



## **Towards A Low-Carbon Economy: Approaches and Evidence from GF Climate Mitigation Evaluations**

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### **ABSTRACT**

The shift to a low-carbon economy as foreseen in the Paris Agreement reached by 195 nations in December 2015 will require creative thinking and innovative financing. The Global Environment Facility (GEF) serves as an operating entity of the financial mechanism for the UN Framework Convention on Climate Change, acting as a catalyst for large-scale investments in the low-carbon economy. The GEF aims to achieve its goals through, i.a., promoting development and use of renewable energy and energy efficiency. The Independent Evaluation Office (IEO) of the GEF conducts strategic evaluations of the results, impact and performance, as well as institutional and organizational effectiveness and efficiency of the GEF. A comprehensive evaluation of work on climate change covering GEF investments of US\$4.6 billion through more than 1,000 climate mitigation projects in developing countries and countries with economies in transition, was recently completed. The results from IEO evaluations demonstrate that projects with a high level of progress toward impact were those that had adopted comprehensive approaches to address market barriers and specifically targeted supportive policy frameworks, and that GEF has contributed to climate change mitigation primarily by speeding up the process of broader adoption and in generating transformational change.

### **Introduction**

The Global Environment Facility (GEF) is the oldest operating entity of the financial mechanism for the United Nations Framework Convention on Climate Change (UNFCCC) and has been funding climate change projects in the developing countries and countries with economies in transition for a quarter century. The GEF climate change focal area focuses on mitigation strategies to reduce greenhouse gas (GHG) emissions as well as on support for country obligations to UNFCCC for reporting and assessments. The long-term goal of the GEF climate change strategy is to support developing countries and economies in transition to make transformational shifts towards a low emission development path. The GEF invests in energy efficiency, renewable energy, sustainable transport and climate-smart agriculture to support mitigation, while also funding adaptation activities to reduce people's vulnerability to climate change. In addition to its main trust fund, the GEF also administers the Least Developed Countries Fund (LDCF), which is mandated to provide support to the climate change adaptation efforts of least developed countries (LDCs) and the Special Climate Change Fund (SCCF), which has a broad scope covering climate change

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adaptation and mitigation for Parties not included in Annex I of the UNFCCC. The GEF also funds projects in other environmental areas, such as biodiversity conservations, land degradation, international waters, and sound chemicals and waste management.

This paper focuses on GEF interventions implemented through the GEF trust fund, which is replenished every 4 years. Through December 2016, GEF has cumulatively approved US\$ 4.61 billion dollars for 1287 projects through its climate change mitigation (CCM) focal area funds. In addition, on average co-financing of 9 dollars per dollar of GEF funding was raised for these projects. At least 328 Climate Change Mitigation projects that account for US\$ 1.57 billion in GEF funding have been completed to date.

## **Methodology**

This paper draws on the database of completed projects and from several evaluations that have been conducted by the GEF Independent Evaluation Office (GEF IEO), especially *The Climate Change Focal Area Study* (GEF IEO 2017), *Climate Change Mitigation – GEF Support to Market Change in China, India, Mexico, and Russia* (GEF IEO 2014), and the *Sixth Overall Performance Study of the GEF (OPS6)* (GEF IEO 2017).

*Climate Change Mitigation – GEF Support to Market Change in China, India, Mexico, and Russia* (GEF IEO 2014) assessed impact of 18 completed GEF projects that addressed climate change mitigation in four large emerging markets that account for significant part of the GEF portfolio and for the global GHG emissions. The evaluation covered various sectors with opportunities for promotion of renewable energy, energy efficiency, and methane emissions reductions. Information was gathered through field work to assess progress toward impact since project completion, and to gather information on relevant contextual factors that affect the relevant markets. The information thus gathered was supplemented with desk review of the evidence that was already available through terminal evaluation reports, implementation progress reports, and other relevant project documents. Zazueta and Negi (2017) provide details on the methodological choices made for the evaluation.

*The Climate Change Focal Area Study* (2017) aimed at assessing performance of GEF activities focused on addressing climate change and drawing lessons that may inform GEF's future work in this area. The study used a mixed methods approach and gathered information through desk research, portfolio analysis, quality at entry review, analysis of GEF IEO dataset based on review of completed projects, fieldwork, and interviews. Field work was conducted Morocco and Thailand, where GEF project portfolio on climate change was relatively mature. These were also chosen to complement the prior work in the four large emerging economies.

The *Sixth Overall Performance Study of the GEF (OPS6)* (GEF IEO 2017), was prepared to inform the discussion for the 7<sup>th</sup> replenishment of the GEF. It considered all cumulative evidence from the evaluations undertaken by the GEF IEO, and involved additional targeted reviews to supplement the existing evidence base. Analysis undertaken on topics such as expansion of GEF partnership, transformational change, and GEF responsiveness to the Conventions including UNFCCC, are especially relevant for this paper.

## The GEF's Relevance today in Climate Finance

The global landscape for climate change finance has evolved significantly since the GEF became the first operating entity of the Financial Mechanism of the UNFCCC in 1996. Many carbon finance facilities have become active, and new multilateral institutions such as the Climate Investment Funds (CIF) and Green Climate Fund (GCF) have been established with pledged amounts that far exceed those of the GEF. As the landscape has fragmented, the GEF has become a relatively smaller contributor to climate-related projects (Figure 1). The GEF's available resources are certainly not insubstantial for its many recipient countries, however; the challenge is to use those resources in the most effective way to engage other sources of finance and catalyze transformational change.

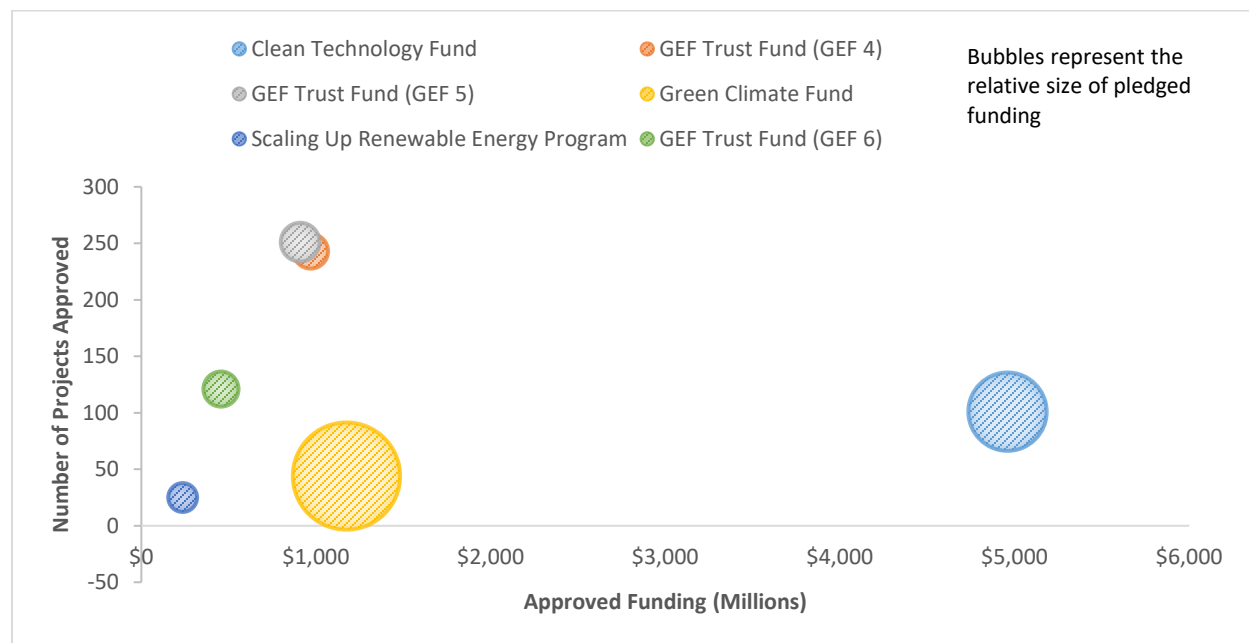


Figure 1: Pledged funding for climate change funds. *Source:* Data from Climate Funds Update as of October 2016. Available at: <http://www.climatefundsupdate.org>

Six features strongly emerged in the 2017 evaluation as distinguishing the GEF from among other multilateral climate funds.

- The GEF's provision of significant and flexible **grant financing**. Interviewees emphasized the GEF's added value in providing grant financing—a relatively scarce resource in the climate finance space. While grants are eligible instruments in other multilateral climate funds, they have more rarely been used.
- The GEF's focus upstream on the **enabling environment** to support broader public and private climate investment, including through policy, legal, and regulatory reform and capacity building. Regulatory reform has also received relatively less attention from other, more investment-focused funds. For example, an evaluation of the CIF found that few Clean Technology Fund (CTF) investment plans sought to address regulatory barriers, despite the fact that the policy, regulatory, and macroeconomic

situations in more than half of CTF countries had the potential to slow down, limit, or negate transformation and replication. This study and the GEF IEO's recent study of the impact of GEF climate change mitigation activities in four countries further support the importance of such foundational work.

- The GEF's emphasis on **piloting and demonstrating technologies and financial approaches** that could be scaled up by other partners. The GEF (through its climate change mitigation focal area, as well as SCCF and LDCF) has potential to be an incubator for countries to test and refine project concepts, prior to seeking large-scale finance through the GCF. Related is a perception of the GEF as a key contributor to innovative and risk-sharing approaches in this context of piloting and demonstration. For example, recently, in a project, *Grid Connected Rooftop Solar Program* in India, World Bank (US\$500 million) and CTF (US\$125 million) funds will enable the participating commercial bank to extend loans for rooftop solar systems at or near the base rate, complemented by a GEF grant (US\$22.93 million) that will support an innovative risk mitigation mechanism to enable lending to riskier customer categories, such as small and medium enterprise commercial and non-banking financial institutions, and support strengthening the investment climate and build capacity among main stakeholders.
- The GEF's ability to fund **integrated projects**, across environmental areas, such as land degradation and sustainable forest management, and including both climate mitigation and adaptation aspects. A recent World Resources Institute report (ref.) also identified cross-sectoral programming as a niche for the GEF. In particular, GEF projects related to land, forest, and agriculture have demonstrated biodiversity and land benefits, but also notably climate benefits.
- The GEF as an **experienced partner**. The GEF's quarter century long history is seen as an asset; the GEF can offer learning and knowledge across multiple intervention areas that is relevant for other and newer organizations, such as the GCF.
- The GEF provides unique and **critical support for countries to meet their obligations** under the UNFCCC, including support for Nationally Appropriate Mitigation Actions (NAMAs), National Communications (NCs), Biennial Update Reports (BURs), and Intended Nationally Determined Contributions (INDCs). The GEF's historic mandate to provide such support is seen as one of its comparative advantages among other climate funds.

The GEF has also demonstrated its continuing relevance to other major international climate and development initiatives, such as the Sustainable Development Goals (SDGs) and the United Nations' Sustainable Energy for All (SE4All) initiative. The GEF's support for SE4All's Global Energy Efficiency Accelerator Platform is seen as particularly innovative. For example, a GEF program, *Scaling up the SE4ALL Building Efficiency Accelerator (BEA)*, will help accelerate the uptake of energy efficiency improvements in buildings by 2030 by introducing SE4All to 50 cities over the next two years from which 30 are expected sign formal commitments to double the rate of energy efficiency improvements in their buildings.

As interviewees as well as the recent Fifth Review of the Financial Mechanism of the UNFCCC noted, duplication among entities may not be the greatest concern, given that substantially more climate finance is necessary than is currently provided through all of these climate funds combined. The need to address barriers to scaling up climate investment in developing countries remains significant, and

multilateral grant and concessional finance is expected to continue to play an important role in addressing these barriers. Clearer roles among the various climate change funds would help donors and recipients make decisions about how and when to engage. In addition, more strategic collaboration among funds—building on each’s comparative advantages—could help promote more transformational change.

## The GEF Portfolio on Climate Change Mitigation

Through December 2016, GEF had approved US\$ 4.61 billion for 1287 projects from its CCM focal area funds<sup>2</sup> (Table 1). CCM accounts for 30 percent of the cumulative funding provided by the GEF to address global environmental concerns. Of these 1287 GEF projects that addressed CCM, 1093 focused exclusively on CCM.

Up to 2002, majority of projects approved by the GEF addressed renewable energy. The Second Overall Performance Study of the GEF (2002), however, reported that compared to renewable energy GEF had been more effective in promoting energy efficiency. This led to an increase in energy efficiency focused projects within the GEF portfolio from 2002 onwards. The GEF projects have also begun to shift from single-sector and technology-specific interventions to more multifaceted projects that build on the integrated programming approaches addressing systemic issues. For example, a GEF project in Turkmenistan, *Sustainable Cities: Integrated Green Urban Development in Ashgabat and Awaza*, addresses climate change through energy efficiency, renewable energy, sustainable transport, green roofs and establishment of green spaces, climate-resilient and low-carbon tourism development, and managing water and waste for these cities in Turkmenistan.

**Table 1:** GEF Support for projects focused on Climate Change Mitigation

	Number of Projects	GEF Funding (in US\$ billion)		Co-financing by partners (US\$ billion)	Total Financing (US\$ billion)
		CCM funding	Other funding		
Exclusive focus on climate change mitigation	1093	4.09	0	38.37	42.46
Address other environmental concerns in addition to climate change mitigation	194	0.52	1.14	12.87	14.53
Total	1287	4.61	1.14	51.23	56.98

Source: GEF Project Management Information System.

In terms of regional distribution, Asia (36 percent) has the largest share in GEF funding. In comparison, the respective shares of other regions such as Africa, Latin America and Caribbean, and Europe and Central Asia, are less than 20 percent. More recently, to capture the benefits of integration across environmental issues, GEF has given more attention to global and inter-regional projects.

Six emerging economies<sup>3</sup> account for more than a third (36 percent) of GEF CCM funding. Shares of LDCs, landlocked developing countries (LLDCs) and small island developing states (SIDS) are 13, 11 and 6 percent respectively. Renewable energy and energy efficiency are the two main areas for GEF support, followed by sustainable transport, sustainable forest management, and technology transfer.

<sup>2</sup> Excludes support provided through the GEF Small Grants Programme, which has funded 4461 small grants that address CCM related concerns. A small grant typically ranges between US\$ 20,000 to 30,000 in GEF funding.

<sup>3</sup> Brazil, China, India, Mexico, Russia and South Africa.

## **Recent shifts in CCM approaches in the GEF**

There has been a shift towards projects that aim to demonstrate financial models/mechanisms and market-based approaches, and almost two-thirds of projects in the current GEF replenishment period aim to demonstrate these approaches. For example, recent projects include revolving funds, ESCO business models, incentive mechanisms (both subsidy and non-subsidy), custom tax exemptions, energy savings trading schemes, commercial banking schemes for the public sector, and financial de-risking instruments, among others. In energy efficiency projects, there is also a move towards the use of financial incentives to address significant economic (lack of incentive) and budget (raising finance) pressures in the public (buildings, lighting) and residential sectors. They also design and test innovative financing mechanisms, including using GEF funds as equity to leverage debt, or match commercial loans, provide guarantees, and incent green mortgages. These are reinforced by a continuing level of support for policy and regulatory frameworks and capacity building to address legal, technical, and institutional challenges.

Nearly 40 percent of the projects approved so far in the current funding period include components directed at engaging the private sector, including public private partnerships (PPP), risk mitigation and structured financing tools that reduce risk and attract investors, and innovative and flexible financial instruments.

## **Performance of the GEF in Climate Change Mitigation**

The GEF IEO tracks performance of the completed projects and provides performance rating for key dimensions such as outcomes, sustainability and implementation, based on review of the evidence presented in the terminal evaluation and other available documents for a completed project. Seventy-seven percent of projects in the CCM portfolio were rated in the satisfactory range.<sup>4</sup> By dimension, enabling activities that provide support to meeting Convention guidance, reform processes have better outcomes as compared with projects in the transport sector (Figure 2). Some of the transport projects overestimated the GHG avoidance benefits while others underestimated the time and effort required in getting requisite clearances for developing the transport infrastructure in cities. Outcomes of 80 percent or more of projects that focused on energy efficiency and short lived climate enforcers, or addressed multiple themes, or were enabling activities, were rated in the satisfactory range.

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<sup>4</sup> Of the 1287 CCM projects that GEF has approved, terminal evaluations for 272 have been reviewed by the GEF IEO. For 269 CCM projects GEF IEO provided outcome ratings.

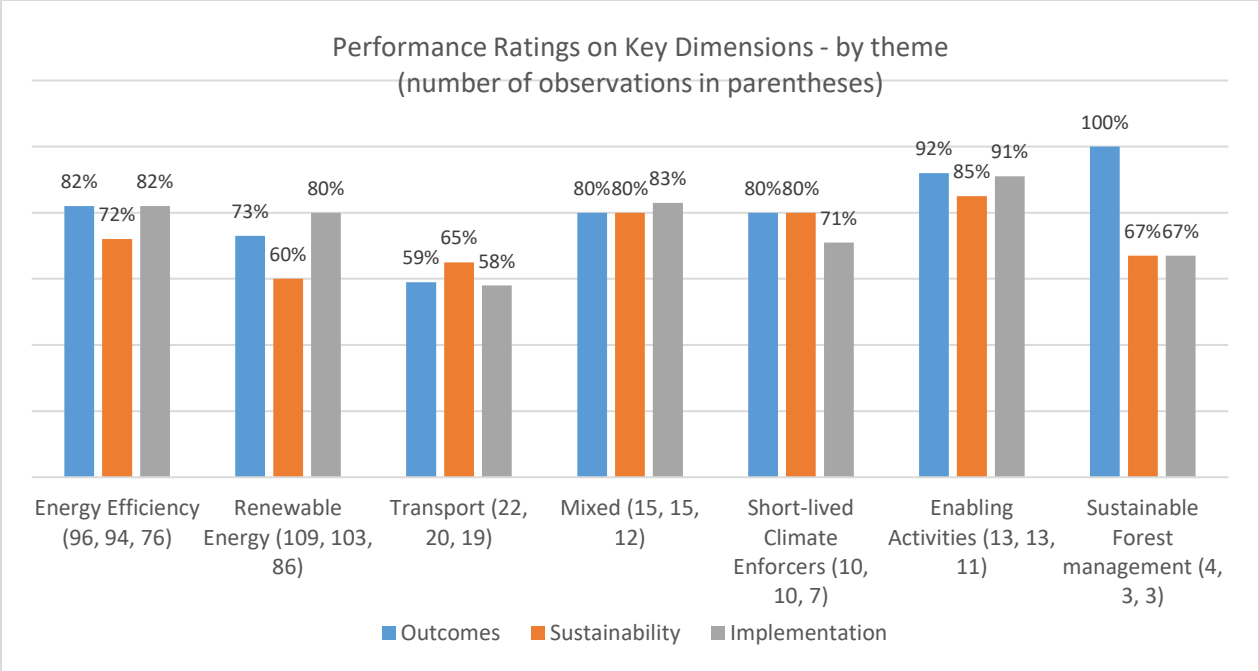


Figure 2: Performance ratings on key dimensions by theme.

The country context is one of the key drivers of project performance. Projects in Africa underperform relative to the other regions, on outcome performance as well as on sustainability of outcomes. Sixty-seven percent of projects in Africa have satisfactory outcomes as compared with 80 percent in other regions; and only 42 percent of projects in Africa were rated high for sustainability as compared with 75 percent of the projects implemented in other regions. Quality of project implementation in Africa tends to be 24 percent lower than other regions. Several evaluations conducted by the GEF IEO and other independent evaluation offices, such as the World Bank’s Independent Evaluation Group and IFAD’s Independent Office of Evaluation, indicate that factors contributing to lower project performance in Africa include lower government effectiveness, lower institutional capacities and resource constraints<sup>5</sup>. Of the seven country portfolio evaluations that have been undertaken by the GEF IEO in Africa, five noted difficulties in ensuring institutional coordination among government agencies as one of the key factors for low performance (Figure 3).

The importance of the country context in affecting project performance is also evident when we compare performance of GEF projects across select country groups with special circumstances. Eighty-nine percent of CCM projects in select emerging economies<sup>6</sup> have been rated in the satisfactory range for outcomes, compared to 77 percent for LDCs, 78 percent for LLDCs, and 45 percent for SIDS. Further, CCM projects in the relatively larger emerging economies also tend to be well implemented and project outcomes are more likely to sustain. The analysis also shows that, while outcomes of the project

<sup>5</sup> *Annual Report on Results and Impact of IFAD Operations*, IFAD IOE 2014, 2015, 2016; *Results and Performance of the World Bank Group* 2014, IEG 2014.

<sup>6</sup> Brazil, China, India, Mexico, Russia, and South Africa.

implemented in LDCs are as likely to be rated in satisfactory range as those of projects in other countries, they are less likely to sustain (Figure 4).

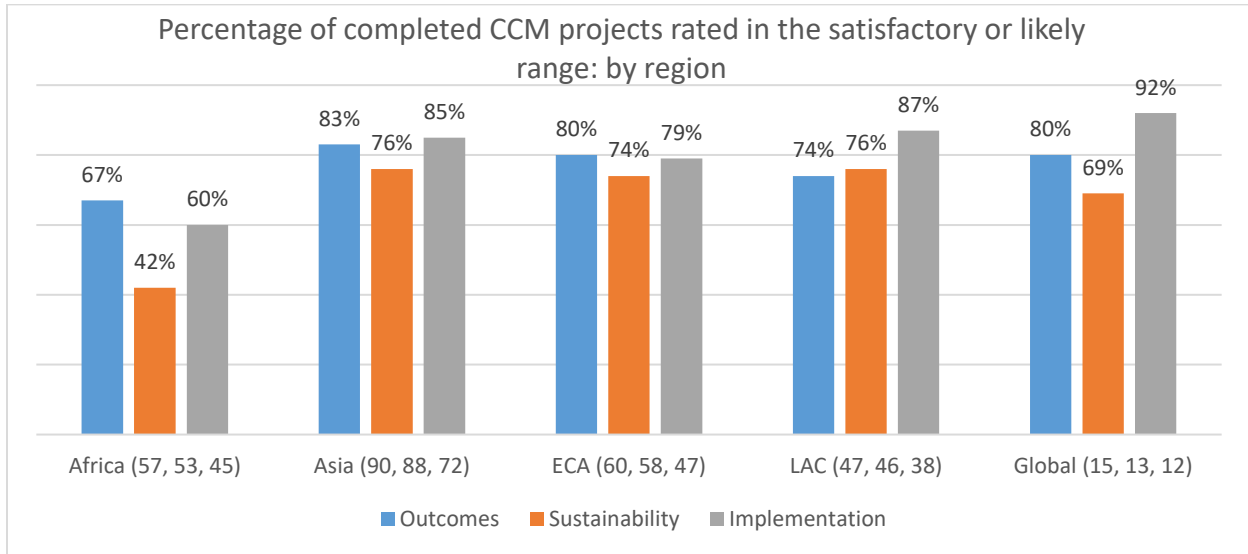


Figure 3: Percentage of completed CCM projects rated in the satisfactory or likely range by region.

Seventy-one percent of CCM projects achieved significant GHG avoidance benefits at the point of project completion.<sup>7</sup>

A sample of 88 projects were estimated to have achieved 1,362.6 million tons of CO<sub>2</sub> equivalent of GHG emissions avoidance (188 percent of their target), and in general the portfolio of energy efficiency projects performed better (232 percent) than the renewable energy projects (85 percent) in terms of CO<sub>2</sub> equivalent GHG avoidance target achievement.

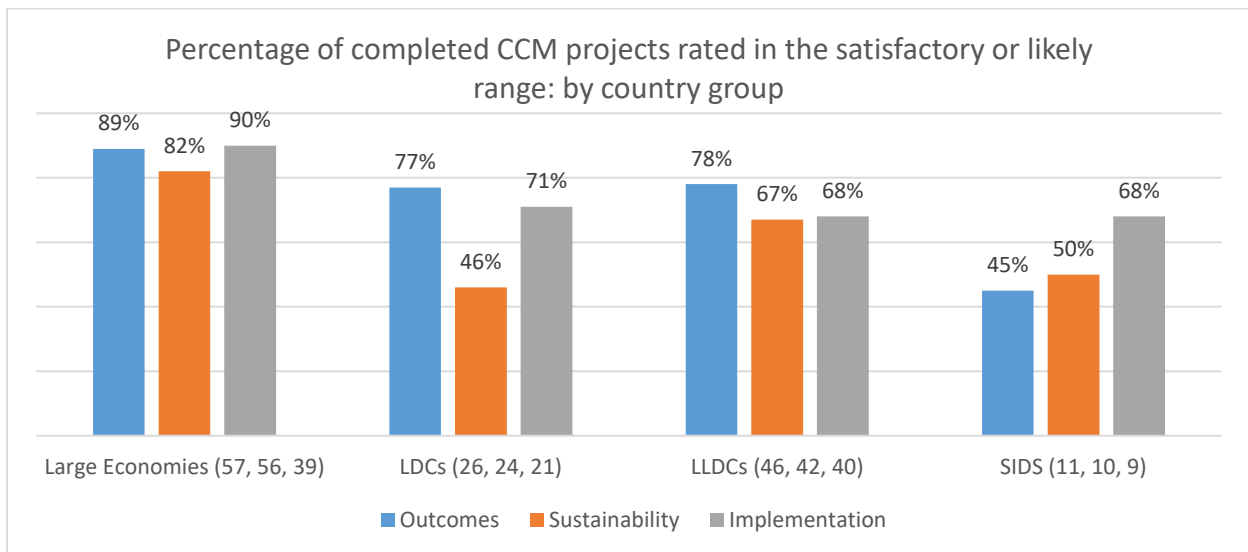


Figure 4: Percentage of completed CCM projects rated in the satisfactory or likely range by country group.

<sup>7</sup> Of the 581 completed projects for which terminal evaluations were received by the GEF IEO during calendar years 2013-2016, 415, including 98 CCM projects, were reviewed to assess the extent to which they were achieving stress reduction at project completion.



Fifty-nine percent of GEF CCM projects achieve “broader adoption” by project completion. Broader adoption is defined as the adoption of GEF approaches and/or technologies by other stakeholders beyond a given project’s temporal, geographic, sectoral, and/or administrative boundaries. It may take place through several mechanisms such as sustaining, mainstreaming, replication, scaling up, and market change (Box1). Fifty-nine percent of completed GEF CCM projects achieved broader adoption, which includes 26 percent that achieved broader adoption at a large scale.

**Box 1: Mechanisms for Broader Adoption**

**Sustaining:** when a GEF-supported intervention or outcome is continued to be implemented by the original beneficiaries without GEF support through clear budget allocations, implementing structures and institutional frameworks so that they can keep reaping the benefits and provide incentives for adoption by other stakeholders.

**Mainstreaming:** when information, lessons, or specific aspects of a GEF initiative become part of a stakeholder’s own initiatives, such as laws, policies, regulations, and programs. This may occur through governments and/or through development organizations and other sectors.

**Replication:** when a GEF-supported intervention is reproduced at a similar administrative or ecological scale, often in other geographical areas or regions.

**Scaling-up:** when GEF-supported initiatives are implemented at a larger geographical scale, often expanded to include more political, administrative, economic or ecological components. This allows concerns that cannot be resolved at lower scales to be addressed, and promotes the spread of GEF contributions to areas contiguous to the original intervention site.

**Market change:** when a GEF-supported intervention influences economic demand and supply shift to more environment-friendly products and services. This may encompass technological changes, policy and regulatory reforms, and financial instruments.

Mainstreaming was the most frequently observed, in 35 percent of CCM projects. Upscaling and market change related mechanisms facilitated broader adoption for a greater percentage of CCM projects, than for projects from other focal areas whereas a relatively lower share of CCM projects received follow up support (Table 2, Box 2).

**Table 2: Mechanisms for broader adoption**

	CCM Projects	GEF Portfolio
Observations	98	415
Sustaining	15%	25%
Mainstreaming	35%	38%
Replication	28%	22%
Upscaling	17%	11%
Market Change	13%	7%

**Box 2: Impact Evaluation on Climate Change Mitigation: GEF Support to Market Change in China, India, Mexico, and Russia (2014)**

This impact evaluation assessed 18 projects in four countries to determine the progress towards impact of GEF's climate change mitigation focal area and found that in total, the projects exceeded their combined GHG emissions reduction target by 39 percent. In addition, 16 of 18 projects analyzed resulted in significant direct GHG emissions reductions; indirect GHG emissions reductions, although not verified, were estimated to be greater than direct emissions reductions. In 15 of 18 projects, GEF had achieved its goal of broadening impacts through sustaining the outcomes and benefits of investments; mainstreaming information, lessons, and results of the projects; replicating projects in new regions; scaling projects beyond their initial dimensions; and changing and transforming markets. The evaluation also showed that projects with comprehensive approaches to addressing market barriers and specifically targeted supportive policy frameworks demonstrated the highest levels of progress toward impacts. GEF had successfully sped up the process of broader adoption of mitigation activities as well as improved the processes by which adoption takes place and contributed to economic development including job creation, local benefits, and general awareness.

Broader adoption is a step towards transformational change. Transformational change is characterized by interventions that achieve deep, systemic, and sustainable change with large-scale impact in an area of major environmental concern. The IEO developed a framework to assess transformational change, using the following four criteria to distinguish between GEF-supported interventions that are transformational in nature, and those that are “merely” successful, complex, and large in size<sup>8</sup>:

- **Relevance:** the intervention addresses a global environmental challenge such as climate change, biodiversity loss, and land degradation.
- **Depth:** the intervention causes or supports a fundamental change in a system or market.
- **Scale of change:** the intervention causes or supports a full-scale impact at the local, national, or regional level.
- **Sustainability:** the impact is financially, economically, environmentally, and politically sustainable in the long term, after the intervention ends.

By explicitly aiming for transformational change as part of project design, GEF support has contributed to scaling-up and market change in the energy sector at the national scale.

Project objectives play an important role in defining the scope of a project's impact. Case study evidence indicates that those projects that demonstrated positive environmental and socioeconomic outcomes by piloting innovations tended to show broader adoption after project end. However, when projects were designed to make fundamental changes impacting an entire system (i.e. a market) while at the same time being financially sustainable, transformational change at higher scales could already be observed during project implementation. In those cases, market barriers were addressed through sound policy, legal, and regulatory reforms, private sector engagement through targeted capacity-building and financial incentives, as well as developing mechanisms for financial sustainability, whether through the

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<sup>8</sup> World Bank Group (2016). Supporting Transformational Change for Poverty Reduction and Shared Prosperity – Lessons from the World Bank Experience. Learning Product. Independent Evaluation Group. Washington, DC.

market, through government budgets, or both. The transformation of the national renewable energy markets of China and Uruguay provide examples of successful design for transformational change can be (Box 3).

**Box 3: Designing for transformational change in China and Uruguay**

The *China Renewable Energy Scale-up Program* was designed as a long-term partnership between the national government, GEF, and the World Bank that aimed to increase the share of renewable energy sources in China’s power generation in a sustainable way. The first phase, approved in 2005, integrated a GEF grant of US\$40.2 million to help develop the legal, regulatory, and policy framework needed to stimulate the demand for and supply of renewable energy, and two World Bank loans totaling US\$ 173.3 million to demonstrate the benefits of investing in wind, biomass, and small hydro power in four provinces. The long and extensive project preparation efforts that included capacity-building activities were essential for overcoming the resistance of established interests in the sector, and achieving consensus on key policy directions and reforms. Between 2005 and 2010, China’s installed wind power capacity increased from 1.3 GW to 29.6 GW, greatly exceeding the original target of 10 GW. As of 2015, installed wind power capacity had reached 129.3 GW, amounting to 3.3% of China’s electric power generation and equivalent to about 82.7 million tons per year of avoided carbon emissions. The transformation of China’s renewable energy sector is such that it is now a global leader in wind energy generation and the manufacture of wind power equipment. These impacts are likely to be sustained given the government’s mainstreaming of a tariff policy recommended by the project that delivers attractive financial returns to renewable energy investors, and its commitment to further increase the share of non-fossil fuels to 15% by 2020, up from 9.4% in 2010.

The *Uruguay Wind Energy Program* was launched in 2007 to help eliminate barriers to the development of commercially viable wind energy investments. The country had almost exhausted its hydropower potential, and the default solution to meet the country’s growing energy demand had been to import fossil fuels. The national government, keen on exploring the long-term benefits of renewable energy, provided US\$53.7 million of co-financing to GEF’s US\$0.95 million grant. The program supported the creation of an enabling policy framework for wind energy, including regulations for construction and operation of wind farms, access and dispatch to the network, technical codes, and financial incentives. It strengthened business skills to prepare and implement wind energy technology with public and private delivery models. It also addressed technological barriers through the provision of measuring equipment, and the demonstration of the technology’s

The GEF has played an important role in policy reform in climate change in several countries. Success is not always easy and is dependent on a number of factors including having champions for reform, institutional capacity in countries, timing. The development of energy policies and laws was mostly observed in the area of renewable energy and energy efficiency. The impact was most visible in countries with high ownership (Philippines, Egypt) or highly vulnerable to climate change (Latin America and Caribbean countries). Table 3 presents some examples of the longer term outcomes observed as a result of GEF interventions in policy reforms in countries.

**Table 3: Summary of outcomes of legal and regulatory reform in countries**

Country	Law drafted or amended with GEF support	Results
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Namibia	Development of a Regulatory Framework for Renewable Energy and Government Directive	Power purchase agreements signed with 13 solar PV projects and 1 wind project. 800mMW gas-fired power station will come online this year.
Kazakhstan	Law on Energy Saving and Energy Efficiency Improvements	Government allocated \$62million to improve energy efficiency in residential buildings between 2011 and 2014. Heating systems were renovated in 1000 residential buildings.
Vietnam	National Strategy for Urban Lighting	25 provinces have developed regulations on public lighting, and electricity consumption for public lighting have declined from 6.71% per year in 2010 to 4.8% in 2014-2016 (estimated)
Philippines	Administrative reforms to promote energy efficiency lighting systems	Aggregate energy savings through the project is 7,684 Gwh and total GHG emission reduction is 3.4million tonnes CO2.

## Conclusion

Going forward, the GEF has an important role to play in strengthening the enabling environment for scaling up public and private climate investment. GEF climate change projects have frequently focused on policy and regulatory reform, public and private sector capacity building, and reducing information barriers and supporting market change through raising awareness of key stakeholder groups. GEF support has been limited but critical for development of energy policies and laws in some countries, primarily in the areas of energy efficiency (e.g., certification, standards, and labeling) and renewable energy (e.g., feed-in-tariffs). The GEF also has a role in continuing to pilot financial models to scale up energy efficiency and renewable energy adoption. In conclusion, in the changing landscape for climate finance, the GEF's comparative advantage lies in its ability to prepare the field for major investments into CCM efforts by other larger funds, as well as governments and the private sector.

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