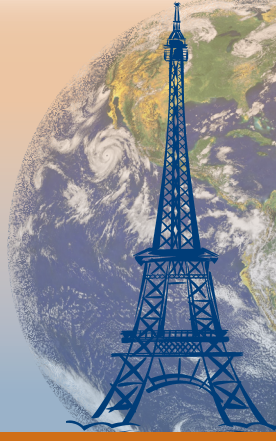
Financing Sustainable Infrastructure



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Climate change, development, and sustainable infrastructure

A key goal of the U.N. climate change negotiations is to agree on global mitigation actions that will limit global temperature increases to 2 degrees Celsius above pre-industrial levels. Achieving this climate goal will require a transition to a low-carbon economy. Climate finance will be needed to support this transition and to adapt to unavoidable climate change.

In this context, financing infrastructure will be one of the central challenges. Over the next 15 years the world needs to build approximately $89 trillion in new infrastructure—a doubling of the existing capital stock in areas such as energy, transport, water, and cities. The focus of this chapter is on financing sustainable infrastructure, but climate finance is also needed in in areas such as sustainable agriculture, avoided deforestation, and reforestation.

Given that approximately 50 percent of greenhouse gas emissions come from infrastructure, failure to build infrastructure that is sustainable will lock the world into a high-carbon pathway inconsistent with achieving the 2 degree climate goal.

Approximately two-thirds of the need for sustainable infrastructure is also going to be in the developing world. Moreover, the majority of the infrastructure needs and increase in greenhouse gas emissions will come from the developing world, underscoring the link between building better infrastructure and achieving global climate change goals.

Building sustainable infrastructure will also lead to better development outcomes. This importance of infrastructure for development is reflected throughout the recently agreed-upon post-2015 Sustainable Development Goals (see goals 7, 9, 11, and 13, on clean energy, infrastructure, sustainable cities, and climate action, respectively). This includes increased energy security and reduced air pollution from investing in renewable energy, and reduced commuting times and traffic congestion from investing in more compact cities. Such growth is also likely to be more inclusive, build resilience,

strengthen local communities, and improve the quality of life in various ways. For example, better public transport connections reduce inequalities by helping the poor access job opportunities and reduced congestion improves local air quality. Moreover, failure to address climate change will have negative development outcomes, particularly for the poorest and most vulnerable populations.

The additional cost of making infrastructure sustainable is estimated to be around $4.1 trillion, leading to an overall infrastructure need of $93 trillion. This sustainability premium reflects the higher upfront costs of sustainable infrastructure. Other co-benefits from sustainable infrastructure, such as lower operating costs, could reduce the sustainability premium even further.

There are additional costs of adapting to climate change. Data on adaptation funding needs are limited. It is estimated that $8 billion to $10 billion was spent on adaptation in 2015. The UNFCCC estimates adaptation needs by 2030 could be $70 billion annually.

Sources of climate finance

Mobilizing enough climate finance to meet mitigation and adaptation needs is going to require mobilizing both public and private sector capital. For instance, private sector capital will likely have to

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contribute about half of the additional $3 trillion per annum that will be needed for sustainable infrastructure over the next 15 years—around double the current level of private investment. The rest will have to come from public sources such as governments, development agencies, and multilateral, regional, and national development banks.

Climate finance in the UNFCCC

The focus of the climate finance discussion at the COP21 meeting in Paris in December will be on the developed-country pledge made at the 2008 U.N. climate change meeting in Copenhagen to mobilize "jointly $100 billion dollars a year by 2020 to address the needs of developing countries." This goal has been endorsed at subsequent COPs. (At COP16 in Cancun the $100 billion goal was endorsed, and COP17 in Durban established a work program to analyze options. The 2011 COP18 in Doha called on participating developed countries to identify pathways to mobilize the scaling up of climate finance.)

According to analysis by Climate Policy Initiative and the OECD, in 2014 $61.8 billion of the $100 billion per annum pledge was realized. This comprised $43.5 billion in bilateral and multilateral public finance, $1.6 billion in export credits, and $16.7 billion of private finance that was mobilized by public finance.

Going forward, the recently established Green Climate Fund (GCF) is expected to "play a key role in channeling new, additional, adequate and predictable financial resources to developing countries." This will include catalyzing public and private climate finance from domestic and international sources. The GCF has commenced operating and currently has paid-in capital of around $10 billion.

Key climate finance issues in the UNFCCC

There is considerable disagreement in the U.N. climate change negotiations on many of the core climate finance issues. For instance, there is no agreement on what should count as climate finance. While it has been agreed that the $100 billion would be made up from "a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance," developing countries would prefer public finance (often in the form of grants) due to its concessionality.

The issue of what counts as climate finance is also linked to disagreement over how to determine whether climate finance meets the standards of being "new and additional." Given that investments in addressing climate are often closely related to development outcomes—think of investments in access to clean energy, reducing air pollution, and financing mass transport systems—developing countries want to ensure that development aid is not simply repurposed for climate change, detracting from other (often seen as more pressing) development needs. Moreover, determining whether private finance is "new and additional," that it would not have been invested but for the contribution of public finance, introduces notions of causality that are often difficult to establish.

Using climate finance for sustainable infrastructure

The discussion on climate finance at the U.N. climate meeting in Paris needs to be situated within the broader need to transition to a low-carbon economy and how to finance $94 trillion in sustainable infrastructure over the next 15 years.

The challenge of financing sustainable infrastructure is not due to a lack of capital. Indeed, current assets under management among institutional investors are around $110 trillion. Instead, low interest rates globally combined with large unmet needs for investment in infrastructure point to other barriers, particularly when it comes to scaling up private sector investment.

Moreover, two-thirds of the infrastructure investments will be in developing countries where the costs of building sustainable infrastructure are often higher due to greater risks and a higher cost of capital. There are also demand-side constraints due to the more limited capacity of governments and consumers to afford the fees or tolls that come with new infrastructure.

How can Paris help?

A Paris agreement should situate climate finance in the context of facilitating a transition to a low-carbon economy, consistent with development needs as reflected in the SDGs. This context is already central to the operation of the Green Climate Fund, where it has been agreed that "in the context of sustainable development, the Fund will promote the paradigm shift toward low-emissions and climate-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions and to adapt to the impact of climate change." Success here will mainstream climate into development goals and help ensure that development and climate finance are complementary.

It is unlikely that agreement will be reached on all climate finance issues at Paris, which may be desirable given uncertainties over the extent of climate change and the costs of addressing it. The Paris climate change meeting should, however, reach agreement on a legally binding framework that can guide the mitigation and adaptation actions that will be needed over time to achieve the 2 degree goal.

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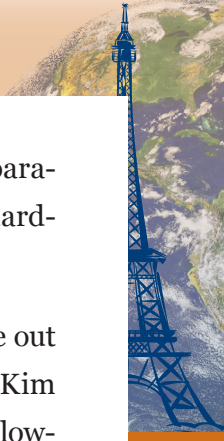
Given the size of the needs and the limits to climate finance, at Paris the parties should reaffirm the $100 billion goal and agree on the need to scale up financing over time. Yet even a commitment to do more will require climate finance to be used in a targeted approach that catalyzes further public and private capital and creates opportunities to scale outcomes.

Given the central role of the GCF going forward, the following outlines some specific areas that a Paris agreement could address in relation to the operation of the GCF.

1. Strengthen the "country-enabling" environment

   Climate finance should be used to strengthen countries' enabling environment. This includes reducing policy and political uncertainty including rule-of-law issues that increase the risk of investing in sustainable infrastructure. These risks are heightened for infrastructure, which is often long-term, illiquid, and, in the case of clean energy, usually relies on some form of policy support to be commercially viable (such as feed-in-tariffs or tax breaks).



Climate finance could also be used to build government capacity to undertake project preparation and planning, including the negotiation of complex public-private partnerships, standardizing contracts, and project evaluation procedures.

Climate finance could also support government efforts to develop a carbon price and phase out fossil fuel subsidies. The IMF and World Bank Presidents Christine Lagarde and Jim Yong Kim have recently highlighted the need for reform of these policies to support the transition to a low-carbon economy.

2. Reduce the financing costs of sustainable infrastructure

The higher cost of capital in developing countries is another barrier to investing in sustainable infrastructure. Climate finance should be blended with other sources of finance to reduce the overall financing cost of an infrastructure project, using climate finance to close the sustainable financing gap. This could include using climate finance to target the higher risk stages of infrastructure project lifecycle, typically at the project development and construction phase.

Scaling up private sector investment, particularly from institutional investors, will also require expanding commercial investment vehicles such as YieldCos and green bonds.

Improving data and information on sustainable infrastructure investments is needed to allow investors to properly assess risk, and determine what works and can be scaled. Tying climate finance to improved measuring, reporting, and verification under a U.N. climate change agreement can facilitate this information-gathering process. Improving coherence and cooperation across the climate finance funds within and outside the UNFCCC can also improve experience-sharing and dissemination of lessons learned, increasing the scope for climate finance to be targeted, effective, and catalytic.

3. Finance adaptation

The GCF has already recognized the important role of climate finance in helping developing countries adapt to climate change, particularly in the poorest countries where there will be limited scope for private sector funding.