries, could deliver up to 20% of the 2050 reduction needed to hit the International Energy Agency net zero trajectories in the energy, materials and mobility industries. These industries can already reduce emissions 4–10% by quickly adopting digital technologies. See World Economic Forum, "Digital Solutions Can Reduce Global Emissions by Up to 20%. Here's How," May 23, 2022.

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