



Focal Area: Climate Change

Scope of the Challenge

Climate change from human emissions of heat-trapping greenhouse gases (GHGs) is a critical global issue, requiring substantial action. These actions include investment to reduce emissions of greenhouse gases, and adapt to climate changes. The early impacts of climate change have already appeared, and scientists believe that further impacts are inevitable. Many of the most serious and negative impacts of climate change will be disproportionately borne by the poorest people in developing countries.

GEF Response

GEF projects in climate change help developing countries and economies in transition to contribute to both stabilizing and reducing atmospheric greenhouse gases at a level that prevents dangerous human interference with the climate system, and adapt to future climate change that may already be underway. As the financial mechanism of the United Nations Framework Convention on Climate Change (UNFCCC), the GEF allocates and disburses about \$250 million dollars per year in projects in energy efficiency, renewable energy, sustainable urban transport and sustainable management of land use, land-use change, and forestry. The GEF also manages two special funds under the UNFCCC — the Least Developed Countries Fund and the Spe-

KEY FACTS

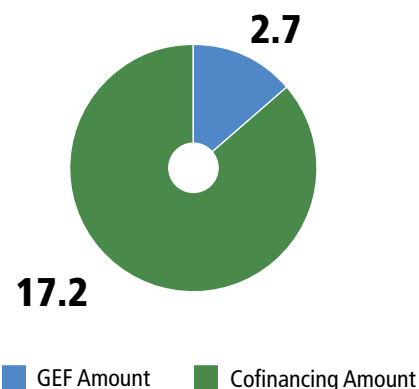
- Climate change is a critical and global issue, requiring substantial investment to reduce emission and adapt to climate changes.
- The GEF has invested \$2.7 billion to support climate change projects in developing countries and economies in transition, with another \$17.2 billion in cofinancing.
- More than 1 billion tons of greenhouse gas emissions, an amount equivalent to nearly 5 percent of annual human emissions, have been avoided with GEF support.
- Thirty climate-friendly technologies are being supported by the GEF for energy efficiency, and to increase renewable energy as well as sustainable urban transport.
- GEF climate change projects have played a catalytic role in developing proactive national policy frameworks, pioneering innovative financial instruments, and promoting market-based mechanisms to encourage widespread adoption and dissemination.
- The GEF and the two GEF-managed UNFCCC funds: the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) have together mobilized more than \$300 million for concrete adaptation activities in developing countries.
- With GEF, LDCF and SCCF support, millions of people in vulnerable communities around the developing world have been made more resilient to the impacts of climate change through concrete adaptation activities in key development sectors such as agriculture, water, health, coastal zone management, disaster risk management and prevention, infrastructure development, and fragile ecosystems.



SUMMARY BY FOCAL AREA:

CLIMATE CHANGE

Amounts in billion USD



cial Climate Change Fund, which have together mobilized more than \$250 million dollars specifically earmarked for activities related to adaptation and technology transfer.

GEF helps developing countries undertake “win-win” projects to reduce emissions of GHGs that also create benefits for local economies and their environmental conditions. GEF programs take a long-term perspective, transforming energy markets in developing countries by enabling these markets to operate more efficiently and shift away from carbon-intensive technologies.

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Activities

CLIMATE CHANGE MITIGATION

The GEF’s efforts to reduce or avoid greenhouse gas emissions include renewable energy, energy efficiency, and sustainable urban transport. The deployment and transfer of new technology lie at the heart of the GEF’s work in this area, and GEF climate change projects are catalysts for this technology transfer.

RENEWABLE ENERGY

The GEF helps countries remove barriers to developing markets for renewable energy, including centralized and decentralized applications and energy production from biomass. GEF support helps create enabling policy frameworks, build the capacity for understanding and using the technologies, and promote market approaches to renewable energy technologies.

ENERGY EFFICIENCY

The GEF promotes energy efficiency, helping to remove barriers preventing the large-scale application, implementation, and dissemination of cost-effective, energy-efficient technologies and practices. GEF supports market transformation of energy-efficient appliances and widespread adoption of energy-efficient technologies and sustainable financial mechanisms in industry and building sectors.

SUSTAINABLE TRANSPORT

The GEF supports projects that promote a long-term shift toward low emission and sustainable forms of transportation, including public rapid transit, energy efficiency improvement of the fleet, nonmotorized transport, traffic demand management, and land-use planning.



SUSTAINABLE MANAGEMENT OF LAND USE, LAND-USE CHANGE, AND FORESTRY

The GEF promotes the reduction of GHG emissions from deforestation and forest degradation, and carbon sequestration. GEF support helps create a methodology for estimating carbon stocks and avoided emissions, as well as enabling policy frameworks and investments to reduce pressures on the forest and to enhance carbon sinks.

NEW LOW-CARBON ENERGY TECHNOLOGIES

The GEF provides support for new technologies with lower greenhouse gas emissions to lower costs and develop markets, including large-scale solar power plants, fuel-cell buses, and building-integrated solar photovoltaics. Providing developing countries with early experience in new, low-carbon energy technologies expands demand, which increases supply and reduces cost. The reduced costs help developing countries adopt those technologies earlier and with a wider scope.

CLIMATE CHANGE ADAPTATION

The GEF's support to adaptation was initially limited to financing vulnerability and adaptation assessments and capacity building. However, since 2001 the focus of GEF adaptation work has become to support the implementation of concrete adaptation projects on the ground. The aim is to increase the resilience of vulnerable countries, sectors, and communities to the adverse impacts of climate change, including variability. Under its strategic priority on adaptation, the GEF supports projects that can be integrated into national policies and sustainable development planning, providing real longer-term benefits. In addition, the GEF manages the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), established by the Climate Convention.

ADAPTATION FINANCING IN ACTION: BHUTAN

An LDCF adaptation project is helping the people of Bhutan and other countries in the Himalayas to manage and adapt to the potential climate change threat of bursting glacial dams formed from rapidly melting glaciers. The project will help the Bhutan government integrate climate risk projections into existing disaster risk management system and ensure that the existing early warning system is expanded to cover this growing risk.

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Projects financed under these funds have clear development objectives, including food security, access to water for drinking and irrigation, disaster prevention, and control of diseases that spread because of climate change, such as malaria and dengue fever. In projects supported under these funds, climate change risks and adaptation interventions are integrated into national development policies, plans, programs, projects, and actions.

LEAST DEVELOPED COUNTRIES FUND

The LDCF addresses the needs of the Least Developed Countries (LDCs) that are especially vulnerable to the adverse impacts of climate change. Funds have been used for preparing National Adaptation Programmes of Action (NAPAs) to identify urgent and immediate needs to adapt to climate change. Currently, the focus is on NAPA implementation, and more donor contributions are searched for up-scaling action.

The GEF developed a streamlined project cycle and simplified procedural rules to allow these countries easier access to the fund. The GEF has so far mobilized \$176 million for the LDCs. First results show that, despite their small economies and limited institutional and technical capacities, these countries are now providing promising examples of reducing vulnerability and increasing adaptive capacity to the adverse impacts of climate change and variability.

SPECIAL CLIMATE CHANGE FUND

The SCCF was established under the Climate Convention to finance activities, programs, and measures emphasizing adaptation to climate change, but also relating to:

- Technology transfer
- Energy, transport, industry, agriculture, forestry, and waste management
- Activities to assist developing countries whose economies are highly dependent on income generated from the production, processing, export, or consumption of fossil fuels and associated energy-intensive products in diversifying their economies.

The SCCF Adaptation Program has so far mobilized more than \$100 million dollars and includes projects that finance adaptation measures in the following sectors:

- Agriculture and food security — helping the food production sector to maintain output under climate stress (e.g., Mozambique, China, and Mongolia)
- Water resources — securing a sustainable supply of fresh water resources for agriculture and domestic purposes (e.g., Ecuador, the Andes region, and Mexico)
- Infrastructure, coastal zone management, and disaster preparedness (e.g., Guyana, the Pacific region, and Egypt)
- Health — the effects of climate change on disease vectors and other public health concerns (e.g., Ghana, China, and Uzbekistan).