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Climate finance commitments aren't enough

We need new tools to unlock investment

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Introduction

HE HEADLINES FROM November's United Nation's Climate Change Conference (COP 26) in Glasgow, UK, have long since gone to press, all with familiar themes: national–level commitments, emissions reduction pathways, and the required funding to achieve climate goals. While financial commitments and the existence of viable projects and technologies are key constraints, structural challenges–within global funds, governments, and financial institutions–also demand urgent attention. To make progress against climate targets, climate commitments and project pipelines should be paired with structural solutions for organizations, financial tools, and local disbursement.

Despite both increasing supply and demand for climate finance globally, a vexing challenge exists: Climate finance isn't being disbursed fast enough to protect society's future. Between now and 2050, governments worldwide, and the private sector, are expected to need US\$131 trillion in investments for energy transition.¹ In 2019, global climate finance flows were estimated to be roughly US\$622 billion.² What's more, climate funds, such as the World Bank's Climate Investment Funds, are disbursing funds for adaptation and mitigation at rates as low as 19% and 12%, respectively.³ Meanwhile, greenhouse gas (GHG) emissions are projected to rebound and grow by 5% in 2021, marking the largest increase since 2009.⁴ To combat the worst impacts of climate change and limit global warming in this century, the international community should not only scale up commitments to climate finance, but also identify and apply strategies for accelerating disbursement.

The culprit of this stagnation is largely a combination of too few viable, scalable projects and too many structural issues underpinning the rapid disbursement of funds. Governments, donors, and financial institutions around the world need clear strategies for accelerating the flow of capital to projects that seek to mitigate, adapt, and strengthen global resilience to climate change.



Structural challenges to climate finance disbursement

HREE SYSTEMIC CHALLENGES are slowing down the flow of climate capital: organizational siloes and competing mandates, limitations of available financial instruments and risk paradigms, and weak local disbursement capacity.

Organizational siloes and competing mandates

Government agencies and development finance institutions (DFIs) were initially designed for a suite of objectives that did not include combatting climate change. Yet these entities are essential in the funding of climate projects and disbursing of climate dollars. What this means for climate finance is that longer-standing departments, like health care or education, may be resistant to incorporating climate priorities. When these departments become concerned that an increased focus on climate will result in decreased focus on other, preexisting priorities, it can stymie the flow of climate finance. In least developed countries, this could be particularly problematic given the deep interdependencies between economic development priorities.5

In addition, countries are inconsistent, not only in how best to organize institutions for climate finance, but also how much to prioritize it. Climate finance relies on these implementing agencies, but they weren't designed for the climate challenge, and, as structured, could hinder the flow of capital to urgently needed projects.

Limitations of financial instruments and risk paradigms

There can be a lack of alignment between committed capital, risk ratios, existing financial products, and the risk profiles of both climate adaptation and mitigation projects. When it comes to aligning sources and uses of funding, there is no variable more influential than risk. The risk-related challenges that can impede the flow of climate finance are marked by a distinct divergence when it comes to adaptation versus mitigation projects. For climate adaptation projects, the risk of climate degradation to infrastructure (while increasingly near-term) is often too long-term for many conventional investors to accurately calculate. For climate mitigation projects, risk can be too high in the short term. Project developers and technologies can lack the demonstration or track record required to derisk and be considered by conventional investors.

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For both climate mitigation and adaptation projects, the timelines of investors with different risk appetites may be inconsistent. In addition, applying for finance from DFIs and international climate funds can be extremely time- and resource-intensive; so much so that some projects choose to forgo this capital in favor of faster moving private investment. Finally, there are frequent disconnects on funding cycles, development objectives, and tied aid. These may not align with other donors in the same country or region and can reduce the effectiveness of financial collaboration. Today's climate challenge demands a new set of financial instruments and structures to align capital sources and accelerate disbursement.

Developing market and financial institution capacity

Finally, there are limitations to deploying climate capital in areas that most urgently need climate adaptation, like low- and middle-income countries with lower-capacity financial institutions. Where local financial institutions are investing in climate mitigation projects, project risk may not align with available capital, and projects can be perceived as higher risk than they are. This is largely due to a lack of familiarity with nonrecourse lending, a mismatch between bank borrowing terms and project requirements, and a need for capacity development in risk and payback calculations. Furthermore, the planned pipeline of projects may be of lower quality, often more distributed, and lacking in some of the essential components for project financing. Such components include strong regulatory and contracting environments as well as credible contracted cashflows. For climate

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adaptation, there can be a mismatch between inadequately short maturities of financing available from local financing institutions and the long-term nature of the required investments. Low- and middle-income countries' financial systems, (further limited by economic volatility, foreign exchange fluctuations, and higher costs of capital) need strong, innovative, and indigenous institutions to bring critical climate projects to fruition.

Solutions and strategies

•HE FOLLOWING SOLUTIONS address the challenges in each of the categories above.

Organizational design and governance

To fast-track climate funding, governments around the world should consider a whole-of-government, integrated approach to climate finance. The United Nations' National Adaptation Planning framework is driving climate action and systemic, inclusive, and sustainable structures for financing climate change adaptation. Governments and institutions globally must go deeper and adopt national strategies that clearly outline the roles of all agencies in fighting climate change. As Sam Ricketts stated at the outset of the Biden Administration: "Every agency is a climate agency now." The US government has shown a commitment to its pledge by outlining the integrated climate priorities of eight different US government agencies.

Green budgeting, which aligns national expenditure and revenue processes with climate and environmental goals, can be a critical tool for integrating climate across government entities around the world.⁶ For *green budgeting* to be successful, however, what countries classify as "green" should be robust, transparent, and consistent with established international standards. International agencies, therefore, have a duty to lead the standardization and validation of greenbudgeting frameworks to catalyze greater impact. In taking this whole-of-government, systems-based approach, governments and international organizations can mainstream climate finance, integrating climate mandates, incentives, and frameworks. Specific strategies for stakeholders to consider include:

- For government administrators: Develop and implement whole-of-government approaches to climate finance, specifically incentivizing collaboration between agencies and departments, increasing the efficiency of climate finance, and accelerating disbursement. For example, in response to the unprecedented needs generated by the global COVID-19 pandemic, many countries developed national response committees which facilitated evidence-based decision-making across multiple government entities while considering the social and economic impacts of planned responses.⁷
- For policymakers: Integrate climate priorities and measures into the Public Financial Management (PFM) framework to increase accountability for environmental commitments. In Indonesia, the government implemented requirements for budgetary policy proposals to include an assessment of green impacts. It's also assigning a "green economy" weight to proposals, providing an indicator of a proposal's green expenditures as a proportion of the total budget. As a direct result of these steps, the Indonesian government mobilized US\$3.9 billion for funding renewable energy, energy efficiency, sustainable transport, waste management, and other climate change projects-contributing to reducing or avoiding up to 10.3 million tons of carbon dioxide (CO2) emissions.8
- For funders and international agencies: Design and implement international standards and frameworks for *green budgeting* to keep governments accountable and prevent "green washing," or superficially labeling activities

"green" when they don't have a significant climate or environmental impact. Additionally, support the integration of climate priorities and impact across funding pools.

Financial instruments and risk paradigms

To overcome the limitations of the current suite of financial tools and risks paradigms, stewards of climate finance must evolve the available tools and expand the aperture for considering and managing project risk.

For climate adaptation projects, international entities should agree to consistent frameworks for calculating the cost of longer-term climate impacts. In addition, financial institutions can design and employ robust data and analytics platforms that inform financial models for climate projects. DFIs and climate funds can devise financial instruments and terms that tie investment for large-scale infrastructure projects to climate adaptation. To address climate adaptation at scale, it is important to shift this paradigm from investing in individual resilience projects, like sea walls, to investing in resilient infrastructure. Climate fund administrators should integrate climate change adaptation by identifying the most critical infrastructure projects planned for development and defining and targeting the marginal cost of adaptation. This marginal cost of adaptation should then be matched with other sources of financing, based on the general obligation of financing principles. Crowding in capital to integrate the marginal cost of adaptation is one strategy for driving resilience at scale.

For climate mitigation projects, international development organizations and other convenors should assemble blended investor consortia that align with project risk and timelines. These entities as well as governments can also deploy innovative grant strategies partnering with leading entities in research and development (R&D) to incentivize funding for deep-pipeline solutions. Finally, DFIs can employ innovations in guarantees and the insurance market and establish new financial institutions designed specifically for climate risk (see sidebar).

HOW GREEN BANKS CAN HELP ADDRESS RISK AND TRANSITION MARKETS

Green banks are public, quasi-public, or nonprofit entities established specifically to facilitate private investment into domestic low-carbon, climate-resilient infrastructure in both the US and internationally. They achieve policy goals by having a higher risk appetite. Introducing green-banking functions within national development banks or stand-alone green banks can help to design capital for risks specific to climate mitigation and adaption projects. Governments, international development organizations, and DFIs should champion green banks and green-banking functions to drive innovation in financial products for climate projects. Finally, these institutions can promote radical transparency into green-financing instruments such as green bonds using blockchain or distributed ledger technology (DLT). In April 2021, the Inter-American Development Bank announced the launch of a Green Bond Transparency Program that standardizes green bond requirements and issuance through DLT.⁹

Financial products or services offered by green banks include co-lending, risk mitigation, and credit enhancements (like guarantees, first loss capital, and green bonds). They also include renewable energy incentives (such as tax credits) debt forgiveness for decarbonization, and green, resilient bonds, and fixed-income securities specifically earmarked for funding resilient, climate infrastructure.

FIGURE 1

Climate finance challenges and solutions

Structural mechanisms for unlocking climate finance



Source: Deloitte analysis.

Strategies for designing financial instruments and disrupting risk paradigms to accelerate disbursement of climate investment at scale include:

• For DFIs: Target the marginal cost of adaptation in large-scale infrastructure projects and in cross-sectoral, multiyear investment plans, driving adaptation in resilient infrastructure at scale. Following Hurricane Maria, the Inter-American Development Bank recommended investing US\$35 million in additional costs to underground distribution lines to help to avoid billions of dollars in damages from future storms.¹⁰ The marginal cost of adaptation, which in this case is the incremental cost of undergrounding distribution lines, puts each climate dollar to more efficient use, scaling adaptation financing through ensuring resilience is integrated in large infrastructure projects.

Investors seeking to accelerate disbursement to climate adaptation should target this marginal cost of adaptation in projects such as this.

- For governments, DFIs, and international development organizations: Champion green banks and green-banking functions to drive innovation in financial products for climate projects, such as the syndication of loans and the execution of credit enhancements that assist project developers in crossing the "valley of death," and replicating projects at scale. For example, the European Investment Bank uses a portfolio of innovative green-banking instruments like equity funds and layer-risk funds that target projects that are too small to align with existing lending structures. These funds leverage innovation and act as a catalyst for additional project financing and scalability.11
- For private sector investors: Lead the market to introduce solutions such as blockchain to enable larger-scale investment

and transparency for green bonds. Technology platforms like the Green Bond Transparency Program and Green Assets Wallet are both examples of technology enabling green investment.¹²

Developing market and financial institution capacity

Once organizations are aligned, and financial tools and risk paradigms are fit for purpose, financial institutions in developing markets must be positioned to expedite disbursements. First, governments in low-and middle-income countries should take a systems approach to regulatory reforms centered around the local banking and financial services sector. Market transparency as well as regulatory regimes, including policies, permits, and licensing at every level can impact the ability of financial systems to operate efficiently. Where the cost of capital is higher, technical capacity is required to effectively evaluate project risk. To this end, green banks can serve as transitional institutions for building capacity and financial tools bespoke to climate mitigation and adaptation projects and reduce barriers in specific regions and jurisdictions. Specific strategies to consider for international development organizations and governments in low- and middle-income countries to strengthen the ecosystem for climate finance include:

• For international climate organizations: Support the development and coordination of long-term planning for climate frameworks at national, regional, and local levels. Work with national governments to test the viability of financing options with local regulators. For example, Fiji is working to integrate climate adaptation with long-term national and subnational budget planning to support an economy that's particularly vulnerable to climate change impacts.¹³

- For international funds: Create uniform standards for applying for climate funds that reflect varying abilities and overarching goals of different programs. Employ green-banking mechanisms for establishing local capacity for disbursing climate finance. In Mongolia, for example, the Green Climate Fund (GCF) is implementing the Mongolia Green Finance Corporation (MGFC) to lend through local partner financial institutions for green building and energy efficiency projects.¹⁴
- For international aid organizations: Target technical assistance where climate impact is greatest and capacity for securing climate finance is lowest. Stimulate private sector investment through grants, technical assistance, or other incentives to pilot proof of concept solutions. For example, GCF technical assistance grants enable countries to build knowledge and improve pathways to access climate finance. Incentive programs like payfor-results competitions can lower the risks and stimulate private sector investments in cutting edge technical and business solutions.

As cautioned by the Intergovernmental Panel on Climate Change, global temperatures are expected to exceed 1.5°C in the coming decades. This change is already resulting in extreme weather and climate events in every region on earth. It's no longer a matter of whether to act, but how and how quickly. As with the technical solutions required to reduce emissions and adapt infrastructure, there is no silver bullet for accelerating disbursement of climate finance at scale. The GCF is already seeking to accelerate disbursement of climate finance in the aftermath of COVID-19 by fast-tracking funds for new projects submitted by accredited agencies, resulting in a 32% increase in implemented projects in 2021 thus far.

Reaching long-term success of climate investments by scaling climate finance disbursement solutions means thinking carefully about factors like economic development and affordability. It will require intentional, coordinated efforts across every layer of the landscape. The challenges outlined above are based on constructs and tools of human design. The ability to shape and leverage them to meet this existential threat is well within our ability. We must only muster the will to do so collectively.



Endnotes

- 1. International Renewable Energy Agency (IRENA), World energy transition outlook, March 2021.
- 2. Rob Macquarie et al., *Updated view on the global landscape of climate finance 2019*, Climate Policy Initiative, December 2020.
- 3. Georgia Savvidou and Aaron Atteridge, "Why is it so hard to spend climate finance?," Stockholm Environment Institute, November 2019.
- 4. International Energy Agency, *Global energy review 2021*, April 2021.
- 5. Paul Steele, *Development finance and climate finance: Achieving zero poverty and zero emissions*, International Institute for Environment and Development, April 2015.
- 6. OECD, Governance as an SDG Accelerator (2019).
- 7. European Commission, "Coronavirus response," accessed November 3, 2021; The White House, "National strategy for the COVID-19 pandemic preparedness," January 2021.
- 8. UNDP, "Strengthening Indonesia's climate finance governance through climate budget tagging and Green Sukuk issuance," August 3, 2021.
- 9. Inter-American Development Bank (IDB), "IDB and IDB invest launch the Green Bond Transparency Platform," press release, April 2021.
- 10. Malaika Masson, David Ehrhardt, and Veronica Lizzio, Sustainable Energy Paths for the Caribbean (IDB, 2020).
- 11. European Investment Bank, "Innovative climate finance products," accessed November 3, 2021.
- 12. Stockholm Environment Institute, "The Green Assets Wallet—first blockchain for green bond impact data," press release, 19 December 2019.
- 13. United Nations Climate Change Secretariat, "Various approaches to long-term adaptation planning," accessed November 3, 2021.
- 14. GCF, "FP153: Mongolia Green Finance Corporation," accessed November 3, 2020.

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