The State of Green Banks 2025

Learnings from green financing structures around the world

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ABOUT CLIMATE POLICY INITIATIVE

CPI is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. CPI has seven offices around the world in Brazil, India, Indonesia, South Africa, the UK, and the US.

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EXECUTIVE SUMMARY

This report takes stock of green banks at a critical time in global efforts to contain climate change and protect nature. It is based on new survey data collected by CPI in 2024-2025 from 51 public financial institutions that are either green banks, are seeking to establish one, or have encountered barriers preventing them from doing so. They include 36 entities that are either from EMDEs or have supported efforts in these countries.

In the face of an estimated USD 7.4 trillion annual climate funding gap, countries have pursued dedicated green financial institutions (FIs) to accelerate their sustainable investment (CPI 2024). Traditional climate finance sources are increasingly stretched across competing geopolitical priorities, with a drain on some key pools of concessional capital, including international aid. Green banks with targeted mandates for climate investment are more vital than ever as we cross the halfway mark in this decisive decade to keep global temperature rise within the goals of the Paris Agreement.

This report provides a snapshot of the state of green banks to inform policymakers, governments, and FIs seeking to scale and expand these entities. It describes the four main models for green banks and outlines the challenges and opportunities they face globally and across different regions. Crucially, it also indicates potential solutions to help countries mobilize greater climate finance through such entities. These recommendations are particularly aimed at helping to design structures that meet the demands of emerging markets and developing economies (EMDEs) for expanded in-country climate financing capacity.

Box 1: Definition of a green bank

The OECD (2016) defines a green investment bank as "a publicly capitalized entity established specifically to facilitate and attract private investment into domestic LCR [low-carbon and resilient] infrastructure and other green sectors such as water and waste management through different activities and interventions." Given countries' innovation of sustainable finance mechanisms, this report extends the definition to include the greening of pre-existing entities and to include country platform approaches to green finance.

STATE OF GREEN BANKS GLOBALLY

Green banks provide finance for climate solutions, enabling the development of a net zero, resilient economy. Throughout this report, we refer to this capital as green financing. These specialized public-purpose FIs are designed to overcome multiple barriers to mobilizing sustainable investment. In EMDEs, they leverage international concessional capital by mitigating and distributing risks associated with emerging clean technologies. They can also circumvent suboptimal policy environments, facilitate long investment horizons, and overcome asymmetries in basic information to increase the availability of low-cost, fit-for-purpose capital.

Green banks have increased over the years, taking different forms in advanced and developing economies. Rwanda and Uganda recently launched new green banks, and several

more are in the pipeline. While adoption in EMDEs has progressed more slowly— standalone green banks remain less common in EMDEs compared to advanced economies— countries are exploring different models. EMDEs are more commonly adopting green finance facilities within existing public development banks (PDBs). Such facilities can serve as transitional mechanisms, helping to build the capacity needed for countries to progress toward standalone green banks.

Various barriers remain to green banks' success and expansion. These include limited access to domestic and international capital, regulatory constraints, policy misalignment, and a lack of technical capacity. There is also a need for risk-sharing mechanisms and broader stakeholder engagement, including among government entities, regulatory agencies, and private sector partners.

Green banks are evolving in configurations that are relevant for EMDEs. This is particularly important in contexts where governments lack financial strength or strong pre-existing institutions to advance their green agendas. CPI's interactions with almost 70 stakeholders from more than 40 sustainable finance institutions identified four broad approaches to green banks across 20+ countries:

Standalone *de novo* green banks	**Enhanced green mandate** within existing institutions/NDBs	**Specialized green funds** or facilities or windows set up by NDBs	**Country platforms** that incorporate PDBs, Green Banks or other domestic FIs

Green Bank Design Guide: The decision to set up a *de novo* green bank, establish a green facility, or green an existing PDB will depend on country circumstances. Section 1 contains a detailed table (Table 1, p12) that presents a matrix of factors assessing the suitability of the four green bank structures for different types of economies.

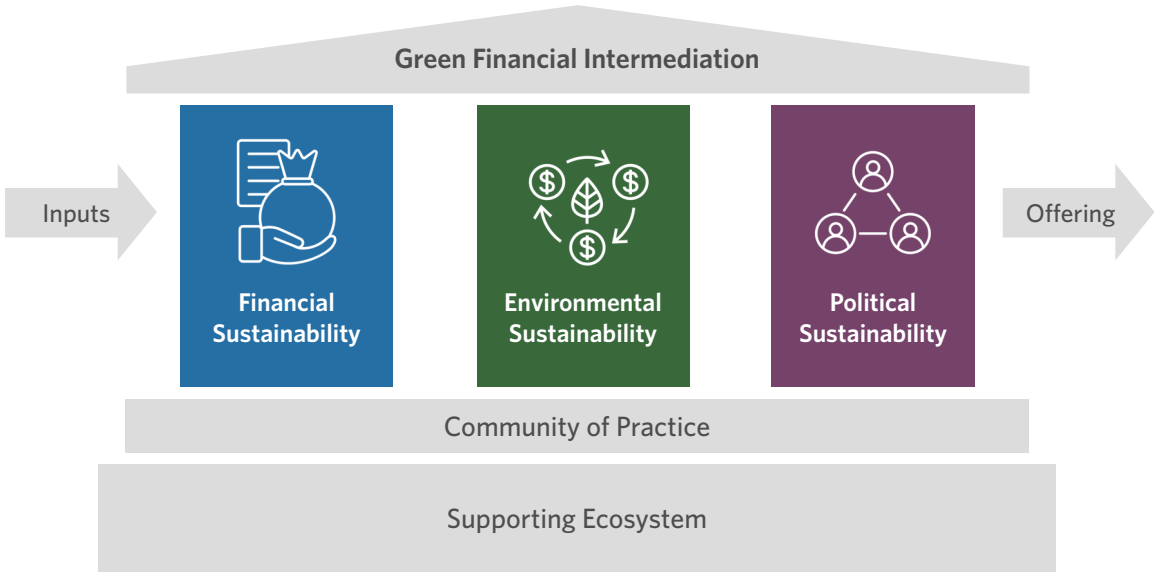
SUCCESS FACTORS FOR GREEN BANKS

Three aspects are key to ensuring the success of existing green banks and facilitating the sustainable design of new green banks in EMDEs:

- **Financial Sustainability**: While not profit-maximizing, green banks must sustain operations and grow their capital base without relying solely on concessional capital. They must, therefore, leverage public funds to catalyze private finance. This requires institutional structures that are flexible enough to accommodate and encourage private financing of climate solutions.
- **Environmental Sustainability:** Green banks must clarify their mandates and keep their engagements tightly focused to build their reputations and avoid competition with other domestic financial institutions. Only projects that adhere to established climate themes and taxonomies—mitigation, adaptation, resilience, and, potentially, transition—should be included in their portfolios. They must also adhere to ESG and MRV standards.

- **Political Sustainability:** Integration with political leaders' vision is vital, as is alignment with central banks, key ministries (finance, environment, energy), broader climate strategy (NDCs), and economic planning. Green banks also require robust governance structures while retaining the flexibility to navigate changing political, regulatory, and market environments.

Figure ES1: Framework for green bank sustainability and success



These pillars must be underpinned by a supporting ecosystem and community of practice for public and private stakeholders, including government, private actors, civil society, and expert panels and review boards.

Our survey, interviews, and roundtables with experts—including 36 engaged in sustainable finance in EMDEs—also yielded various recommendations for green banks' success, as detailed in Table ES1.

Table ES1: Success factors for green banks

Area	Requirements for green banks' success	Stakeholders
Inception and development	▪ **Mandates** should be mission-driven and define banks' roles within local institutional frameworks, integrating them into financial markets. ▪ **Policy alignment** with national climate priorities while maintaining operational independence. ▪ **Partners, not competitors:** Green banks must be structured to work with other institutions and force multipliers in the broader financial ecosystem. ▪ **Strategic capitalization** via a mix of public and private funds. ▪ **Institutional capacity** building and technical assistance are particularly necessary in EMDES.	▪ Policymakers ▪ Regulators ▪ Funders/ capital providers ▪ Local FIs ▪ CSOs and academia
Offerings	▪ **Effective product structuring,** including leveraging various capital tranches to mobilize finance and, where appropriate, providing lower interest rates and/or longer loan tenures than traditional lenders can maximize impact. ▪ **Expanding beyond debt** to significantly increase equity and credit enhancement offerings, including via local capital markets. ▪ **Products** defined based on cost of capital. ▪ **Risk-sharing and mitigation** via guarantees and foreign exchange risk hedging can reduce risk perceptions of green sectors. Supporting standardization, aggregation, and liquidity are also important. ▪ **Incorporating co-benefits** (e.g., job creation and sector expansion) can help to gauge the effectiveness of green finance and encourage investment. ▪ **Reaching neglected sectors** beyond energy and other mitigation sectors can support areas such as agriculture, forestry, other land use, nature-based solutions, and adaptation and resilience.	▪ Funders/ capital providers ▪ Regulators ▪ Green bank internal teams

We lay out three ways the international climate community can provide such support in the table below, building on our learnings from various engagements with sustainable finance experts for this report. These three potential solutions have received positive feedback from our consulted experts and can be further explored to determine the best path to supporting the uptake of green finance intermediation in EMDEs.

Table ES2: Three possible options for international support of green bank development

Options	Detail	Key actors
Establish a new green bank design initiative	A new green bank accelerator, informed by the experiences of experts in the market could provide technical and funding assistance, as well as a learning hub informing on best practices.	• Policymakers to ensure required legislation is in place • Regulators • Financiers (Grant makers, equity and debt providers) • Local FIs, including other PDBs and other commercial institutions that will act as partners • CSOs who are part of the community of practice
Expanding an existing support platform	For example, the FiCS Innovation Lab, which already engages with PDBs on climate issues, could adapt its work to include a dedicated Green Bank pillar.[1]	• Finance in Common and FiCS Lab partners • National FIs, including PDBs • Local communities of practice
Forming a coalition of existing relevant initiatives	This could build upon the Green Bank Network and a previous Green Bank Design Summit, which brought green banks together with investors to support their development.[2] Whether as a complement to other parallel efforts or as the primary next step, convening relevant stakeholders could broker learning across the ecosystem, support work already underway, and possibly spark new efforts to develop domestic green finance capacity in one or more of the forms outlined in this paper.	• Financiers • Local FIs • National PDBs, including other green banks

1 The FiCS Innovation Lab is a partnership between Finance in Common, the Inter-American Development Bank, and Climate Policy Initiative. It brings together PDBs and experts to accelerate the implementation of climate finance and the 2030 SDG agenda. More details can be found here: FiCS Innovation Lab

2 The Green Bank Design Summit, held in Paris in 2019, brought together for the first time regulators, green bank executives, public and private finance institutions, donors, and experts to advance the design of green finance institutions in service of the Paris Agreement and the Sustainable Development Goals. More details are available here: https://greenfinancelac.org/wp-content/uploads/2019/01/Summit-Insights.pdf

EXPERTS ENGAGED ACROSS THE GREEN BANK ECOSYSTEM

We engaged with the entities below during our research. The number of institutions may not tally with the response details in the report, given that this list reflects all types of engagement, including the survey, roundtables, more than one stakeholder from some institutions, and some conversations with experts not affiliated with any single entity.

- African Development Bank
- Asian Infrastructure Investment Bank
- BANDEX
- Banco de Desenvolvimento do Espirito Santo (BANDES)
- Bezos Earth Fund
- Brazilian Development Bank
- Centro Brasileiro de Relacoes Internacionais
- Clean Energy Finance Corporation
- Climate Finance Advisors
- Climate Investment Funds
- Commonwealth Climate Finance Access Hub
- Connecticut Green Bank
- DC Green Bank
- Denham and Grey Ltd
- Development Bank of Minas Gerais
- Development Bank of Namibia
- Development Bank of Nigeria
- Development Bank of Southern Africa
- ESCARUS – TSKB Sürdürülebilirlik Danışmanlığı A.Ş
- Eastern and Southern African Trade and Development BANK (TDB)
- Energy Solutions Provider
- Eurasian Development Bank
- Export Credit Insurance Corporation of South Africa Soc Ltd
- Finance in Common
- Findeter
- French Development Agency
- Group CDG
- Green Climate Fund
- Green Finance Institute
- Inclusive Prosperity Capital
- International Development Finance Club
- International Finance Corporation
- Mekong Strategic Capital
- NDC Partnership
- Nacional Financiera
- National Resources Defense Council
- New York City Energy Efficiency Corporation
- New Zealand Green Investment Finance
- Nordic Investment Bank
- North Carolina Clean Energy Fund
- Pollination
- PT Sarana Multi Infrastruktur
- Rocky Mountain Institute
- Small Industries Development Bank of India
- Solar and Energy Loan Fund, Inc
- Tata Capital Limited
- The Institute for Climate and Society
- UK Export Finance
- UK Foreign, Commonwealth & Development Office
- UK National Wealth Fund
- UN Special Envoy on Financing the 2030 Sustainable Development Agenda
- USAID
- Uganda Development Bank
- West African Development Bank

CONTENTS

Executive summary iv

Introduction 1

1. Green bank approaches 4

1.1 Standalone *de novo* green banks 5
1.2 Enhancing existing PDBs 5
1.3 Green facilities within PDBs 7
1.4 Green country platforms 9

2. State of green banks globally 15

3. Enablers and success factors 19

3.1 Enablers 19
3.2 Success factors 21

4. Conclusion and next steps 23

Annex 1: 2024 Survey 27

Annex 2: Respondent details 28

Annex 3: SOGB 2020 report 29

Annex 4: Case studies 31

References 50

INTRODUCTION

There is a compelling need for specialized yet differentiated green finance institutions that can overcome the barriers to scaling climate investment. Given the limitations of traditional financial systems in meeting the global estimated USD 7.4 trillion annual shortfall in climate finance (CPI 2024), green banks will be crucial to bridge the gap. This is particularly true for emerging markets and developing economies (EMDEs), where green banks can play both a development and financing role.

Advanced economies first established green banks to address the challenges of financing emerging technologies to mitigate the climate crisis. The UK, Australia, and several US states created standalone institutions from 2008 to 2015,[3] and the US then established dozens of further subnational green banks from 2019 to 2024.[4]

EMDEs have also adopted various forms of green banks since 2010s, based on their circumstances and needs. Countries established standalone green banks, greened existing PDBs, and set up green windows within PDBs. Green financing has also evolved in diverse, collaborative formats beyond banking institutions.

Like PDBs, green banks open new channels for capital from developed countries to reach sustainable projects in EMDEs. Sovereigns in donor countries are significant providers via bilateral agencies, multilateral climate funds,[5] and MDBs. Climate funds channel finance through MDBs or directly to PDBs on climate action mandates.

In addition to serving as intermediaries of international capital, green banks are increasingly recognized as key actors in developing domestic capital markets. By de-risking and aggregating climate investments, green banks help to mobilize domestic private sector participation, particularly from commercial banks and institutional investors. They play a catalytic role in building a track record for new technologies and project types, making them more attractive to traditional financiers. Green banks also support issuing green bonds and other climate-aligned financial instruments by local governments and project developers. This can help to deepen domestic debt markets and standardize green finance practices.

Importantly, green banks help create investable pipelines that align with the risk-return expectations of local institutional investors. This provides opportunities for these investors, including pension funds, to invest in long-duration, stable, and socially beneficial infrastructure. This amplifies the impact of international capital flows and strengthens national financial ecosystems, enabling more sustainable and self-reinforcing investment in low-carbon, climate-resilient infrastructure over the long term.

At the same time, various climate finance and economic development trendlines are converging around green banks. MDBs are reforming to be more catalytic, increase local currency financing, and more vigorously support the development of local capital markets. These

3 These green banks are the Connecticut Green Bank in the US, the UK Green Investment Bank, and Australia's Clean Energy Finance Corporation Limited (CEFC).

4 Established in 2015, the Green Bank Network served as a collaborative platform for the first wave of international green banks (see: https://www.nrdc.org/greenbanknetwork).The Green Bank 50 is the platform for US green banks (https://www.usgreenbanks.org).

5 Climate funds include the Green Climate Fund and the Global Environment Facility—both UNFCCC financial mechanisms—and the Climate Investment Funds, among others.

efforts include building the capacity, leveraging the reach of the more than 500 PDBs assembled by Finance in Common, and increasing country ownership of climate investment via country platforms featuring domestic FIs as key actors. This has been accompanied by a notable shift toward broader collaboration, with increased involvement of private actors, non-profits, and philanthropies in green financing efforts.

SCOPE AND METHODOLOGY

This report provides a snapshot of the global advancement of green banks and countries' demand for these institutions. It also explores the challenges and opportunities of establishing and scaling green banks, particularly in EMDEs. Finally, we offer provisional recommendations to ensure their success based on our interactions with global experts from such entities.

The findings are synthesized from CPI's engagement with 68 stakeholders representing 75+ countries in 2024. These experts represent 51 FIs that are either green banks, seeking to establish one, or have encountered barriers preventing them from doing so. They include 36 entities that are either from EMDEs or have supported efforts in these countries.

We present an overview of green banking based on responses from 32 green finance institutions surveyed via a questionnaire.[6] These responses highlight institution type, operational structure, and development status variations. The entities surveyed were:

- Institutions that operate green windows (13)
- Operational green banks (9)
- An entity that is in the process of establishing a green bank (1)
- International institutions (9)

Where relevant, we compare our survey findings to those of the State of Green Banks 2020 **(SOGB 2020) report to assess the landscape's evolution**. Based on the first survey of its kind by the Rocky Mountain Institute (RMI), Natural Resources Defense Council (NRDC), and the Green Finance Institute (GFI), the SOGB 2020 report presents an analysis of green banks and climate finance providers around the world as of 2020.[7]

We supplemented the 2024 survey data with findings from three roundtable discussions and interviews with more than 35 stakeholders. These drew on the expertise of capital providers, FIs, and actors who have supported the establishment of green banks.

The report is structured in the following sections:

1. **Green bank models**: This section presents a taxonomy of the general models for green banks that have emerged. It outlines reasons why countries might adopt them and, where relevant, the challenges EMDEs may face. It also includes a matrix of considerations to guide countries' approaches.
2. **Status of green banks:** This section explores the status of green banks based on the 2024 survey, comparing it to the SOGB 2020 report findings where relevant.

6 Further details of the 2024 survey are provided in Annexure 1.
7 Further details of the SOGB 2020 survey and report are provided in Annexure 3.

3. **Enablers and success factors:** This section outlines factors that can help foster these specialized institutions as indispensable catalysts for accelerating capital flows into green sectors.
4. **Conclusion and the next steps:** This section presents initial proposals for supporting the increased adoption of green banks.

Annexure 4 includes case studies of select green banks to showcase and learn from the diversity of current formats.

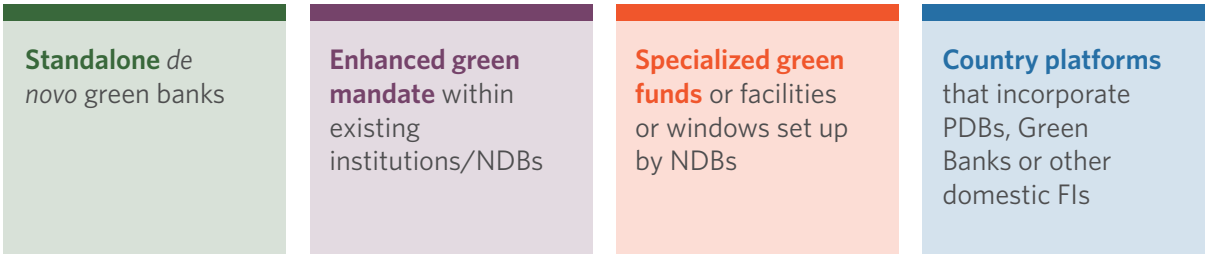
1. GREEN BANK APPROACHES

While green banks first emerged in developed countries as standalone entities, they have since evolved in multiple forms in response to countries' needs. Fiscal capacity, political and economic conditions, financial infrastructure, and the status of existing PDBs have influenced the design of green financial infrastructure.

A taxonomy of green bank models can help countries determine which structures to adopt according to their current contexts and demand for green finance. This report analyzes existing sustainable finance mechanisms across four broad typologies:

1. **Standalone** de novo **green banks:** Establishing a new independent institution dedicated to green financing.
2. **Enhancing existing public development banks (PDBs):** Greening the mandates and operations of pre-existing FIs.
3. **Green facilities within PDBs:** Creating dedicated green finance facilities, windows, or funds within larger FIs.
4. **Green country platforms[8]:** Embedding green bank functionality within multistakeholder partnerships designed to coordinate large-scale climate finance.

Figure 1: Typologies of sustainable finance institutions



Standalone green banks are more prevalent in developed countries than in EMDEs. All eight institutions surveyed by CPI in developed countries were standalone green banks, with none from EMDEs, although one respondent was in the process of establishing an entity. In contrast, 12 survey respondents from developing countries operated a green facility within an existing entity. This reflects in part that developed countries surveyed do not have PDBs in which to create green windows. It also presents the possibility that green windows can act as transitional mechanisms to build capacity and enable EMDEs to progress toward standalone green banks.

8 While country platforms differ from the others, as they are not directly linked to a banking structure, they are included as important alternatives for low-income countries that may not have the capacity to access any of the other three options.

1.1 STANDALONE *DE NOVO* GREEN BANKS

Standalone de novo **green banks are independent institutions that can design financial products flexibly to support climate solutions.** They may be public, quasi-public, or non-profit entities and are typically capitalized by various sources, including government appropriations, on-bill financing, debt capital markets, private capital, and grants. Examples are provided in Annexure 4.1.

Countries may seek to establish a *de novo* green bank for the following reasons:

- **Lack of existing institutions:** Standalone green banks were first established in developed economies that, in most cases, had no NDB to take on the sustainable finance mandate. These included the US's Connecticut Green Bank, the UK Green Investment Bank, and Australia's Clean Energy Finance Corporation Limited (CEFC).
- **Avoiding conflicting agendas:** Fossil-fuel-based economies may struggle to implement green agendas through existing PDBs. An independent institution with a mandate ring-fenced from the mainstream economy may be more suitable. For example, despite having multiple PDBs, Malaysia established the Green Technology Corporation (GreenTech Malaysia) in 2010.
- **Avoiding political interference:** Countries with strong control over their financial sectors may wish to establish autonomous entities that prioritize market-based solutions to attract private capital. Establishing an independent green bank could also affirm political commitment to the green agenda.
- **Challenges in shifting existing PDBs to green:** In cases where PDBs may struggle to green their portfolios and operations for various reasons (see **Section 1.2.1 Challenges for EMDEs**), creating a *de novo* entity may be most effective.

1.1.1 CHALLENGES FOR EMDES

Low-income or debt-distressed countries may lack robust financial markets to facilitate de novo **green banks.** A standalone green finance institution presupposes financial markets of a minimum size, depth, and sophistication. Such banks also require sufficient local demand for credit from climate projects with the ability to service their debt. They will ideally have a financial ecosystem comprising local tier-1 banks and institutions with sufficient business volumes and a clear understanding and acceptance of innovative instruments.

Green banks also need strong balance sheets and risk-absorbing capacities as independently incorporated entities. These institutions require strong sponsors from governments or private groups, which are more prevalent in middle- and high-income countries.

1.2 ENHANCING EXISTING PDBS

Some PDBs are shifting their traditional operations to finance green projects. These banks are the largest global climate finance providers, accounting for USD 238 billion per year in 2021/22 (CPI 2024). They use these funds to provide longer-term, concessional financing and risk mitigation support,[9] helping to bring risk-adjusted returns to levels that can attract private

9 Examples of PDBs' risk mitigation support include subordinated debt, mezzanine finance, equity investment, guarantees, and insurance.

investors. They also develop bankable investment pipelines using project preparation facilities, often funded by external grants or budgetary support.

Countries may opt to anchor their green finance agendas in an existing PDB for the following reasons:

- **Powerful intermediaries:** PDBs have strong relationships with international and local FIs. This enables them to access large and concessional pools of international capital, which they then provide to commercial banks, microfinance institutions, and other lenders. They do so by co-financing projects, refinancing them with concessional funds, or extending guarantees to support access to affordable finance.
- **Positioned to implement green finance agendas:** In many countries, PDBs, including national development banks (NDBs), have historically spearheaded development finance programs. These state-run institutions act as government agents to implement economic policy. Their networks with—and influence over—local FIs enable them to roll out programs quickly and with impact nationwide.
- **Market-building potential:** As major issuers of green bonds, PDBs have helped to connect the green sector to capital markets. They have also leveraged their balance sheets to scale their investment capacities, reducing their need for government budgetary transfers or equity injections. Additionally, many have been aggregating and warehousing smaller projects to reduce transaction costs while securitizing the pool of assets to enhance liquidity once they begin generating operating cash flows.

Box 2: Examples of PDBs greening their operations

An example of a PDB that has mainstreamed the green agenda in its operations is Germany's KfW. This bank, established in 1948 to rebuild Germany after World War II, has embedded climate and sustainability goals in its domestic and international financing for decades. Another example is the Small Industries Development Bank of India (SIDBI), a PDB leading in furthering green financing in India.

Some institutions have also progressed on taxonomies to strengthen their capacity for green lending. Mexican PDB *Fideicomisos Instituidos en Relación con la Agricultura* (FIRA) has a green finance taxonomy and is developing a climate adaptation finance taxonomy with support from the *Agence Française de Développement*. While hosting a green facility (see Annexure 4.1.3), the Development Bank of Southern Africa (DBSA) has launched its Green Deep Dive program to categorize assets in its portfolio as carbon-intensive, green, or uncategorized using the International Development Finance Club taxonomy.

1.2.1 CHALLENGES FOR EMDES

Many PDBs have green objectives but often face obstacles in fully realizing them. Of 22 PDBs surveyed by the World Bank in 2023,[10] eighteen institutions had strategies and plans to align their activities with international or national climate goals. However, only 14% of their portfolios contained green assets.

PDB climate efforts are more prominent in high- to middle-income countries than in low-income economies (LICs). PDBs in LICs or debt-distressed countries may lack the financial strength and institutional capacity to further their green agendas. Greening PDBs in EMDEs will require structural solutions supported by funding and capacity building from international institutions.

The same operational issues faced by PDBs could also hinder their green investments. While well-managed PDBs have provided sustained support to catalyze economic growth, others struggle with inadequate capitalization and mismanagement of their organizations and risks, particularly in EMDEs. Many have also faced corruption and the precedence of political objectives over development finance goals.

Finally, PDBs' large, process-oriented structures may be unsuited for innovative and consultative green finance approaches. Even where the board has endorsed a green mandate, in practice, operations may continue to focus on existing (polluting) borrower classes due to lower information costs and the perceived high risks of onboarding new green sector clients. Some PDBs may struggle to develop new project pipelines and capabilities for TA, risk modeling, and impact assessment, which need to go green. To ensure flexibility, an ideal design could be a separate green team with autonomy to establish a distinct culture and advance the green agenda.

Some of these issues may be mitigated by a recent focus on strengthening corporate governance and internal control systems across PDBs. Many have introduced best practices in transparency and risk management. These have been enabled by increased central bank regulatory supervision, higher engagement standards among international financial institutions (IFIs) funders, and accreditation prerequisites for multilateral climate funds. Where reform processes are politically feasible, these may open an opportunity to transform a PDB's mandate, governance, and operations, thereby better equipping these institutions to finance net-zero, resilient economic opportunities.

1.3 GREEN FACILITIES WITHIN PDBS

Green facilities are dedicated, mission-driven vehicles hosted by an existing institution with a clear green finance mandate. They provide PDBs with an alternative route to sustainable investment by targeting specific sectors when they face challenges in greening their entire portfolios.

As special-purpose vehicles (SPVs), green facilities can access ring-fenced capital sized by their mandate. These facilities can be ongoing or take the form of green windows, offering targeted finance for a defined time period. As with other models, they leverage concessional capital to mobilize private and international funding, often receiving technical support from

10 Referred to as national development finance institutions in the World Bank survey.

government agencies and IFIs. Annexure 4.1.3 provides an example of DBSA's Climate Finance Facility, incorporated in 2018.

Green facilities are suited to EMDEs that face challenges in establishing *de novo* entities or greening entire PDB portfolios. They may provide a pragmatic option to get green finance flowing and prove the opportunities it presents. The reasons for setting up a green window include:

- **Low appetite for large-scale interventions:** Low-income countries with nascent green sectors may not be ready for economy-wide interventions. Starting with a green facility could provide proof of concept for green finance, technologies, and markets.
- **Testing institutional readiness:** A green facility can test a PDB's capacity for wider green transformation without incurring the costs and risks of establishing a *de novo* entity.
- **Demonstration effects:** A successful green window could demonstrate the appeal of new market sectors or technologies. Program officers with experience, expertise, and networks in conventional technologies and sectors may be convinced of the opportunities of green finance, particularly if green facilities are seen as a financial and even career success.
- **Leveraging existing accreditations:** Being hosted by an existing entity can enable a green facility's access to finance, especially if the PDB is accredited with a climate fund. For example, DBSA's GCF accreditation provides it access to GCF funds for its Climate Finance Facility.
- **Mutual capacity building:** A PDB can absorb the technical capacities and knowledge conferred by international agencies to support the green facility. Conversely, the facility can leverage the host institution's capabilities, distribution network, and partnerships.
- **Alignment with political context**: Given PDBs' public mandates and close government ties, their green facilities will also operate within that ambit and be designed to support the country's or the region's climate goals.

Box 3: Successful green facilities operating in EMDEs

Green facilities operating in EMDEs highlight how these mechanisms can bring operational efficiencies and demonstrate how they can have the agility to crowd in private investment while aligning with country and international green agendas.

Operational efficiencies: An example of a standalone green bank that later became a green window within its parent institution is Tata Cleantech Capital Limited (TCCL) in India. TCCL was originally constituted as a dedicated private green bank, as a joint venture between Tata Capital Limited (TCL) and the International Finance Corporation (IFC). However, having a separate balance sheet from its parent and being subjected to regulations for infrastructure finance companies had proved to be suboptimal for TCCL. The promulgation of scale-based regulations by the central bank triggered a restructuring within the group, whereby TCL's subsidiaries, including TCCL, merged with the parent. TCCL now operates as a dedicated green vertical, Cleantech Finance, within TCL. The integration within the larger financial group has unleashed significant economies of scope, with the combined entity having an enhanced capital base and improved operational and managerial efficiencies.

Agility with country alignment: PT Sarana Multi Infrastruktur (Persero), Indonesia's development finance institution, set up the Sustainable Development Goals Indonesia One–Green Finance Facility (SIO-GFF) in 2018 with the Asian Development Bank to mobilize public and private funds for green infrastructure projects with targets on bankability (minimum debt service coverage ratio, positive net present value) and ability to leverage private, institutional, and commercial capital. The performance of SIO-GFF's portfolio will be closely monitored, focusing on its alignment with Indonesia's country goals under the Paris Agreement and the Sustainable Development Goals targets.

1.4 GREEN COUNTRY PLATFORMS

"Country platforms" are voluntary, multistakeholder partnerships led by a national government. While these are collaborative mechanisms rather than sustainable finance institutions, they bring together international capital providers and country stakeholders, including PDBs, to plan and implement transformational programs serving developmental and climate-related priorities.

Country platforms effectively leverage MDBs' ability to build countries' capacities for climate action through a programmatic approach. MDBs possess the institutional heft to engage with country governments in setting policy frameworks and trajectories. They bring deep sector insights and knowledge of applicable investment criteria to inform PDBs' selection of project pipelines. Additionally, MDBs can create capacity for project preparation, impact monitoring, and verification in PDBs. For their part, PDBs bring knowledge of the local financial ecosystem and markets and their connections with local stakeholders.

Box 4: Examples of country platforms

Just Energy Transition Partnerships (JET-Ps) were popularized at COP26 in 2021 as platforms to channel finance to country-owned climate projects in EMDEs. Although facing initial challenges in mobilizing finance, JET-Ps have been constituted in South Africa, Indonesia, Vietnam, and Senegal. Other examples of green country platforms include Egypt's Nexus for Water, Food, and Energy, established in 2022 to address these interconnected areas, which Egypt has identified as priorities. The platform contributes to climate mitigation and adaptation, supports resilience, and facilitates a just transition within broader environmental goals. Bangladesh and North Macedonia also announced country platforms during COP28, respectively, for leveraging adaptation and mitigation investments and accelerating just energy transition[11].

Similarly, the recently launched Brazil Climate and Ecological Transformation Investment Platform (BIP) aspires to close the gap between domestic and international capital and initiatives in three main sectors: nature-based solutions and bioeconomy, industry and mobility, and energy. The platform seeks to connect key financial stakeholders (e.g., banks, MDBs, and investment funds) with non-financial stakeholders (e.g., sectoral representatives and civil society organizations) for implementing effective green transformation initiatives.

National PDBs' roles in country platforms are illustrated in Box 5.

11 https://www.ebrd.com/home/news-and-events/news/videos/2023/north-macedonia---launch-of-the-in-country-platform-to-accelerat.html#

Box 5: PDB roles in country platforms

Two national development banks—BNDES in Brazil and DBSA in South Africa—offer distinct models of how green banks can operate within country platforms.

The Brazilian Development Bank (BNDES) plays a formal and central role in the country's Green and Climate Transformation Investment Platform (BIP). Serving as the platform's Secretariat, BNDES coordinates with government ministries, development partners, and private financiers. It manages the platform's daily operations, curates and validates project pipelines, and helps structure investments that align with Brazil's green development priorities. This role reflects BNDES's deep institutional capacity and decades-long track record in financing infrastructure and climate-related initiatives. Functioning effectively as a national green bank, BNDES provides the governance backbone for Brazil's green finance mobilization strategy.

The Development Bank of Southern Africa (DBSA) plays a significant yet less formalized role in the country's Just Energy Transition Partnership (JET-P). While not the platform's coordinator, the DBSA is an implementing partner, helping to deploy international concessional finance, such as from the European Investment Bank and Germany's KfW, into renewable energy, battery storage, and grid modernization. DBSA leads on blended finance structuring and supports project development at scale. It also champions equity and community inclusion through mechanisms like Local Community Trusts, ensuring that transition benefits are shared with historically disadvantaged populations. While it does not yet hold a formal governance mandate like BNDES, DBSA effectively performs the functions of a green bank within the JET-P ecosystem.

Together, these examples show how national development banks, whether through formal secretariat roles or operational leadership can anchor country platforms and drive climate finance from commitment to execution while ensuring the transition is sustainable and just.

The decision to set up a *de novo* green bank, establish a green facility, or green an existing PDB will depend on country circumstances. Table 1 presents a matrix of factors assessing the suitability of the four green bank structures for different types of economies.

Table 1: Determinants of appropriate green bank formats in EMDEs. Available separately at: [Green Bank Design Guide]

Colors indicate the relative suitability of each green bank type for EMDEs and LICs according to the given category.

Low suitability		High suitability

	Standalone green bank	Green-focused PDB	Green facility	Country platform
Description	*De novo* institution with a green mandate.	PDB that has extended its mandate and operations to climate/green finance.	Dedicated facility within a PDB with ring-fenced capital for a green mandate.	Government-led multi-stakeholder partnership supported by IFIs.
Typical constitution	Incorporated entity		Multi-contributor trust fund	
Examples	Barbados Blue Green Bank (BGB); MGTC; Mongolia Green Finance Corporation (MGFC)	FIRA (Mex), Türkiye Sınai Kalkınma Bankası (Tur), DBSA (SA), SIDBI India)	DBSA CFF (SA), SIDBI FMAP (India), SIO-GFF (Indo)	JET-P (SA), Least Developed Countries Initiative for Effective Adaptation and Resilience (LIFE-AR), BRB Finance Coalition (Brazil)
THE COUNTRY'S ECONOMIC AND FINANCIAL POSITION				
Suitability across economies	Unlikely in LICs or debt-distressed countries.	PDBs in LICs or debt-distressed countries may lack financial strength to expand to green financing.	Size and coverage can be scaled by country.	IFI support makes this approach effective for LICs and LMICs with limited fiscal capacity.
Suitability across financial markets	Requires tier-1 lenders that can leverage co-financing and innovative financial instruments.	Applicable for countries upwards of LMIC, where PDBs have networks of tier-1 private lenders for co-/re-financing.	Applicable for PDBs in LMICs upwards with greening aspirations but insufficient mandate or capacity for an extensive green transformation.	Does not presuppose developed local financial markets; partners drive it at the supranational level.

	Standalone green bank	Green-focused PDB	Green facility	Country platform
POLICY AND GOVERNANCE				
Structural robustness	Mainly legalized entities. In EMDEs, likely to be public, though strong private entities are possible for some sectors (e.g., energy).	Strong institutions, often with legal mandates as implementers of public development agendas; large, hierarchical process-driven structures with defined roles across verticals.	SPVs with well-defined mandate, project and instrument designs, target leverage, and outcomes. Initial capitalization from anchor funders.	IFI-supervised/capitalized SPVs with well-defined mandates, project and instrument designs, and targets.
Countries' green agendas	Suitable in countries focused on decentralized green solutions; necessary in fossil fuel-driven economies seeking to transition.	Suitable where there is a sizable green mandate, especially for top-down large programs over decentralized solutions.	Suitable where the green agenda is central, but select themes are prioritized; applicable for PDBs with more general mandates.	Suitable in countries with green agendas but significant gaps between financing needs and financial strength (e.g., for A&R in LDCs).
Robustness of PDBs	Appropriate in countries with no PDBs or clear green champions. Can also complement established PDBs as market-makers for climate solutions.	Appropriate for government-capitalized PDBs with broad developmental (and legal) mandates.	Skills for managing green programs may be developed within the facility via international assistance.	Used where PDBs have inadequate capacities for required interventions.
Risk of political interference	Sequestered from political interference with autonomy to take capital from non-government stakeholders and prioritize market-based solutions.	PDBs support governments in implementing green finance but may face routine political interference.	Partly sequestered from political interference, especially with strong IFI partners.	Completely sequestered; programs are often entirely funded by donor countries or IFIs.
Integration with IFIs	Vital for standalone green banks in EMDEs.	PDBs' need for IFI support is higher in the green sector.	Provide catalytic assistance in EMDEs.	Primarily managed by IFIs.

	Standalone green bank	Green-focused PDB	Green facility	Country platform
PRODUCT DESIGN				
Scale	Can implement multiple small-scale programs for context-specific projects (e.g., in A&R and AFOLU).	Can implement relatively large programs, each with undifferentiated, homogeneous products.	Scalable according to facility mandate and IFI support.	Large-scale solutions relative to the country's financial strength via support from IFIs.
Types of instruments	Grants, equity, concessional debt, ecosystem enablement, blended finance, guarantees.	Tier-1 finance for large green programs in energy and transport Tier-2 via banks MFIs, etc. (co-financing, risk sharing, takeout financing, guarantees, etc.) Mostly concessional/long-term loans.	Pre-identified instruments aligned with the target themes and solutions.	Financial (guarantees, credit enhancement) and non-financial instruments (ecosystem enabling, capacity building) via a programmatic outcome-driven approach.
Project preparation capacity	Typically in-house	May or may not be available in-house	Created in-house	From various partners
CAPITALIZATION				
Sources of capitalization	Governments, green bonds, IFIs (concessional loans)	Debt securities, governments, MDBs	Anchor institutions (e.g., host PDB and an IFI)	Donor countries/ IFIs
Ability to leverage private capital	Can unlock capital for challenging climate sectors through innovative instruments, TA, and access to various stakeholder.	Can crowd in private capital (mainly debt) into easier-to-abate technologies administered through national/ regional programs.	Well-designed programs, with specific outcomes and range-bound returns, can draw private capital.	IFIs may draw private capital from donor countries if beneficiaries can absorb it.
IMPACT OF INTERVENTION				
Effectiveness	Solution-centric, collaborative approach likely to spark greater impact per dollar invested with a focus on impact measurement.	Impact assessment may not be deep, given that green investments are a small share of assets; Inadequate control of impact in tier-2 lending.	Mission-driven approach builds in realizable impact targets and accurate measurement.	IFIs bring internationally recognized MRV methodology.

A&R: adaptation and resilience
IFI: international financial institution
MRV: monitoring, reporting, and verification
AFOLU: agriculture, forestry, other land use

2. STATE OF GREEN BANKS GLOBALLY

The expanding and evolving green bank landscape has yielded substantial learnings from varied experiences across countries. CPI's survey of 32 institutions across the four green bank formats described above found differing green bank characteristics across developed and developing countries, as well as varied evolution and levels of engagement in green finance.

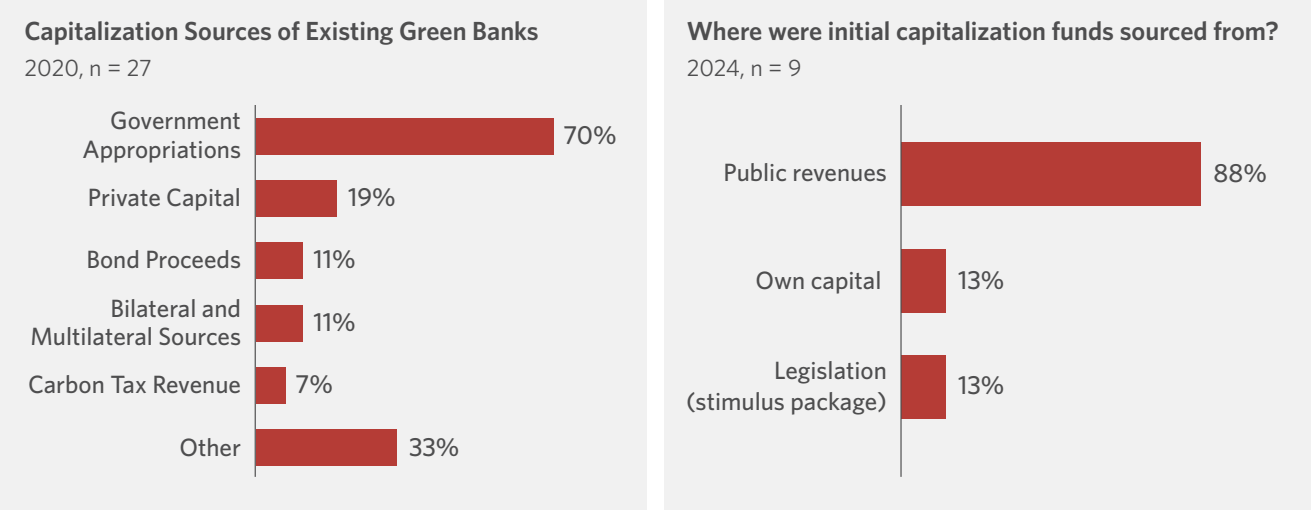
ENGAGEMENT IN GREEN FINANCE

Surveyed institutions' reported level of green investment ranged from "some" (11%) to "substantial" (50%) to "exclusive" (33%). Some entities started with broad mandates and operations before transitioning to focus on green finance through strategic reviews, policy implementation, or partnerships (12 respondents; 40%). Several purpose-built green lenders have evolved their strategies and portfolios to align with international standards. All of these purpose-built green lenders are from the 'have a green bank category' (9; 30%). Others emphasized alignment with global frameworks (e.g., the Paris Agreement, the GCF, or the SDGs), incorporating ESG-focused guidelines and taxonomies into their operations (6; 20%). The remaining four (10%) described their transition to green operations as ongoing. These 4 are from the category 'have a green window'

CAPITALIZATION SOURCES

Public revenue is the most-cited source of green banks' capitalization (7 respondents), with one respondent mentioning their crown and own capital, and one mentioning legislative mechanisms such as stimulus packages. One respondent also mentioned that today, they are 50-50 public revenues to earned revenues. Another mentioned that in some jurisdictions, regulators require banks to provide concessional capital to underserved sectors and/or geographies. While public funds were also the most mentioned form of capitalization in the SOGB 2020 analysis, respondents in 2020 also mentioned private donors and investors, international organizations, bond proceeds, and other revenue-generation methods. One innovative example of capitalization was highlighted in the Connecticut and New York green banks, which use an innovative system of benefit charges to collect small contributions via individuals' electricity bills to fund clean energy initiatives. We note that the 2020 report surveyed a larger number of green banks and looked at current capitalization, while the 2024 survey only captured initial capitalization. This may account for the broader range of mechanisms captured in the 2020 report.

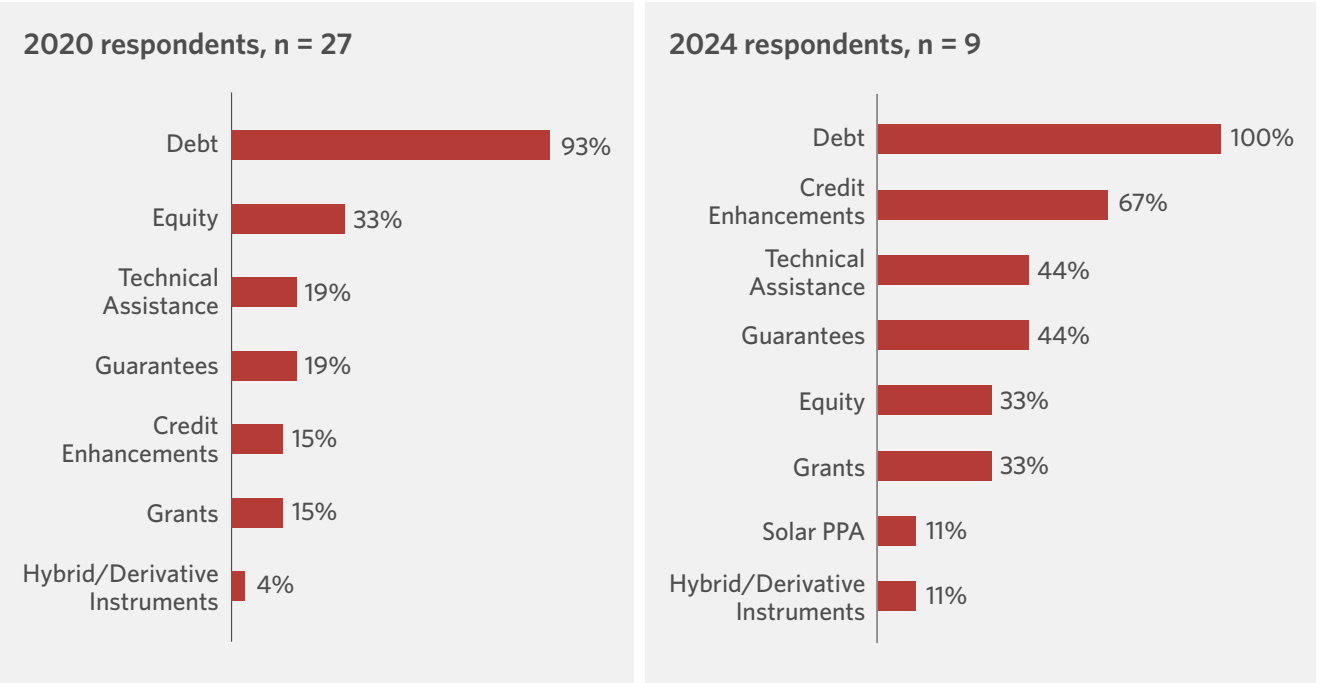
Figure 2: Capitalization of surveyed green banks



FINANCIAL INSTRUMENTS

The surveyed green banks all use debt instruments. Several also report deploying credit enhancements (67%), guarantees (44%), technical assistance (44%), equity (33%), and grants (33%). Hybrid or derivative instruments and solar power purchase agreements were each reportedly used by one respondent. This broadly tallies with responses from the previous SOGB 2020 report, as shown in Figure 3. There is a prevailing focus on debt, with lesser use of equity, in both 2020 and 2024. However, the higher number of responses for using guarantees and credit in 2024 is a promising indication of diversification and increased leveraging of risk mitigation instruments, which can help bring in further private capital.

Figure 3: Percentage of existing green banks providing each financial instrument

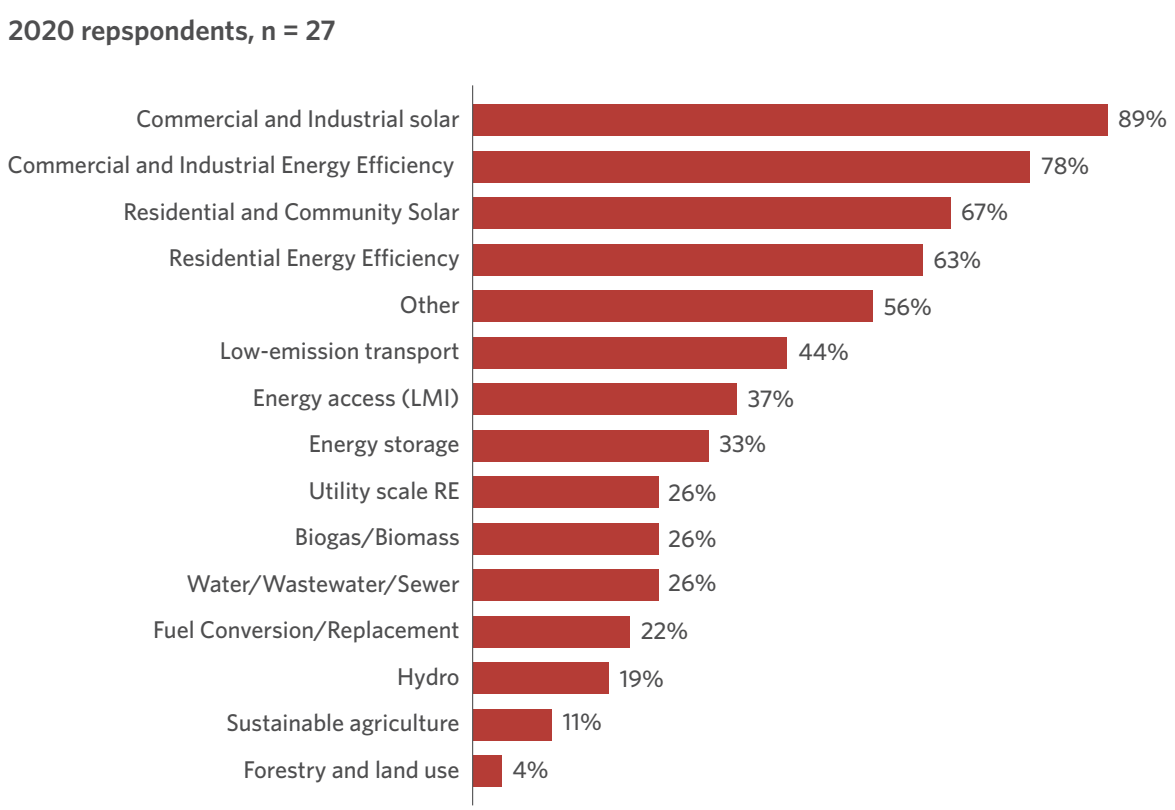


FOCUS SECTORS

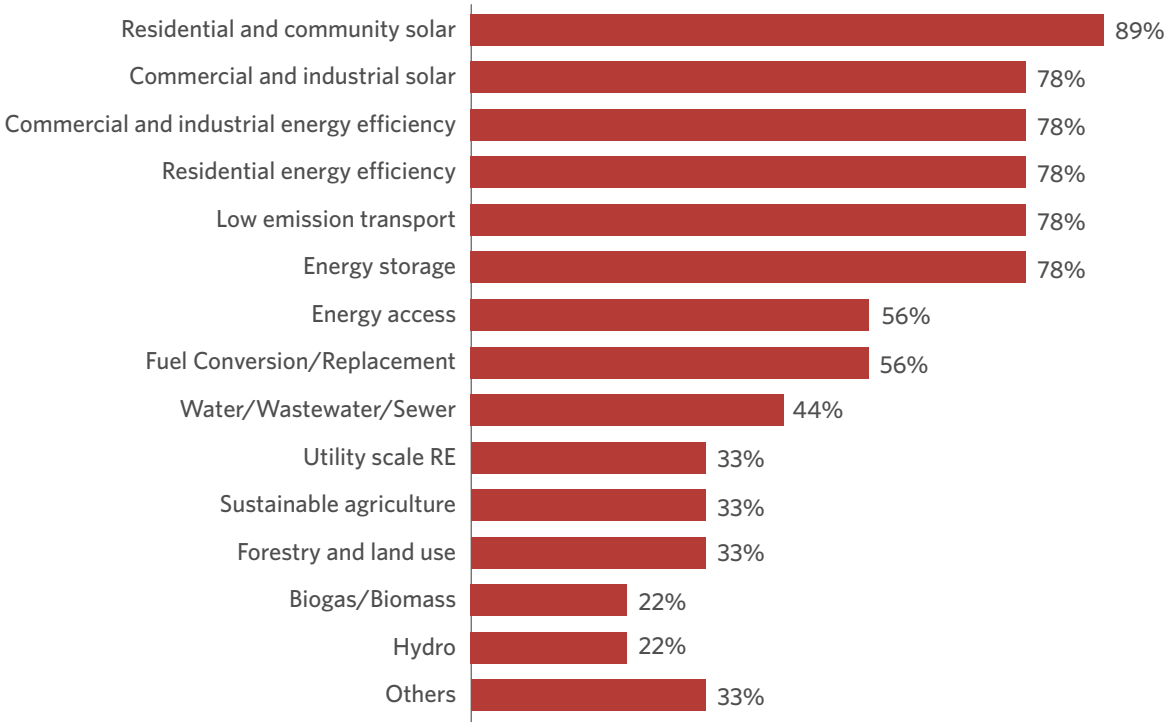
While renewable energy and energy efficiency remain central to green finance, investment patterns in 2024 show increasing diversification. The top three most frequently cited categories in 2024—commercial and industrial energy efficiency, residential and community solar, and commercial and industrial solar—remain consistent with those identified in 2020. Residential energy efficiency, particularly driven by solar technologies, also continues to feature prominently, as illustrated in Figure 4. Notably, transportation was mentioned by a greater share of respondents in 2024 than in 2020, reflecting the growing importance of this sector. In addition, green bank respondents generally reported a wider range of sectors and technologies in 2024, marking their response to advancements in low-carbon technologies and the growing emphasis on sustainable development. However, areas such as forestry and land use, sustainable agriculture, and hydro and biomass/biogas remain relatively neglected, highlighting the continued underinvestment in sectors critical for climate resilience, biodiversity, and long-term sustainability.

We see that some existing green banks have broadened their mandate. For example, CT Green Bank launched an environment infrastructure division in 2024, SIDBI increased its focus on EVs by launching various schemes, and the newer green banks, DBSA and Rwanda, are commencing with a broader focus.

Figure 4: Percentage of green banks investing across sectors/technologies



2024 respondents, n = 9



BARRIERS

Key obstacles to green finance were mentioned as a lack of knowledge and awareness (22%), limited access to low-cost capital (19%), doubts over the financial viability of green projects (16%), as well as concerns over their bankability (12%), and capacity and regulatory constraints (12%).

Experts in our roundtables and interviews also mentioned key challenges for green banks, such as difficulty accessing concessional capital, a lack of robust green project pipelines, and risk-return mismatches. They also noted challenges in attracting and retaining talent with specialized sectoral knowledge, particularly in keeping pace with evolving clean technologies. Implementing robust M&E frameworks, procedures, and training is also associated with additional costs.

3. ENABLERS AND SUCCESS FACTORS

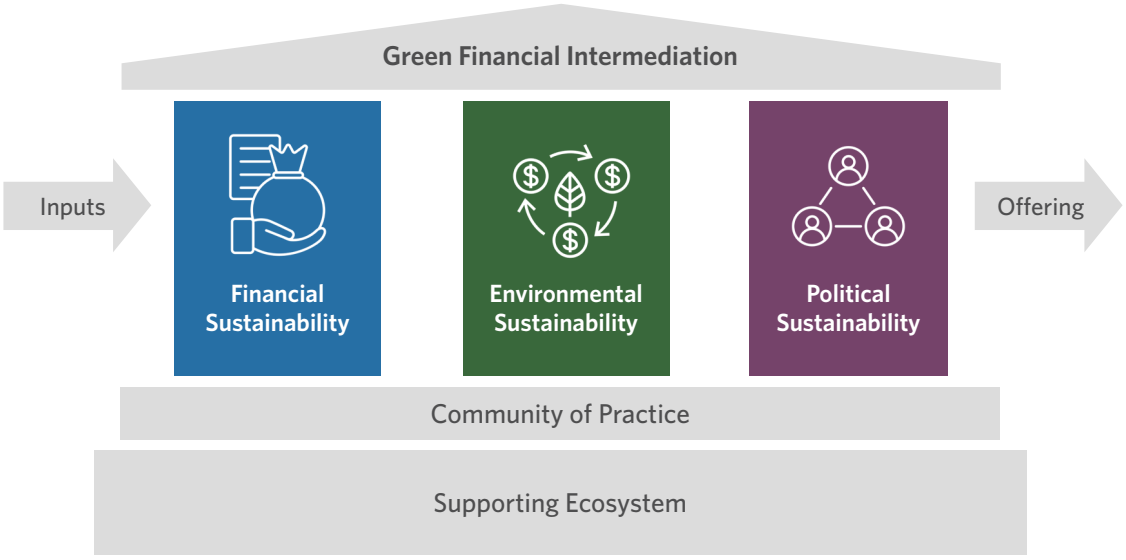
Countries' evolution and uptake of various green bank approaches and responses to the 2024 survey indicate a strong appetite for sustainable financing institutions. Based on these analyses and insights gained from roundtables and interviews with experts, we identified various enablers and success factors for green banks.

3.1 ENABLERS

Three aspects are key to ensuring the success of institutions and facilitating the sustainable design of new green banks in EMDEs:

- **Financial Sustainability**: While not profit-maximizing, green banks must sustain operations and grow their capital base without relying solely on concessional capital. They must, therefore, leverage public funds to catalyze private finance. Successful examples include the green fund and the climate finance facility set up by DBSA, which align with the policy mandate and are also connected to a broader value chain.
- **Environmental Sustainability:** Green banks must only invest in projects that adhere to established climate themes and taxonomies: mitigation, adaptation, resilience, and transition. They must also adhere to ESG and MRV standards. TCCL in India focused on and supported the growth of the RE sector in India. They focused entirely on the cleantech sector—renewable energy, energy efficiency, and waste management—and made ESG a part of their mandate.
- **Political Sustainability:** It is vital to be part of political leaders' vision and align with central banks, key ministries (finance, environment, energy), broader climate strategies (NDCs), and economic planning. Green banks also require robust governance structures while retaining the flexibility to navigate changing political, regulatory, and market environments. The Australian Clean Energy Finance Corporation (CEFC) was created by one party but has been successful in maintaining operations and infusing $2 billion dollars by the new Government in January 2025.

Figure 5: Framework for Green Bank Sustainability and Success



A strong community of practice and supporting ecosystem must underpin these pillars. The community of practice would include various stakeholders, as detailed in the supporting ecosystem and Table 2 below.

Table 2: Supporting stakeholders

Stakeholders	Supporting role (number of survey respondents)
Government	Political leaders, policymakers, and regulatory agencies champion, develop, and align green financing strategies.
Private actors	FIs, market assessment agencies, technical feasibility consultants, and developers are integral to building pipelines and facilitating transactions.
Civil society	Community-based organizations, non-profits, and advocacy groups engage underserved communities and advance environmental goals.
	Philanthropic and academic organizations support innovation and knowledge sharing to keep pace with evolving climate technologies.
Expert panels and review boards	Help to shape institutional frameworks and operational models.

3.2 SUCCESS FACTORS

The following areas were identified as enablers of success for designing green banks and their offerings.

INCEPTION AND DEVELOPMENT

- **Mandates:** These should be time-bound and mission-driven, defining banks' roles within local institutional frameworks and integrating them into financial markets. These mandates should also determine the bank's governance structure and investment thesis. This is vital as the design questions can be best addressed once the vision is clear on what the green bank is needed for. TCCL was successful since its mandate was clear and ensured that it only lent in the cleantech sector. The other thing that worked in its favour was that they defined the space more broadly and did not have to ask for a strategy review.
- **Alignment with government policy and strategy:** Green banks must be connected to upstream planning (e.g., government climate strategies) and downstream implementation plans (e.g., on-lending) in a value chain approach. Alignment with central banks, relevant ministries, and broader economic planning is also crucial. The green fund and the climate finance facility set up by DBSA align with the policy mandate and are also connected to a broader value chain. The climate finance facility is designed to de-risk and increase the bankability of climate projects, attracting private sector investment in Southern Africa.
- **Partners, not competitors:** Green banks must be structured to work with other institutions as force multipliers in the broader financial ecosystem. For example, the New Zealand Green Investment Finance collaborated with the existing financial ecosystem to support lending for new green activities. They co-invested in projects with existing lenders, which allowed them to achieve leverage on their investment. This helped to reduce risk perceptions associated with green investments and foster the mobilization of private capital.
- **Strategic capitalization:** Via a mix of public and private funds. The need for concessional capital in the early stages was identified as critical for initial setup and continued success. The sectors to be covered by a green bank are perceived to be riskier and, thus, will need more patient capital. The Connecticut Green Bank is a quasi-public agency that leverages ratepayer funds with private capital to offer low-cost, long-term financing for clean energy projects.
- **Institutional capacity:** In EMDEs, green banks require capacity building and technical assistance (TA) to train their staff to ensure successful liftoff. A strong human capital base can help banks navigate shifting political, regulatory, and market environments. Building technical capabilities, including in engineering, is also important given the need for new climate technologies.

OFFERINGS

- **Effective product structuring**: Green banks should leverage various capital tranches when investing in projects and institutions to maximize their mobilization of finance, including co-financing and blended finance. Green banks should provide lower interest rates and products with longer loan tenures than traditional lenders to ensure impact. The Rwanda green fund identified that supporting the low-carbon transition in Rwanda will require various pools of capital to be deployed. They offer three financial instruments – Grants (aimed at

public institutions and NGOs), an innovation grant for research (aimed at private sector companies), and credit lines. This has helped them support 46 projects by mobilizing USD 247 million till date.

- **Expanding beyond debt:** Significantly increasing equity and credit enhancement offerings, including via local capital markets, can help support emerging technologies in green sectors.
- **Risk-sharing and mitigation:** Tools such as guarantees and foreign exchange risk hedging are critical to reducing risk perceptions of green sectors, which currently deter finance flows (CPI 2024). Supporting standardization, aggregation, and liquidity is also important for green banks to foster.
- **Incorporating co-benefits:** Recognizing benefits such as job creation and sector expansion can help gauge green finance's effectiveness and encourage further investment. The Uganda Green Enterprise Finance Accelerator focuses on increasing access to green finance for SMEs, which will have the dual benefits of increasing access to finance and increasing job creation.
- **Reach neglected sectors:** Green banks have typically focused on energy (commercial, residential, renewables, and energy efficiency) and other mitigation sectors. Financial intermediation is also needed in neglected areas such as agriculture, forestry, different land use, nature-based solutions, and adaptation and resilience.

4. CONCLUSION AND NEXT STEPS

Green banks have emerged and evolved over the past two decades to meet countries' varying needs for specialized sustainable finance vehicles. Different jurisdictions have adopted structures based on the maturity of their economies and financial markets, political mandates, and institutional capacities. EMDE stakeholders surveyed for this report highlighted the need for green banks and the challenges to establishing and scaling them.

Action is needed to overcome these barriers and support the abovementioned enablers and success factors. The lessons from green banks and experiences of sustainable finance experts in the market suggest that the solution could consist of a dedicated platform to accelerate impactful green banks. Such an accelerator would provide localized guidance while targeting the key enablers of success for designing green banks and their offerings across financial, environmental, and political sustainability. To be catalytic and focus on impact and scale, broader considerations would guide such an accelerator, including a focus beyond traditional mitigation activities, offerings beyond debt, and a dedicated goal as an ecosystem enabler.

Three implementation options were identified within the accelerator platform addressing the success factors outlined above.

OPTION 1: ESTABLISHING A NEW GREEN BANK DESIGN INITIATIVE

A new Green Bank Accelerator to support green banks in EMDEs could include three core components:

1. **Technical assistance:** Providing analysis, stress testing, and guidance from experts and investors.
2. **Funding assistance**: Supporting fundraising and seed capital provision via tie-ups with ecosystem players.
3. **Learning hub**: Informing on best practices through case studies, convenings, data collection, and research.

OPTION 2: EXPANDING AN EXISTING SUPPORT PLATFORM

The FiCS Innovation Lab is a partnership between Finance in Common, the Inter-American Development Bank, and Climate Policy Initiative. It brings together PDBs and experts to accelerate the implementation of climate finance and the 2030 SDG agenda. Key components currently include:

1. **Knowledge exchange:** Sharing and advancing knowledge and best practices on financial innovation gaps, initiatives, and implementation. This will be achieved by releasing issue briefs and blogs and disseminating existing knowledge products.
2. **Policy dialogues**. Facilitating structured policy dialogues to standardize or harmonize approaches and ease instrument implementation.

3. **Incubation support**. Supporting the incubation of specific financial innovations in institutions ready to act but needing technical and/or financial support.

This platform is already engaged with PDBs on climate finance issues and could adapt its work to include a dedicated green bank pillar. This could, for example, build on the FiCS Lab's existing work in supporting PDBs in designing innovative instruments for climate finance, applying it to support and encourage innovation in the design of green financial institutions and facilities adapted to each country's circumstances.

OPTION 3: FORMING A COALITION OF EXISTING RELEVANT INITIATIVES

A lighter-touch version of an accelerator platform could consist of a coalition of existing initiatives. The creation of such a coalition could build upon the Green Bank Network and the first Green Bank Design Summit, held in Paris in 2019. The summit brought together regulators, green bank executives, public and private finance institutions, donors, and experts to advance the design of green finance institutions to advance the Paris Agreement and the Sustainable Development Goals (SDGs).

Whether as a complement to other parallel efforts or as the primary next step, convening relevant stakeholders could help broker learning across the ecosystem, support already underway efforts, and possibly spark new, productive efforts to develop domestic green finance capacity in one or more of the forms outlined above. The components of such a coalition could include:

1. **Knowledge exchange:** Sharing and advancing knowledge and best practices around increasing green finance. This would be achieved by having networking sessions, hosting masterclasses, and conducting webinars sharing practitioners' learning.
2. **Dialogue with financiers**—Facilitate interactions between investors and investees. The aim is to facilitate financing and give investors the option to understand what the market may require.

Table 3 details the options across different parameters, highlighting how they incorporate various success factors, which actors must be involved, and which green bank structures could benefit from them.

Table 3: Three possible options for international support of green bank development

Options	Details	Success Factors	Key actors	Category of Green Bank
Establishing a new green bank design initiative Establishing a green bank accelerator, informed by the experiences of experts in the market.	This option builds on the success factors in inception and development by proposing capital infusion, building institutional capacity, working with local FIs, and having a clear mandate. To deliver on this, the structure lays out three pillars: Technical assistance, funding assistance, and acting as a learning hub. The unique aspect of this offering is that it will support institutions with initial building blocks, such as a pipeline, partnerships, and an optimum capital structure, as defined. The accelerator is proposed to be able to provide funding of, say, USD 550k per feasibility and seed capital of USD 5 million. The supporting aspect would be the community of practice, which will be helpful in product structuring and building on partnerships.	▪ Mandate ▪ Capitalization ▪ Alignment with government policy and strategy ▪ Partnership ▪ Institutional Capacity ▪ Effective Product Structuring ▪ Expansion beyond debt ▪ Risk sharing ▪ Inclusion of co-benefits ▪ Reaching neglected sectors	▪ Policymakers should ensure that the required legislation is in place ▪ Regulators ▪ Financiers (Grant makers, equity and debt providers) ▪ Local FIs, including other PDBs and other commercial institutions, will act as partners ▪ CSOs who are part of the community of practice	▪ *De Novo* Green Banks ▪ Enhancing existing PDBs ▪ Green Facilities within PDBs ▪ Country Platforms
Expanding an existing support platform For example, the FiCS Innovation Lab, which is already engaged with PDBs on climate issues, could adapt its work to include a dedicated Green Bank pillar.	This solution is aimed primarily at PDBs having a green window or creating green PDBs. This will build on the learnings from supporting FiCS Lab proponents and provide technical assistance. In line with the goals of FiCS to further connect with the broader ecosystem of financial institutions, it could be expanded beyond PDBs.	▪ Mandate ▪ Alignment with government policy and strategy ▪ Partnership ▪ Institutional Capacity ▪ Effective Product Structuring ▪ Expansion beyond debt ▪ Risk sharing ▪ Inclusion of co-benefits ▪ Reaching neglected sectors	▪ Finance in Common and FiCS Lab partners ▪ National FIs, including PDBs ▪ Local communities of practice	▪ *De Novo* Green Banks ▪ Enhancing existing PDBs ▪ Green Facilities within PDBs

Options	Details	Success Factors	Key actors	Category of Green Bank
Forming a coalition of existing relevant initiatives Building upon previous efforts to bring green banks together with investors to support their development, such as the Green Bank Design Summit.	This is a light-touch option and builds on the community of practice. The aim is to build on the existing platform and bring relevant stakeholders together in one room. While it does not provide explicit TA, it allows for ideation, knowledge exchange, and partnerships. This has different offerings for different categories - those who want to set up can get access to industry practitioners and funders, where a bank or institution is already set up, this allows for knowledge exchange and support in designing new product offerings.	• Capitalization • Partnership • Institutional Capacity • Effective Product Structuring • Expansion beyond debt	• Financiers • Local FIs • National PDBs, including other green banks	• *De Novo* Green Banks • Enhancing existing PDBs • Green Facilities within PDBs • Country Platforms

A strong community of practice is essential for the success of all three of the above potential solutions, requiring collaboration among the following actors:

- Funders, including local/regional DFIs/MDBs.
- Local FIs, who will be partners in the journey, working in collaboration rather than competition
- Other stakeholders seeking to establish green banks.

Bolstering domestic markets and sourcing local capital is key to mobilizing climate and development action. Green banks have proven effective in leveraging public and private capital for clean energy, other climate technologies, and resilience, and can play a key role in scaling investments further. All the solutions proposed in this report have received positive feedback from various experts. Exploring them further can help determine the best path to supporting the uptake of green finance intermediation in EMDEs, based on the success factors and foundational elements set out in this report.

ANNEX 1: 2024 SURVEY

To inform this report, CPI surveyed a wide range of sustainable finance institutions on their mandates, genesis, constitutions, focus sectors, instruments, challenges, perceived risks, and strategies for the future.

METHODOLOGY

We administered a survey to four categories of institutions/country representatives:

1. Those who already are/have a green bank (9 respondents).
2. Those who are in the process of setting up a green bank (1 respondent).
3. International institutions (9 respondents).
4. Institutions with green windows (13 respondents).

Thirty-two respondents were interviewed across these categories. Questions were tailored to each, broadly covering policy and regulations, design and structure, capitalization, operations, and market, as shown in the table below.

Category	Queries
Policy and regulations	• Enabling policies and regulations that support the institution's setup • Champions and decision-makers in the country/ region
Design and structuring	• Reasons for considering setting up a green bank • Green Bank's alignment with country NDCs • Structure of the green bank (public, quasi-public, private) • Forms of TA that were considered important • Sectors and technologies, other co-benefits focused upon
Capitalization	• Capitalization sources • Percentage of own capital invested • The extent of private co-investment attracted • Leverage ratios
Operations	• Product offerings (type of instrument, tenure, eligibility, purpose, interest rate, collateral requirement) • Types of financial instruments used by green banks • Percentage of exposure to low-carbon technologies • Learnings from operations to date
Market	• Local co-investors in the country/ region • Products having weak uptake and high non-performing asset levels

ANNEX 2: RESPONDENT DETAILS

We engaged with the entities listed in alphabetical order below during our research. The number of institutions may not tally with the response details above, given that this list reflects our survey and all types of engagement, including more than one stakeholder from some institutions and some conversations with experts not affiliated with any single entity.

- African Development Bank
- Asian Infrastructure Investment Bank
- BANDEX
- Banco de Desenvolvimento do Espirito Santo (BANDES)
- Bezos Earth Fund
- Brazilian Development Bank
- Centro Brasileiro de Relacoes Internacionais
- Clean Energy Finance Corporation
- Climate Finance Advisors
- Climate Investment Funds
- Commonwealth Climate Finance Access Hub
- Connecticut Green Bank
- DC Green Bank
- Denham and Grey Ltd
- Development Bank of Minas Gerais
- Development Bank of Namibia
- Development Bank of Nigeria
- Development Bank of Southern Africa
- ESCARUS – TSKB Sürdürülebilirlik Danışmanlığı A.Ş
- Eastern and Southern African Trade and Development BANK (TDB)
- Energy Solutions Provider
- Eurasian Development Bank
- Export Credit Insurance Corporation of South Africa Soc Ltd
- Finance in Common
- Findeter
- French Development Agency
- Group CDG
- Green Climate Fund
- Green Finance Institute
- Inclusive Prosperity Capital
- International Development Finance Club
- International Finance Corporation
- Mekong Strategic Capital
- NDC Partnership
- Nacional Financiera
- National Resources Defense Council
- New York City Energy Efficiency Corporation
- New Zealand Green Investment Finance
- Nordic Investment Bank
- North Carolina Clean Energy Fund
- Pollination
- PT Sarana Multi Infrastruktur
- Rocky Mountain Institute
- Small Industries Development Bank of India
- Solar and Energy Loan Fund, Inc
- Tata Capital Limited
- The Institute for Climate and Society
- UK Export Finance
- UK Foreign, Commonwealth & Development Office
- UK National Wealth Fund
- UN Special Envoy on Financing the 2030 Sustainable Development Agenda
- USAID
- Uganda Development Bank
- West African Development Bank

ANNEX 3: SOGB 2020 REPORT

The *State of Green Banks 2020* report (SOGB 2020), prepared by the Rocky Mountain Institute (RMI), Natural Resources Defense Council (NRDC), and the Green Finance Institute (GFI), presented the first aggregated analysis of existing and emerging green banks around the world, informing on their progress and differentiating their attributes.

This report analyzed data collected through surveys and interviews on 61 institutions across 36 countries. Respondents belonged to three classes of institutions: existing green banks, emerging green banks, and international climate finance providers. They were queried regarding the genesis of their entities, alignment with national priorities, capitalization strategies, typical financial instruments used or aspired to be used, and their existing or target technologies and sectors.

2020 KEY FINDINGS

Geographical location: Given that green bank paradigms were first established in developed economies, the existing green banks surveyed were predominantly located in high—and upper-middle-income countries. Half of the emerging green banks were in lower-middle—and low-income countries. Approximately 35% of emerging institutions expressed interest in establishing green banks, while only 29% had progressed to at least the capital recruitment stage.

Key stakeholders: Respondents identified their respective Ministry of Finance (MoF), central bank, financial regulator, and other key ministries as the decision-makers whose buy-in was needed to establish a green bank. Regarding the most effective entities to become "champions" of green banks, 35% named the green bank itself, 26% the MoF, and 22% the central bank or regulator.

Obstacles to emerging green banks: Around 25% of respondents cited a lack of political will and case-making as barriers to establishing green banks, while 29% mentioned access to finance.

Capitalization: Existing green banks reported relying mostly on government appropriations, while emerging green banks largely aspired to depend on multilateral or bilateral assistance, reflecting the limited financial capacities of EMDE governments.

Sectoral priorities were similar for both existing and emerging green banks, with renewable energy and solar, as well as energy efficiency (across commercial, industrial, and residential applications) being the most common. However, emerging green banks ranked sustainable agriculture, forestry, and land use much higher as (aspirational) focus areas than existing banks. Emerging banks also cited air pollution, job creation, and water quality as major intended co-benefits of their proposed interventions, alongside human and ecosystem health and food security.

Financial instruments: Debt was the predominant financial instrument (aspired to be) used by more than 90% of green banks across both classes (existing and emerging). Other instruments-fund-based (e.g., equity, grants, TA) or non-fund-based (e.g., guarantees)—were less widely used by existing green banks than emerging green banks. This likely reflected the stronger credit profiles of the existing green banks' beneficiaries, primarily in high-income and upper-middle-income countries. Nonetheless, innovative debt-based instruments were also being used in

developed countries. For example, the Connecticut Green Bank had issued Green Liberty Bonds. These first-of-a-kind solar asset-based securities sought to crowdsource retail capital to fund rooftop solar projects with small ticket sizes.

Needs of emerging green banks: Respondents indicated a need for TA across the stages of market assessment, capital recruitment (securing capitalization and designing performance metrics, as well as a monitoring and evaluation [M&E] framework), and start-up and launch (developing products and instruments).

International climate finance providers, including climate investment funds, multilateral development banks (MDBs), and bilateral development finance institutions, shared their perspectives on the role of green banks in the international climate finance ecosystem. These respondents cited ready project pipelines and local investment partners as necessary to leverage their roles in attracting more private capital. MDB stakeholders described their diverse support for green bank development, including early-stage scoping, TA, guidance on green bond issuance, climate strategy development, and assistance in helping green banks become accredited entities of climate funds.

The SOGB 2020 surveys were conducted amid the COVID-19 pandemic, during which MDB stakeholders reported that funds had been diverted from climate finance to the pandemic response. However, the pandemic also spurred institutions like the GCF to accelerate investments with substantial socioeconomic and readiness components, helping policymakers design climate-aligned recoveries.

ANNEX 4: CASE STUDIES

4.1 GCF-FUNDED GREEN BANKS

The Green Climate Fund (GCF), established in 2010, is the world's largest climate fund, mandated to support developing countries in meeting their Nationally Determined Contributions (NDCs). To scale its operations, the GCF formed the Private Sector Facility, which funds and mobilizes private sector actors to support climate change mitigation and adaptation in developing countries. The facility capitalizes and supports institutions serving these aims, including green banks. GCF-supported green banks include the Development Bank of Southern Africa's Climate Finance Facility, Barbados Blue Green Bank, the Cambodian Climate Finance Facility, and the Mongolian Green Climate Corporation, with these entities falling under two categories:

Standalone green banks	Barbados Blue Green Bank Mongolia Green Finance Corporation
Green facilities	Cambodian Climate Finance Facility (Agriculture and Rural Development Bank), Climate Finance Facility (DBSA)

4.1.1 BARBADOS BLUE GREEN BANK

The Barbados Blue Green Bank (BGB) was incorporated in 2024 as a standalone green bank.

BARBADOS	
Constitution	A quasi-public bank governed by up to 11 directors appointed by its shareholders.
Sponsors/owners	Green Climate Fund, USAID, Pegasus Capital Advisors
Year of incorporation	2024
Legal mandate	Established by the Barbados Blue Green Bank Act (2024) by the Barbados Parliament
Operating/investment mandate	Green Bank focused on wholesale lending to stimulate growth in securities and loans markets in the Caribbean, eventually unlocking funds to back green, resilient projects.
Capitalization	The bank anticipates receiving USD 30.5 million in capitalization funding, comprising an equity commitment of USD 15.5 million from the GCF and an additional USD 15 million in equity jointly provided by the Government of Barbados and USAID[12].
Distribution of funding sources	50.8% GCF, 49.2% Co-financing (Government of Barbados, USAID - EDGE Fund, Philanthropy/high-net-worth individuals)
Focus sectors/themes	Energy generation and access; health, food, and water security; infrastructure and built environment
Major products	Wholesale lending
Anticipated impacts	It will directly reduce 16.7 million tonnes of CO_2 over its lifetime while indirectly benefiting 80% of Barbados' population.

Barbados, a small island developing state in the Caribbean, has ambitious climate mitigation commitments and urgent adaptation needs that are difficult to implement due to the country's financing landscape. The Government of Barbados lacks access to adequate and affordable debt for climate projects. The private sector has not stepped in to fill the gap, as few banks are in the country. Nearly all are subsidiaries of foreign banks with a low risk tolerance and limited experience in climate finance, especially in the Caribbean.

The Barbadian government purpose-built the BGB to address these barriers. The bank is designed to stimulate innovation in the local financial sector, mobilizing the securities and loan markets to unlock project funding and pursue national resilience and emission reduction targets.

In 2023, the GCF approved USD 15.5 million in capitalization funding for Pegasus Capital Advisors, a GCF Accredited Entity, on behalf of Barbados. Legislative approval followed with the passage of the Barbados Blue Green Bank Act in 2024.

12 At the time of publication, the USAID funding commitment was uncertain.

KEY DESIGN FEATURES

The bank's shareholder structure maximizes the benefits of the private-public partnership model, with the Government of Barbados holding non-majority equity among local FIs and investors.

The BGB is designed as a standalone entity with a mandate to mobilize finance for climate projects by securitizing investments and strengthening local capital markets. It is also mandated to crowd in private capital, encouraging additional investment in green projects without competing with local banks. It will operate as a wholesale bank, structuring and trading financial products while providing debt financing to intermediaries to finance climate-responsive initiatives.

GOVERNANCE

The BGB has multiple levels of governance. Its shareholders—representatives of GCF, the Government of Barbados, and other local investors—will appoint a board of up to 11 directors, with a balance of executive, non-executive, and independent directors charged with overseeing bank operations and advising as experts on finance, loan issuance, governance, renewable markets, and other topics. The board will nominate the executive management team and the CEO to monitor the bank's day-to-day operations.

The bank's governance structure will also include several board and management sub-committees, including:

- **Investment Committee:** Composed of senior members of the board; they will assess pipeline investment and make final decisions on all investments.
- **Audit Committee:** Composed of all non-executive board directors; they will oversee financial reporting, disclosures, audits, and other regulatory requirements.
- **Risk Committee**: They will advise the board on current and future risk tolerance.

As the Accredited Entity, Pegasus will play a key role in bank operations, monitoring implementation over the 15-year program period. In this role, it will ensure that BGB complies with GCF terms, track BGB investment performance, report to GCF on progress, and oversee the GCF's equity investment in BGB.

OPERATIONS

BGB operations will be wholesale in nature, with the bank acting as a partner to local FIs and market maker for climate finance opportunities. The bank will provide support through funds, guarantees, and other mechanisms while using intermediaries to redeploy dollars into climate initiatives.

The BGB will direct this financing into existing government programs to channel dollars into projects that include rooftop PV, resilient green buildings, and water conservation projects. The bank will initially focus on three government programs: HOPE, SHIFT, and BWA, which have pre-built pipelines but have lacked financing.

HOPE Programme	A Barbados state-owned enterprise established in 2020 to provide hurricane-resilient houses for lower-income markets.
SHIFT (Small Home Income Generating Facility Trust)	Still in the conceptual stage, this government initiative aims to support homeowners investing in climate resilience and renewable energy. SHIFT will address a core constraint on rooftop PV—the hurricane resilience of roofs.
BWA (Barbados Water Authority)	The government anticipates that the BGB will participate in BWA's efforts to establish water foundations by identifying innovative financing options.

INSIGHTS

Governance and independence: Both independent and government representatives will be BGB shareholders and board members, thereby limiting exposure to changing political priorities while creating flexibility to respond to market signals. At the same time, local investors will also be included to increase buy-in from local financial markets, preventing them from viewing the bank as a competitor and encouraging them to partner on deals.

Responsiveness to local conditions: Establishing a new, local institution enables Barbados to deliver long-term, locally led solutions for climate finance while enhancing the capacity of the country's broader finance sector. The creation of the new institution in partnership with GCF instills confidence in the country, encouraging investments from MDBs

Accredited entity: Barbados has implemented the BGB by leveraging the experience, knowledge, and outside perspective of its GCF Accredited Entity partner, Pegasus Capital Advisors. Pegasus has worked with the GCF on other initiatives (e.g., the Global Fund for Coral Reefs and the Sub-National Fund).

Government pipeline: The BGB's alignment with existing government programs will allow it to deliver on government climate goals while accessing a steady pipeline of projects.

4.1.2 MONGOLIA GREEN FINANCE CORPORATION

Mongolia Green Finance Corporation (MGFC) is a standalone *de novo* green bank that has been operational since 2024.

MONGOLIA	
Constitution	Quasi-public entity governed by a 5-member board composed of shareholder groups and independent directors with oversight by the Ministry of Finance and Ministry of the Environment and Tourism
Sponsors/owners	GCF, Government of Mongolia (GoM), participating financial institutions (PFIs) represented by CGF LLC (banks)
Year of incorporation	2018, operational in
Legal mandate	N/A
Operating/investment mandate	Wholesale lending to PFIs for energy efficiency, low carbon, and affordable housing finance
Capitalization	MGFC received USD 49.7 million in capitalization funding. **GCF: 26.7 million** (USD 20 million loan, USD 2 million grant, and USD 4.7 million equity) **GoM: USD 18 million** (mix of debt and equity) **Local FIs: USD 5 million** (equity).
Distribution of funding sources	GCF, GoM, and PFIs represented by a single shareholder "CGF LLC"
Focus sectors/themes	Buildings, cities, industries, and appliances
Major products	Wholesale lending
Anticipated impacts	Direct reduction of 3.8 million tonnes of carbon emissions, creating over 1,400 jobs while mainstreaming green finance.

Mongolia has ambitious climate mitigation targets, aiming to transition the country away from coal and other sources of CO_2 intensive energy usage. At the same time, the country is vulnerable to climate impacts, with exposure to temperature increases and adverse effects on agriculture and livestock. Mongolia's finance sector has demonstrated interest in investing in climate projects. Still, it faces barriers due to limited public financial incentives and concessional finance, high capital costs stemming from foreign exchange risk, a limited capacity to invest in green projects, and an uncertain macroeconomic environment.

As a solution, the finance sector, represented by the Mongolian Sustainable Finance Association, partnered with the GoM to propose a green financing vehicle during the 2015 Mongolian Sustainable Finance Forum. Following the forum, Mongolia partnered with the Green Growth Institute to develop the concept into the MGFC while scoping market demand and project pipeline for the vehicle. In early 2020, the MGFC applied for GCF funding, with XacBank as the Accredited Entity, which the GCF approved in November 2020.

KEY DESIGN FEATURES

MGFC is designed as a stand-alone entity with the mandate to mobilize private capital and increase access to green finance. It will implement this mandate by offering wholesale financing to PFIs, fostering a favorable policy environment, and building the capacity of PFIs and other local stakeholders.

GOVERNANCE

The MGFC's principal governing body is the shareholders meeting, which includes representatives from GCF (represented by XacBank), local PFIs, and the GoM. Shareholders formulate the organizational mission, oversee matters related to structuring, and nominate the board of directors.

The board comprises three directors representing shareholders and two independent directors with relevant expertise.[13] The board nominates multiple sub-entities to oversee the bank operations, including:

1. The CEO and Executive management teams are responsible for day-to-day management, operations, and decision-making.
2. General auditor responsible for internal financial auditing
3. The advisory committee is composed of representatives from the public, who provide guidance on MGFC policies, identify additional sources of green finance, explore new business ideas, and other items.

As the Accredited Entity, XacBank will play a key role in bank operations, overseeing overall implementation. In this role, XacBank will ensure that MGFC complies with GCF terms, track MGFC investment performance, report to GCF on progress, and oversee the GCF's equity investment in MGFC. Additionally, XacBank will implement the capacity-building component of MGFC's activities.

OPERATIONS

There are two categories of MGFC activities: (1) wholesale lending to PFIs, and (2) green finance capacity building.

Under its wholesale lending activity, MGFC will initiate an open call for projects directed to PFIs. This process will culminate in on-lending agreements with PFIs. Selection will prioritize PFIs that will re-deploy financing in thermal insulation solutions, energy efficiency solutions, and affordable/green housing and offer long-tenor, low-interest-rate financial products. On-lending agreements will have tailored terms specific to a PFI's pipeline.

XacBank will lead capacity-building efforts to enhance the capacity of the government and PFIs, thereby catalyzing green investment. MGFC will advise the local government on green finance standards and provide TA for market assessments, feasibility studies, and energy audits.

13 Currently, the board consists of: The CEOs of XacBank and the Mongolian Bankers Association, Head of Green Development Policy and Planning in the Ministry of the Environment and Tourism, and two independent individuals.

XacBank will pair this work with household stakeholder outreach, focusing on rural communities, women, and other vulnerable populations.

INSIGHTS

Private sector partnership: The financial sector was involved in establishing the MGFC, from conception to implementation. This encourages a responsive design that addresses market gaps while positioning the bank as a complementary player. Furthermore, local FIs are embedded within the MGFC's governance, ensuring the bank's continued alignment with the private sector.

Holistic support: On the operational side, the bank's emphasis on capacity building is important for enabling a sector-wide shift to green financing. The creation of government-led standards, supported by the MGFC, will build market confidence in green assets. At the same time, TA for market support and predevelopment will build demand pipelines for the bank, complementing the bank's capital.

4.1.3 DBSA CLIMATE FINANCE FACILITY

DBSA established CFF in 2018.

SOUTH AFRICA, ESWATINI, LESOTHO, AND NAMIBIA	
Constitution	A ring-fenced facility that sits within DBSA's internal structure. Oversight from the DBSA investment committee and board of directors
Sponsors/owners	Development Bank of Southern Africa
Year of incorporation	2018
Legal mandate	N/A
Operating/investment mandate	To incentivize private investment in low-carbon and climate-resilient infrastructure and catalyze greater overall climate-related investment in the four rand-based economies in the Southern African region.
Capitalization	USD 170.6 million
Distribution of funding sources	DBSA committed USD 55 million in low-cost debt and USD 610,000 in grant funding, which the GCF matched.
Focus sectors/themes	Infrastructure projects and businesses that mitigate or adapt to climate change, including off-grid power, mini-grid solar, urban distributed solar farms, energy, and water efficiency
Major products	Subordinated/first loss debt, tenor extensions
Anticipated impacts	Aims to contribute to eight Sustainable Development Goals, including: Goal 6: Safe Water and Sanitation, 7: Affordable and Clean Energy, 8: Decent Work and Economic Growth, 9: Industry Innovation and Infrastructure, and 13: Climate Action. In line with these objectives, the CFF anticipates that its investments will prevent 26.5 million tonnes of CO_2 emissions, help install over 300 MW of energy capacity, increase water access for over 400,000 people, and create over 22,000 jobs.

Countries in the Southern African region face challenges related to climate change; millions lack access to clean water, while economies' high reliance on agriculture increases vulnerability to climate-related shocks. At the same time, efforts to decarbonize and meet NDCs while addressing growing electricity demand are slow-going; in best-case scenarios, only 42% (18 GW) of the required new generation in South Africa will be provided by renewables. Investments to address these needs are hindered by the high costs of capital, which are driven by the private sector's unfamiliarity with and perceived risks associated with climate tech.

The DBSA began developing climate finance operations to address these barriers when, in 2017, it connected with the Coalition for Green Capital, a green bank design and advocacy organization. These organizations jointly explored applying the green bank model to the Southern Africa region, with their efforts bolstered by grant funding from Convergence and ClimateWorks Foundation. With the funding, CGC and DBSA designed the CFF, a ring-fenced green facility inside the DBSA. The bank's application for USD 56 million in GCF funding was approved in October 2018, making it the first green bank to be awarded GCF support.

KEY DESIGN FEATURES

The CFF directly invests, alongside commercial banks, in climate projects. The facility primarily uses two credit enhancement instruments: (1) subordinated debt and (2) tenor extensions. To ensure that projects are additional and aligned with CFF's climate goals, the facility has five investment criteria:

Transactions contribute to:

1. Low-carbon infrastructure, climate-related goals, and/or expansion of clean drinking water supplies and priorities.
2. Market transformation through scale, improved private sector participation, confidence in clean energy investments, or other aspects.
3. Technically and economically feasible, but unable to secure commercial financing where there is market interest, but has failed to secure financing due to gaps/barriers.
4. Demonstrate leverage and the ability to crowd in commercial investment. Each rand invested by the CFF must be matched by 3-5 rand over time.

GOVERNANCE

The CFF is a self-sustaining entity, with revenue generation covering the cost of dedicated operating expenses and commitments from funders. However, the DBSA still oversees operations and investments: the CFF sits under the DBSA's Structured Product Unit (SPU) as a distinct entity, with the SPU charged with reviewing and assessing all CFF projects.

The DBSA plans to establish a project steering and advisory committee comprising DBSA representatives and investors to provide additional oversight of CFF operations and investments. The DBSA Investment Committee, which oversees all DBSA investment criteria, will have final approval for financing projects.

OPERATIONS

The CFF uses subordinated debt and credit enhancements to finance climate projects. It leverages these instruments to finance off-grid and microgrid projects, industrial and commercial solar projects for self-generation, industrial and commercial water projects, and energy efficiency improvements.

The CFF develops project pipelines through multiple channels, including requests for proposals, marketing, and outreach to developers, commercial banks, and municipalities. It identifies companies and projects eligible for CFF funding, connects them to other DBSA initiatives, and facilitates referrals to development finance institutions.

INSIGHTS

Existing institution: While there are benefits of establishing a green facility within an existing institution, such as avoiding time-consuming regulatory adherence and accessing pre-built pipelines, there are also potential tensions and risks. For example, the CFF may face internal competition for specialists and limited capacity to finance climate projects as the bank strives

to meet its development mandates. The DBSA balances some of these tensions by making it an explicit goal to "green" the entire organization; the CFF, whose facility is ~15% of DBSA's yearly lending activity, is a key pillar of this effort.

Changing political environments: As DBSA is a government entity, the CFF is vulnerable to shifting political priorities, which may put it at risk of de-prioritization or dissolution.

4.1.4 CAMBODIA CLIMATE FINANCE FACILITY

The Cambodia Climate Finance Facility (CCFF) was incorporated in 2024 and is part of the country's Agriculture and Rural Development Bank (ARDB).

CAMBODIA	
Constitution	A ring-fenced facility that sits within the ARDB.
Sponsors/owners	Agriculture and Rural Development Bank, Mekong Strategic Capital, Korean Development Bank, Cambodian Ministry of Economy and Finance
Year of incorporation	2024
Legal mandate	N/A
Operating/investment mandate	Mobilize climate finance for the local financial sector by incentivizing local FIs (LFIs) to increase their lending to green projects, promoting a systemic shift towards green lending in Cambodia.
Capitalization	USD109 million
Distribution of funding sources	GCF: USD 50 million in concessional finance, USD 5 million in grant funding. Co-financing from ARDB, Korean Development Bank, and other entities: USD 54 million (debt and in-kind investments)
Sectors or themes in focus	Renewable energy, energy efficiency, sustainable agriculture and forestry, water infrastructure, and low-emission transportation technologies.
Major products	Term loans, revolving credit facilities (direct), concessional, long-term loans, and wholesale lending to LFIs
Expected impacts	Reduce 11.1 million tonnes of CO_2 emissions and create 1.3 million direct and indirect beneficiaries, improving their adaptive capacity to climate change.

Cambodia is highly climate-vulnerable, exposed to floods, droughts, windstorms, and seawater intrusion. An economic reliance on agriculture and limited adaptive capacity exacerbate this vulnerability. At the same time, Cambodia has an ambitious NDC, with commitments to reduce emissions by increasing solar and wind to 25% of the total energy mix. Per the NDC, meeting these commitments requires approximately USD 5.8 billion, with an additional USD 2 billion needed for adaptation needs. The Royal Cambodian Government (RCG) is constrained in its climate response by limited budgetary resources and rigid policy frameworks. Private finance has not filled these gaps due to barriers, including perceived risks related to climate projects, lack of experience in project structuring, and high capital costs.

The RCG initiated the development of the CCFF as a financing vehicle to address market challenges and support the implementation of Cambodia's climate goals, looking to leverage the state-owned ARDB.

As the concept evolved, a coalition of stakeholders formed to support Cambodia in applying for GCF funding, including the Korean Development Bank (KDB) as GCF Accredited Entity and Mekong Strategic Capital (MSC) as the Executing Entity. In March 2024, the GCF approved the application, awarding USD 55 million (USD 50 million in concessional finance and USD 5 million in grant funding).

KEY DESIGN FEATURES

The initial investments in the CCFF (shown in the highlights table above) will be disbursed in two phases and across two facilities—a USD 100 million lending facility and a USD 9 million TA facility that will fund national and institutional financing capacity-building activities.

In the lending facility, the KDB will channel capitalization dollars from the GCF through the Cambodian Ministry of the Economy and Finance (MEF) and ultimately to the ARDB. The ARDB will then establish a ring-fenced account, jointly managed by MSC, the MEF, and the ARDB. MSC will also fully manage the TA facility.

These two sub-facilities are complementary. The TA facility will serve as an on-ramp for LFIs and businesses unfamiliar with climate finance, connecting them to the lending facility, which will offer long-term, flexible debt products tailored to the specific needs of these Cambodian-based entities.

GOVERNANCE

The TA and lending facilities have distinct governance structures. The lending facility's comprises two entities: (1) an oversight committee with representatives from KDB (on behalf of the GCF), the Ministry of Economy and Finance, ARDB, and other co-financiers, and (2) a Green Credit Committee (GCC) made up of representatives from MSC, ARDB, and KDB. The GCC will approve all loans by unanimous vote; GCC decisions will be reported to the oversight committee and subsequently to the GCF.

The TA facility has its own committee, composed of representatives from MSC and KDB. A technical advisory panel with representatives from the RCG, the private sector, and civil society will advise the program and liaise with the GCF on policy and capacity-building. As capacity grows, the ARDB will progressively assume sole management of CCFF.

OPERATIONS

The CCFF will offer wholesale lending to banks and direct lending to Cambodian businesses. Wholesale deals will be structured as concessional, long–term loans, incentivizing LFIs to scale green lending and investments in climate projects. These loans will range in size from USD 2 million to USD 15 million. Additionally, the CCFF team will collaborate closely with LFIs to develop environmentally friendly products.

The CCFF's direct lending operations will fill gaps in LFI financing. Direct lending will prioritize complex projects such as early-stage businesses or project finance deals. It will provide term loans and revolving credit facilities ranging from USD 500,000 to USD 10 million for these projects while mobilizing private capital through co-financing. Both types of lending will encourage investment in renewable energy, energy efficiency, sustainable agriculture and forestry, water Infrastructure, and low-emissions transportation.

MSC will manage the TA Facility, working with policymakers, borrowers, and LFIs to create an enabling environment for green transition. It will support the creation and evolution of climate finance policy frameworks and incentives to spur funding. To target borrowers, MSC will decrease development costs by funding feasibility studies for early-stage projects. Finally, MSC

will work with LFIs to (1) create a knowledge-sharing platform on climate finance, risks, etc., and (2) provide assistance to borrowers, building their capacity to manage high-impact projects.

INSIGHTS

Holistic support: The CCFF's activities—TA and financing—will enable a systemic shift towards green finance. Government incentives, supported by the CCFF, will complement CCFF financing, encouraging further (co)investment by LFIs. At the same time, TA for market support and pre-development will build demand pipelines for the bank, further enabling the bank's capital penetration in projects. Ultimately, the bank's knowledge-sharing platforms will foster peer learning, cultivating a community of LFIs capable of delivering green finance.

Direct and wholesale lending: By offering direct and wholesale lending, the bank creates on-ramps for LFIs to enter into increasingly complex climate finance deals. The CCFF will provide wholesale financing for banks to develop and implement their own financing projects. As they gain experience, these banks can enter complex deals as co-financiers to the CCFF, gaining further experience with green project finance structures.

4.2 GREENHOUSE GAS REDUCTION FUND

While not a green bank, the US Greenhouse Gas Reduction Fund (GGRF) is profiled below as an important vehicle for capitalizing green banks. As of March 2025, the GGRF had paused its disbursement of funds amid an investigation by the US Department of Justice and Federal Bureau of Investigation under the current Trump administration.[14] Despite these challenges, the GGRF's origins, design, and, indeed, current status can yield lessons for countries seeking to establish similar green funds and banks.

UNITED STATES	
Constitution	Grantmaking fund for capitalizing green banks; split into three thematic funds
Sponsors/owners	United States Environmental Protection Agency (EPA)
Year of Incorporation	2023
Legal mandate	Set up under the Inflation Reduction Act, 2022
Operating/investment mandate	Financial and technical assistance, market-enabling
Capitalization	USD 27 billion
Funding sources	100% capitalized by the US EPA
Sector/thematic focus	Building decarbonization, solar, net zero transportation, low-income and disadvantaged communities
Major products	Debt, equity, hybrids, credit enhancements, grants, etc.

ORIGINS

US civil society and congressional champions advocated for the establishment of a national green bank as part of the first attempt at major national climate legislation, the Clean Energy Jobs and American Power Act of 2009. After this failed to pass, the focus shifted to creating state-level entities. From 2009 to 2021, over 20 state and municipal green banks were established, including Connecticut, New York, Rhode Island, California, and Hawaii.

Advocacy for a national green bank continued, with bills in the US Senate and House in 2016 and 2019. These efforts re-emerged during negotiations over the Build Back Better Act spending package following COVID-19. By this time, the concept of a national US green bank had evolved from a congressionally chartered and capitalized institution providing direct finance for clean energy to an independent non-profit financing decarbonization through existing state and local green banks. Proponents sought to leverage these entities' local expertise and networks, noting that a non-profit might offer insulation from mercurial politics.

A critical innovation was to include non-profit FIs—community development financial institutions (CDFIs)—alongside green banks as intended beneficiaries. With over 1,400 CFDIs nationwide, compared to fewer than 30 mature green banks, this expanded political support and integrated broader economic development as a goal. While the Build Back Better Act failed to pass, the subsequent Inflation Reduction Act of 2021 (IRA) contained provisions to establish a national green bank program via a "Greenhouse Gas Reduction Fund."

14 For further information see: EPA Formally Refers Financial Mismanagement of $20B "Gold Bars" to Inspector General | US EPA

The GGRF emerged as a USD 27 billion grantmaking program charged with funding national, state, and local green banks, as well as community lenders, to invest in clean energy and other green technology across the country.

The IRA tasked the EPA with designing the GGRF and awarding its grants. Following a year-long, iterative design process that included extensive stakeholder feedback, the EPA began selecting awardees for GGRF grants in 2023 and announced them in April 2024.

KEY DESIGN FEATURES

The GGRF has three programs:

- **The National Clean Investment Fund** (NCIF; USD 14 billion) aims to leverage an existing network of sophisticated green lenders to deploy finance for projects.
- **The Clean Communities Investment Accelerator** (CCIA; USD 6 billion) aims to strengthen the capacity of community lenders to provide green financing solutions to low-income and disadvantaged communities.
- **Solar for All** (USD 7 billion) aims to establish or expand low-income solar programs, making affordable solar energy available in every US state.

These are designed to collectively achieve three overarching objectives specified in the IRA to (1) reduce GHG emissions, (2) deliver benefits to low-income and disadvantaged communities, and (3) mobilize financing and private capital**.**

Leveraging Community Lenders

As noted, the GGRF targets two key categories of lenders providing mission-driven finance to local communities:

- **CDFIs** provide financial services ranging from banking to venture capital for low-income communities.
- **Green banks** focus on deploying climate finance while catalyzing private investment.

In recent years, these entities have overlapped in their mandates and scopes, with CDFIs providing climate finance and green banks targeting low-income communities. The GGRF will leverage the networks of these lenders, providing subawards for TA, market building, and capitalization to accelerate their joint capacity to finance green-inclusive projects.

Qualified Projects

The GGRF prioritizes three categories of technology for investment:

- **Distributed energy generation and storage:** Generation/storage of zero-emissions power near the point of use instead of in centralized plants.
- **Net-zero emissions buildings:** Retrofitting of existing buildings to reduce or eliminate GHG emissions and other air pollutants.

- **Zero-emissions transportation:** Support for zero-emissions transportation.

CCIA and NCIF projects must also qualify under the following six criteria:

- Reduces GHG emissions.
- Reduces or avoids emissions of other air pollutants.
- Delivers additional benefits.
- Is additional, or would not have happened without GGRF financing.
- Mobilizes private capital.
- Supports commercial technologies.

Leveraging and Recycling Capital

The GGRF requires awardees to leverage private capital and recycle funds for further investment. It does so by qualifying financial assistance under the NCIF and CCIA as income-generating products (e.g., debt, equity, and hybrids) and requiring awardees to retain and reinvest program income into additional green projects for up to seven years.

This recycling requirement supports program sustainability and, coupled with private capital requirements, increases the total program value in the long term. At the same time, the EPA does not mandate a blanket leverage ratio or recycling rate, allowing awardees to deploy products accessible to low-income communities, such as highly concessional loans.

Targeting Disinvested Communities

GGRF awardees are to direct at least 40% and up to 100% of investments to low-income and disadvantaged communities. This aims to help these communities realize co-benefits relating to public health, wealth, and job creation, and decreased energy burdens. To meet GGRF requirements for robust community engagement plans, awardees have expanded or created infrastructure for dialoguing with local communities.

GOVERNANCE

The EPA has designed the program, managed its grant competition, and selected awardees for the USD 27 billion in funds. The EPA also monitors progress and ensures awardees are meeting its requirements. GGRF awardees will operate independently from the EPA in administering subgrants and financial assistance to projects.

To support responsible implementation and oversight, GGRF awardees must report to the EPA under two categories:

- **Program performance:** Reporting annually on activities, climate and air pollution benefits, equity and community benefits, and market transformations.
- **Administrative reporting:** Audited financials and compliance documents.

OPERATIONS

National Clean Investment Fund

The NCIF is designed to leverage an existing network of sophisticated green lenders to deploy project finance. It awards grant funding to national nonprofit FIs that effectively act as green banks. These entities both directly lend to projects and provide funding to community lenders who deliver the financing to local green projects.

The EPA selected three NCIF awardees: Climate United (USD 6.97 billion), Coalition for Green Capital (USD 5 billion), and Power Forward Communities (USD 2 billion). Awardees already have transactions underway in transportation and renewable energy. However, at the time of publication, these entities were engaged in litigation with the US government and its fiscal agent regarding access to funding, and the status of announced planned investments was unknown. These recipients and first-degree sub-recipients can use funds for the following areas:

Eligible Use of Funds	Description of activities	Example uses
Financial assistance	Debt, equity, hybrids credit enhancement.	Loans, partly forgivable loans, forgivable loans, soft loans, subordinate debt, private equity investments, equity project finance investments, mezzanine debt, preferred equity, loan guarantees, loan loss reserves, etc.
Pre-development	Activities that support the likelihood that an NCIF awardee finances a qualified project.	Site and building assessments, financial and technological feasibility studies, design and engineering support, and permitting support.
Market-building activities	Activities that build the market for financeable qualified projects (e.g., building demand or creating more supportive financial markets).	Marketing, contractor engagement, community outreach, workforce development, standardization of documentation, and development of new financial products.
Program administration activities	Activities supporting the administration of the grant program.	Underwriting financial transactions, establishing advisory councils, reporting activities, supporting and auditing subrecipients, contractors, and program beneficiaries.

Clean Communities Investment Accelerator

The CCIA aims to strengthen community lenders' capacity to provide green finance to low-income and disadvantaged communities by providing grants to five national nonprofit hubs, which will deploy these resources to lenders through training, TA, and capitalization finance. These nonprofits are required to award at least 80% of funds to community lenders for capitalization funding and at least 90% for both capitalization and TA subawards. All benefits of this program must flow to low-income and disadvantaged communities.

The five CCIA awardees are Opportunity Finance Network (USD 2.29 billion), Inclusiv (USD 1.87 billion), Justice Climate Fund (USD 940 million), Appalachian Communities Capital (USD 500 million), and the Native CDFI Network (USD 400 million). These community lenders will redeploy the funds as financial assistance into CCIA-eligible projects. The EPA envisioned this program as feeding into the NCIF; community lenders who demonstrate readiness to provide green finance can plug into an NCIF network for additional financing.

Eligible use of funds	Description of activities	Example uses
Financial assistance (for community lenders)	Debt, equity, hybrids, credit enhancement.	Loans, partly forgivable loans, forgivable loans, soft loans, subordinate debt, private equity investments, equity project finance investments, mezzanine debt, preferred equity, loan guarantees, loan loss reserves, etc.
Capitalization grants*	Funding to community lenders for the sole purpose of providing financial assistance to CCIA-eligible projects.	Can be in the form of subgrants or subsidies.
TA subawards*	Services that build the capacity of community lender.	Training and staff, market analysis and support, pre-development, and financial market-building activities
Program administration activities	Activities supporting the administration of the grant program.	Managing processes to distribute funding, advisory council coordination, monitoring and reporting, audits

**Capped at USD 10 million.*

Solar for All

Solar for All aims to expand or create low-income solar programs across the United States, targeting state, tribal, and municipal-level public entities. Of the 60 Solar for All awardees, over half were public government entities, including state environmental agencies, energy offices, budget offices, and green banks. Awardees are required to deploy at least 75% of funds as financial assistance, including subgrants, rebates, subsidies, and incentive payments. The remainder can be used for project-deployment TA and program administration.

EXPECTED IMPACT

Collectively, the NCIF and CCIA are anticipated to fund projects that reduce or avoid GHG emissions by up to 40 million metric tons of CO_2 equivalent per year, provide USD 14 billion in finance to low-income and disadvantaged communities, and mobilize seven times the amount in private capital.

Solar for All is anticipated to enable over 900,000 households in low-income and disadvantaged communities to deploy and benefit from distributed solar energy, generate over USD 350 million in annual savings on electric bills, and reduce 30 million metric tons of CO_2 equivalent cumulatively while improving grid reliability and climate resilience.

KEY INSIGHTS

Notwithstanding current challenges sparked by the change in the US government, the GGRF's design and establishment offer several lessons for the development of green banks globally.

First, the structure of green banks is as much a product of the specific political realities in a jurisdiction as of technical design. Advocates and policymakers seeking to establish green banks must consider the political context in which they operate. In one scenario, a political party may be interested in establishing a new institution as a flagship legislative accomplishment despite the presence of other entities. In another, an existing institution may be able to adopt a climate mandate and shift its financing operations without requiring enabling legislation. Each green bank effort will reflect the political context in which it is undertaken.

Second, green bank development can and should, where possible, leverage existing public and mission-driven financial infrastructure. A key feature of the GGRF is that it creates three national green banks through the NCIF program and five green bank accelerators through the CCIA program. This approach enables the immediate financing of shovel-ready projects and in the medium to long term also increases green financing capacity at the local level. Achieving this requires funding for both capacity building and TA to enable existing institutions to retool, as well as funding for capitalization. In the case of the GGRF, the US government used grants to capitalize green bank financing operations, and it may be important for green banks to receive grants or equity and not solely rely on debt financing for them to play their market catalytic role.

Finally, the GGRF helps demonstrate that green banks can be a tool for accelerating both public and private investment in the low-carbon economy while making it more inclusive than the high-carbon economy it replaces. Many jurisdictions will face challenges in both catalyzing the clean energy economy and making their economies more equitable. By directing public and catalyzing private clean energy financing to disadvantaged communities, green banks can serve multiple public interest goals.

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