

# Prioritizing Growth and Climate Change: Can MCC Deliver on Both?

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## Introduction

As the once-future impacts of climate change become increasingly present-day, the need for global climate action has acquired greater urgency. With the recent [synthesis report](#) (IPCC 2023) from the U.N. Intergovernmental Panel on Climate Change that the world is likely to surpass warming to 1.5 degree Celsius above preindustrial temperatures by early 2030s, the importance of climate action cannot be overemphasized. An estimated 3.5 billion people, 40 percent of the world's population, are highly exposed to climate change-induced disasters: water shortages, drought, heat stresses, sea level rise, and extreme events such as floods and tropical cyclones (World Bank, 2023; IPCC, 2023). Most live in developing countries which [contribute very little to annual global emissions](#) and yet lack the capacity to adequately respond to its effects (Baker and Mitchell 2020). This poses a challenge for allocating scarce development assistance across competing needs.

Recognizing the “emergency of poverty”, MCC focuses on economic development, i.e., promoting inclusive economic growth to reduce poverty. Policymakers globally recognize the urgent need to manage climate change and overcome poverty, to move away from fossil fuel dependence, and to find “strategies for climate-compatible inclusive growth.” A consensus is emerging that [climate action is complementary to poverty reduction and growth](#) (Thomas 2023a, Stern and Stiglitz 2023) and is even necessary: “[they are deeply interwoven: if we fail on one, we fail on the other](#)” (Lankes, Soubeyran, and Stern, 2022). Yet it is plausible that [delivering development and climate outcomes may coincide in limited situations](#) (Dissanayake 2023a), and in some cases, focusing on development involves trade-offs with climate outcomes (and vice versa), particularly for climate change mitigation.

It is important to distinguish between adaptation, a national public good, and mitigation, a global or regional public good. Adaptation efforts, ranging from [climate resilient infrastructure](#) to regulatory policies, pricing, and institutions, can directly benefit a country's economy, for which reason adaptation features prominently in many countries' development strategies (Hallegatte, Rentschler, and Rozenberg, 2019). In contrast, the benefits of mitigation are globally diffuse, while its costs fall on individual countries (Devarajan 2022). Inasmuch as the growth needed to end extreme poverty around the world [would raise emissions by relatively little](#) (Wollburg, Hallegatte, and Mahler, 2023), restricting growth in developing countries to meet global emissions targets is not an equitable or effective climate mitigation strategy. Unless markets or institutions exist to pay developing countries for climate mitigation efforts, it is not in their interest to focus on mitigation. Yet, developing countries can take advantage of climate compatible and environmentally sustainable growth pathways to meet their Nationally Determined Contributions and protect their natural capital.

Recognizing the challenge of climate change and with policy support from the White House, MCC [has announced the intent](#) to integrate into its investments climate-related objectives of enhanced resilience and sustainability as well as lower emissions. Working to reduce poverty in countries that are critically vulnerable to climate impacts and simultaneously limited in their adaptation capabilities, MCC faces several competing priorities and seeks to understand how its analytics and investments, both at the sector and design level, can better identify complementarities and account for tradeoffs.

## What is MCC Doing on Climate?

MCC is [committed to promoting climate-resilient development](#) in its partner countries. The agency has made significant efforts to incorporate climate change and environmental considerations in several key analytic areas.

- **Analysis of constraints to growth.** As part of its early analytic work to identify constraints to economic growth, MCC now routinely assesses a partner country's natural capital assets and climate risks. MCC also conducts a climate finance opportunity assessment to understand key funding gaps and priorities for a country to meet its Nationally Determined Contributions and adaptation priorities. Refinements in these assessments are ongoing, but the process has nonetheless produced key insights for program development across recently selected countries, particularly in Belize, the Gambia, Kiribati, Mauritania, and Senegal. MCC is also working with external partners to address limitations in its analysis of dynamic interactions between a partner country's climate and its economic barriers and opportunities.
  - **Project design and cost-benefit analysis (CBA).** Partnering with a consortium led by the University of Massachusetts, MCC has produced guidance on iterative "climate-informed" project performance assessment to help design investments that perform well across many climate scenarios. The approach recommends a project development process that connects climate conditions to project performance, not just exposure to hazards. It further explores project performance under a wide range of climate futures, identifies specific climate conditions that result in unacceptable project performance, and facilitates the evaluation of cost-effective design adaptations that enhance robustness. While this guidance is being finalized for publication, MCC has begun to incorporate climate change uncertainty into current project designs and CBA work, e.g., an irrigated horticulture project in Lesotho and a 1.6-kilometer bridge project in Mozambique.
1. **Capturing environmental externalities in CBA.** MCC has also developed guidance to incorporate environmental externalities in CBA. It reinforces the idea that all country-internal environmental impacts are eligible for valuation, and that country-external negative environmental impacts specifically associated with implementation are eligible for inclusion in the CBA. This is an early step towards valuing green-house gas emissions or mitigation as well as impacts on water or air pollution across borders.

## MCC on Climate: Looking Ahead

MCC seeks to better account for climate and environmental conditions more comprehensively in its growth diagnostics as well as its cost-benefit analysis. This includes a more careful assessment of the channels through which a changing climate impacts an economy and populations, a transparent accounting of tradeoffs of benefits and costs across time and with varying levels of certainty, and a broader evaluation of natural capital, all within MCC's operational constraints.

- **Investing in climate-resilient growth pathways.** MCC aims to complement its current growth analytics with a deeper examination of climate's impact across specific growth channels and adaptive pathways. In MCC's partner countries, agriculture features prominently, with changes in temperature and precipitation shifting the frontier of production possibilities and raising uncertainties, with implications for food security and front-line poverty reduction. Other channels include energy, particularly in countries that rely heavily on hydropower, as drought and less predictable rainfall impinges on adequate and reliable generation. More broadly, physical infrastructure, including roads, power grids, bridges, and coastal settlements are increasingly

vulnerable to episodic damage and more rapid deterioration, whether from flooding, rising sea levels, or extreme weather. Meanwhile, impacts on human health and education due to increased heat and worsened air quality can reduce productivity and raise costs. Different channels will carry different impacts on growth and poverty, with greater salience for some sectors.

To incorporate these considerations robustly into the constraints analysis, MCC recently established a partnership with a consortium led by the MIT Joint Program on the Science and Policy of Global Change. The partnership is focused on estimating the economy-wide impacts of environmental changes using an economic-biophysical modeling framework that allows dynamic assessment of the channels of impacts of biophysical changes (i.e., changes in rainfall, temperature, land use patterns etc.) and adaptive measures on the economy. This approach aims to bring more rigorous insights regarding climate and environmental factors into the constraints to growth analysis in future MCC programs. The Partnership is expected to produce relevant tools and guidance over the next two years.

- **Integrating climate and environmental considerations more comprehensively in CBA.** In collaboration with external experts in the coming years, MCC plans to develop practical approaches to consider the social cost of greenhouse gases in MCC partner country contexts, developing analytic foundations and empirics for valuing natural capital and associated ecosystem services, valuing changes in local air pollution, and determining how to approach the treatment of nascent carbon markets.
- **Accounting for uncertainty and time horizons.** MCC has grappled with the familiar question of valuing benefits that materialize at different time horizons, but the additional factor of climate-related uncertainty figures into investment design and evaluation of benefits. For example, what is the anticipated distribution of costs resulting from postponed or discarded investments in adaptation? MCC must balance investments that yield potentially positive payoffs, say income growth, versus those that insure against uncertain future harms, i.e., income losses prevented. For example, MCC now faces the question of evaluating infrastructure with additional “green” attributes of climate resilience and how to compare this to benefits arising from other candidate designs or alternative investments in other sectors.
- **Natural capital accounting.** MCC’s interest in capturing the costs of climate change and ecosystem degradation, as well as the value of adaptation leads to a larger question of “green GDP” accounting (Dasgupta 2021, World Bank 2006, Hamilton 1994). Accounting for natural capital and biodiversity, just like for climate, could figure into MCC’s growth analytics, particularly in light of unsustainable rates of resource depletion and ecosystem loss, including loss of arable land due to climate change. In developing economies, where natural capital often represents the primary source of income generation, e.g., water and marine resources, mining, timber, soils for agriculture, a careful stocktaking can inform broader growth diagnostics and sharpen understanding of the benefits of regulation and natural resource management.
- **Operational constraints** This ambitious analytic and modeling list notwithstanding, MCC must also be pragmatic and operate nimbly in order to reach conclusions under tight time pressures while being mindful of working alongside country counterparts to enhance country ownership. Currently, the time frame for its constraints analysis, including any assessment of climate, must fit within a four-to-five-month period. CBA work operates more flexibly within MCC’s two-year compact development timeline but is subject to the timely completion of feasibility studies and design work. MCC seeks opportunities to undertake approaches that are at once credible, feasible, and quick.

## Political economy and the short-term

A significant challenge in all this work is the pressure to deliver development benefits as soon as possible. Given the realities of political processes and incentives, justifying an investment that generates adaptation-related benefits many years in the future based on uncertain climate scenarios poses thorny questions of country buy-in. MCC may be well-positioned to tackle longer term investments that local policymakers lack the political capital or incentives to pursue, particularly with respect to adaptation efforts for which no short-term or immediate constituency exists.

## Questions for the EAC

1. Goals to combat climate change are likely consistent with MCC's mission to foster economic growth and poverty reduction in several of its projects, particularly those involving agriculture and climate-resilient infrastructure. However, limited resources may also imply tradeoffs between the two, particularly when investments to reduce risk from climate change are costly. In what ways are climate action and growth complements versus substitutes in developing countries, and how can MCC best steer its investments to maximize overall long-term returns?
  - a. Without separate dedicated funds to support climate mitigation, is there any case to be made for using MCC resources for supporting greenhouse gas mitigation? Should such support be conditional on separate dedicated funding?
  - b. How much weight should MCC place on climate change adaptation given the competing demands for grant resources to support core infrastructure and human development needs? How severe must climate vulnerability be to divert resources from more conventional infrastructure investments toward costlier climate-resilient infrastructure?
  - c. Given that climate change under most circumstances tends to harm poorer households, particularly women, more than other population segments, what weight could/should be placed on adaptation in the project design while supporting MCC's commitment to inclusive growth?
2. How should MCC compare investments that help to insure against large climate-related losses in the future versus investments that directly raise near-term productivity?
3. What analytical or empirical approaches would be well suited for MCC to incorporate climate change into its growth diagnostics and cost-benefit analysis while adhering to the limited time for analytic work?
  - a. Given the absence of functioning carbon markets and carbon pricing in most MCC countries, should application of carbon pricing in CBA be standardized across MCC compact/threshold programs to raise awareness? What approach to estimating social costs of greenhouse gases should MCC adopt?
  - b. Is MCC's commitment to more robustly bringing climate change into our growth analytics compatible with the heavy reliance on cost-benefit analysis with a 10 percent discount rate?
  - c. Are there practical approaches (less complex) to measuring "green GDP" to address natural capital depletion, growth, and pricing natural capital in analysis of policy options for MCC's growth analysis? Is the methodology for "green national accounting" sufficiently stable to be practical in such policy analysis?

4. Given the uncertainty associated with climate and the often-subtle tradeoffs across different priorities, how can MCC best communicate its methods and conclusions to policymakers? MCC typically uses Monte Carlo analysis and sensitivity analysis to estimate the impact of differing parameters and quantify risks, but this rarely informs decision making. What are the EAC's views and experiences with respect to accounting for risk in investment policy discussion and decision making?

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