

Tulika Narayan and Anu Rangarajan

## Using Climate Finance Effectively: Five Recommendations

The recently formed Development Finance Corporation (DFC) aims to invest with private sector partners to finance solutions that address critical developmental challenges. The most pressing and challenging problem facing us is climate change caused by greenhouse gas (GHG) emissions. Efforts to curb (or mitigate) GHG emissions require governments to set and meet reduction targets by reducing dependence on fossil fuels in the face of challenges such as rising consumer and industrial energy demand, absence of climate change policies and programs, and problems implementing existing climate change policies and programs. Global actions to slow climate change are critical, and so is the need to bring a massive influx of funding to adapt to conditions that are now inevitable ([Global Commission on Adaptation 2019](#)).



The past decade has seen significant capital commitment to address climate change, focused primarily on mitigation actions in the energy sector. Yet more needs to be done. First, sectors beyond energy need more funding. Second, it is important to promote adaptation actions. Third, due to past efforts and donor awareness, capital now exists to fund climate action. However, that capital often chases a weak pipeline of funding opportunities, which needs to be energized. Finally, larger investors and private sector players are more likely to benefit from climate finance interventions, leaving out smaller players who might engage in climate action that has deeper social impact. Spurring investment opportunities and linking them with investors calls for creativity. Under the new administration, the DFC can make a significant impact in achieving climate goals through the following actions:

/ **Deploy a range of creative tools to expand bankable climate opportunities.** A big constraint in deploying climate finance, particularly debt and equity financing, is the lack of bankable investments. To energize the pipeline of potential investments, the DFC can use *results-based payments* approaches such as prize competitions for business plans with defined parameters about expected financial returns and climate goals that plans must demonstrate. The DFC could define prize competitions separately for different sectors, for different target countries, and across mitigation and adaptation actions. This could be a natural way to energize opportunities in relatively neglected domains and identify new actors. The DFC could manage these challenges, outlining clear criteria that take into account inputs from investors. The challenges can be run piecemeal, but could also have an open window or cyclical windows that focus on different topics.

Directing more climate finance toward mitigation efforts in sectors beyond energy (such as agriculture), and toward adaptation actions could be facilitated by deploying *investment platforms*. An investment platform could take several forms. For instance, it could be a development platform similar to the [Sankalp Forum](#) that includes summits and workshops related to key themes, and helps match investors with potential projects. Such a platform could specify investors' needs and collate potential investment opportunities and could follow the business-plan prize competitions that identify viable business plans and investees. Another possibility is to structure an investment platform similar to the co-creation workshops that the U.S. Agency for International Development (USAID) hosts to convene a vetted set of actors looking to develop solutions for problems that are either broadly or narrowly defined. Lastly, the DFC could customize a platform similar to the [Power of Nutrition](#) to target climate adaptation activities. Such a platform would mobilize funding to address adaptation (or other neglected sectors) by leveraging financing and partnerships among the private sector, governments, various types of donors, and implementing partners to scale up sustainable efforts in targeted countries.

/ **Adopt a clear analytical framework to classify, assess, and fund opportunities.**

Clearly articulating the nature and extent of the market failures that limit private sector investment in the opportunity must motivate the administration's case for using public funds. The DFC can accomplish this by evaluating the potential financial and economic returns from an investment and potential donor actions (Figure 1). If a bankable idea exists that yields positive financial return and positive climate goals, then a private investor would likely invest in it without any public intervention (Quadrant I). However, informational constraints might impede such investments. For instance, investors might not be aware of promising opportunities in nascent markets. Similarly, they could have limited knowledge of the risk profile to match opportunities with different sources of capital. In

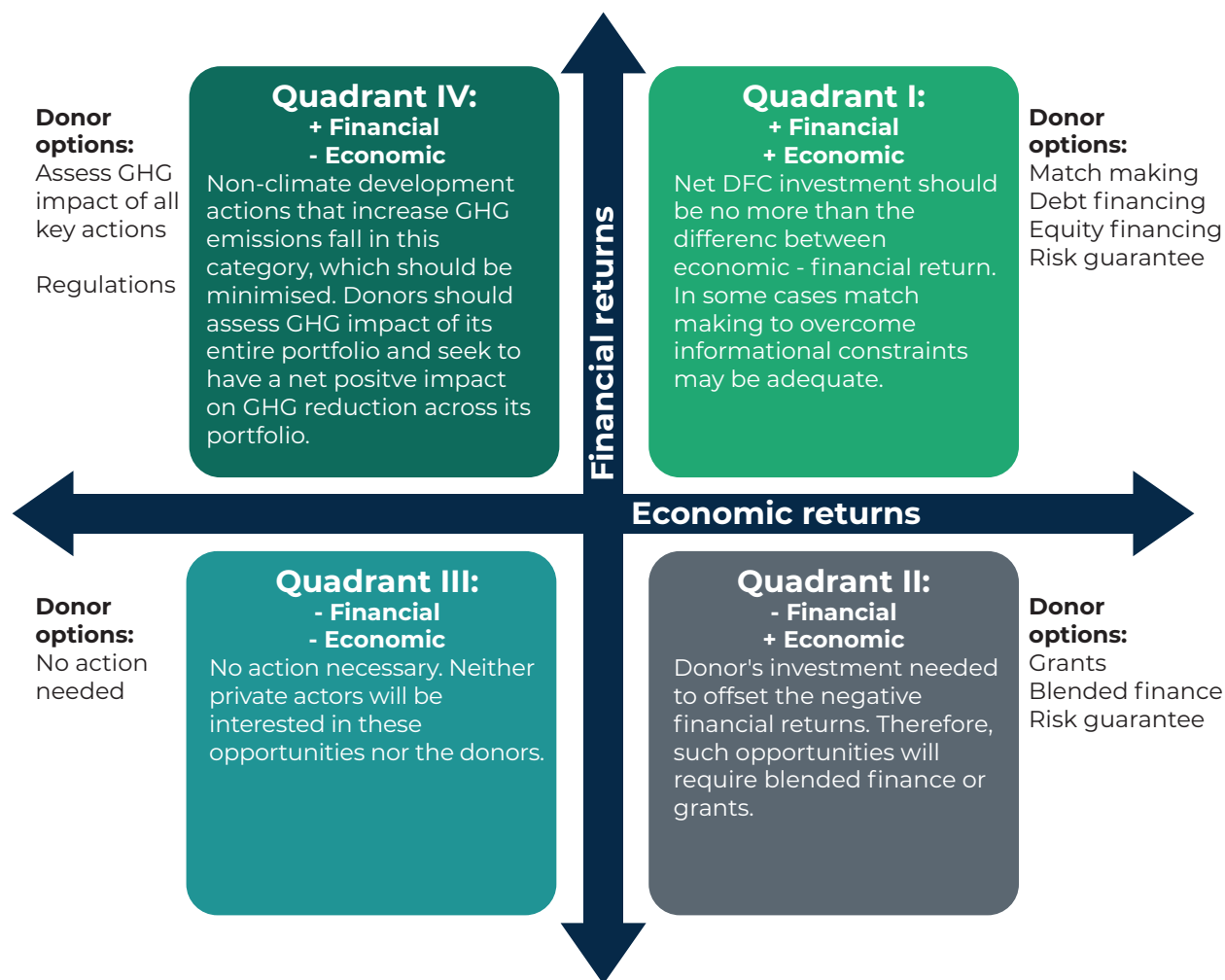
these cases, a simple intervention that alleviates informational constraints (matchmaking) might be adequate. Further, even if private sector investment occurs, it could be less than socially desirable because the private investor might not account for the additional climate benefit of the investment. Quantifying this difference between the financial and economic returns (accounting for the climate impact) can identify the extent of public funds that should be used to motivate the flow of capital.

Other investments might not occur because of more fundamental market failures—namely, because the financial returns are negative even if the economic returns are positive (Quadrant II). These opportunities will not attract private capital without public support to make the opportunity financially attractive to private investors. If the wedge between financial and economic returns is significant, grants might be the ideal financing mechanism, and could be potential projects that come under purview of USAID or the Millennium Challenge Corporation (MCC).

In other cases, investments can adversely affect climate goals even if the financial returns are positive (Quadrant IV). These cases might require regulatory measures to limit such actions. However, without a climate impact analysis of all related investments, it is possible that public funds are invested in opportunities that fall in this quadrant, particularly if they meet other goals that are tracked (such as employment or job creation). Even if it is not practical to discontinue funding of opportunities in Quadrant IV, at the portfolio level, the DFC could strive for net positive economic returns at the portfolio-level by routinely assessing the GHG impacts of all investments.

In summary, organizing the opportunities along this analytical framework that clarifies the nature of market failure would be an important step in ensuring public funding is at the right level, of the right type, and is additional. That is, it leads to climate goals that would otherwise not have been achieved.

**Figure 1. Analytical Framework for Optimizing Climate Finance Investments**



**/ Achieve net zero emissions (or net reduction in emissions) impact by focusing equally on the climate impacts of nonclimate investments.**

All GHG emissions are a result of activity that is funded by either private or public money. Carefully assessing the GHG impacts of such investments—not just climate investments—could help identify significant mitigation opportunities. The DFC, USAID, and MCC can pledge to assess GHG impacts of all key investments. In particular, they can commit to identifying whether a specific project leads to a net positive or negative economic impact to inform their investment portfolio in ways that reduce GHG impacts and achieve net

zero emissions. Currently, it is unclear if these agencies' investments—those focused on achieving climate goals, as well as those focused on other development impacts—achieve a net reduction in GHG emissions. Achieving ambitious climate goals requires such a foundational shift.

**/ Improve measurement of success to establish additionality and reduce unintended negative impacts.**

Establishing the environmental and sustainability impact of an investment is difficult but feasible. It is harder to establish additionality if the impact occurred as a result of the specific public funding commitment or whether it would have occurred in any case (as might happen with any investment that yields a

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positive financial return and has an employment and growth impact). Even in such cases in which private investment might have occurred in the absence of public funds, public funds could be used to increase the environmental impact of an investment: for example, if the investment also leads to protection of forests. It is essential that we measure and establish the additionality of new opportunities—both *ex-ante* (so we invest in the right opportunities at the right level) as well as *ex-post* (so we can learn if the intended results did occur). *Ex-ante* analysis can also help identify the key assumptions or parameters that drive results, and the project monitoring framework can focus on capturing those specific indicators. A way forward to put this idea into operation is to use decision support tools (DSTs) that project the financial costs and returns of investments; rigorously document the associated GHG, environmental, and social impacts; and enable joint analyses of financial, economic, and social costs under distinct intervention scenarios. As part of a USAID-supported consortium, Mathematica is developing such a DST to inform the scaling-up of innovative sustainable agriculture technologies. This tool accounts for the complex ways in which weather variability, soil health, and water availability influence agricultural productivity, while modeling the agricultural technology's impact on deforestation, GHG emissions, biodiversity loss, and soil and water pollution. In so doing, it explicitly highlights wedges between financial and economic returns (such as at agricultural frontiers, often characterized by pervasive land-use and land-cover change). Such tools can help policymakers channel existing resources toward meaningful, climate-smart agricultural technologies that face

financing gaps, and away from areas where the prospect of high financial returns means that business-as-usual trends in investment will be sufficient or will yield a negative climate impact.

/ **Improve measurement of resilience impacts.**

As the administration expands its investment in adaptation actions, it will need to measure its impact on climate resilience—the ability of humans or natural systems to cope with and recover from climate-related shocks. Measuring households' and communities' resilience cost effectively requires innovation because resilience is a dynamic concept that relies on high-frequency data that can be costly to gather. Several efforts have demonstrated the use of high-frequency short surveys (for example, the World Food Programme) and indicators for which we need information (Measuring Indicators for Resilience Analysis). Pioneering approaches in crowd-sourcing self-reported data from communities can increase the spatial resolution of resilience measurement and help understand communities' adaptive capacity and climate vulnerability. Templates and examples exist of projects that have successfully obtained self-reported community data in other sectors, and the DFC can readily apply them to climate. Better accounting of investments' impact on resilience are also critical to targeting the administration's resources to the right efforts.

## Reference

Global Commission on Adaptation. "Adapt Now: A Global Call for Leadership on Climate Resilience." Washington, DC: Global Center on Adaptation, World Resources Institute, 2019.

**Let's Progress Together.** For more information, please contact Tulika Narayan [tnarayan@mathematica-mpr.com](mailto:tnarayan@mathematica-mpr.com) or Anu Rangarajan [arangarajan@mathematica-mpr.com](mailto:arangarajan@mathematica-mpr.com).