



About the Global Environment Facility

Scope of the Challenge

There is no shortage of environmental and development challenges facing governments around the world today: climate change, water and air pollution, species loss. Many of these challenges cross national borders, and too often negatively affect developing countries, especially the world's most vulnerable, in disproportionate ways.

GEF Response

The GEF has been a driving force since 1991 to improve the lives of millions of people while creating the conditions for sustainable development. Working in partnership with countries, international institutions, nongovernmental organizations, and the private sector, the GEF motto of "Investing in the Planet" is translated into the human capacity to create a better life.

The GEF project portfolio is diverse, and as with any investment portfolio, provides returns that vary over several time horizons. In some areas, the GEF acts more like a venture capital fund to "seed" new ideas, technologies, and enterprises. In other areas, the GEF is a social entrepreneur, providing, for example, more than 10,000 small grants directly to community groups and other civil society organizations in 120 countries.

KEY FACTS

- Over the past 18 years, the GEF has invested \$8.6 billion directly and leveraged \$36.1 billion in cofinancing for more than 2,400 projects in more than 165 countries.
 - The GEF is the world's leading international institution dedicated to investing in the joint management, care, and restoration of our planet.
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One of the GEF's strengths is the number and type of partnerships. Investments are made through the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the World Bank, regional development banks, and a number of other UN agencies. The GEF supports a number of UN environmental conventions, as well as the Montreal Protocol and activities related to international waters. The GEF is also working in close partnership with civil society organizations to implement projects through non governmental and community-based organizations.



Having the GEF serve as the financial mechanism for a number of international environmental conventions avoids duplication, since each convention does not have to establish its own financing arm and oversight process. Working through a network of 10 different agencies (see box) that implement its projects allows the GEF to stimulate constructive competition and select the best and most cost-effective initiatives from a larger pool.

The GEF strives to ensure that investments and partnerships produce maximum environmental benefits. Through the independent GEF Monitoring and Evaluation Office, regular reviews evaluate the global impacts of GEF programs. These reviews, conducted by external experts on a continual basis, provide open and transparent criticisms and recommendations of GEF projects.

Activities: Six Critical Focal Areas

With increasing threats from climate change, pollution, and the loss of biodiversity, the GEF's investments in six focal areas are not just necessary, they are critical. The GEF is a key catalyst and innovator, providing two essential components to meet the world's goals for development: climate protection and the conservation of natural resources, including the earth's rich biodiversity.

CLIMATE CHANGE

In the climate change focal area, more than \$2.7 billion has been allocated to support projects in developing countries and economies in transition. These projects have in turn leveraged an additional \$17.2 billion in cofinancing and resulted in the reduction of more than 1 billion tons of greenhouse gas emissions, an amount equivalent to nearly 5 percent of annual human emissions.

The GEF's efforts to reduce or avoid greenhouse gas emissions include renewable energy, energy

efficiency, sustainable transport, and land use, land-use change, and forestry (LULUCF). We support the demonstration, deployment, and diffusion of more than 30 climate-friendly technologies in energy efficiency, renewable energy, and sustainable urban transport. GEF climate change projects have also played a catalytic role in creating enabling policy and regulatory frameworks, pioneering innovative financial instruments, and promoting market-based mechanisms that have led to widespread adoption and dissemination.

CONSERVING BIODIVERSITY

The GEF has led global efforts to conserve biodiversity, investing in 800 projects covering more than 150 countries. The GEF has also invested in the creation or management of 1,600 protected areas covering 360 million hectares, and helped incorporate biodiversity protection and planning over more than 100 million hectares of productive lands. The GEF has ensured these efforts continue by creating 26 trust funds totaling more than \$300 million.

INTERNATIONAL WATERS

In the international waters focal area, the GEF is the largest investor in multicountry collaborations on shared water systems. Projects across multiple country boundaries have included 30 river and lake basins, 5 groundwater basins, and 19 of the planet's 64 large marine ecosystems. More than \$1 billion of GEF funds has leveraged \$4.7 billion in cofinancing for water, environment, and community security projects across more than 170 countries.

The interconnected Danube River and Black Sea serves as good example of the benefits of cooperation among countries fostered by the GEF's international waters focal area. GEF resources have helped bordering countries take collective



action through regional treaties, even in times of economic transition and armed conflict. Through the Danube and Black Sea Environmental Forums, for example, regional and national governance institutions and civil society participation have been established and strengthened.

LAND DEGRADATION

The land degradation focal area has allocated \$332 million in incremental GEF resources to 88 projects and programs supporting sustainable land management as a cost-effective approach to combat land degradation, and desertification and deforestation in particular. More than \$2.3 billion was leveraged in cofinancing. These interventions contribute to global environmental benefits provided by ecosystems in agricultural and production landscapes while simultaneously improving the livelihoods of millions of rural people.

PERSISTENT ORGANIC POLLUTANTS

The GEF has facilitated the assessment of the extent of persistent organic pollutants (POPs) problems and capacity-building needs in 135 countries, and of the priority actions necessary to implement the Stockholm Convention. In total, \$340 million were allocated for measures that will reduce human and environmental exposure to POPs, leveraging an additional \$474 million. Projects underway around the world are removing and disposing of significant amounts of obsolete pesticides and phasing out industrial chemicals and disposing of associated wastes, resulting in long-lasting global and local benefits for health and the environment.

OZONE

The GEF is also helped to protect the ozone layer. In the past 15 years, for example, the GEF has provided technical and financial support to help 18 countries with economies in transition in Central and Eastern Europe and the former Soviet Union to reduce their consumption of ozone depleting substances by 99 percent.

PARTNERS

United Nations Development Programme (UNDP)
United Nations Environment Programme (UNEP)
World Bank
African Development Bank (AFDB)
Asian Development Bank (ADB)
European Bank for Reconstruction and Development (EBRD)
Inter-American Development Bank (IDB)
International Fund for Agricultural Development (IFAD)
UN Food and Agriculture Organization (FAO)
UN Industrial Development Organization (UNIDO)

UN CONVENTIONS SUPPORTED BY THE GEF

Convention on Biological Diversity (CBD)
United Nations Framework Convention on Climate Change (UNFCCC)
Stockholm Convention on Persistent Organic Pollutants (POPs)
United Nations Convention to Combat Desertification (UNCCD)
Montreal Protocol of the Vienna Convention on Ozone Layer Depleting Substances

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Capacity Building

A strategic approach for capacity building is supporting projects that aim to build institutional, human, and legislative capacity in developing countries to implement international conventions and agreements. The approach is implemented through four well coordinated pathways: National Capacity Self Assessments (NCSA), regular GEF projects within each focal area, cross-focal area capacity-building projects (legislation, information, institutional capacity building), and country-specific programs for addressing critical capacity-building needs in LDCs and SIDS. The GEF already funded more than 144 projects for NCSA projects and more than 25 cross-focal area capacity-building projects.

SMALL GRANTS, BIG EFFECT

The GEF's Small Grants Programme has invested \$450 million in over 10,000 projects by including communities of indigenous people, community-based organizations, and other nongovernmental groups. Even though these grants are small, an independent evaluation has shown they help local communities achieve and sustain global environmental benefits, mainly in the areas of land degradation, biodiversity, and climate change.

GEF FUNDING TO COUNTRIES (TOP 10 FROM 1991 TO THE END OF 2008)

COUNTRY	GEF FUNDING
China	US\$733.25
Brazil	US\$370.83
India	US\$312.33
Mexico	US\$287.25
Russian Federation	US\$234.69
Philippines	US\$165.31
Indonesia	US\$130.16
Egypt	US\$99.65
Vietnam	US\$90.87
South Africa	US\$87.70

For more information, see
 "Behind the Numbers,
 A Closer Look at GEF Achievements"
 that can be found on the GEF Web site.





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

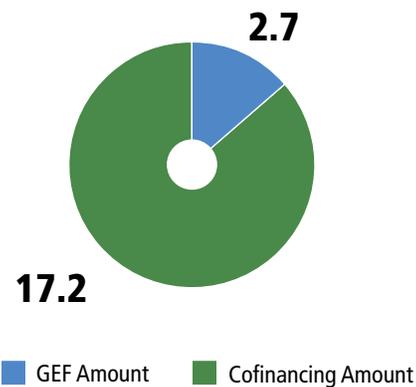
- Climate change is a critical and global issue, requiring substantial investment to reduce emission and adapt to climate changes.
- The GEF has invested \$2.7 billion to support climate change projects in developing countries and economies in transition, with another \$17.2 billion in cofinancing.
- 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.

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.

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).





GEF Focal Area: Biodiversity

Scope of the Challenge

Of all global environmental challenges, the loss of biodiversity, and the concomitant degradation of ecosystem services, is the only one likely to be irreversible. At the current scale, the loss of biodiversity from habitat change, overexploitation, invasive alien species, climate change, and pollution is threatening the life support systems that sustain societies and economies.

The rate of global biodiversity loss, as measured by threats to species, could be up to 1,000 times the rates previously observed in the geologic record. The GEF-funded Millennium Ecosystem Assessment found that 60 percent of the 24 primary ecosystem services that provide humanity with food, fiber, and fuel, among other important services, is being used unsustainably to meet rapidly growing human demands. Reversing this unprecedented loss of biodiversity and degradation of ecosystems is a significant challenge requiring substantial changes in policies, institutions, and practices.

GEF Response

The GEF's biodiversity portfolio has been the largest focal area portfolio in terms of grant amounts provided, and accounts for about one-third of total GEF investment to developing

KEY FACTS

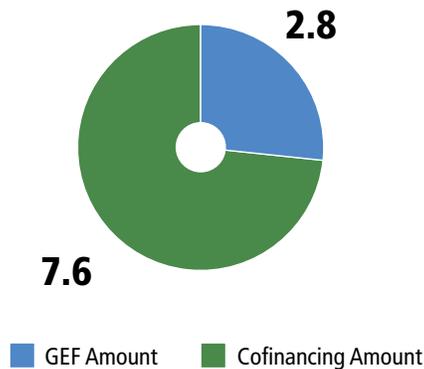
- The GEF has invested \$2.8 billion, leveraging \$7.6 billion in cofinancing, for 790 projects in more than 155 countries to conserve and sustainably use biodiversity.
- The GEF is the largest funding mechanism for protected areas worldwide, investing more than \$1.6 billion of GEF money plus \$4.2 billion in cofinancing to 1,600 protected areas, equivalent to the combined area of Greenland and Mongolia.
- The GEF has supported both the development of National Biosafety Frameworks in 122 countries and their subsequent implementation under the Cartagena Protocol.
- Through GEF investments, biodiversity is being conserved and sustainably used in more than 100 million hectares of productive lands.



SUMMARY BY FOCAL AREA:

BIODIVERSITY

Amounts in billion USD



countries and to those with economies in transition. Since 1991, the GEF has invested about \$2.8 billion and leveraged about \$7.6 billion in cofinancing for 790 projects that address the loss of globally significant biodiversity in more than 155 countries.

As the financial mechanism of the Convention on Biological Diversity (CBD) — the global multilateral accord dedicated to address biodiversity issues — the GEF helps developing countries and countries with economies in transition to meet their Convention commitments while generating global environmental benefits.

The goal of GEF's biodiversity program is the conservation and sustainable use of biodiversity, the maintenance of ecosystem goods and services, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

The GEF's biodiversity strategy has evolved from focusing solely on site-specific action to investments that address systemic barriers to sustaining the conservation and sustainable use of biodiversity over the medium to long term. The strategy encompasses four objectives:

- improving the sustainability of protected area systems,
- mainstreaming biodiversity conservation and sustainable use into production landscapes/seascapes and sectors
- safeguarding biodiversity through: (i) building country capacity to implement the Cartagena Protocol on Biosafety (CPB), and (ii) prevention, control, and management of invasive alien species
- capacity building on access to genetic resources and benefit-sharing.

Together, these objectives make a substantial contribution to implementing most of the Millennium Development Goals, particularly environmental sustainability and poverty reduction, while meeting the priorities identified by the Conference of the Parties (COP) of the CBD.

Priorities and Projects

PROTECTED AREAS

The GEF has been the largest investor in the creation and effective management of protected areas around the world — more than \$1.6 billion of GEF money plus \$4.2 billion in cofinancing has been directed to 1,600 protected areas, covering 360 million hectares, equivalent to the combined area of Greenland and Mongolia, and close to 20 percent of total land area protected globally.

CONSERVATION TRUST FUNDS

The GEF is recognized as a pioneer in supporting more than 26 conservation trust funds worldwide, investing more than \$300 million in total.

SMALL GRANTS PROGRAMME

The Small Grants Programme has supported more than 5,200 community-based biodiversity projects, totaling \$117 million, which have leveraged an additional \$81 million in cash cofinancing and \$85 million in in-kind contributions.

CRITICAL ECOSYSTEM PARTNERSHIP FUND

The Critical Ecosystem Partnership Fund (CEPF) is a partnership among the GEF, the governments of France and Japan, the MacArthur Foundation, Conservation International, and the World Bank designed to help nongovernmental organizations (NGOs) and private sector partners protect the earth's biologically richest regions, or biodiversity hotspots. CEPF has supported more than 1,000 civil society groups in 33 countries.

MAINSTREAMING BIODIVERSITY INTO PRODUCTION LANDSCAPES AND SEASCAPES

The GEF supports efforts to remove the barriers that prevent public and private sector actors from mainstreaming biodiversity, including the development of the policy and regulatory frameworks that promote and reward mainstreaming and the strengthening capacities of resource managers to produce biodiversity-friendly goods and services.

PAYMENT FOR ECOSYSTEM SERVICES

The GEF's biodiversity mainstreaming portfolio includes more than 30 projects that apply the mechanism of "Payment for Ecosystem Services (PES)." Within these projects, the GEF supports the design and implementation of PES schemes to compensate resource managers for off-site ecological benefits. Investments have been made in the development of national systems of PES, regional or local schemes with investments from the private sector, and public-private partnerships. Through a PES project, for example, the biodiversity-rich nation of Costa Rica went from having the highest deforestation rate in Latin America to having the highest natural reforestation rate among all tropical countries. (see below).

NATIONAL BIOSAFETY FRAMEWORKS

The GEF has supported the Cartagena Protocol on Biosafety (CPB) by providing financial support for four different types of activities: the development of the National Biosafety Frameworks (NBF), the implementation of these NBF, the participation in the Biosafety Clearing House (BCH), and building the capacity and public awareness for the for compliance with the CPB. GEF has supported 130 countries in developing their National Biosafety Frameworks (NBF) while promoting regional collaboration and exchange of good practices. GEF has invested \$36 million and leveraged \$13 million in cofinancing for these efforts. Support for the full implementation of the National Biosafety Framework and the Cartagena Protocol on Biosafety has been provided to 24 countries, with an investment of \$17 million leveraging \$25 million in cofinancing. During GEF-4, 27 additional countries have received approval to develop the proposals

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for the implementation of their NBF with an investment of \$25 million and \$29 million in cofinancing. GEF has also invested in building the capacity for the effective participation in the Biosafety Clearing House (BCH) of the Cartagena Protocol. Support for this activity has been provided to over 100 countries with an investment of \$13.5 million.





Focal Area: International Waters

Scope of the Challenge

Nature does not neatly segment environmental or water problems by geography or political unit. Most of the large rivers of the world cross national borders, often resulting in water-use conflicts and tensions, as well as missed opportunities for sustainable development, peace, and security. The sustainable development challenges faced by nations sharing transboundary water resources include pollution, overuse of water for irrigation and diversions, loss of critical habitats and biodiversity, ship waste, and alien species.

About 60 percent of our planet's land area and population and more than 60 percent of global freshwater flow are located in transboundary surface and groundwater basins. They provide national water security, national food security, regional conflict mitigation, and the protection of important international ecosystems. Collective, multicountry cooperation toward a shared vision of action is necessary to continue sustaining the many benefits from these complex water systems.

GEF Response

Since its establishment in the early 1990s, the GEF has pioneered processes to help countries build their trust and confidence in working together on issues that affect their shared water

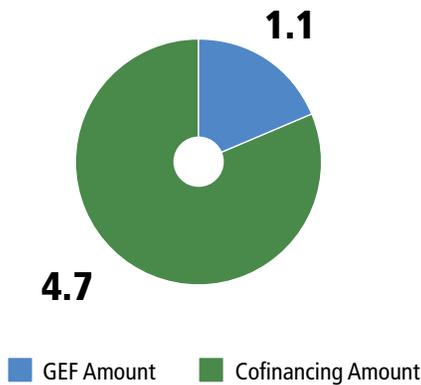
KEY FACTS

- Water resources that cross national borders dominate our planet, with 70 percent of its area being ocean and 60 percent of the earth's land area and population in transboundary surface and groundwater systems
- At the present rate of degradation most reefs will be gone in 50 years, along with livelihoods for half a billion people.
- Projects across multiple country boundaries have included 30 river and lake basins, 5 groundwater basins, and 19 of the planet's 64 large marine ecosystems, including half of those shared by developing countries.
- More than \$1.1 billion of GEF investment has leveraged \$4.7 billion in cofinance for water, environment, and community security projects across more than 170 countries.
- The GEF's International Waters focal area is the largest ecosystem-based and coordinated program of action to reverse the depletion of marine fisheries.



SUMMARY BY FOCAL AREA:
INTERNATIONAL WATERS

Amounts in billion USD



resources, including legal and policy reforms. As a result, 149 GEF recipient countries have sought and received funding to work alongside 23 nonrecipient countries to improve regional collaboration and share benefits from their particular transboundary water systems.

Over this period the GEF has allocated \$1.1 billion in grants, with \$4.7 billion in cofinancing for 183 projects in its International Waters focal area. The GEF is the largest financial institution with the mandate, ability, and experience to address current and future challenges to shared freshwater and marine systems.

The GEF helps countries to collaborate with their neighbors to modify human activities that place stress on these transboundary water systems and interfere with downstream uses of those resources. In this way, water-use conflicts can be prevented, security improved, and sustainable resource use fostered in support of global goals.

Current strategic programs include:

- Restoring and sustaining coastal and marine fish stocks and associated biological diversity
- Reducing nutrient overenrichment and oxygen depletion from land-based pollution of coastal waters in Large Marine Ecosystems consistent with the Global Program of Action (GPA)
- Balancing overuse and conflicting uses of water resources in surface and groundwater basins that are transboundary in nature
- Reducing persistent toxic substances and testing adaptive management of waters with melting ice.

The GEF has now supported regional collaborative efforts for 22 transboundary surface water basins, 16 large marine ecosystems, and 5 cross-border groundwater systems. Although the GEF's International Waters focal area does not serve as a financial mechanism for a specific convention, it is associated with many global and regional conventions that are involved with transboundary water systems, mostly at a regional level, and helps countries to negotiate additional regional legal frameworks to sustain these water systems.

The development of 13 new regional treaties, protocols, and regional agreements during these GEF projects highlights that many countries view the sustainability of these systems as critical to their future development. For example, the Convention on the Sustainable Management of Lake Tanganyika and the Western and Central Pacific Fisheries Convention have resulted from GEF international waters projects.

An integral part of these regional projects has been the support of local demonstration projects to clearly show how communities can balance the competing uses of their water systems and share their living resources. In this way, the GEF has helped many countries with technology transfer and the adoption of more integrated management approaches. The GEF's catalytic activities help to promote greater collaboration between countries, national ministries, and even local communities.

Activities

PROMOTING REGIONAL SECURITY

Together with its development partners, the GEF supports a range of programs to foster cooperation, build trust, and promote greater security across entire regions, including the Danube/Black Sea Basin and the Marine Coral Triangle and Nile Basin Initiatives.

RIVER BASINS — COLLABORATING ACROSS BORDERS

Through a \$1.1 billion portfolio that includes more than 50 projects, the GEF and its partners are assisting countries on four continents to improve their understanding and shared management of 30 lake and river basins. This approach includes legal, policy, and institutional reforms to address priority threats, support regional institutional development, provide technical assistance and investments, and offer a forum for nations to discuss and resolve conflicting views in a transparent manner.

MANAGING TRANSBOUNDARY GROUNDWATER AQUIFERS

Growing populations and intensive irrigation are already outstripping surface water resources,

and millions of people are beginning to rely on their shared aquifer systems for drinking water that are now under threat from overuse and pollution. The GEF is working to support a number of transboundary groundwater management projects across four continents, using a wide variety of approaches to conserve and protect their shared groundwater systems.

INTEGRATED MANAGEMENT OF COASTAL RESOURCES

The GEF is supporting Integrated Coastal Management (ICM) as a broader, more systemic approach to the management of coastal environments, fostering the sustainable development of coastal areas by bringing together government technical specialists and local stakeholders.

REDUCING COASTAL DEAD ZONES

Over the past decade the GEF has supported a number of projects to reduce nitrogen and phosphorus pollution in some of the world's most vulnerable water systems such as the Danube and Black Sea Basin, the seas of East Asia, and the Mediterranean Sea. The GEF has supported 12 regional projects, 20 single-country investment projects within four regional partnerships, and separate funds to encourage local investment in nutrient reduction. Exciting new projects include the development of artificial wetlands that can mimic nature by filtering and consuming potential pollutants in the wastewater stream.

AN ECOSYSTEM-BASED APPROACH TO COASTAL FISHERIES MANAGEMENT

The GEF is working with countries to protect large marine ecosystems through ecosystem-based management of transboundary coastal and marine resources. Eighty-five percent of

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\$80 billion global fish catch comes from 64 of these ecosystems that parallel the continental shelves. With GEF support, 124 different countries are now working together on 19 shared large marine ecosystems.

REDUCING ENVIRONMENTAL RISKS OF MARITIME TRANSPORT

GEF projects address pollution from maritime transport, help to improve port management and facilities, address spill prevention, and support contingency planning for special transport areas, such as the Mediterranean and the Caribbean. The GEF has also helped to build the capacity needed for countries to sign and ratify maritime-related global conventions such as the International Convention for the Prevention of Pollution from Ships (MARPOL), and control pathogens and alien invasive species — including disease organisms — carried in ship ballast water.

HELPING SMALL ISLANDS STATES (SIDS)

The GEF works with island nations in the Pacific, the Caribbean, and Africa to foster reforms, investments, and greater community participation in the development of practical and cost-effective solutions to water concerns such as fish stocks, pollution from untreated wastewater, and water supply protection. In fact, the GEF is providing support to 33 SIDS to protect their valu-

able surface and groundwater drinking supplies as well as to reduce pollution of their coastal lagoons and reefs.

SHARING INFORMATION AND EXPERIENCES

To share information and experiences across the more than 180 projects under the International Waters focal area, the GEF and its partner agencies have operated the GEF International Waters Learning Exchange and Resource Network, IW:LEARN (www.iwlearn.net). IW:LEARN promotes networking, knowledge sharing, and peer learning among stakeholders within and across regions, helping to share best practices and improve the quality of all GEF projects.

For more information, see the GEF publication "From Ridge to Reef," downloadable from the GEF Web site.



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET



GEF Focal Area: Land Degradation

Scope of the Challenge

The deterioration of soil fertility, the loss of forest cover, and the erosion of rangelands reduce the ability of the land to grow food, provide products, and maintain the health of local ecosystems that support countless other species. Globally, land degradation adversely affects the ecological integrity and productivity of about 2 billion ha, nearly one-quarter of all landscapes under human use.

Agricultural lands in both dryland and forest areas have been most severely affected by land degradation. They cover about one-fourth of the world's total land area and account for 95 percent of all animal and plant protein and 99 percent of calories consumed by people. About two-thirds of agricultural land has been degraded to some extent during the last 50 years, and up to 40 percent of the world's agricultural land is seriously degraded.

Land degradation is a worldwide challenge, substantially affecting productivity in more than 80 countries and especially serious in Africa where 36 countries face dryland degradation or desertification. The impact of land degradation has already put at risk the livelihoods, economic well-being, and nutritional status of more than 1 billion people in developing countries.

KEY FACTS

- Land degradation adversely affects the ecological integrity and productivity of about 2 billion ha, or 23 percent of landscapes under human use.
- Up to 40 percent of the world's agricultural land is seriously degraded.
- The GEF has invested \$332 million in 88 projects and programs supporting sustainable land management to combat desertification and deforestation.
- \$2.4 billion has been leveraged in cofinancing to help the global environment while simultaneously improving the livelihoods of millions of rural people who rely on agriculture, forests, and rangelands.

GEF Response

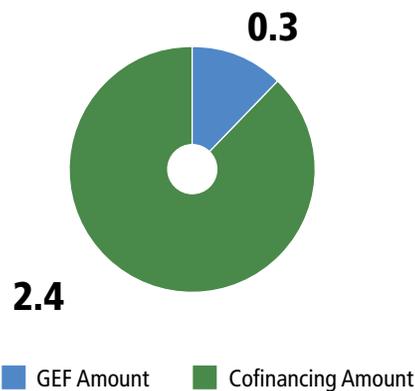
In 2002, the GEF mandate was expanded to include the fight against land degradation, primarily desertification and deforestation, as a focal area to support the United Nations Conven-



SUMMARY BY FOCAL AREA:

LAND DEGRADATION

Amounts in billion USD



tion to Combat Desertification (UNCCD). This decision, coupled with the GEF's designation as a financial mechanism for the UNCCD, made sustainable land management a major focus of the GEF.

The GEF's program on promoting sustainable land management focuses on integrated approaches to natural resources management, covering all the major rural land use systems: agriculture, rangeland, and forestry.

The GEF has invested \$332million in 88 projects and programs supporting sustainable land management to combat desertification and deforestation. More than \$2.4 billion has been leveraged in cofinancing to help the global environment while simultaneously improving the livelihoods of millions of rural people who rely on agriculture.

The GEF's land degradation focal area holistic view is unique. The focus is not on individual benefits, but rather on synergies among various GEF focal areas. Projects are targeted at integrating sustainable land management into national development priorities; strengthening human, technical, and institutional capacities; creating needed policy and regulatory reforms; and implementing innovative sustainable land management practices.

The GEF work also emphasizes partnerships as the basis for sustainable land management. In addition to working with its implementing and executing agencies, the GEF partners with the scientific community, nongovernmental organizations, bilateral agencies, and others to tackle the complexity of land degradation issues. Moreover, GEF projects promote collaboration within countries, helping government agencies work together and harmonize their policies and programs in order to provide an enabling environment for sustainable land management.

An essential part of this work is supporting on-the-ground investments to address land degradation. These investment funds are packaged in a number of ways to improve the livelihood of local people and to preserve or restore the health of local ecosystems, ensuring the human goods and services they provide continues.

Priorities and Projects

The GEF focuses on projects and investments related to sustainable agriculture, rangeland, and forest management.

AGRICULTURE

Sustainable agricultural practices can help maintain or improve the productivity of both rain-fed and irrigated agriculture.

The GEF promotes sustainable agriculture that integrates environmental health, economic profitability, equity, and social objectives. At the technical level, GEF projects promote crop diversification, crop rotation, water harvesting, and small-scale irrigation schemes. Projects also address human resources in sustainable agriculture, including the working and living conditions of farmers, the needs of rural communities, and consumer health and safety.

The GEF advocates a “landscape approach” that addresses the interconnections between systems at different scales: from the individual farms, to the local ecosystems, to the communities affected by farming systems locally, regionally, and globally. This approach allows a larger and more comprehensive view of the consequences of farming practices on both human communities and the environment.

RANGELAND

The GEF promotes the sustainable management of rangelands through the strengthening of viable traditional rangeland management systems and other measures that improve soil and water conservation. Activities also support the GEF goal of conserving biodiversity resources, and their sustainable use.

The GEF emphasizes rangeland management systems that livestock producers need to sustainably prosper: management planning, animal selection, animal nutrition and reproduction, herd health, and grazing management.



RANGELAND MANAGEMENT IN PATAGONIA

Argentina’s Patagonia region is a rich mosaic of varied arid and semi-arid areas, interspersed with riparian wetlands. The ecosystems collectively support a rich diversity of species, but land degradation now affects an estimated 85 percent of Patagonia. This is caused mainly by overgrazing in the rural areas, where rearing livestock, principally sheep, has been the main productive activity for more than a century.

A GEF project is helping to control land degradation in Patagonia through the promotion of sustainable rangeland management practices to restore ecosystems to their full integrity, stability, and functions. The project helps sheep breeders and herders adopt sustainable rangeland management practices, and complements a sustainable sheep husbandry program.

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FORESTS

The GEF promotes sustainable forest management that views the forest as an integrated whole rather than as the source of any one economic product or service (for example, timber or climate regulator). GEF activities support the introduction and strengthening of sustainable forest management schemes, including

- Participation and benefit of forest users
- Clear and respected tenure and use rights
- Respect for indigenous people
- Sustainable market chain
- Development and implementation of forest management plans
- Reforestation.





Focal Area: Persistent Organic Pollutants (POPs)

Scope of the Challenge

Of all the pollutants released into the environment every year by human activity, persistent organic pollutants — POPs — are among the most dangerous. These pesticides, industrial chemicals, or unwanted byproducts of industrial and other processes are highly toxic and long-lasting, and cause an array of adverse effects, including disease and birth defects in humans and animals. Some of the severe health impacts from POPs include cancer, damage to the central and peripheral nervous systems, reproductive disorders, and disruption of the immune system.

These impacts do not respect international borders, and are often intergenerational, affecting both adults and their children. POPs can affect people and wildlife even at very low doses.

The serious environmental and human health hazards created by these chemicals particularly affect developing countries, where systems and technology for monitoring, tracking, and disposing of them can be weak or nonexistent. Across Africa, for example, at least 50,000 tons of obsolete pesticides are contaminating soil, water, air, and food sources.

KEY FACTS

- POPs pose a serious threat to human health and the environment.
- The GEF has invested US\$341 million for measures to reduce human and environmental exposure to POPs, with an additional US\$474 million leveraged through private sector and other sources.
- The GEF is helping 135 countries meet their obligations under the Stockholm Convention to develop a National Implementation Plan.

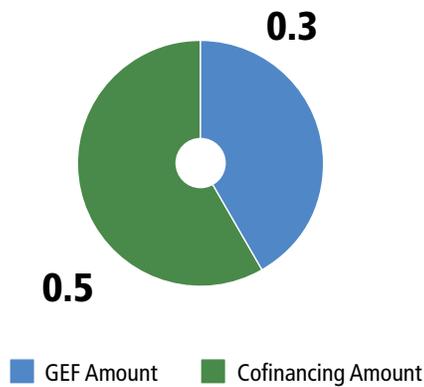
GEF Response

The GEF is the lead institution providing technical and financial assistance to support the efforts of developing countries and countries with economies in transition to implement the Stockholm Convention on Persistent Organic Pollutants, a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, and accumulate in the fatty tissue of humans and wildlife.



SUMMARY BY FOCAL AREA:
PERSISTENT ORGANIC POLLUTANTS

Amounts in billion USD



The GEF is helping countries create national inventories of POPs and reduce or eliminate the chemicals' use and release into the environment, as well as assisting with safe disposal and the development of environmentally sound alternative products, practices, and techniques.

The GEF's main goal in the POPs focal area is to protect human health and the environment by helping countries to reduce and eliminate production, use, and releases of POPs, and thereby contribute generally to capacity development for the sound management of chemicals.

Since adoption of the Stockholm Convention in May 2001, the GEF has committed US\$341 million to projects in the POPs focal area and leveraged some US\$474 million in cofinancing, bringing the total value of the GEF POPs portfolio to over US\$800 million. In 2008, the GEF invested more than \$140 million in 38 new projects, leveraging \$280 million in cofinancing.

The current emphasis is to support projects of partner countries to help them carry out their national implementation plans, working through three strategic programs:

- *Strengthen capacity of countries to implement the Stockholm Convention.*
About 40 percent of funding is directed to this program, which includes strengthening regulatory frameworks and assistance to

countries that lag farthest behind to establish basic institutional and regulatory capacities to manage chemicals safely.

- *Invest in partnerships needed to carry out national implementation plans to reduce and eliminate POPs.*

Approximately 45 percent of funding is directed to this program to phase out and dispose of PCBs, support non-POP alternative products and practices, and destroy pesticide wastes.

- *Create partnerships to demonstrate innovative technologies and best practices to reduce POPs or create safe substitutes for their use.*

About 15 percent of resources are directed at the identification of alternative products or practices for DDT or POP termiticides, demonstration of destruction technologies, and demonstration of best available techniques and best environmental practices.

Priorities and Projects

NATIONAL IMPLEMENTATION PLANS

The GEF has funded or is funding the preparation of the initial national implementation plan in 135 countries. More than 100 countries are now at the stage where their plan has been endorsed and submitted, or is at the stage of final review and endorsement. Many of these countries have already submitted their plan to the Stockholm Convention's Secretariat.

OBSOLETE PESTICIDES AND THE AFRICA STOCKPILES PROGRAM

The Africa Stockpiles Program (ASP) was launched in September 2005 with the goal to clear all obsolete pesticide stocks from Africa, and establish measures to help prevent their recurrence. Projects under the program are also designed to train and strengthen institutions on important chemicals-related issues, create opportunities to address broader hazardous waste management issues, and evaluate new, cleaner disposal technologies. The total cost of the program is estimated at \$250 million, of which the GEF will contribute up to \$80 million.

In Tunisia, one of the first ASP projects, 1,200 tons of obsolete stocks were identified at a large number of containment sites. In addition



WHAT ARE POPs?

POPs are pesticides, industrial chemicals, or unwanted byproducts of industrial or other processes that have been used for decades but have recently been found to share a number of disturbing characteristics, including:

- **Persistence** — they resist degradation in air, water, and sediments.
- **Bio-accumulation** — they accumulate in living tissues at concentrations higher than those in the surrounding environment.
- **Long-range transport** — they can travel great distances from the source of release through air, water, and migratory animals, often contaminating areas thousands of kilometers away from any known source.

The Stockholm Convention currently focuses on 12 POPs of immediate concern — often referred to as “the dirty dozen” — pesticides, industrial chemicals, and unintentional byproducts. The pesticides are aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB), mirex, and toxaphene; the industrial chemicals are polychlorinated biphenyls (PCBs) and HCB (also mentioned under “pesticides”); and the unintentional byproducts are dioxin and furans (as well as PCBs and HCB). Unintentional chemical byproducts result from combustion and industrial processes and are among the most potent cancer-causing chemicals known.

These synthetic chemicals move everywhere, even through the placental barrier and into the womb, exposing the unborn during the most vulnerable stages of development.

Most recently, the parties in May 2009 took the historic decisions to add 10 new chemicals to the list of controlled substances under the Convention: alpha- and beta-hexachlorocyclohexane (byproducts); lindane and chlordecone (pesticides); tetra- and hexabromodiphenyl ether, hexabromobiphenyl, pentachlorobenzene, perfluorooctane sulfonic acid, and perfluorooctane sulfonyl fluoride (industrial chemicals).

to removing and disposing of these stocks and cleaning up the related sites, the program aims to strengthen existing regulatory systems for pesticide control; promote ongoing integrated pest management (IPM) efforts, particularly with small-scale farmers; promote certified organic agricultural production; develop a communications campaign to raise awareness about pesticide impact and opportunities created by IPM; and upgrade storage facilities.

In Morocco, the ASP is helping to prevent future stockpiling by strengthening the regulatory, legal, and management framework for managing pesti-

cides; undertaking public communications campaigns disseminating information on pesticide risks; and refurbishing pesticide storage facilities. The capacity of the Centre for Poison Control of Morocco will also be strengthened, a direct contribution to the objectives of the Strategic Approach to International Chemicals Management (SAICM).

Similar efforts are planned or underway in other countries and regions, including Syria, Belarus and Moldova, the Caucasus and Central Asia, China and Vietnam, and Nicaragua, and an expansion of the ASP to Egypt, Eritrea, Mozambique, and other states.

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POLYCHLORINATED BIPHENYLS (PCBS)

The GEF has been working to help countries locate and safely destroy PCBs while promoting effective management through training, public awareness, and institutional development. The aim of these activities is to introduce environmentally sound management to all stages of the lifecycle of electrical, hydraulic, and other equipment that contains, or is contaminated by, PCBs, and to promote noncombustion technologies for destroying PCBs.

Many countries around the world are engaging with the GEF to develop and implement PCB management, phase-out, and disposal programs, including Argentina, Brazil, Honduras, Mexico, Uruguay, Armenia, Azerbaijan, Belarus, Kazakhstan, Latvia, Macedonia, Mongolia, Romania, Ghana, Tunisia, China, India, Philippines, and Vietnam.

DDT ALTERNATIVES

The GEF funds projects to identify sustainable alternatives to DDT and to demonstrate significant progress at reducing the incidence of malaria without the use of DDT. Past efforts have shown an average of between 26 percent and 80 percent reduction in the incidence of malaria in participating countries. This success is forming the framework for new DDT reduction projects under way in Africa, the Middle East, Southeast Asia, and elsewhere in the world.

MEDICAL WASTE

Working in a number of countries across all regions, GEF projects show how health care waste management can avoid the need for waste incineration. For example, a project to demonstrate and promote best practices for reducing health care waste to avoid environmental releases of dioxins and mercury in Argentina, India, Latvia, Lebanon, Senegal, Tanzania, and Vietnam includes reuse, recycling, waste separation, and use of products that generate smaller volumes of less toxic wastes at model facilities. Projects sharing similar objectives are underway or under preparation, including in China and Tunisia.

TERMITES

Termites are essential to soil health, but problems arise when they come in contact with agricultural, forest, or urban areas. The annual economic cost of structural damage to buildings from termites in urban areas is about \$15–20 billion worldwide.

Combined with the cost of damage to agricultural and forestry resources, the overall cost to society is over \$30 billion per year.

Managing termites without using harmful POPs chemicals is one of the challenges under the Stockholm Convention. Recognizing the importance of effective termite control without using POPs, the GEF promotes alternative methods — complemented by building public awareness, providing training, and developing institutional capacity.





GEF Focal Area: Ozone Layer Depletion

Scope of the Challenge

Safeguarding earth's protective ozone layer became a global priority after discovery that certain compounds were found to deplete this layer, posing substantial risks to human health and the environment. The Vienna Convention for the Protection of the Ozone Layer in 1985 and the Montreal Protocol on substances that deplete the ozone layer in 1987 have eventually led to the reduction by more than 90 percent of these damaging compounds entering the atmosphere. After more than a decade of international cooperation, the concentration of some of these chemicals in the atmosphere has already started to decline.

Curbing the rising production and use of hydrochlorofluorocarbons (HCFCs) is one of the last remaining challenges to protect the ozone layer. The parties to the Montreal Protocol have recently adopted an ambitious schedule for accelerated phase out of HCFCs, taking into account linkages and synergies with the climate change mitigation agenda.

KEY FACTS

- The GEF has invested more than \$183 million in projects to phase out substances that deplete the ozone layer, with an additional \$188 million of cofinancing.
- Technical and financial support to countries with economies in transition in Central and Eastern Europe and the former Soviet Union has helped these countries reduce their consumption of ozone-depleting substances by 99 percent.

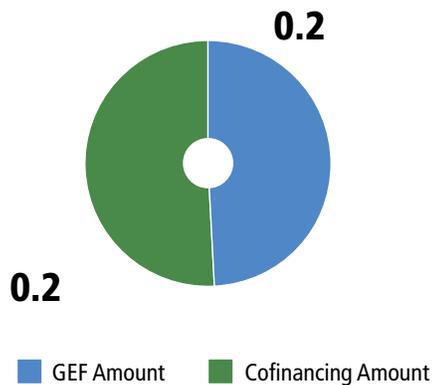
GEF Response

Phasing out ozone-depleting substances (ODS) is a highly effective means for achieving immediate, and future, global environmental benefits. Consequently, the GEF allocated more than \$183 million to projects to phase out ODS, with an additional \$188 million of cofinancing.

The GEF's goal is to protect human health and the environment by assisting countries in phasing out consumption and production, and in preventing releases, of ODS while enabling



SUMMARY BY FOCAL AREA:
OZONE LAYER DEPLETION
Amounts in billion USD



alternative technologies and practices, according to countries' commitments under the Montreal Protocol. The long-term impact of GEF interventions is to contribute to the return of the ozone layer to pre-1980 ozone levels.

The GEF, in partnership with the Montreal Protocol of the Vienna Convention for the Protection of the Ozone Layer, has previously funded projects that enable the Russian Federation and nations in Eastern Europe and central Asia to phase out their use of chlorofluorocarbons (CFCs), halons, and carbon tetrachloride (CTC). The GEF has also supported these countries in phasing out the use of methyl bromide. Under the latest round of funding, GEF work is focused on phasing out HCFCs.

The GEF has helped these 18 countries meet their treaty obligations. These countries have achieved over 99 percent reduction in their con-

sumption of ozone-depleting substances, phasing out some 296,000 tons, including 20,000 tons directly targeted by GEF projects.

GEF-supported interventions to phase out ozone depleting substances have also contributed to other agreements related to chemicals, such as the Stockholm Convention on Persistent Organic Pollutants (POPs), as well as to the general sound management of chemicals. Programs and policies to manage ODS, such as trade and licensing, for example, can be harnessed to manage POPs, and vice versa. Specific technologies suitable for the destruction of CFCs, moreover, are also suitable for the destruction of polychlorinated biphenyls (PCBs).

In addition, substantial links exist to the climate change focal area, including the Energy-Efficient Buildings and Energy Efficiency in Industry strategic programs. GEF projects in these strategic programs can support the phase-out of HCFCs used in chillers and refrigerators, used in the food processing industry, for example.

Priorities and Projects

The current GEF priorities include a mix of projects for building the technical and institutional capacity to eliminate remaining ODS. Investments will be integrated with energy efficiency interventions supported under the climate change focal area to maximize combined benefits from reducing ODS and greenhouse gases.

The countries of Central Asia are principally targeted for activities that strengthen institutions that control ODS. Countries are expected to demonstrate a willingness to continue support for those institutions and a willingness to adopt

the policies necessary for long-term sustainability of GEF-supported interventions.

Activities to enable compliance and reporting are also supported. Education and training activities are also a priority, including the dissemination of experiences and promotion of regional cooperation. Where possible, projects and activities will be designed to integrate with a country's framework for the sound management of chemicals. This will also help GEF partner countries ensure that any residual amounts of CFCs used or produced are phased out according to expectations.

Methyl Bromide is a toxic chemical used to control a broad spectrum of pests in soil, agricultural and forest commodities, and structures. In the early 1990s, scientists identified methyl bromide as one of the substances that depletes the ozone layer. Because it is an excellent fumigant, however, it is difficult to substitute for some applications; hence, it continues to be used, although many countries have made progress finding substitutes and replacing common uses of methyl bromide.

Because it is so dangerous, methyl bromide is being phased out as part of the Montreal Protocol. Fortunately, phasing out methyl bromide offers multiple benefits for agriculture, the environment, and human health, since carefully chosen alternative techniques can be cost-effective, protect the ozone layer, and improve worker safety. The GEF is helping a number of CEITs successfully reach the Montreal Protocol goal of total methyl bromide phase out.

The Montreal Protocol mandates a target of 75 percent consumption phase-out of HCFCs by 2010. Although most countries are on target, some countries in the region would require assistance in meeting it. For investments to phase out HCFCs, preference will be given to low-GHG technologies and substitutes to reduce the overall emissions of halogenated gases.

Looking forward, GEF assistance may be needed to help some eligible countries to meet the 2015 HCFC 90 percent consumption phase-out step, as well as to address any new strengthening of obligations that the parties might adopt, for example, regarding previously exempted uses.

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Technology Transfer for Climate Change

Scope of the Challenge

Technology transfer is seen as playing a critical role in the global response to the challenges of climate change. Indeed, the transfer of environmentally sound technologies (ESTs) is embodied in the very fabric of the United Nations Framework Convention on Climate Change (UNFCCC). Article 4.5 of the Convention states: "The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention."

GEF Response

Since its inception in 1991, the GEF has become the largest public sector funding source supporting the transfer of environmentally sound technologies to developing countries. In its role as the financial mechanism of the UNFCCC, the GEF invests about \$250 million each year in energy efficiency, renewable energy, emerging low-carbon energy-generating technologies, cost-effective short-term response measures, and sustainable urban transport.

KEY FACTS

- During its 18 years of existence, the GEF has allocated \$2.5 billion to support more than 30 climate-friendly technologies in more than 50 developing countries, generating an estimated \$15 billion in cofinancing.
- The GEF has provided funding for technology needs assessments (TNAs) and other enabling and capacity-building activities in more than 100 countries throughout the world.

The GEF also manages two special funds under the UNFCCC, the Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF), that both help countries adapt to climate change. The SCCF has as one of its primary aims the transfer of environmentally sound technologies to developing countries, while significant technology transfer also occurs under the LDCF.



Activities

While the GEF supports the transfer of technologies to help countries mitigate and adapt to climate change, of equal importance is the GEF's work with countries beforehand in helping establish "enabling policy environments," or legal and regulatory landscapes, that encourage the adoption of climate-friendly technologies and practices. Another critical element in the success of transferring technologies is the ongoing relationships and a commitment by the GEF and other partners to help countries integrate newly demonstrated technologies into both their national policies and their wider economies.

CLIMATE CHANGE MITIGATION

The GEF's current approach to mitigating climate change is grounded in six strategic programs that promote: (1) energy efficiency in buildings and appliances; (2) industrial energy efficiency; (3) market-based approaches for renewable energy; (4) sustainable energy production from biomass; (5) sustainable innovative systems for urban transport; and (6) management of land use, land-use change, and forestry (LULUCF) as a means to protect carbon stocks and reduce GHG emissions. A description of several of these programs follows.

ENERGY EFFICIENCY

Among the more than 30 ESTs that the GEF has supported over the years, more than one-third are energy efficiency technologies, ranging from efficient lighting and appliances to chillers, boilers, motors, and brick kilns; from building design and construction materials to district heating systems; and from power generation and distribution to combined heat and power ("co-generation") and industrial energy efficien-

cy technologies. Total GEF funding to support the transfer of energy efficiency technologies is close to \$1 billion, which in turn has leveraged an additional \$6 billion in cofinancing, a significant portion of which has come from the private sector in developing countries.

RENEWABLE ENERGY

From 1991 to 2007, the GEF approved grants totaling more than \$800 million for approximately 150 projects promoting the transfer of renewable energy technologies to developing countries and countries with economies in transition. Renewable energy technologies supported include solar energy (photovoltaics or PVs), solar homes, and solar water heaters), wind turbines, geothermal, small hydro, methane, and biomass for heat and electricity generation.

NEW LOW-GHG-EMITTING ENERGY GENERATING TECHNOLOGIES

The GEF has also supported new energy technologies with lower greenhouse gas emissions in order to reduce start-up costs and to develop markets. The GEF, for instance, has pioneered support for such new technologies as the pairing of concentrating solar power (CSP) with a natural gas turbine, biomass-integrated gasification combined-cycle generation, on-grid PV power production, building-integrated photovoltaic power production, and stationary fuel-cell power generation. Providing developing countries early experience with new low-carbon energy technologies creates demand, which increases supply, thereby lowering costs. These reduced costs help developing countries adopt new technologies earlier and on a wider basis than they could without outside assistance.

SHORT-TERM RESPONSE MEASURES

In contrast to some of the more costly long-term technologies and programs that the GEF has supported to encourage widespread shifts in behavior, the GEF early on recognized that certain opportunities to reduce greenhouse gas emissions in the short run, e.g., those costing less than \$10/ton of carbon avoided, are so cost-effective as to be "too good to refuse." In this category, virtually all of the technologies that the GEF has supported relate to methane reduction and use, including projects to capture and use methane escaping from coal beds and coal mines; landfill gas utilization; coal-to-gas conversion; natural gas system leakage repair; and liquid propane gas (LPG) substitution.

SUSTAINABLE URBAN TRANSPORT

Since 2000, when its transportation program first began, the GEF has supported technologies and practices that promote a long-term shift toward low-emission and sustainable forms of transportation, including public transit, traffic management, nonmotorized transport, and land-use planning. Transportation technologies supported include hydrogen fuel-cell buses, hybrid gas-electric buses, electric three-wheelers, bus rapid transit systems, dedicated bus lanes, traffic demand management, and bicycle paths. The GEF has funded more than 40 projects in over 70 cities throughout Asia, Latin America, Africa, the Middle East, and Eastern Europe. The total GEF allocation to sustainable transport stands at about \$200 million, which has leveraged an additional \$2.5 billion in investment.

CLIMATE CHANGE ADAPTATION

The GEF supports climate change vulnerability and adaptation assessments and pilot adaptation projects to increase the resilience of vul-

nerable countries, sectors, and communities to the adverse impacts of climate change. GEF funding for adaptation has totaled about \$130 million, and has targeted six areas: ecosystem management, agriculture, water management, disaster risk management, coastal zone management, and health. Both "soft" and "hard" adaptation technologies the GEF has supported include: wetland and mangrove restoration, beach nourishment, aid to decision makers for integrating adaptation into development planning, drip irrigation systems, drought-resistant crops, installation and reinforcement of infrastructure (e.g., seawalls, groundwater protection systems), and transfer of high-tech electronics for data logging and early warning systems.

POZNAN STRATEGIC PROGRAM ON TECHNOLOGY TRANSFER

The Conference of the Parties (COP) to the UNFCCC at its 13th session (COP13) requested the GEF to elaborate a strategic program to scale up the level of investment in the transfer of environmentally sound technologies. In response, the GEF formulated a strategic program, submitting it to COP14 at Poznań, Poland. COP14 welcomed the GEF's program and asked the GEF to consider the long-term implementation of its program, which the COP renamed the Poznań Strategic Program on Technology Transfer. Under this program, the GEF will help developing countries to conduct or update their technology needs assessments and will finance pilot projects for technology transfer. In keeping with the COP14 decision, the GEF has identified technology transfer as a long-term priority of its climate change focal area and has included it as one of the key objectives for the proposed climate change strategy for GEF-5 (2010-14).

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Gender Mainstreaming

Scope of the Challenge

Gender relations between women and men, and girls and boys, play a key role in the access to environmental resources, control of the resources, and the goods and services they provide. The relevance of gender to environmental issues has been discussed since the early 1970s, when the growing debate on environmental issues intersected with the emergence of studies on women's roles in development

Accounting for dimension of gender is an important consideration for projects that address global environmental issues. To successfully address gender issues, projects must recognize the role of women as primary land and resource managers and weigh the different ways women and men consider conservation incentives.

Literature and studies on this topic recognize that failure to understand and address gender dimensions within environmental projects risks wasted development resources and negative effects on household welfare, women's equality, and environmental sustainability. Moreover, various studies, including an evaluation of gender conducted by the World Bank, find that project results are superior when gender considerations are integrated into the design and implementation of projects.

KEY FACTS

- Gender is an important consideration for projects that address global environmental issues.
- About 40 percent of reviewed GEF projects from 2003-06 included some kind of action to mainstream gender issues.
- Many projects under the GEF Small Grants Programme (SGP) have been recognized for their success in promoting gender equality and the empowerment of women.

In addition, the Earth Summit in Rio de Janeiro (1992) and the Fourth World Conference on Women in Beijing (1995) made explicit references to the need to design environmental programs with a gender focus to increase women's access to and control over resources, as well as improve the effectiveness of such projects.

GEF Response

The GEF has a long history of investing in local actions to achieve global environmental objec-



tives. Today, an even deeper understanding exists of the relationships among household welfare, women's equality, and environmental sustainability. Making gender issues part of the GEF's six focal areas — biodiversity, climate change, international waters, land degradation, persistent organic pollutants, and ozone depletion — presents opportunities to further enhance the value of projects as well as advance gender equality.

The GEF recognizes that this approach is good for projects, good for gender equality, and good for achieving GEF goals. Since the GEF's beginning, a public participation policy has been applied that ensures both women's and men's involvement in GEF projects. The GEF agencies have also developed their own gender policies and strategies, which are applied to our projects. About 40 percent of reviewed GEF projects that were approved and implemented between 2003 and 2006 included some kind of action to mainstream gender issues. About 20 percent involved components, outcomes, or activities that specifically target women, and in some cases men, to adequately address the gender dimension. These results are encouraging, but clearly there is more work to be done.

For GEF projects to achieve their desired objectives, project interventions should account for gender differences in how resources are used and managed, women's roles as primary land and resource manager, differing conservation incentives faced by women and men, and other gender-related issues.

The Millennium Development Goals emphasize the clear links among gender equality, poverty alleviation, and sustainable development. Not only is the third goal, "Promote gender equality and empower women," specifically targeted toward gender, it has been recognized that gender issues will play a key role in the effective achievement of the other seven goals, including the seventh goal, "Ensure environmental sustainability," for which the GEF plays a key role.

The Rio Conventions — namely the UN Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC), and the UN Convention on Combating Desertification (UNCCD) — for which the GEF serves as financial mechanism, also recognize the important linkage between gender-related issues and achievement of the Conventions' goals and objectives.

Many projects under the GEF Small Grants Programme (SGP) have been recognized for their success in promoting gender equality and the empowerment of women. Gender is one of the mandatory cross-cutting requirements incorporated into the GEF's Small Grants. About 17 percent of such projects supported worldwide have focused specifically on the involvement of women.

Gender Mainstreaming and Gender Equality

Gender mainstreaming has been the primary method for integrating a gender approach into environment and development efforts. In practice, gender mainstreaming means deliberately giving visibility and support to both women's and men's contributions individually, rather than

assuming that both groups will benefit equally from gender-neutral development interventions.

Within a project context, gender mainstreaming commonly includes identifying gaps in equality through the use of sex-disaggregated data, developing strategies and policies to close those gaps, devoting resources and expertise to implementing such strategies, monitoring the results, and holding individuals and institutions accountable for outcomes that promote gender equality.

Gender equality does not mean that women and men will become the same, but rather implies equal treatment of women and men in laws and policies, and equal access to resources and services within families, communities, and society at large. To achieve this goal, a two-pronged approach of gender mainstreaming is often required:

- Systematically analyzing and addressing in all initiatives the specific needs of both women and men; and
- Targeted interventions to enable women and men to participate in — and benefit equally from — development efforts.

Gender equality is not solely a women's issue; in fact, it seeks to tailor activities to the beneficiaries of the project from both sexes. Gender equality is advantageous to both men and women and cannot be achieved without the full engagement of both.



RURAL SUCCESS IN MALI

In Mali, women are the major producers of fuel wood and in charge of daily budgets, cooking, and commerce. Providing electricity, improved cookstoves, and LPG stoves to such women, particularly in rural and low-income areas can greatly reduce the physical toil to produce energy and improve their lives and those of their families, while reducing environmental pressures. An increase in the number of improved wood stoves and kerosene and LPG stoves used is directly correlated to a positive impact on women's and children's education, health, and energy expenditures

A GEF-supported project to help these families adopt renewable energy technologies included social assessments and consultation with women and men during project preparation, identifying women as a major target and a direct beneficiary of the project. This led to a number of different and successful project strategies that are improving the lives of rural and peri-urban families, particularly women.



For more information, see "Mainstreaming Gender at the GEF," found on the GEF Web site.

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GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET



The GEF-NGO Network

www.gefnngo.org

Introduction

The GEF-NGO Network was established in May 1995 following the GEF Council's decision to enhance relationships between the GEF and nongovernmental organizations (NGOs). The Network is made up of GEF-accredited organizations whose work in environment and sustainable development is aligned with the GEF mandate. It has a global organizational structure with regional focal points based in 15 different regions overseen by a central focal point and a global Coordination Committee including representatives of indigenous people. The network currently links member organizations in all regions of the world. Its role is expanding from focusing mainly on input to GEF planning and policy making to one of empowering the engagement of civil society in the implementation of GEF programs.

In addition, the Earth Summit in Rio de Janeiro (1992) and the Fourth World Conference on Women in Beijing (1995) made explicit references to the need to design environmental programs with a gender focus to increase women's access to and control over resources, as well as improve the effectiveness of such projects.

VISION

A dynamic civil society influencing policies and actions at all levels to safeguard the global environment and promote sustainable development

MISSION

To strengthen civil society partnership with the GEF by enhancing participation, contributing to policy and stimulating action

Achievements

Since 1996, the Network has organized consultations twice a year immediately prior to the GEF Council meetings and has also played a prominent role in regular GEF Assemblies. The Network has contributed to policy formulation by the GEF and advocated strong public participation in all stages of GEF program implementation. The Network has also been a conduit for feedback on both positive and negative aspects of GEF implementation and has compiled case studies of practical experiences and best practices in implementing GEF activities at the country and local levels.



Objectives

- To enhance the role of civil society in safeguarding the global environment
- To strengthen GEF program implementation
- To maintain and enhance the capacity of the GEF-NGO Network

Structure



Network Focal Areas

- Biodiversity
- Climate Change
- International Waters
- Land Degradation
- Ozone Depletion
- Persistent Organic Pollutants

Strategies

1. To enhance the role of civil society in safeguarding the global environment

Support outreach and awareness on global environmental issues

Encourage civil society contributions to convention negotiations and implementation

Strengthen the capacity of civil society to address global environmental issues

2. To strengthen GEF program implementation through enhanced with civil society

Enhance civil society involvement in GEF country, regional and global projects

Support the effective access of local communities and civil society organizations to GEF resources through the SGP

Provide strategic input to GEF policy making, planning, and reviews

3. To maintain and enhance the capacity of the GEF-NGO Network

Enhance the governance capability of the Network

Promote active membership

Improve Network communication and resource generation

Membership

Currently, approximately 600 member organizations have been accredited to GEF and form the Network membership.

Benefits: By becoming members of the Network, organizations

- Receive updates on policies and activities of the GEF and the Network
- Are notified of funding and capacity building opportunities, as well as upcoming meetings and events
- Contribute to GEF policy and program development and review
- Exchange experiences with other members of the Network and participate in GEF-NGO consultation meetings and GEF Assembly meetings.

Nonprofit organizations actively working on GEF-related issues can request information on options and criteria for membership.

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Mode of Operation

RESULTS

- Improved dialogue and partnership between the GEF and civil society
- Strengthened cooperation among civil society organizations
- Enhanced feedback from civil society on GEF policies and implementation
- Increased awareness and understanding of global environmental issues
- Improved local, regional, and global environment

