

## *Vehicles, Availability, and Governance of International Public Finance for Climate-Friendly Investment*

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*Martin Dietrich Brauch and Aaron Cosby*

*May 2011*



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## Introduction

Sustainable development at its heart is an investment problem—a challenge to replace unsustainable infrastructure, productive technologies, and consumer goods with more sustainable stock. Nowhere is this more evident than in the effort to address climate change, where investment is needed in areas as disparate as clean energy, transportation, industry, forestry, agriculture—in virtually all sectors of productive economic activity.

But the sheer scale of the need is staggering to contemplate. The case of clean energy, which provides powerful environmental *and* development benefits, provides perhaps the best elaborated testimony to the size of the challenges involved. The IEA estimates that achieving the target of carbon dioxide (CO<sub>2</sub>) concentrations at 450 parts per million (ppm) will demand incremental investment across sectors like transportation, power generation, buildings and energy efficiency of a staggering US\$1 trillion per year over the period 2010–2035, and even this may not achieve the Copenhagen Accord's goal of limiting global temperature increase to 2° C (IEA, 2010a). Most of this investment needs to occur in developing countries.

Clearly, all this cannot come from public coffers alone, and certainly the IEA scenarios assume no such thing. It thus falls to policy-makers to explore how public spending might act as a catalyst for the much larger flows of private investment in this area; that is, what policies might governments pursue to enable and facilitate investment by individuals and firms to fundamentally change the energy matrix on which we currently rely.

This report aims to serve as a useful guide to policy-makers contemplating how to meet exactly those challenges within the energy sector and other sectors that are critically important to climate change and sustainable development. It is elaborated specifically for policy-makers in developing countries, where the majority of new investment is needed. It consists of two parts. The first section looks at the sorts of policies that have been successful in the past in catalyzing this sort of clean energy investment, relying on case study work for Brazil, China, and India, all of which have valuable lessons applicable even to states with much smaller economies. The second part surveys the sorts of financing platforms that policy-makers might access to support possible policy reforms. There is a dizzying variety of sources of international finance dedicated to such support, and this report is thorough in trying to make sense of this complex landscape.

Policy-makers need more than this, and future work within IISD will involve more dedicated national-level efforts to properly match nationally elaborated sustainable development needs with the kind of policies that might achieve those needs and achieve mitigation simultaneously, as well as helping to find the most appropriate sources of finance to support those policies. However, this volume is intended as a first step—a vital piece of background that will show policy-makers two things: first, that it is possible to serve both development and environmental objectives in the context of energy investment, and second, that international support is available to help in that effort.

It is necessary to first define the scope and terms of this analysis. What do we mean by climate-friendly investment? This can be broadly defined as investment that advances climate change mitigation or adaptation objectives.

According to the Intergovernmental Panel on Climate Change (IPCC), global emissions of greenhouse gas (GHG) in 2004 were distributed among the following sectors: power and fossil fuel supply (26 per cent), industry (19 per cent), forestry (17 per cent), agriculture (14 per cent), transport (13 per cent), building (8 per cent), and waste (3 per cent)

(United Nations Framework Convention on Climate Change [UNFCCC], 2007, p. 35). Accordingly, this paper focuses mainly on national and subnational policies that aim at attracting climate-friendly investment in the following sectors: energy (which is relevant for the industrial sector as well), forestry, agriculture, transport, building and waste (including recycling).

In the energy sector, climate-friendly investment includes initiatives to increase energy efficiency and promote renewable energy (including hydro, wind, geothermal, tidal, and solar power, as well as biofuels). Hydroelectric power is only considered climate-friendly in case of facilities that generate up to 50 megawatts (MW). Nuclear energy and all fossil energy sources (including natural gas and so-called “clean coal”) are expressly excluded from the concept.

Climate-friendly business opportunities in the international markets exist primarily in three sectors: renewable energy, recycling activities, and environmental technology manufacturing. Global flows of foreign direct investment (FDI) in the three sectors alone in 2009 amounted to US\$90 billion—not to mention climate-friendly investments in other sectors (United Nations Conference on Trade and Development [UNCTAD], 2010, p. 111). Additionally, global (domestic and foreign) investments in the clean energy sector alone increased 30 per cent above 2009 levels, reaching US\$243 billion in 2010 and quintupling in less than a decade (The PEW Charitable Trusts [PEW], 2011, pp. 4-5).

It is important to note that this volume primarily addresses mitigation. Of course, in many countries adaptation goals are the primary concern, and rightly so, given both the immense development implications of unchecked climate change and the low emissions levels. However, this analysis is focussed on finding synergy between development goals and environmental goals, and the primary area of this synergy is in mitigation. That is not to say that some forms of adaptation do not also have environmental benefits—clearly distributed renewables as vehicles for energy access, for example, have multiple environmental as well as developmental benefits. But the synergy in the area of mitigation is far richer, and it is thus on mitigation that we primarily focus in this work.

## 1 Success Stories of Attraction of Climate-friendly Investment to Developing Countries

Investment in climate change mitigation and adaptation greatly depends on private financial flows to reach the necessary scale. In launching the comprehensive process of long-term cooperative action under the Convention, the COP agreed, *inter alia*, to consider enhancing the “mobilization of public- and private-sector funding and investment, including facilitation of climate-friendly investment choices” (UNFCCC, 2007b, para. 1(e)(v)–(vi)).

However, action must go beyond the international level. As will be detailed below, developing country governments have been using national and subnational policies to enable, facilitate, and stimulate climate-friendly investment flows from both domestic and foreign private sector entities. The literature reviewed generally argues that governments need to establish transparent, predictable, sustained, credible, and ambitious “market pull” policy signals and incentives that make investment more attractive, by reducing risk and uncertainty in the investment climate (thus increasing investor confidence) as well as by improving profitability of climate-friendly investments (IEA, 2010b). The need for such policies may be even more pressing in those developing countries where additional risks must be reduced, such as “limited transparency, third-party dependency, transaction costs and higher financial as well as political uncertainties and risks” (Dunscombe, 2010).

Domestic policies to improve certainty and to increase expected return can be financial or non-financial, both types being equally important. In the earlier case, national development banks and other public financial institutions in developing countries can apply risk-reducing finance tools to enable market development and scale up private investment (Institutional Investors Group on Climate Change, Investor Network on Climate Risk, Investor Group on Climate Change Australia / New Zealand, & United Nations Environment Programme Finance Initiative [IIGCC, INCR, IGCC, & UNEP FI], 2010, p. 3). In the latter case, even limited public funds can be used efficiently to develop policies that catalyze private sector investment (IEA, 2010b, p. 32).

Countries are increasingly recognizing the importance of mobilizing climate-friendly investment and adopting domestic policies to that end. For example, while in the 1980s and early 1990s policies to promote renewable energy were relatively rare, they began to emerge during the period 1998–2005; their number increased even faster during the period 2005–2010. The number of countries with renewable energy policies—at national or subnational level—increased from 55 in early 2005 to more than 100 by early 2010. The number of developing countries with domestic policy targets for renewable energy generation increased from 22 in 2007 to 45 by early 2010 (Renewable Energy Policy Network for the 21st Century [REN21], 2010, p. 35). Developing countries represent more than half of the countries with renewable energy targets, targets which are themselves increasingly ambitious (REN21, 2010, p. 35). At least 83 countries, including 42 developing countries, have some renewable energy generation policy (REN21, 2010, p. 37).

Overall, those policies are considered to have influenced market, investment, and industry developments, with an impact on the speed and extent of the growth in the renewable energy sector. The *Renewables 2010 Global Status Report* presents other results supported by the literature reviewed in the report (REN21, 2010, p. 35):

- Market growth often results from combinations of policies, rather than single policies;
- Not all policies are effective or efficient;
- Longevity and predictability of policy support is important;
- Local and state/provincial authority and involvement are important; and
- Policy mechanisms are evolving as countries gain experience.

The *Global Investor Statement on Climate Change*— supported by investors collectively representing assets of over US\$15 trillion—commends those countries that have been putting in place “strong policies that provide long-term certainty and enable credible mid- to long-term risk assessment” (IIGCC et al., 2010, p. 3). On the other hand, the statement highlights the need for greater policy certainty and stability as well as reliable political systems in many other countries, where the climate and clean energy policy frameworks remain weak and uncertain, or where strong policies are being scaled back because of the economic crisis, in either case hampering investor confidence (IIGCC et al., 2010, p. 3).

A Carbon Disclosure Project study provides an example of the importance of public policies in attracting climate-friendly investment. The study identifies the drivers—including government policy—for investments in energy efficiency and clean energy in BASIC countries (Brazil, China, India, and South Africa). It finds that investments are driven by business-led considerations (cost reduction, energy security) as well as by regulation. Furthermore, all BASIC countries have enacted legislation setting out high-level signals, including principles and aspirations for clean and renewable energy. Such signals influence investment, create societal expectations, and help shaping company policies. Most importantly, participation in the Clean Development Mechanism (CDM) and national regulations with specific requirements and mechanisms strongly influence corporate investment decisions in those countries (Carbon Disclosure Project [CDP], 2010, pp. 3-4).

The poor competitive performance of the United States in clean energy investment compared to other G-20 countries provides another example of the role of public policy. There is little indication of policies in the country to fill the financing gap once the stimulus funding received by the clean energy industry expires. Capital is looking for opportunities outside of the United States because of policy uncertainty, including “a lack of clarity on the direction of energy policy, uncertainty surrounding continuation of key financial incentives (e.g., production and investment tax credits), and disproportionate government supports for century-old fossil energy sources” (PEW, 2011, p. 14). The PEW study concludes that, absent “predictable, ambitious, long-term clean energy policies,” it will be difficult for the United States to keep pace with more competitive clean energy economies like China (PEW, 2011, p. 15). The director of PEW’s Clean Energy Program, Phyllis Cuttino, emphasized that the study “consistently demonstrates that strong policies attracts investments,” and that countries that saw increases in investment “were attractive to financiers because they have national policies that create long-term certainty for investors” (Kinver, 2011).

In view of the arguments and examples above, which underscore the importance of public policy in attracting climate-friendly investment, three case studies are presented as follows. They focus on the policies enacted by three major developing countries—Brazil, China, and India—to promote climate-friendly *energy sector* investment, as well as on the overall performance of the energy sector in the three countries. The choice of these three is deliberate. As of 2010, three developing countries appear in the list of top 10 G-20 countries in total clean energy investment flows: China, first in the rank with investments amounting to US\$54.4 billion; Brazil ranked 6th with US\$7.6 billion; and India in 10th place with US\$4 billion (PEW, 2011, p. 11). These are the only three developing countries to figure in the top 10 list for installed renewable energy capacity: China ranked first with 103.36 gigawatts (GW), India seventh with 18.65 GW, and Brazil ninth with 13.84 GW (PEW, 2011, p. 13). It is clearly not the case that the lessons of these emerging powerhouses are in all cases applicable to smaller economies and Least Developed Countries (LDCs). But the lessons of their experience is the proper place to start in understanding what policies are in fact appropriate.

The chapter then concludes with a list of recommended policies, drawn both from these studies and from the reviewed literature, which have proven able to encourage climate-friendly investment, not only in the energy sector, but also in the forestry, agriculture, transport, building, and waste sectors. The case studies and policy recommendations presented here are expected to serve as inspiring success stories that provide guidance to developing country policy-makers.



## 1.1 Case Studies on Policies to Attract Climate-friendly Energy Investment

### 1.1.1 Brazil

Brazil is the sixth in the list of G-20 countries (second among developing G-20 countries) in clean energy investment, totalling US\$7.6 billion in 2010, with a 5-year growth rate of 81 per cent. Its installed renewable energy capacity, which increased 42 per cent in five years, amounts to 14 GW, including 8,000 MW in biomass, 5,000 MW in small hydro, and 36 billion litres of ethanol (PEW, 2011, p. 32).

Under its National Policy on Climate Change, Brazil set a voluntary emissions reduction target of between 36.1 per cent and 38.9 per cent in relation to business-as-usual by 2020 (Law No. 12,187). Up to 2012, Brazil aims at achieving 1,805 MW of installed wind generation capacity, and raising biodiesel consumption to 5 per cent of total diesel consumption (PEW, 2011, p. 32). The country also intends to maintain or increase its current shares of renewable energy (48 per cent) and electricity (85 per cent) by 2030 (REN21, 2010, p. 36).

Among its national clean energy policies, Brazil adopts renewable energy standards, tax incentives, automobile efficiency standards, feed-in tariffs, and generation-based subsidies or loans, particularly to support wind, small hydro, and biomass energy. Clear and stable carbon pricing at the national level is still lacking, as the country has not established a carbon tax or tradable emission permits (PEW, 2011, p. 32). Brazil's National Development Bank (BNDES) has traditionally been the largest provider of finance, lending to the renewable energy sector US\$7 billion in 2008 and US\$6.4 billion in 2009 (REN21, 2010, p. 29).

According to the CDP (2010, p. 10), specific policies adopted by Brazil's federal government to increase energy efficiency include:

- **Utility Energy Efficiency Obligation** (1998): An energy distribution company must invest annually not less than 0.5 per cent of its net operational revenue in activities to reduce inefficient use of electricity, of which at least 50 per cent must be allocated to energy efficiency programs for low-income communities. (Law No. 9,991; Law No. 11,465; Resolution Aneel No. 300/2008; Law No. 12, 187).
- **PROCEL—National Electrical Energy Conservation Program** (1985): This program aims at reducing inefficiency in energy use and at promoting efficiency in the energy sector. It includes capacity-building activities to combat energy waste, and low-interest financing for energy efficiency projects.
- **National Policy on Climate Change** (2009): Aims at implementing the National Policy for Energy Efficiency and at reducing non-technical losses in distribution.

The CDP (2010, p. 11) also notes that Brazil's specific renewable energy policies include:

- **PROÁLCOOL—National Alcohol (Ethanol) Program** (1974): Established mandatory blending shares of ethanol in gasoline varying between 20 and 25 per cent. Fuel stations are required to sell both gasohol (mix of gasoline, 75 per cent, and ethanol, 25 per cent) and pure ethanol. Supporting policies include tax preferences for ethanol and "flex" vehicles (running on any mix of gasoline and ethanol) (REN21, 2010, p. 42).
- **PROINFA—Program of Incentives for Alternative Sources of Electric Energy** (2004): Aims at increasing the participation of wind, biomass, and small hydro power plants, using 20-year supply contracts with Eletrobrás. PROINFA completed its first phase in 2008, with a 3.3 GW installed capacity (REN21, 2010, p. 41).

- **Brazil's Hydropower Program** (2004): Hydro projects under this program sell their power at public auction, resulting in 15–30 year Power Purchase Agreements (PPAs) between project developers and distribution utilities.
- **Electric Power Auctions for Biomass** (2008) and **Wind** (2009): Brazil's energy agency (ANEEL) holds auctions for long-term PPAs. Through a reverse auction system, energy distributors enter into long-term contracts for their electricity demand. There are specific auctions for traditional and renewable energy sources. ANEEL also holds reserve energy auctions to purchase additional supply and reduce operational costs.
- **Mandatory Biodiesel Requirement** (2005): Since early 2010, Brazil requires that regular diesel be blended with 5 per cent biodiesel (mix of vegetable oil and sugarcane ethanol), increasing the 2–3 per cent blending requirement originally established in 2008 (REN21, 2010, p. 42). BNDES supports biodiesel investments, including a 25 per cent extension in the loan payoff period for the purchase of machinery using at least 20 per cent biodiesel.
- **National Climate Change Plan** (2008): The plan encourages increased use of sustainable charcoal, solar heating, hydroelectricity, wind, sugarcane bagasse, solar photovoltaic (PV), and ethanol.

In a poll carried out by the Carbon Disclosure Project, interviewed companies listed government regulation (such as environmental laws and the energy market requirements under ANEEL and PROCEL) as a contributing factor in decisions to invest in energy efficiency in Brazil, but played down this factor when responding in more detail (CDP, 2010, pp. 8, 13). As to investment in renewable energy in the country, while regulation tended not to be listed as a determinant factor, reference by some companies to specific federal government policies (biofuel promotion in vehicle fleets, renewable energy auctions, and CDM relating to renewable energies) suggest that policy played some role in investment decisions (CDP, 2010, p. 16).

In the same poll, companies mentioned the need for further governmental measures that could encourage investment in energy efficiency and renewable energy in Brazil. Those measures include holding more renewable energy auctions; adopting indexes, government contracts, certification and tax incentives to reward good performance in energy efficiency and renewable energy; supporting research, development and demonstration (RD&D) and capacity-building; strengthening the energy market to enable direct negotiation between buyers and sellers; and creating tariffs, credits and subsidies to reduce the cost of generating renewable energy (CDP, 2010, pp. 5, 14, 16).

### 1.1.2 China

China ranks first among G-20 countries as well as globally in clean energy investment, with a total of US\$54.4 billion in 2010 and a 5-year growth rate of 88 per cent. Also, in 2010, China's installed capacity in renewable energy reached 103 GW (especially wind, 43.4 GW; small hydro, 56 GW; and solar PV, 800 MW) and grew 106 per cent in 5 years (PEW, 2011, p. 34).

By 2020, under its development plan targets, China aims at reaching 300 GW in hydro, 150 GW in wind, 30 GW in biomass, and 20 GW in solar PV power generation (PEW, 2011, p. 34; REN21, 2010, p. 35). China met its 2010 target of 10 per cent of primary energy from renewables in 2008, two years early, and now aims at reaching 15 per cent of energy consumption from renewable energy by 2020 (REN21, 2010, p. 35).

China's policies for energy efficiency include (CDP, 2010, p. 18; PEW, 2011, p. 34):

- **Energy Conservation Law** (1998): Establishes principles for energy conservation in industry sectors, including construction, transportation, and utilities.
- **Medium- and Long-term Energy Conservation Plan** (2004): Sets energy conservation goals, implementation plans, and 10 energy conservation projects in high-emitting sectors.
- **Top 1000 Industrial Energy Conservation Program** (2006): Plans to reduce the energy intensity of the 1000 largest industrial consumers, accounting for 47 per cent of the total energy consumption (sectors include energy production, iron and steel, the chemical industry, textile, coal, construction material, and paper).
- **Comprehensive Working Program on Energy Saving and Emission Elimination** (2007): Policy aims to reduce energy intensity by 20 per cent and waste emission by 10 per cent.
- **Green Credit and Green Securities** (2007): Under this policy, banks are forbidden from lending money to companies that cause serious environmental pollution; calls for environmental assessments prior to seeking stock exchange listing via initial public offering or refinancing; regulation of listed firms to regularly release information about environmental performance.
- **National Climate Change Program** (2007) and **greenhouse gas emissions target** (2009): Aims at quadrupling GDP between 2000 and 2020 while only doubling energy use, and at reducing the intensity of carbon dioxide emissions per unit of GDP in 2020 by 40 to 45 per cent compared with 2005 levels.
- **Limit value of energy efficiency and the levels of energy efficiency of room air conditioners** (2010): Improves the threshold limit for energy efficiency in air conditioning units by 23 per cent.
- **Fiscal support for energy-saving products** (2009-10): Gives fiscal support for energy-saving lamps and energy-efficient air conditioners. This program is to be extended to cars, electric motors, and other products.
- **Notice on the Launch of Pilot Project of Demonstration and Promotion of Energy-saving and New Energy Cars** (2009): This policy creates a one-off subsidy for demonstrating and promoting the use of energy-saving and new energy cars.

China's policies for renewable energy include (CDP, 2010, p. 19):

- **Renewable Energy Law** (2005): Established a national target of 10 per cent of renewable energy by 2010. The policy also provided for a classification of renewable electricity tariffs, a special renewable energy fund, and favourable credit and tax treatment. It also demands power grid operators to purchase from registered renewable energy producers. Among its financial instruments, there is a national fund for renewables, discounted lending, and tax preferences for renewable energy.
- **Medium- and Long-term Development Plan for Renewable Energy** (2007): Increases the percentage of renewables from 10 per cent to 15 per cent of total consumption by 2020, and provides for US\$265 billion in renewable energy investments by 2020.
- **11<sup>th</sup> Five-year Renewable Energy Development Plan** (2008): The plan prioritizes hydro, biomass, wind, and solar power generation.
- **Amendment of the Renewable Energy Law** (2009): Provides for guaranteed purchase of renewable energy, identifies organizations to supervise purchases, and establishes a renewable energy development fund.

- **Wind power concession policy (2003–07):** Annual bidding rounds for five years, resulting in additional 3.4 GW in installed wind power capacity (REN21, 2010, p. 41). Bidders were selected based on the price per KWh and the share of domestic components for a 25-year concession. The bid price was guaranteed as a feed-in tariff for the first 30,000 hours generated.
- **Incentive policy for the commercialization of wind power generation equipment (August 2008):** Rewards brands with over 51 per cent Chinese investment, as tested and certified by China General Certification.
- **Solar PV subsidies:** Provide about 50 per cent of capital cost for building and rooftop solar PV over 50 KW and for other on-grid projects over 300 KW. For off-grid projects, China provides 70 per cent capital cost subsidies. A project pipeline for 500 MW in solar PV will receive government finance through 2012 (REN21, 2010, p. 40).
- **Clean energy fund:** A US\$440 billion planned fund for clean and renewable energy (REN21, 2010, pp. 40–41).

Most companies interviewed by the Carbon Disclosure Project acknowledged that energy efficiency policies in China were a factor in their investment decision-making, and for some of them the effect of such policies on corporate behaviour was clear. Energy efficiency regulations mentioned include the Energy Conservation Law, the 11th Five-year Plan, the Electric Power Law, among others (CDP, 2010, p. 21). Renewable energy policies were also recognized as important investment drivers, particularly the Renewable Energies Law, the Mid- and Long-term Development Plan for Renewable Energy, and the 11th Five-year Plan. The market signal effect of these policies is significant. According to China Merchants Bank, “all these laws and regulations have shown the government’s great determination in developing low carbon economy and renewable energy,” thus providing “tremendous opportunities for low carbon economy” (CDP, 2010, p. 24).

While acknowledging that China’s renewable energy policies and its engagement in CDM encouraged investment, the interviewed investors recommended additional policies. Regarding energy efficiency, recommendations included initiatives to award innovation, incentives for energy-efficient companies, encouragement for green production and consumption, and policies and standards tailored to different sectors and company sizes (CDP, 2010, p. 22). Suggested renewable energy policies include simplification of renewable energy project approval procedures, stronger enforcement of regulations, mandatory renewable energy quotas for companies and subnational governments, tariffs for renewable energy supplied to the grid, fiscal support for companies generating renewable energy, and a renewable energy or greenhouse gas trading market (CDP, 2010, pp. 5, 24).

### 1.1.3 India

In 2010, India ranked 10th among G-20 countries (third in developing G-20 countries) in finance and investment in clean energy, with a total investment of US\$4 billion and a 5-year growth rate of 43 per cent. India’s installed capacity from renewable energy generation reached 18.7 GW in 2010, after growing 31 per cent in five years. Its key renewable energy sectors are wind (13.2 GW) and small hydro power generation (2.9 GW) (PEW, 2011, p. 37).

India’s clean energy targets for 2012 are to reach 16.2 GW in wind, 1.1 GW in solar, and 2.8 GW in biomass generation (PEW, 2011, p. 37). This means that India aims at adding 12.5 GW from renewables by 2012, including wind, small hydro and biomass. In 2009, the country also adopted targets for solar power: 1 GW by 2013, as well as 20 GW by 2022 under the Jawaharlal Nehru National Solar Mission (JNNSM) (REN21, 2010, p. 36).

Among India's clean energy policies are renewable energy standards, tax credits and subsidies (such as a rate of 15 per cent instead of 30 per cent for renewable energy projects and a 10-year exemption for wind power projects), automobile efficiency standards, feed-in tariffs (notably for wind and solar), and government procurement measures (PEW, 2011, p. 37; REN21, 2010, p. 40).

India's key energy efficiency policies include (CDP, 2010, p. 26):

- **Energy Conservation Act** (2001): Establishes the Bureau of Energy Efficiency and requires large energy-consuming industries to undertake energy audits.
- **Integrated Energy Policy** (2006): Determines energy policies and targets in order to guarantee energy security as well as social and economic development in the long term.
- **Energy Conservation Building Code** (2006): Establishes voluntary minimum standards for all large new buildings concerning envelope components, lighting, HVAC, electrical systems, and water heating and pumping systems.
- **Energy Labelling Program for Appliances** (2006): Creates a five-point rating scale for electrical appliances (refrigerators, fluorescent tube lamps, air conditioners, distribution transformers etc.).
- **National Action Plan on Climate Change** (2008): Includes the Enhanced Energy Efficiency Mission, which will enable about INR 750 billion (US\$16.88 billion) in energy efficiency transactions to reduce India's energy consumption by 5 per cent by 2015. It also includes targets and measures to decrease consumption in energy-intensive industries; energy incentives (such as reduced taxation of energy-efficient appliances, and new standards); financing for public-private partnerships to reduce energy consumption through demand-side management; and urban waste management, recycling, and power production from waste.
- **Retirement of inefficient plants**: India plans to retire 7 per cent of its inefficient coal power plants by 2012, and an additional 10 GW by 2017.

The renewable energy policies adopted by India include (CDP, 2010, p. 27):

- **Electricity Act** (2003): Promotes the development of renewables, improving grid connectivity and defining a minimum share of electricity from renewable sources.
- **National Electricity Policy** (2006): Preferential tariffs and other incentives with a view to improving the share of renewables.
- **National Policy on Biofuels** (2009): Sets a 20 per cent blending target for biodiesel and ethanol by 2017.
- **RPS**: Most Indian states have renewable portfolio standards from 0.5 per cent to 10 per cent.
- **Fiscal, financial, and tax incentives**: There are fiscal and financial concessions for new wind and hydro plants; support for new solar PV and thermal solar plants (through the National Solar Generation Based Incentive); concessional customs duties and income tax exemptions for wind, biomass and solar; and exemption of PV components from excise duties.
- **National Action Plan on Climate Change** (NAPCC) (2008): Approving the Solar Mission (20 GW of solar energy by 2012), the NAPCC includes targets and measures to increase production and deployment of both PV and thermal solar energy. It also established a solar research center, promoted international exchanges on technology development, strengthened manufacturing capacity, and increased funding and international support for solar power.

- **Renewable Energy Certificates** (2010): Renewable energy generators, independently from scale, may issue tradable Renewable Energy Certificates, in a program designed to drive investment in low-carbon energy projects (REN21, 2010, p. 36; KPMG, 2010, p. 3).
- **National Clean Energy Fund** (NCEF) (proposed): India is in the process of establishing a fund to finance renewable energy projects, funded by a tax of INR 50 (about US\$1.10) per metric ton of coal, lignite, and peat (REN21, 2010, pp. 40–41; Climate Connect, 2011).

Companies interviewed by the Carbon Disclosure Project stated that government regulation and the country's participation in CDM influenced them to invest in energy efficiency and renewable energy in India (CDP, 2010, pp. 29, 31). Relevant policies cited regarding energy efficiency were the Energy Conservation Act (2001), as a framework for action; the voluntary Energy Conservation and Building Code (2007); and participation in CDM (CDP, 2010, pp. 29, 32). Regarding renewable energy, policies mentioned by the interviewed companies include the National Electricity Act (2003), the National Electricity Policy (2005), the National Solar Mission, CDM participation, among others. Generally, companies referred to the regulations on energy efficiency and renewable energy as "creating a framework of expectations in which leadership decisions can be made." For example, NAPCC was mentioned by companies as evidence that the Indian government was serious about climate change and is anticipated to foster considerable investment (CDP, 2010, p. 31).

Policies for energy efficiency recommended for adoption include mandatory energy efficiency standards; fiscal incentives to reduce prices of energy-efficient products; energy rating systems for capital assets and equipment; fiscal incentives for energy-efficient plans; and more investments in technology transfer and R&D (CDP, 2010, p. 29). Recommended policies to encourage renewable energy investment include capital subsidies on clean energy equipment; feed-in tariffs to level renewable energy prices; support for clean energy R&D; and standards to accelerate the adoption of renewable energies (CDP, 2010, p. 32).

## 1.2 Policy Recommendations

This final part of the chapter presents a variety of country-tailored policies, which have proven successful in attracting climate-friendly investment, and which are therefore recommended by the reviewed literature. While some of these policies have only been implemented in developed countries, they have potential for success in developing countries as well. Listed below are policy instruments used by governments or commended by investors.<sup>1</sup> The policies are grouped in the following categories: (1) Policy frameworks, (2) Regulatory instruments, (3) Fiscal instruments, (4) Financial instruments, and (5) Informational instruments.

### 1.2.1 Policy Frameworks

An overall **climate change policy framework** should send clear signals to investors that the government is serious about tackling climate change, creating the kind of certainty that fosters long-term investment. The clearest signals

<sup>1</sup> The list of policies that follows was compiled based on: Ahrens et al., 2008; Bongardt, Rudolph, & Sterk, 2009; Brown & Southworth, 2006, p. 15 et seq.; FAO & ITTO, 2009, p. 11; Forsyth, 2010; IEA, 2010, pp. 10, 32; IIGCC, INCR, IGCC, & UNEP FI, 2010, p. 4; Institute for Sustainable Communities & Climate Leadership Academy, 2009; Leather et al., 2009; Metz, Davidson, Bosch, Dave, & Meyer, 2007, pp. 585-618 (Waste management), pp. 323-85 (Transport and its infrastructure), pp. 387-446 (Residential and commercial buildings), pp. 497-540 (Agriculture), pp. 541-84 (Forestry); Miah & Shin, 2009, p. 13; Peña, 2008, pp. 16-17; PEW, 2011, p. 6; REN21, 2010, pp. 37, 67 et seq.; World Bank, 2010a.

come in the form of targets, which can range from simple expressions of ambition (e.g., China’s target of 15 per cent of power from renewables by 2020) to specific targets complemented by programs designed to make them possible (e.g., China’s target of 20 GW of solar PV by 2020). Targets might be economy-wide (e.g., GHG mitigation, expressed either as intensity or in absolute terms), or sectoral, or ideally a combination of the two. Obviously, the more specific, credible and ambitious the target, the stronger the signal to investors.

Some of the clearest signals are those that assign a price to carbon, either through carbon taxes or a **cap-and-trade** scheme that creates carbon markets. Sending clear signals to the market can attract investment, promote innovation, and foster efficiency and economies of scale. As pointed out by KPMG, “[p]utting a price on carbon emission (through a national or sectoral cap-and-trade program or another policy instrument) goes a long way to improving the attractiveness of low-carbon investment options for investors” (KPMG, 2010, p. 3).

In addition to the general climate change policy framework, there should be robust, integrated, and democratically developed policy frameworks for the sectors with significant greenhouse gas emissions. These policies should include climate strategies, create predictable demand for investment, reward innovation, and establish stable and transparent regulatory regimes. Examples of the elements of such policy frameworks follow:

- **Public procurement policies** that support and encourage climate-friendly investment by the private sector. Government are increasingly including environmental criteria in procedures for the procurement of goods, engineering works, and services.
- **Forestry:** Integration of land use and forest ecosystem planning and management, including:
  - Commitment to forest conservation and afforestation;
  - Commitment to eliminate corruption and illegal practices;
  - Promotion of sustainable forest management;
  - Development of a strategy for reducing emissions from deforestation and forest degradation (REDD), addressing the many drivers of deforestation and forest degradation, organizing stakeholder consultations, and ensuring an equitable distribution of benefits;
  - Police and judicial instruments and safeguards to enhance forest law compliance and enforcement, addressing illegal practices;
  - Institutional framework with clear roles and responsibilities, to improve transparency and control corruption;
- **Agriculture:** Integration of the agricultural management and development policy and the climate policy, to promote greenhouse gas mitigation and soil carbon storage, supporting:
  - Vegetation management practices that restrict land clearing for agriculture;
  - Commercial and non-commercial forestry and agro-forestry;
  - No-till agriculture;
  - Energy-efficient agricultural machinery;
  - The use of biomass as an energy source;
  - Reduction in use of fertilizer;
  - Management of livestock waste.

- **Transport:** Adoption of a general “avoid, shift, and improve” strategy, avoiding the need to travel through transport demand management, encouraging the shift to low-carbon modes, and improving efficiency in infrastructure, fuels, and vehicles. The following elements can be included:
  - Integration of land use policies and transport management plans to reduce travel distance and time;
  - Mandated improvement of vehicle efficiency and fuel technologies, encouraging natural gas, electric, hybrid, biofuel, and hydrogen vehicles;
  - Improvement of transport infrastructure for high quality mass transit (rail, bus, metro), including park-and-ride facilities, mass transit corridors, strengthened linkages among transport modes;
  - Replacement of old and polluting vehicles in mass transit with large-capacity, high-efficiency vehicles based on climate-friendly fuels or power supply;
  - Adoption of sustainable fare strategies that balance sustainability, affordability and ridership in public transport; and
  - Encouragement and improvement of the infrastructure for motorcycling, cycling, and walking;

## 1.2.2 Regulatory Instruments

Multi-sector or cross-sector regulatory instruments

- **Mandatory performance standards** and (voluntary or mandatory) **certification or labelling schemes** have proved to be cost-effective ways to improve efficiency and stimulate climate-friendly technologies, practices, and products through market incentives in different sectors. For example, there can be standards or labels regarding performance or efficiency (in terms of energy or carbon emissions) of electrical appliances; lighting, heating and cooling equipment; forest management practices; forest products; vehicles; landfills; and waste-to-energy incinerators;
- **Land use controls**, such as zoning ordinances to encourage higher density; mixed-use developments; promotion of sustainable urban designs; pedestrian and cyclist friendly pathways; and green areas (parks and tree-lined streets) as carbon sinks;
- **Building codes** may require compliance of new or existing buildings with an annual energy consumption level or cost budget; establish standards for boiler efficiency, thermal resistance of walls and windows; prohibit the use of certain technologies; mandate regular inspection and maintenance, etc. Mandatory solar hot water in new construction is a strong and growing trend. Furthermore, regarding the forestry sector, building codes can promote the use of sustainably harvested forest products.

Sector-specific regulatory instruments

- Energy
  - **Renewable portfolio standards (RPS)** are also known as renewable obligations or quota policies, and require utilities to ensure that a minimum percentage of energy generation or capacity be provided by renewable energy. They have been adopted by 10 national and 46 subnational governments, and most of them require renewable power shares of 5–20 per cent up to 2020 or beyond. RPS are important signals of long-term demand for renewable energy as well as frames for national clean energy goals. Alternatively or complementarily, government may set general aspirational goals to achieve a certain level of renewable energy by a specified date;



- **Mandatory blending requirements** of biofuels with petroleum-based fuels have been adopted in many countries, usually requiring blending 10–15 per cent ethanol with gasoline or 2–5 per cent percent biodiesel with diesel;
- **Feed-in tariffs** guarantee grid access to renewable energy producers and set a fixed price at which they can sell power into the network, either through a fixed tariff or through premiums added to market tariffs. As of early 2010, they had been adopted by at least 50 national and 25 subnational governments to provide clear and stable returns to renewable energy investors through long-term power purchase agreements at agreed prices. The consumers usually cover their costs. Their largest effect has been on wind power generation, but also on solar photovoltaic (PV), biomass, and small hydro;
- **Net metering or net billing**, allowing a two-way flow of electricity. Consumers with self-production of electricity pay only for the net electricity delivered from the power grid;
- **Trading renewable energy certificates (RECs)** that represent the certified generation of renewable energy can serve either to meet renewable energy obligations among consumers or producers, or as means for voluntary green power purchases;
- **Public competitive bidding** for quantities of renewable energy capacity has proven a useful incentive to crowd in private investment in renewables;
- **Voluntary agreements.** Several governments have entered into agreements with manufacturers to establish mutually acceptable levels of energy use for appliances and equipment, and can cover building design and management policies and practices.
- Forestry
  - Creation of protected forest areas, indigenous reserves, non-timber forest reserves, and community reserves
  - Quantitative limits for agricultural expansion to prevent illegal logging;
  - Ban on the disposal of wood through burning;
  - Water codes encouraging reforestation and grassland riparian zones;
- Agriculture
  - Ban on the use of chemical fertilizers and pesticides;
  - Ban on the burning of field residues and straw;
- Transport
  - Ban or restrictions on certain high-carbon vehicles or fuels;
  - Vehicle maintenance requirements;
  - Road and traffic regulations, including direct traffic restrictions, parking restrictions, lower speed limits on motorways, high occupancy vehicle requirements, car-free days, car access restrictions, and low-emission zones;
  - Requirement for the use of climate-friendly fuels (ethanol, biodiesel etc.) in mass transit and government vehicles.

### 1.2.3 Fiscal Instruments

- **Removal of perverse incentives.** The phasing out of fossil fuel subsidies, as agreed to by G-20 leaders, is an example. Other perverse subsidies and taxes are being removed, such as those encouraging forestland conversion.
- **Tax incentives** (including credits, reductions, exemptions, and deductions) have been used to promote climate-friendly investments. These instruments have been used to encourage renewable energy technologies generally or specifically, from renewables to biofuels to waste-generated electricity. In the forestry sector, they have been used to provide incentives for private landowners to maintain forest cover, to improve forest management, or to invest in forestry activities conducted in a sustainable manner. Finally, in the transport sector, climate-friendly vehicles and fuels are being promoted—including through toll exemptions.
- **Taxation measures** have been thought of and implemented to encourage a shift to climate-friendly products and practices. For example, there are fuel taxes based on carbon content, vehicular taxes based on carbon efficiency, landfill taxes, and “pay-as-you-throw” taxes. Other tax-related price mechanisms include road and city tolls, parking fees, congestion prices, and vehicle licensing and registration fees.
- **Subsidies, grants or rebates** are offered to the energy sector in at least 45 countries. Capital grants or loans are often offered for research, development, and demonstration of climate-friendly technologies, such as hydropower and solar PV. The government or the utility gives a one-time payment to cover a percentage of the capital cost of the investment. Subsidies and grants are also in use in the forestry sector (afforestation grants and environmental service payments to private forest owners) and in the transport sector (subsidies for mass transit and for climate-friendly vehicles and fuels).
- **Direct energy production payments or tax credits** have been granted to investors based on the amount of renewable energy generated per facility.

### 1.2.4 Informational instruments

- **Technical and institutional capacity building** is important to enable government officials to translate policies into development plans and to support the private sector in deploying climate-friendly technologies and projects. For example, training programs have been developed for architects, engineers, interior designers, plumbers, electricians and other professionals in the building industry to become aware of the opportunities for the design and construction of climate-friendly buildings. In the forestry sector, capacity building initiatives by the government can help improve sustainable forest management and logging practices. A final example is the creation of training programs for officials in charge of enforcing climate-related policies and regulations.
- **Public awareness and education.** Education and awareness-raising programs organized by the government have also proven important in showing the importance of environmental protection, promoting understanding about environmental regulations, and increasing acceptance of climate-friendly technologies by the civil society. Programs have been implemented to encourage changes in personal behaviour towards climate-friendly attitudes regarding energy conservation, waste reduction, car avoidance, and the increased use of public transport, walking, or cycling.

## 2 *International Sources of Public Finance for Climate-friendly Investment in Developing Countries*

The need for funding to finance climate change mitigation and adaptation measures in developing countries is immense. Project Catalyst estimates that the international financial flows demanded for mitigation amount to EUR 55–80 billion per year in the period 2010–20, and the United Nations Climate Change Secretariat foresees the need for an extra US\$200–210 billion in investment and financial flows in 2030 to reduce emissions by 25 per cent below 2000 levels (see Project Catalyst, 2009, p. 10; United Nations Framework Convention on Climate Change [UNFCCC], 2007c). Extra funding required for adaptation would be between EUR 10–20 billion per year in the period 2010–20, according to Project Catalyst, or tens (possibly hundreds) of billions of US\$ per year, according to the UNFCCC (see Project Catalyst, 2009, p. 10; UNFCCC, 2007c). All these figures are *in addition* to the financing expected to be provided through the expansion of existing funds, programs, and initiatives (Stewart, Kingsbury, & Rudyk, 2009, pp. 15–16). Recognizing such needs, a number of developed country Parties to the UNFCCC in Copenhagen (December 2009) set a goal of mobilizing US\$100 billion per year by 2020 to support mitigation and adaptation activities in developing countries, in the context of the Copenhagen Accord (UNFCCC, 2009b, annex, para. 8). This goal was later reaffirmed by the Conference of the Parties (COP) held in Cancun in December 2010.<sup>2</sup>

Developed country governments and international institutions (such as the Global Environment Facility [GEF], the World Bank, and regional multinational development banks [MDBs]) must take the lead in catalyzing the financial flows needed. International public action is necessary through regulation and policy development, capacity building, and institutional structures required for the proper functioning of the markets, as well as through guarantees, financial support, and direct government investment in developing countries (Stewart, et al., 2009, pp. 14, 16–17; see also United Nations Secretary-General's High-level Advisory Group on Climate Change Financing [AGF], 2010, para. 32).

Existing multilateral funds and bilateral official development assistance (ODA) are insufficient, often formulated with limited developing country participation, lacking transparency and accountability, and with varying rules and governance structures (Stewart, et al., 2009, p. 17). Nonetheless, the UN Secretary-General's High-level Advisory Group on Climate Change Financing (AGF) was optimistic, concluding that achieving the US\$100 billion by 2020 goal is “challenging but feasible” considering the current range and potential of instruments available (AGF, 2010, para. 21). A necessary condition, according to the AGF, is the adoption of a systemic approach to climate financing, involving “carbon pricing as well as implementing a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance; a scaling up of the existing public sources; and increased private flows” (AGF, 2010, para. 22).

The AGF identified four groups of sources of finance: (1) public sources for grants and highly concessional loans, (2) development bank-type instruments, (3) carbon market finance, and (4) private capital (AGF, 2010, para. 7). Taking into account that this paper looks at public international sources of funding with the objective of maximizing their catalytic role in mobilizing private financial flows for climate-friendly investment in developing countries, this chapter

<sup>2</sup> Decision 1/CP.16, 2010, para. 98. This recognition provided formal multilateral recognition of those commitments, whereas the legal nature of the commitments in the Copenhagen Accord was not clear. The COP at Copenhagen had merely “taken note of” the Accord.

focuses on synthesizing the broad patterns emerging across 17 operational<sup>3</sup> public international funding sources of types (1) and (2), channelled through either multilateral or bilateral initiatives.

Sections 2.7 (on multilateral sources of funding) and 2.8 (on bilateral sources of funding) present details on each of the funding sources reviewed. Institutions looked at include the World Bank, regional MDBs, the Global Environment Facility (GEF), and the UN Development Program (UNDP). The analysis outlines the target activities and target countries of the funds and initiatives, indicating the types of financial instruments used by each of them (loans, grants, guarantees etc.), as well as their basic governance structure. Eligibility criteria and project cycle information, where available, are also listed. Descriptions of project examples and the current financial status of the funds are also included.

**TABLE 1. CLIMATE CHANGE FUNDS WITH MORE THAN US\$100 MILLION DEPOSITED.**

FUND	CHANNELING INSTITUTION (TRUSTEE)	DEPOSITED (US\$ MILLION)	PLEGGED (US\$ MILLION)
Hatoyama Initiative	Japan	5,320.00	15,000.00
Clean Technology Fund	World Bank	1,492.78	3,792.00
GEF Trust Fund - Climate Change focal area	COP/GEF (World Bank)	1,032.92	2,392.30
International Climate Initiative	Germany	515.61	519.60
Strategic Climate Fund	World Bank	440.65	1,846.45
Global Climate Change Alliance	European Union	224.62	226.12
Adaptation Fund	Kyoto CMP (World Bank)	202.11	216.16
Least Developed Countries Fund	GEF (World Bank)	169.19	221.46
Forest Carbon Partnership Facility	World Bank	152.27	199.07
Special Climate Change Fund	GEF (World Bank)	110.48	147.78

Source: Based on data from <http://www.climatefundsupdate.org/graphs-statistics/pledged-deposited-disbursed.png>.

## 2.1 Channelling Institutions

The institutions most significantly involved in channelling the multilateral efforts to finance climate-friendly investment are the World Bank, regional MDBs, and United Nations bodies. Secondly, involved in administering the bilateral initiatives are regional and national financial institutions under the authority of either developed (donor) or developing (recipient) countries.

The World Bank serves as trustee of seven of the 10 multilateral funds analyzed:

- Three funds were established by the World Bank itself, in cooperation with other partners: the two Climate Investment Funds (CIFs)—the Clean Technology Fund (CTF) and the Strategic Climate Fund (CTF)—and the Forest Carbon Partnership Facility (FCPF);

<sup>3</sup> Under the Cancun Agreements (Decision 1/CP.16, paras. 102–12), the Conference of the Parties to the UNFCCC (COP) decided to establish a Green Climate Fund (GCF), designated as an operating entity of the financial mechanism of the Convention, accountable to the COP, and governed by a Board comprising an equal number of developing and developed country representatives. The GCF, whose interim trustee is the World Bank, will support climate change projects, programs, policies and other activities in developing countries. While it is expected to channel significant financial flows as UNFCCC's primary financing vehicle, it will not be further analyzed in this document, as it was not operational before COP 17, held in Durban, South Africa, from November 28 to December 9, 2011.

- Three funds created by the Conference of the Parties of the UNFCCC (COP) and operated by the Global Environment Facility (GEF), which serves as the financial mechanism of the UNFCCC. These comprise the Climate Change Focal Area of the GEF Trust Fund, the Special Climate Change Fund (SCCF), and the Least Developed Country Fund (LDCF); and
- The Adaptation Fund, created by and operated under the authority of the Conference of the Parties serving as Meeting of the Parties to the Kyoto Protocol (CMP).

Regional MDBs including the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), and the Inter-American Development Bank (IADB) have a role in the creation or administration of several multilateral funds. For example, there is regional MDB involvement in the CIFs, the Congo Basin Forest Fund (CBFF), and the European Union's (EU) Global Energy Efficiency and Renewable Energy Fund (GEEREF).

United Nations organizations are also involved in both multilateral and bilateral funds and initiatives. Their importance is best exemplified by the funds under the GEF (GEF Trust Fund—Climate Change Focal Area, LDCF, and SCCF), functioning under guidance of the UNFCCC COP, and the Adaptation Fund, under the authority of the Kyoto Protocol CMP.

Furthermore, the United Nations Development Program (UNDP), through its Multi-Donor Trust Fund (MTDF) Office, serves as administrative agent, permanently or on an interim basis, of the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries Fund (UN-REDD Programme Fund), the UNDP/Spain Millennium Development Goals Achievement Fund (MDG-F), and the Indonesia Climate Change Trust Fund (ICCTF).

Finally, the Food and Agriculture Organization (FAO), UNDP, the United Nations Environment Program (UNEP), and other United Nations organizations collaborate with several multilateral and bilateral funds, serving as implementing agencies, providing technical expertise or advice, or designating voting or non-voting members to the governing bodies of the funds by invitation. These include CBBF, the CIFs, LDCF, SCCF, and the UN-REDD Programme Fund.

## 2.2 Target Activities

Climate finance from public international sources is mainly available for designing and implementing policies, programs and projects at the national, regional, and community levels aimed at promoting (1) adaptation (including resilience) to the impacts of climate change, (2) reduction of greenhouse gas emissions from deforestation and forest degradation (REDD), and (3) mitigation from non-forest sources. Some of the funds reviewed are specific to each of those target activity areas, and some are made of specific components that can be associated with one or more of such areas. Some climate change-related activities not related to any one of the target areas listed above have received financial support, such as the preparation of national inventories and reports.

Adaptation is the single focus of the Adaptation Fund, LDCF, and MDG-F, as well as an important component of all the other reviewed sources of finance, to the exception of those focusing exclusively on either REDD or clean energy. Adaptation and climate resilience activities eligible for financial support across the funds include:

- Mainstreaming adaptation and resilience into national and sectoral climate change or development policies;
- Design and implementation of national adaptation programs of action (NAPAs);

- Prevention, preparedness, and risk management of climate change-related disasters, including infrastructure projects and early warning and disaster preparedness systems; and
- Management of water, land, coastal zone, and other environmental resources, as well as agriculture, food security, and health management, aiming at reducing climate vulnerability.

Several sources of funding focus exclusively on forest management and REDD: the Amazon Fund, CBFF, FCPF, Australia's International Forest Carbon Initiative (IFCI), and the UN-REDD Fund. Tropical and sub-tropical developing countries may obtain support for research, policy development, in-country capacity-building activities, and pilot programs on REDD. The funded activities are aimed at enabling such countries to participate in a future global-scale incentive-based REDD program and carbon market under a post-2012 international climate change agreement.

In forest countries, other activities receive support with a view to reducing the rates of deforestation and conserving biodiversity. These include sustainable forest and biodiversity management, conservation, recovery and use; measures to prevent, monitor and combat deforestation; and activities to engage active participation of forest-dwelling communities in all processes relating to forests.

Clean energy investment, the third focus area of climate finance, is the single focus of GEEREF and is an important element in all the other funds, with the exception of those focusing exclusively on adaptation and REDD. There is support available for research, deployment, diffusion and transfer of clean technologies in both energy efficiency (in buildings, industry, and agriculture) and proven renewable energy sources, such as small hydropower, biomass, geothermal, wind, and solar. Efforts regarding the promotion of sustainable transportation and the economic diversification of developing country economies that are highly dependent on fossil fuels can also be included in the clean energy investment category.

## 2.3 Eligible Countries

It can generally be said that climate financing is made available to developing countries (e.g., in the UN-REDD Fund), with some funds and initiatives adding more specific requirements. The Adaptation Fund, for example, requires particular vulnerability to the effects of climate change. FCPF only supports developing countries located in a subtropical or tropical area. LDCF restricts eligibility to those developing countries classified as Least Developed Countries (LDCs), while GCCA restricts it to LDCs and Small Island Developing States (SIDS), assuming they are the most vulnerable and have the fewest resources for adaptation.

Other funds can be accessed not only by developed countries, but also by countries with economies in transition (EITs), such as GEEREF, Germany's International Climate Initiative (ICI), and the GEF Trust Fund. Eligibility to be a recipient country in the World Bank's CIFs turns on maintaining eligibility for official development assistance (ODA) and an active MDB program.

Finally, there are funds with more limited recipient eligibility. For example, only member countries of the Central African Forests Commission (COMIFAC) are eligible for CBFF funding. Access to funds created and maintained by recipient developing countries—Brazil's Amazon Fund and Indonesia's ICCTF—are restricted to those respective countries. In turn, access to funds created by the initiative of donor developed countries—such as Australia's IFCI, Japan's Hatoyama Initiative, and the UNEP/Spain MDG-F—depends on policy consultations with the respective donor countries or inclusion in their international cooperation plans. In such cases, the available finance is part of the donors' ODA efforts, and therefore the countries that may benefit from it must be included in the donor countries' policies and priorities.

## 2.4 Funding Criteria

The intended objectives of the funds and the criteria that countries or their activities must fulfil to access funding present manifest commonalities across the studied funds. These commonalities can be grouped in six categories of objectives to be pursued, criteria to be fulfilled, or, more broadly, principles to inform the operation of the funds and their funded activities. The six groups concern: (1) national ownership and compliance with national regulations, (2) co-benefits, (3) administration, (4) allocation of funds, (5) stakeholder engagement, and (6) synergies and co-financing leverage.

(1) With the exception of some donor country-centered bilateral initiatives for ODA channelling, the analyzed funding sources include requirements aiming at ensuring that funded activities are owned or driven by the host country, designed according to nationally defined priorities, and in compliance with and integrated into its national regulations and policies. These requirements operate as incentives built in the funding sources for beneficiary countries to adopt appropriate national policies for climate-friendly investment and continuously improve them, to increase their attractiveness for climate-friendly investment, their chances of obtaining funding from such sources and the multiplier effect of the financing obtained.

The Adaptation Fund, for example, requires activities to be consistent with the country's national sustainable development and poverty reduction strategies, its national adaptation program of action (NAPA), and any national technical standards. In addition, projects only receive funding subject to endorsement by the national government of the recipient country. Similar requirements can be found in the Amazon Fund, the CIFs, ICCTF, LDCF, MDG-F, and SCCF.

(2) Most of the reviewed funding sources include in their stated objectives the ideal that funded activities promote economic, social and environmental co-benefits. The constituent documents of the World Bank's CIFs, for example, list several aimed for co-benefits:

- building country-level knowledge, capacity, and project experience;
- promoting sustainable development through conservation of biodiversity, natural resources, ecosystem services, and ecological processes, as well as maintaining, restoring, and enhancing carbon-rich ecosystems;
- reducing poverty;
- increasing access to climate financing and technology;
- promoting international cooperation and experience-sharing on climate change; and
- generating and promoting the productive use of community services, including health, education and communication.

Some of these and other related aspects can be found across the funding sources. Under CBFF, funded projects must be gender sensitive, help alleviate poverty, and ensure benefits to local communities. SCCF emphasizes the promotion of sustainable development and poverty reduction. As a final example, both ICCTF and GCCA expect to reap the co-benefits of increased policy dialogue between the governments involved. While the guidelines above do not ensure that specific projects at all stages (from design to implementation) will take into account broader economic, social, and environmental concerns, they are clear policy indications that the fund administrators have the tools to do so.

(3) Ensuring sound administration of the funds and funded activities is another evident priority. For instance, proponents must demonstrate to the governing bodies of the funding sources the cost-effectiveness of their projects—an express requirement of the Adaptation Fund, LDCF, and SCCF. In turn, CBFF proponents must demonstrate strong project management capacity, present a realistic work program, and carry out appropriate assessment and mitigation of environmental and social risks. Another example is MDG-F, which strives to minimize transaction costs of fund administration and demands from project proposals high quality standards of formulation, monitoring, and evaluation, with an orientation towards results and accountability. Under the CIFs, there is also an express concern regarding open and transparent governance. Aspects of governance across the examined funds will be dealt with in the following subsection.

(4) The funding sources also put in place guidelines and principles to ensure equitable allocation of resources. GEEREF has an interesting allocation criterion, focusing on supporting energy efficiency and renewable energy projects below EUR 10 million, carried out by project developers and small and medium enterprises. The Adaptation fund, in turn, establishes a cap per country. Distribution of resources among projects proposals is carried out in accordance with the levels of vulnerability, risk, and urgency in specific situations. These criteria, along with population, country size and adaptive capacity, are also taken into account by LDCF, which also established that projects requesting over US\$300,000 would be only partially funded. SCCF also uses partial funding for better resource allocation. This solution can serve as an incentive for co-financing leverage, which is discussed below.

(5) The climate financing initiatives generally seek broad stakeholder engagement in the administration of the funds and in the development and implementation of policies, programs and specific projects that receive funding. Public and private stakeholders that the initiatives seek to engage include United Nations organizations, MDBs, donor countries, national and local governments in the host state, non-governmental organizations (NGOs), indigenous peoples, forest dwellers, local communities, civil society and the private sector. This aspect is prominent in the following section, which describes common governance features of the funds.

(6) Finally, many funds seek (and many funded projects are required to seek) complementarity with other funding sources, and to maximize synergies with other national, bilateral and multilateral climate change initiatives. ICCTF, for example, expressly states that funding must be complemented by other national and international public and private sources, and one of the goals of FCPF is to maximize synergies with related programs.

The two clearest examples of the pursuit of co-financing leverage and program synergies are the CIFs and GEEREF. The CIFs encourage taking advantage of synergies, cooperation and complementarities with other initiatives, funds, programs and partners—such as other MDBs, the GEF and other development partners. In particular, among the stated objectives of the Scaling-Up Renewable Energy Program for Low Income Countries (SREP) under World Bank’s SCF is leveraging additional funding and encouraging private investment to achieve large-scale impacts in renewable energy projects. GEEREF also seeks to prioritize investment in countries or regions with policies conducive to private sector engagement. It promotes the leveraging of co-finance by requiring a minimum proportion of co-funding and by offering partial funding.

## 2.5 Governance Aspects

Regarding governance structure, in addition to a trustee and a secretariat, a fund typically has a board, committee or council, which serves as the main governing body, responsible for operating the fund and deciding on resource allocation. In most cases, the main governing body includes elected representatives of donor countries and an equal



number of representatives of recipient constituencies. There are additional concerns regarding balanced representation in some funds. The Adaptation Fund Board, for example, comprises representatives from the five United Nations regional groups, SIDS, LDCs, and both non-Annex I and Annex I countries.

International and national public and private stakeholders are normally represented, either as non-voting observers or as voting members of the bodies within the governance structure of the funds. These include United Nations organizations, MDBs, NGOs, as well as other international, regional and national climate change programs related to the work of the individual fund or initiative. In funds such as Brazil's Amazon Fund and Indonesia's ICCTF, the civil society, indigenous peoples and private sector entities can participate actively in fund governance through voting representatives. In funds such as the CIFs, in turn, those actors can only be accredited as non-decision-making observers.

A fund often has an assembly of all participant countries, charged with providing general policy orientation. Another common feature is the presence of technical committees or panels, composed of experts responsible for providing technical and scientific advice. Country-led offices are common in the structure of funds such as MDG-F and the UN-REDD Fund.

Decisions within the governing bodies are typically taken by consensus. If consensus is impracticable, a majority criterion is used, based on the number of total participant countries, or the volume of donor country contributions, or both.

Finally, funds such as the EU's GCCA and GEEREF, Japan's CEP and Hatoyama Initiative, Germany's ICI, and Australia's IFCI do not have specific governance structures, although certain bodies can be created to support their implementation—such as the Support Facility under FCCA and the Advisory Expert Panel under CEP. Broadly characterized as ODA-channelling efforts, those initiatives and funds are administered under the institutional structure and procedures of the EC or the national governments that created them. Recipient countries and other stakeholders are normally not part of the governance structure of the funds.

## 2.6 Financial Aspects

The financial instruments made available for climate-friendly investment or policy development are mostly non-reimbursable grants and concessional loans, but also include credits, guarantees, equity and debt financing, capital cost buy-down, capital contributions, production incentives, feed-in-tariffs, along with other types of aid.

According to the Climate Funds Update website (Heinrich Böll Stiftung & Overseas Development Institute [HBS & ODI], 2011), of the US\$26.3 billion pledged to the funds, only US\$10.1 billion (38.6 per cent) has already been deposited. Of the deposits, US\$9.4 billion (92.4 per cent) has already been approved for funding, leaving only US\$0.7 billion (7.4 per cent of the deposited amount or 2.9 per cent of the pledged amount) available for funding requests.

These figures are far below the ideal flows of US\$100 billion per year. They show the limited extent to which capital pledged to these funds is coming through. Considering that some of the funds are ODA-channelling initiatives, it becomes evident that much of the funding is not additional to already-existing or foreseen development aid.

Of US\$9.4 billion approved for funding, only US\$2.2 billion (24 per cent) has been disbursed. While funding requests are typically submitted at the early, conceptual stages of the project cycle, thus aiming at obtaining resources from the outset to support both the design and implementation of projects, holdups in disbursement, anticipated or not, may delay the projects and therefore its expected climate-related results.

## 2.7 Multilateral Sources of Funding

### 2.7.1 The Kyoto Protocol Adaptation Fund

Under the Kyoto Protocol's Clean Development Mechanism (CDM), a share of the proceeds from activities generating certified emission reductions (CERs) would be used to help finance the costs of adaptation to climate change in developing countries (Kyoto Protocol to the United Nations Framework Convention on Climate Change [Kyoto Protocol], 1997, Article 12.8; UNFCCC, 2009a, Annex IV). In the 2001 Marrakech Accords, the UNFCCC Conference of the Parties (COP) decided to create the Adaptation Fund under the Kyoto Protocol (UNFCCC, 2002a), and determined that the share of proceeds to fund it would be equal to 2 per cent (UNFCCC, 2002c). The first session of the Kyoto Protocol CMP confirmed those provisions (UNFCCC, 2005a, para. 1; UNFCCC, 2005c, para. 1), and set the way forward for the establishment of the Adaptation Fund (UNFCCC, 2005c; see also UNFCCC, 2006b).

In Bali (2007), the CMP created the Adaptation Fund's operating entity, the Adaptation Fund Board (AFB), which remains under the authority of the CMP, and decided that the fund would be serviced by a secretariat and a trustee (UNFCCC, 2007a, paras. 3-4). On an interim basis, it was decided that the GEF would provide secretarial services and that the World Bank would be invited to serve as trustee (UNFCCC, 2007a, paras. 19, 23). In Poznan (2008), the CMP adopted the Rules of procedure of the Adaptation Fund Board (UNFCCC, 2009a, Annex I), legal arrangements between the CMP and the GEF (as secretariat of the fund) (UNFCCC, 2009a, Annex II) and between the CMP and the World Bank (as trustee of the fund) (UNFCCC, 2009a, Annex III), and the Strategic Priorities, Policies and Guidelines of the Adaptation Fund (SPPG) (UNFCCC, 2009a, Annex IV).

**Governance.** The AFB comprises 16 members elected by the CMP, with two representatives from each of the five United Nations regional groups (African; Asian; Eastern European; Latin American and Caribbean; and Western European and Others), one representative of the Small Island Developing States, one representative of the LDC Parties, two representatives from non-Annex I Parties, and two representatives from Annex I Parties (UNFCCC, 2009a, Annex I, para. 3). The Chair and Vice-Chair are elected by the AFB itself among its members, one being from a non-Annex I Party and from an Annex I Party (alternating annually), for a term of office of one calendar year (UNFCCC, 2009a, Annex I, para. 10). When consensus is not possible, the AFB adopts decisions by a two-thirds majority of the members present (UNFCCC, 2009a, Annex I, paras. 24-25).

**Eligibility.** The SPPG guides the operational policies and guidelines to enable eligible Parties to access the fund's resources (UNFCCC, 2009a, Annex IV, para. 4). It defines "eligible Parties" broadly as "developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change *including* low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems" (UNFCCC, 2009a, Annex IV, para. 10). The Adaptation Fund provides funding for projects and programs at all national, regional and community levels in those eligible Parties (UNFCCC, 2009a, Annex IV, para. 13).

**Strategic priorities.** The strategic priorities of the Adaptation Fund, listed by the SPPG, are:

- Assisting developing countries that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation, through the financing of concrete projects and programs that are country-driven and based on the needs, views and priorities of eligible Parties (UNFCCC, 2009a, Annex IV, para. 5).
- Projects and programs should take into account "national sustainable development strategies, poverty, reduction strategies, national communications and national adaptation programmes of action and other relevant instruments, where they exist" (UNFCCC, 2009a, Annex IV, para. 6).

- The development of projects and programs should follow scientific guidance of the UNFCCC, the IPCC, and information generated under the Nairobi work program on impacts, vulnerability and adaptation to climate change (UNFCCC, 2009a, Annex IV, para. 7).
- Eligible Parties, in developing projects and programs, shall give attention to the particular needs of the most vulnerable communities (UNFCCC, 2009a, Annex IV, para. 8).

**Project selection criteria.** The SPPG further details the considerations and criteria to be taken into account by the AFB in assessing project and program proposals (UNFCCC, 2009a, Annex IV, paras. 11, 15):

- a) Consistency with national sustainable development strategies, including, where appropriate, national development plans, poverty reduction strategies, national communications and national adaptation programs of action and other relevant instruments, where they exist;
- b) Economic, social and environmental benefits from the projects;
- c) Meeting national technical standards, where applicable;
- d) Cost-effectiveness of projects and programs;
- e) Arrangements for management, including for financial and risk management;
- f) Arrangements for monitoring and evaluation and impact assessment;
- g) Avoiding duplication with other funding sources for adaptation for the same project activity;
- h) Moving towards a programmatic approach, where appropriate.

Finally, the SPPS provides guidance to the AFB in allocating the fund's resources among eligible parties (UNFCCC, 2009a, Annex IV, para. 16):

- a) Level of vulnerability;
- b) Level of urgency and risks arising from delay;
- c) Ensuring access to the fund in a balanced and equitable manner;
- d) Lessons learned in project and program design and implementation to be captured;
- e) Securing regional co-benefits to the extent possible, where applicable;
- f) Maximizing multisectoral or cross-sectoral benefits;
- g) Adaptive capacity to the adverse effects of climate change.

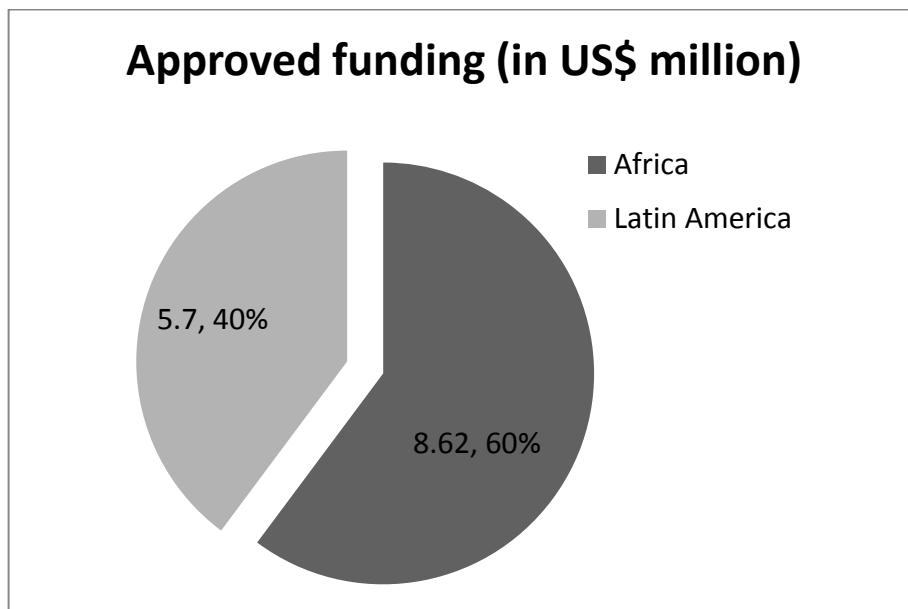
As defined in the AFB's Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund ("Operational Policies and Guidelines"), funding proposals must be endorsed by the requesting government (Adaptation Fund Board [AFB], 2009, para. 20). Proposals can be submitted directly to the AFB by National Implementing Entity (NIE) or Multilateral Implementing Entity (MIE) duly accredited with the AFB (AFB, 2009, para. 26). The AFB also establishes and periodically reviews a cap in resource allocation per eligible country, to ensure equitable distribution (AFB, 2009, para. 25).

**Project cycle.** The project cycle for any project or program begins with the submission of a proposal and is followed by initial screening, project review, and approval (AFB, 2009, para. 39). There are two categories of adaptation activities: small-size (proposals requesting grants of up to US\$1 million) and regular projects and programs (proposals requesting

grants of more than US\$1 million), with an expedited, one-step approval process for the former and a one- or two-step approval process for the latter (AFB, 2009, paras. 22, 40–41). Once the project is approved, the AFB carries out all the necessary legal arrangements and instructs the trustee to disburse the funds (AFB, 2009, paras. 42–45). The AFB monitors, evaluates, and reviews the implementation of the funded projects (AFB, 2009, paras. 46–52), and may suspend or cancel the implementation of a project in case of financial irregularities, or material breach and poor implementation performance, after giving the implementing entity a fair hearing (AFB, 2009, paras. 55–58).

**Financial status.** As of 31 October 2010, the funds held in trust (cumulative receipts less cumulative disbursements) amounted to the equivalent of US\$192.51 million (AFB, 2010a, para. 2). Since the start of the CER monetization program in May 2009, the World Bank generated revenues to the fund equivalent to US\$130.55 million (AFB, 2010a, para. 3). In addition, the fund received the equivalent of US\$70,950,763 in donations from Finland, France, Germany, Japan, Monaco, Norway, Spain, Sweden, Switzerland, and other countries (AFB, 2010a, para. 5). The total disbursements amounted to US\$9.58 million (AFB, 2010a, para. 7). Cumulative funding decisions taken by the AFB amounted to US\$55.58 million (AFB, 2010a, para. 8). Considering funds held in trust without restrictions, funding decisions pending disbursement, and proposals pending final approval, total funds available in the fund amounted to US\$173.98 million (AFB, 2010a, para. 9).

**Projects.** In its 10th meeting (Bonn, June 15–16, 2010), the AFB approved its first two projects. One of them, awarded to Senegal through its National Implementing Entity “Centre de Suivi Ecologique,” aims at combating coastal erosion aggravated by sea level rise. The other project, proposed by the Government of Honduras through UNDP, aims at improving water management and thus reducing the vulnerability of 13,000 households in poor neighborhoods in Tegucigalpa that suffer from frequent water shortages, floods, and landslides. Financing for the two projects amounts to more than US\$14 million (Senegal had requested US\$8.62 million; Honduras, US\$5.70 million). To date, the AFB has approved project concepts from Guatemala, Madagascar, Mongolia, Nicaragua, Pakistan, and the Solomon Islands (AFB, 2010b).



Source: Based on <http://adaptation-fund.org/node/794>

## 2.7.2 GEF Trust Fund—Climate Change Focal Area

Originally established by UNDP, UNEP and the World Bank as a US\$1 billion pilot program to protect the global environment and promote sustainable development, the Global Environment Facility (GEF) became an independent financial institution in 1994. While retaining the World Bank as Trustee of the GEF Trust Fund, it was then entrusted to function as the financial mechanism of the UNFCCC. Climate change is one of the focal areas for GEF grants, as defined in replenishment discussions (Global Environment Facility [GEF], 2011a).

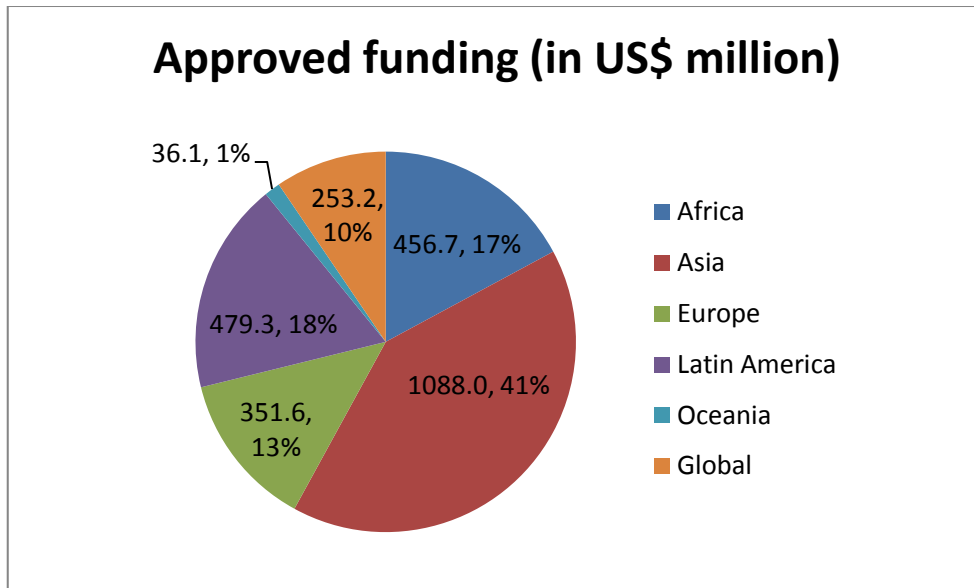
**Governance.** The structure of the GEF comprises an Assembly, a Council, a Secretariat, and a Scientific and Technical Advisory Panel (STAP), and operates in collaboration with three Implementing Agencies (GEF, 2008, paras. 1, 11, 12). The Assembly, consisting of representatives of all participating countries, reviews the general policies of the GEF and the operation of the facility (GEF, 2008, paras. 13-14). The Council, comprising representatives of 16 constituencies from developing countries, 14 constituencies from developed countries, and two constituencies from economies in transition, is responsible for the operational policies and programs for the activities financed by the GEF (GEF, 2008, paras. 15-16). The Secretariat, headed by the GEF CEO, services and reports to the Assembly and the Council, with administrative support of (but independently from) the World Bank (GEF, 2008, para. 21). The Implementing Agencies (UNDP, UNEP, and the World Bank) are accountable to the Council for their GEF-financed activities (GEF, 2008, para. 22). Decisions of the Assembly and the Council are adopted by consensus or, if a formal vote is required, by an affirmative vote of 60 per cent of the total number of participants combined with a 60 per cent majority of the total contributions (GEF, 2008, para. 25).

**Financial status.** Over four replenishments, the GEF Trust fund received US\$10.885 billion from 39 donors: Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Canada, China, Côte d'Ivoire, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, India, Indonesia, Ireland, Italy, Japan, Republic of Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Nigeria, Norway, Pakistan, Portugal, Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States (GEF, 2011a).

**Projects.** GEF-funded projects fall under the following categories (GEF, 2011a):

- Full-Sized Projects (FSPs): Projects requesting over US\$1 million in GEF funding; subject to approval by the GEF Council;
- Medium-Sized Projects (MSPs): Projects requesting up to US\$1 million; expedited approval by the CEO;
- Enabling Activities (EAs): Projects to help countries prepare national inventories, strategies, action plans, and reports;
- Programmatic Approaches (PAs): Partnerships between a country or countries, the GEF, and other private or scientific stakeholders;
- Small Grants Program (SGP): Projects requesting up to US\$50,000, to support community-based projects in the GEF focal areas.

As of January 20, 2011, 736 projects had been approved for GEF funding in the climate change focal area, amounting to a total of US\$2.664 billion—15.95 per cent of the total co-financing (US\$16.754 billion) (GEF, 2011b). Projects include national climate change and adaptation strategies and plans, capacity building activities, energy efficiency, renewable energy, sustainable transportation, carbon sequestration, and technology transfer (GEF, 2011b).



Source: Based on data from <http://www.gefonline.org>

### 2.7.3 The Special Climate Change Fund

In Marrakech (2001), the COP established the Special Climate Change Fund (‘SCCF’), to finance activities, programs, and measures in the areas of adaptation; technology transfer; energy, transport, industry, agriculture, forestry, and waste management; and activities to assist in the economic diversification of developing countries whose economies are highly dependent on income generated from fossil fuels and associate energy-intensive products (UNFCCC, 2001a, para. 2). The COP invited developed country Parties to contribute to the fund, to be operated by the GEF, under COP guidance (UNFCCC, 2001a, para. 3).

Two years later, in Milan (2003), the COP directed the GEF to “arrange expedited access” to the fund and to make the necessary arrangements to mobilize resources to make the fund operational without delay” (UNFCCC, 2003a, paras. 5–6). It further stated that funding should be “country-driven, cost-effective and integrated into national sustainable development and poverty-reduction strategies” (UNFCCC, 2003a, para. 1(b)). Adaptation activities have “top priority for funding,” and technology transfer and its related capacity-building activities are “essential areas to receive funding” (UNFCCC, 2003a, para. 1 (c)-(d)). The implementation of adaptation activities to be supported through the fund, taking into account national communications or national adaptation programs, shall include (UNFCCC, 2003a, para. 2):

- a) Implementation of adaptation activities where sufficient information is available to warrant such activities, inter alia, in the areas of water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, including mountain ecosystems, and integrated coastal zone management;
- b) Improving the monitoring of diseases and vectors affected by climate change, and related forecasting and early warning systems, and in this context improving disease control and prevention;

- c) Supporting capacity-building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change, including contingency planning, in particular, for droughts and floods in areas prone to extreme weather events; and
- d) Strengthening existing and, where needed, establishing national and regional centres and information networks for rapid response to extreme weather events, utilizing information technology as much as possible.

**Priority areas.** In Nairobi (2006), the COP specified the priority areas for funding in the areas of energy, transport, industry, agriculture, forestry, and waste management (UNFCCC, 2006a):

- a) Energy efficiency, energy savings, renewable energy and less-greenhouse-gas-emitting advanced fossil fuel technologies;
- b) Innovation including through research and development relating to energy efficiency and savings in the transport and industry sectors;
- c) Climate-friendly agricultural technologies and practices, including traditional agricultural methods;
- d) Afforestation, reforestation and use of marginal land; and
- e) Solid and liquid waste management for the recovery of methane;

The COP further detailed that funding for economic diversification activities should initially focus on the following areas (UNFCCC, 2006a, para. 2):

- a) Capacity building at the national level in the areas of:
  - i) Economic diversification;
  - ii) Energy efficiency in countries whose economies are highly dependent on consumption of fossil fuels and associated energy-intensive products;
- b) Support (through technical assistance) of the creation of favourable conditions for investment in sectors where such investment could contribute to economic diversification;
- c) Support (through technical assistance) of the diffusion and transfer of less-greenhouse gas emitting advanced fossil-fuel technologies;
- d) Support (through technical assistance) of innovative national advanced fuel technologies; and
- e) Support (through technical assistance) of the promotion of investments in less-greenhouse-gas-emitting, environmentally sound energy sources, including natural gas, according to the national circumstances of Parties.

Concerning technology transfer, the COP indicated the following priority areas (UNFCCC, 2003a, para. 3):

- a) Implementation of the results of technology needs assessments;
- b) Technology information;
- c) Capacity building for technology transfer; and
- d) Enabling environments.

**Governance.** The Council is GEF's main governing body, composed of 32 members, each of them representing one of the 18 constituencies of recipient countries and 14 constituencies of principally non-recipient countries (GEF, 2008, para. 15 et seq., Annex E, para. 1). Decisions are adopted by consensus. If no consensus appears attainable, any member may request a formal vote. Decisions adopted by formal vote are taken by a double weighted majority, representing both a 60 per cent majority of participants and a 60 per cent majority of contributions (GEF, 2008, para. 25).

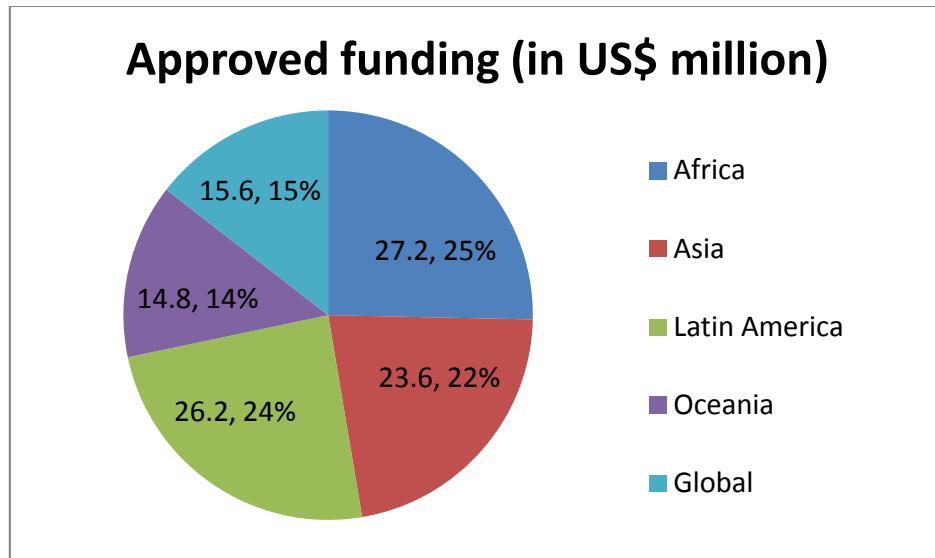
The GEF Council, acting as SCCF Council, adopted a programming to implement the COP's guidance on the SCCF (Global Environment Facility Council [GEF Council], 2004). In particular, it determined rules for SCCF financing of projects based on their total required funding (Global Environment Facility Council [GEF Council], 2004, para. 57):

- a) if a project requires less than \$1 million of funding, SCCF financing will be available for up to 50 per cent of the project financing;
- b) for projects requiring between \$1 and \$5 million of funding, the SCCF will finance up to one third of the costs of the project.
- c) for projects requesting more than \$5 million, the SCCF will finance up to one quarter of the total project costs.

**Financial status.** As of October 8, 2010, the total amount pledged to the SCCF amounted to the equivalent of US\$149,291,072, of which US\$20,847,389 was in outstanding pledges, US\$133,740,352 in paid contributions, and US\$15,550,720 in unpaid contributions (Least Developed Countries Fund and Special Climate Change Fund Council [LDCF/SCCF Council], 2010a, Annex 4). Fourteen participants pledged contributions to the fund: Canada, Denmark, Finland, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States (LDCF/SCCF Council, 2010a, para. 10). Cumulative net funding decisions amounted to the equivalent of US\$109,404,434, of which US\$33,554,473 had been already disbursed (LDCF/SCCF Council, 2010a, para. 13, Annex 6). Total funds available for allocation amount to the equivalent of US\$35,145,028, of which US\$32,069,482 in the Program for Adaptation and US\$3,075,545 in the Program for Transfer of Technology (LDCF/SCCF Council, 2010a, Annex 7).

**Projects.** As of October 20, 2010, in both its adaptation and technology transfer programs, the SCCF had approved US\$107.38 million for the funding of 26 projects, covering 13.29 per cent of total project costs (US\$808.22 million) (LDCF/SCCF Council, 2010b). Approved projects include the design and implementation of policies for coastal zone management and development; water resource management in arid lands and agricultural areas; reduction of vulnerability to extreme weather events, drought, and wildfires; human health improvements; and technology transfer (such as irrigation, carbon capture and storage, and wave energy projects) ((LDCF/SCCF Council, 2010b).





Source: Based on LDCF/SCFF progress report (GEF/LDCF.SCCF.9/Inf.3)

#### 2.7.4 The Least Developed Countries Fund

In Marrakech (2001), the COP established a Least Developed Countries Fund (LDCF) to provide funding for the work programs of LDCs that are also Parties of the UNFCCC, including for the preparation and implementation of national adaptation programs of action (NAPAs) (UNFCCC, 2001a, paras. 12-13; UNFCCC, 2001b, paras. 6-7). Contributions to the fund come from Annex II countries and other Annex I countries in a position to contribute (see UNFCCC, 2001a; UNFCCC, 2001b). The LDCF is operated by the entity operating the financial mechanism—the GEF—under COP guidance (UNFCCC, 2001b, para. 6; UNFCCC, 2001c).

In other meetings, the COP has provided further guidance to both the Parties and the GEF on the LDCF (UNFCCC, 2002; UNFCCC, 2008). In particular, in Milan (2003), the COP indicated elements to guide the GEF when developing operational guidelines for funding the implementation of NAPAs (UNFCCC, 2003b, para. 3):

- a) Ensuring a country-driven approach, in line with national priorities, which ensures cost-effectiveness and complementarity with other funding sources;
- b) Equitable access by Least Developed Country Parties to funding for the implementation of national adaptation programmes of action;
- c) Criteria for supporting activities on an agreed full-cost basis, taking account of the level of funds available;
- d) Guidelines for expedited support;
- e) Urgency and immediacy of adapting to the adverse effects of climate change; and
- f) Prioritization of activities.

Furthermore, in Montreal (2005), the COP decided that the LDCF would provide full-cost funding to cover the additional costs of adaptation activities (UNFCCC, 2005b, para. 2), and listed principles to guide the operation of the fund (UNFCCC, 2005b, para. 1):

- a) A country-driven approach, supporting the implementation of urgent and immediate activities identified in [NAPAs], as a way of enhancing adaptive capacity
- b) Supporting the implementation of activities identified in [NAPAs], and of other elements of the Least Developed Countries work program identified in Decision 5/CP.7, in order to promote the integration of adaptation measures in national development and poverty reduction strategies, plans or policies, with a view to increasing resilience to the adverse effects of climate change
- c) Supporting a learning-by-doing approach.

The GEF published operational guidelines for expedited funding for NAPAs in 2002, to assist LDCs in the preparation of proposals to obtain LDCF funding (GEF, 2002, para. 2). The GEF Implementing Agencies (UNDP, UNEP, and the World Bank) provide assistance for the preparation of NAPAs (GEF, 2002, para. 14). These agencies submit proposals to the GEF Secretariat in a predetermined format, contained in an annex to GEF’s operational guidelines (GEF, 2002, para. 15; see also GEF, 2002, Annex A). The proposal must be endorsed by the country’s GEF focal point and by the national climate change focal point (notified by the country to the UNFCCC) to confirm country ownership (GEF, 2002, para. 19). The GEF established expedited procedures for the approval of proposals for assistance to prepare NAPAs (GEF, 2002, Annex B). Proposals of up to US\$200,000 may be approved by GEF’s CEO under such expedited procedures, provided the LDCF has available funds; proposals exceeding US\$200,000 must be submitted to the GEF Council as regular GEF projects (GEF, 2002, para. 20).

In 2006, the GEF published a Programming Paper for funding under the LDCF, which states that funding would be provided to support “projects to increase the adaptive capacity and to reduce the vulnerabilities of the LDCs to climate change by addressing the most urgent and immediate needs as part of efforts to foster *climate-resilient development*” (GEF Council, 2006, para. 13). Furthermore, LDCF support would be based on identifying and meeting urgent and immediate additional costs imposed on vulnerable LDCs by the need to adapt to the effects of climate change (GEF Council, 2006, paras. 18-19, 22). The Programming Paper discusses a formal and a simplified method to calculate such additional costs, and sets a sliding scale linking project costs to a proportion of total funding that can be provided by the LDCF (GEF Council, 2006, paras. 23-32):

PROJECT COST RANGE (US\$)	LDCF FUNDING ACCESSIBLE
Up to US\$300,000	Up to 100% of project cost
US\$300,000 to 500,000	The higher of 75% of project cost or US\$300,000
US\$500,000 to 6 million	The higher of 50% of project cost or US\$375,000
US\$6 million to 18 million	The higher of 1/3 of project cost or US\$3 million
Greater than US\$18 million	The higher of 25% of project cost or US\$6 million

Projects requesting up to US\$2 million in LDCF financing follow the GEF MSP (medium-size project) cycle, which is already expedited—projects are submitted on a rolling basis and reviews are completed within 15 working days (GEF Council, 2006, para. 38). Projects requesting more than US\$2 million are processed on a rolling basis (GEF Council, 2006, para. 39). The review of proposals for LDCF funding is based on criteria including country ownership; program and policy conformity; financing; institutional coordination and support; and monitoring and evaluation (GEF Council, 2006, para. 44). To ensure balanced access to LDCF funding, the GEF takes into account not only the time of the proposal submission, but also factors such as “vulnerability to climate change and type of interventions to address it; national and local circumstances including population and country size; and national and local capacity to cope with current variability and future change” (GEF Council, 2006, para. 52).

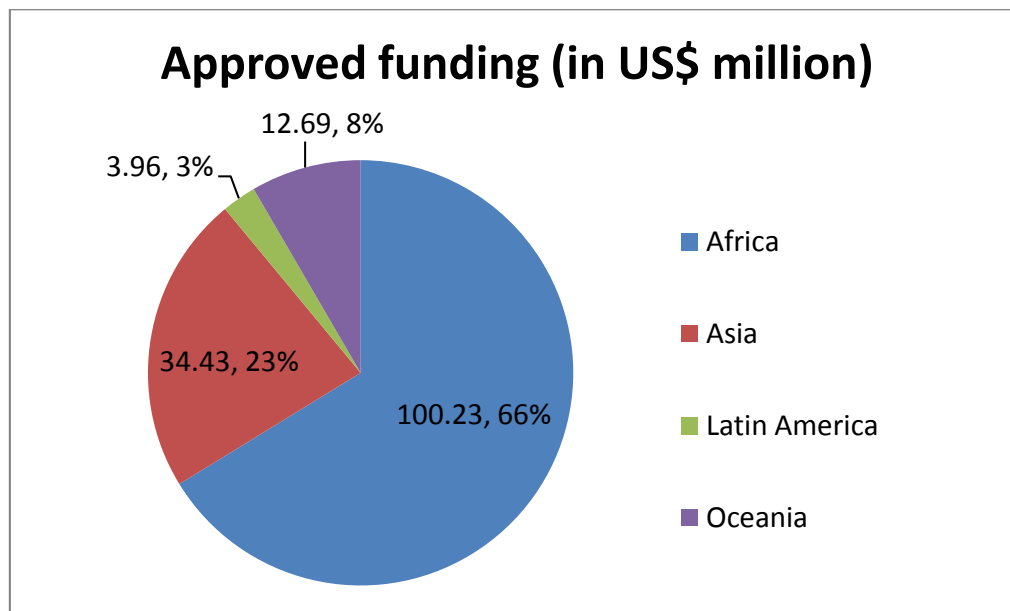
**Priority areas.** Based on countries’ informal presentations regarding their NAPAs, the GEF identified priority sectors of intervention and sample project ideas (GEF Council, 2006, para. 12):

- a) Water resources: Expanded use of rainwater harvesting and storage for domestic and irrigation water supplies; protection of water supply sources; and improved water resource planning to account for heightened variability and vulnerability.
- b) Food security and agriculture: Increased utilization of no-till agriculture techniques, including in tidal areas and wet conditions; improvements of weather and crop-suitability; and increased use of traditional crops to reduce crop production variability in response to increased temperature and rainfall variability.
- c) Health: Greater emphasis on monitoring the incidence of and expanding control of vector-borne diseases at and beyond current boundaries.
- d) Disaster preparedness and risk management: Increased emphasis on development of early warning systems against climate-related extreme events; monitoring of conditions for and development of programs to respond to glacial lake outburst flooding, droughts, and flooding; and raised awareness and understanding of local communities about the necessity and benefits of preparedness for climate hazards.
- e) Infrastructure: Review and revision of appropriate regulations and policies relevant to construction of buildings, roads, bridges, culverts and sewers; urban planning; and coastal defense structures.
- f) Natural resources management: Enhanced support to community-based forest fire management and prevention; increased experimentation with cultivating salt tolerant fish species in areas prone to sea-level rise; and renewed efforts to promote sustainable fisheries.
- g) Community-level adaptation is also recognized as a cross-sectoral priority measure requiring urgent attention. Although these priority areas of concern will doubtless change as additional NAPAs are completed, it provides an important indication of some of the key sectors requiring assistance.

**Financial status.** As of October 8, 2010, the total amount pledged to the SCCF amounted to the equivalent of US\$262,293,798, of which US\$49,600,843 was in outstanding pledges, US\$219,361,020 in paid contributions, and US\$27,765,052 in unpaid contributions (LDCF/SCCF Council, 2010a, Annex 1). Pledges were made by 22 contributors: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and the United States (LDCF/SCCF Council, 2010a, para. 2). Cumulative net funding decisions amounted to US\$146,431,251, of which US\$35,189,886 already disbursed (LDCF/SCCF Council, 2010a, Annex 2). Total funds available for allocation amount to US\$80,838,870 . (LDCF/SCCF Council, 2010a, Annex 3).

**Governance.** The LDCF has the same governance structure as the SCCF, and resource allocations being decided by the GEF Council acting as council for both the SCCF and the LDCF.

**Projects.** As of September 24, 2010, the Council had approved US\$151.31 million for the funding of 42 projects, covering 22.85 per cent of total project costs (US\$662.10 million) (LDCF/SCCF Council, 2010b, pp. 5–8). Most approved projects focus on strengthening resilience, reducing vulnerability, and building capacity in the following areas: agriculture and food security; management of water resources and coastal zones; and early warning and disaster preparedness systems (LDCF/SCCF Council, 2010b, pp. 5–8).



Source: Based on LDCF/SCFF progress report (GEF/LDCF.SCCF.9/Inf.3)

### 2.7.5 The UN-REDD Fund

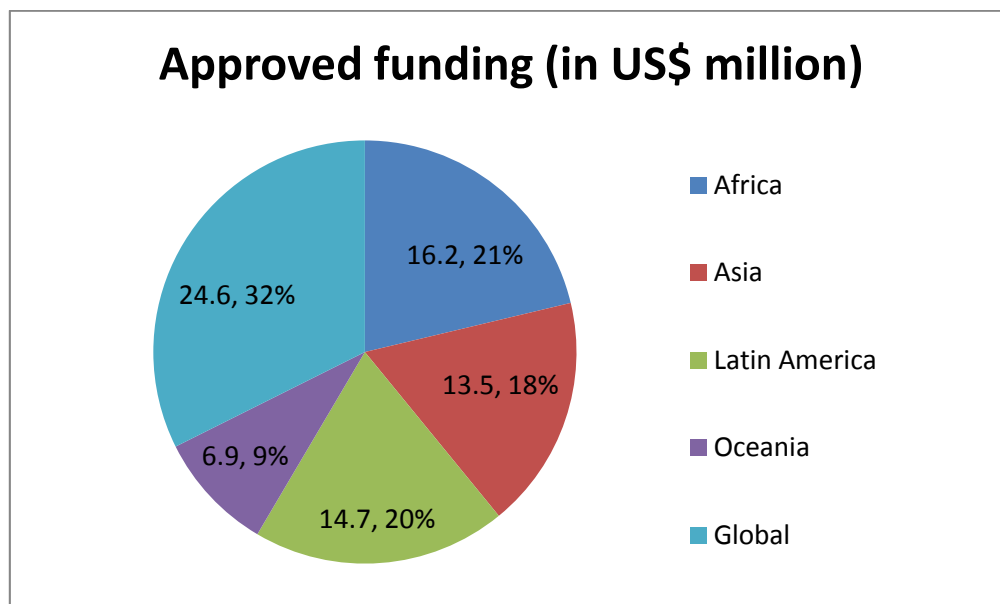
Motivated by requests from developing country governments to address issues related to forests and climate change, FAO, UNDP, and UNEP developed the Collaborative Programme on Reduced Emissions from Deforestation and Degradation in Developing Countries (UN-REDD Programme) on June 20, 2008 (Food and Agriculture Organization, United Nations Development Program, & United Nations Environment Program [FAO et al.], 2008a, p. 5). In addition, the three UN bodies entered into a Memorandum of Understanding (MOU) establishing the UN-REDD Multi-Donor Trust Fund (UN-REDD MDTF) (FAO et al., 2008b). With the focus on empowering developing countries to manage their REDD process and facilitate their access to financial and technical assistance, the UN-REDD Program has two components (FAO et al., 2008a, p. 7):

- i) Assisting developing countries prepare and implement national REDD strategies and mechanisms;
- ii) Supporting the development of normative solutions and standardized approaches based on sound science for a REDD instrument linked with the UNFCCC.

**Governance.** UN-REDD Program activities are carried out through the national joint programs for country actions, as well as through global programs for international support implemented by FAO, UNDP or UNEP (FAO et al., 2008a, p. 22). The UN-REDD Policy Board provides leadership and strategic direction of UN-REDD and its MDTF, deciding on financial allocations and developing monitoring mechanisms (FAO et al., 2008a, p. 22). The UN-REDD Technical Secretariat implements the Policy Board’s policies and strategies, managing the monitoring, review, and evaluation processes (FAO et al., 2008a, p. 22). The MDTF Office of UNDP serves as Administrative Agent of the UN-REDD MDTF (FAO et al., 2008a, p. 23). UN Resident Coordinators lead the UN Country Team and relationships with national authorities (FAO et al., 2008a, p. 23). Country-led National REDD Offices provide day-to-day management of national joint programs and coordinate REDD activities, and integrate REDD into national development policies (FAO et al., 2008a, p. 24).

**Project cycle.** The joint program documents are developed at country level with help of the UN Resident Coordinators. Such documents are then submitted to the UN-REDD Technical Secretariat, which reviews the documents to ensure consistency, and finally presented to the UN-REDD Policy Board for final decision. Upon budget approval, the Technical Secretariat requests the Resident Coordinator to sign the joint program, and the UNDP MDTF Office releases the funds to the participating UN organization (FAO, UNEP or UNDP) (FAO et al., 2008a, pp. 24–25). Further guidance on the process is detailed in the Rules of Procedure and Operational Guidance of the UN-REDD Program (UN-REDD Programme, 2009).

**Financial status.** Denmark, Norway, and Spain have collectively contributed US\$93,798,577 to the fund (United Nations Development Program [UNDP], 2011). Approved funding for projects amounts to US\$75,934,068, of which US\$51,347,041 have already been transferred (UNDP, 2011). As of January 20, 2011, 14 projects had been approved: in Bolivia, Cambodia, the Democratic Republic of the Congo, Indonesia, Panama, Papua New Guinea, Paraguay, the Philippines, Solomon Islands, Tanzania, Vietnam, and Zambia, as well as two global projects led by the United Nations (UNDP, 2011).



Source: Based on data from <http://mdtf.undp.org/factsheet/fund/CCF00>

## 2.7.6 The Climate Investment Funds

Multilateral development banks (MDBs) including the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the Inter-American Development Bank, and the World Bank Group, along with countries, launched the Climate Investment Funds (CIF) as a collaborative effort to finance low-emissions and climate-resilient development in developing countries. The World Bank serves as Trustee of the CIF Trust Funds. The bank's Board of Directors approved two funds on July 1, 2008: the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF) (First Climate, 2010, p. 9).

Governance of the CIF Trust Funds is entrusted to representatives of donors and recipient countries, and observers from the United Nations, the GEF, civil society, indigenous peoples, and the private sector are allowed. Programs are country-specific and aim at achieving nationally defined objectives. Once a financial architecture is established and operational for the post-2012 United Nations climate change regime, the CIF Trust Funds could be closed to new contributions (through the operation of a sunset clause), but may also continue to exist, if so decided by the parties and with the World Bank's consent (First Climate, 2010, p. 9).

**Principles.** The following principles were considered in developing proposals for the CIF funds (World Bank, 2008a, para. 13):

- a) The MDBs should support sustainable economic growth and poverty reduction, integrating climate change mitigation and adaptation considerations;
- b) The MDBs should ensure access of developing countries to climate financing and technology;
- c) The MDBs should mobilize new and additional finance for country-led climate change mitigation and adaptation activities supporting sustainable development and poverty reduction;
- d) Sustainability depends on sustaining produced, human, institutional and natural wealth;
- e) The MDBs will be guided by the broad climate change goals defined by the UNFCCC;
- f) The MDB and their partners should assist developing countries in building country-level knowledge, capacity, and project experience;
- g) The MDBs may form partnerships with each other and other public and private stakeholders;
- h) Complementarities between the CIF and the GEF should be identified, and cooperation should be established; and
- i) Governance and financing operations of the funds should be open and transparent.

**Governance.** The CIF structure includes a Trust Fund Committee for each fund, as well as three shared entities: the MDB Committee, the Administrative Unit, the Trustee, and the Partnership Forum. Each Trust Fund Committee has equal representation of contributor and recipient countries, and advises the strategic direction and the operation of the funds (First Climate, 2010, p. 57).

*MDB Committee.* The MDB Committee comprises representatives of the MDBs who meet at least once a year to facilitate collaboration, coordination, and information exchange among the banks (First Climate, 2010, paras. 35–36). In particular, the Committee's activities include: identifying areas of MDB cooperation in the field of climate change;

reviewing recommendations by the Administrative Unit on proposed CIF programs and projects; and monitoring the implementation of CIF programs and projects and reporting on their implementation (First Climate, 2010, para. 35).

*Administrative Unit.* The Administrative Unit, based in World Bank offices and comprising a small team of professional and administrative staff employed by the bank, supports the work of the CIF bodies (First Climate, 2010, para. 37). Its responsibilities include: making recommendations on proposed programs and projects; conducting background research; preparing the annual report on the funds; servicing the meetings of other CIF bodies; and managing partnerships and external relations (First Climate, 2010, para. 38).

*Trustee.* The World Bank serves as Trustee for the CIF, establishing the two trust funds, holding them in trust and administering their resources (First Climate, 2010, para. 39). Once the World Bank transfers to the MDB the funds approved by the TFC of either of the funds, the transferred funds become the responsibility of the MDB (First Climate, 2010, para. 41).

*Partnership Forum.* The Partnership Forum is an annual meeting of different CIF stakeholders, including countries, MDBs, UN organizations, the GEF, the UNFCCC secretariat, the Adaptation Fund, bilateral development agencies, NGOs, private sector entities, and scientific and technical experts. Its mission is to promote dialogue on CIF strategic directions, results, and impacts, as well as to provide an opportunity for advice and knowledge-sharing on climate change issues (World Bank, 2008b, paras. 32-33).

Specific aspects of the funds and programs are outlined in the following subsections.

### 2.7.6.1 *The Clean Technology Fund (CTF)*

The CTF is a US\$4.5 billion trust fund formed through contributions from Australia, France, Germany, Japan, Spain, Sweden, the United Kingdom, and the United States (First Climate, 2010, p. 10). It aims at promoting scaled-up financing for low-carbon technologies with potential for long-term greenhouse gas mitigation in three key sectors: power (renewable energy, fuel switching, efficient generation, carbon capture and storage (CCS)-ready thermal power plants), transportation (efficiency in transmission and distribution, and demand-management programs), and energy efficiency (buildings, industry, and agriculture). Funds are expected to be directed to 15-20 countries or regions (developing countries or economies in transition) which are eligible for official development assistance (ODA) and have an active MDB country program (First Climate, 2010, pp. 12, 17). CTF funding is provided through grants, concessional, loans, guarantees, and equity (World Bank, 2008c, para. 11).

**Objectives.** The CTF aims at (World Bank, 2008c, para. 7):

- a) Providing positive incentives for the demonstration of low-carbon development and mitigation of GHG emissions through public and private sector investments;
- b) Promoting scaled-up deployment, diffusion and transfer of clean technologies by funding low-carbon programs and projects that are embedded in national plans and strategies to accelerate their implementation;
- c) Promoting realization of environmental and social co-benefits, thus demonstrating the potential for low-carbon technologies to contribute to sustainable development and the achievement of the Millennium Development Goals;

- d) Promoting international cooperation on climate change and supporting agreement on the future of the climate change regime;
- e) Utilizing skills and capabilities of the MDBs to raise and deliver new and additional resources, including official and concessional funding, at significant scale; and
- f) Providing experience and lessons in responding to the challenge of climate change through learning-by-doing.

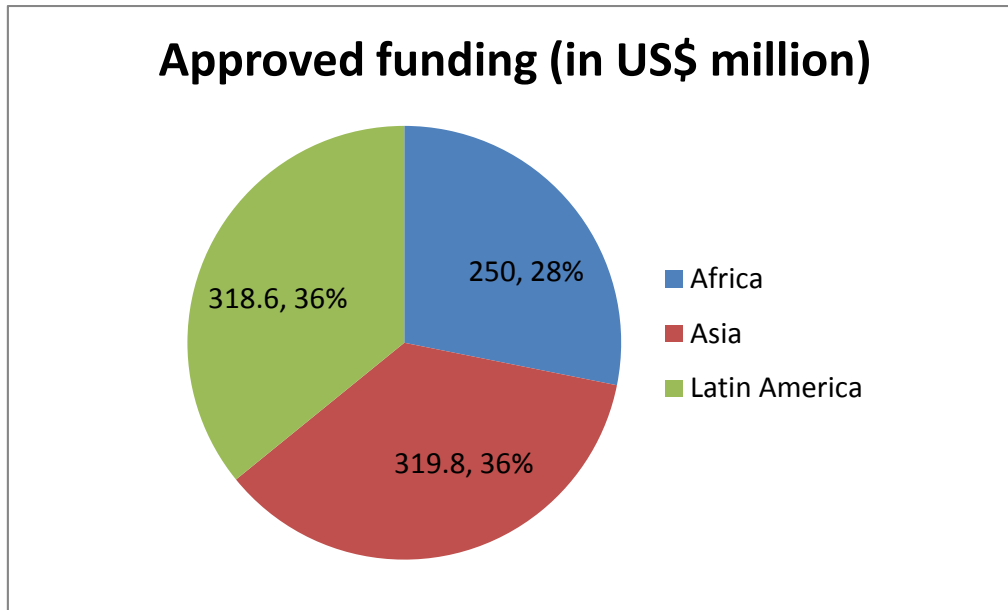
**Governance.** The CTF Trust Fund Committee (TFC) is entrusted with the responsibility of overseeing the operations of the fund, as well as providing strategic direction, approving, and monitoring its programs and projects (First Climate, 2010, p. 57). In particular, the TFC is responsible for approving the allocation of CTF resources (World Bank, 2008c, para. 47). The TFC's decision-making members are eight representatives from contributor countries and eight representatives from eligible recipient countries; non-decision-making members are a representative of the MDB indicated by the MDB Committee, a senior representative of the World Bank, and, whenever the CTF is considering an investment plan, program or project in a country, a representative of that recipient country (World Bank, 2008c, paras. 19–20). The TFC meets at least once a year and takes decisions by consensus (World Bank, 2008c, paras. 27–28).

**Accessing the funds.** For a country to access CTF funding, the World Bank and the relevant regional development bank (MDB) conduct a joint mission with public, private, and other stakeholders at the national level. The host country leads the development of an investment plan, describing how the funds will be used in major sectors, how they complement other programs, and the financing plan (World Bank, 2009a). Investment plans must be endorsed by the CTF Trust Fund Committee. With support from the MDB, the host country develops programs or projects pursuant to the development plan and submits them to the Trust Fund Committee for review and approval. Once the program or project is approved, the MDB acquires the funds from the CIF Trustee, and supports and oversees implementation by the host country (First Climate, 2010, pp. 17–18).

**Investment plans.** As of November 30, 2010, the CTF had endorsed 13 country investment plans (Colombia, Egypt, Indonesia, Kazakhstan, Mexico, Morocco, Nigeria, Philippines, South Africa, Thailand, Turkey, Ukraine, Vietnam) and one regional investment plan (concentrated solar power in the region covering Algeria, Egypt, Jordan, Morocco, and Tunisia). Projects supported by those plans include wind and solar power, rapid bus transit and light rail, energy efficiency, and low-carbon intermediary financing (First Climate, 2010, p. 18; Clean Technology Fund Trust Fund Committee [CTF TFC], 2010).

**Programs and projects.** As of 8 November 2010, the CTF had approved 15 programs or projects, amounting to US\$888.4 million in CTF funding. Host countries for the approved projects are Egypt, Mexico, Philippines, South Africa, Thailand, Turkey, Ukraine, and Vietnam. Projects include direct lending for and financial mechanisms to support renewable energy (including wind, solar, biomass, and mini-hydro), transport (bus rapid transit and non-motorized transport), and energy efficiency (in lighting and appliances) (CTF TFC, 2010, pp. 7–11).





Source: CTF/TFC.6/3/Rev.1

### 2.7.6.2 The Strategic Climate Fund (SCF)

The SCF is a US\$1.9 billion trust fund formed through contributions from Australia, Canada, Denmark, Germany, Japan, the Netherlands, Norway, Switzerland, the United Kingdom and the United States (First Climate, 2010, p. 10). Support to developing countries is offered in the form of loans, credits, guarantees, and grants, and is implemented by the MDBs and other partners (World Bank, 2008a, para. 17).

**Objectives.** The stated objectives (World Bank, 2008a, para. 16; World Bank, 2008b, para. 7) of the SCF are to:

- a) Promote international cooperation on climate change and support progress towards the future of the climate change regime;
- b) Provide experience and lessons in responding to the challenge of climate change through learning-by-doing;
- c) Promote and channel new and additional financing for addressing climate change through targeted programs to be established as part of the Strategic Climate Fund or through separate funds like the Clean Technology Fund or other funds addressing climate change, such as the Forest Carbon Partnership Fund;
- d) Utilize the skills and capabilities of the MDBs to raise and deliver concessional climate financing at a significant scale to unleash the potential of the public and private sectors to achieve meaningful reductions of carbon emissions and greater climate resilience;
- e) Provide incentives for scaled-up action and transformational action (both mitigation and adaptation) and for solutions to the climate change challenge and poverty reduction in developing countries, consistent with poverty reduction and sustainable development strategies that are robust to climate change;

- f) Provide incentives to maintain, restore and enhance carbon-rich natural ecosystems to prevent these carbon sinks from becoming sources of increased emissions, and to enhance all the services they provide, including climate resilience or adaptive capacity, and thereby support sustainable development;
- g) Complement other multilateral financial mechanisms, such as the GEF and the Adaptation Fund, and bilateral sources of financing and seek co-financing where appropriate; and
- h) Maximize co-benefits of sustainable development, particularly in relation to the conservation of biodiversity, natural resources ecosystem services and ecological processes.

**Programs.** The SCF supports developing countries to achieve climate-resilient and low-emissions development in all sectors through three target programs: the Pilot Program for Climate Resilience (PPCR), the Forest Investment Program (FIP), and the Scaling-Up Renewable Energy Program in Low-Income Countries (SREP) (First Climate, 2010, p. 9). Details on each of the target programs are presented in the following subsections.

**Governance.** In addition to the common CIF bodies (the Partnership Forum, the MDB Committee, the Administrative Unit, and the Trustee), the governance structure of the SCF includes the SCF Trust Fund Committee (TFC) and Sub-Committees for each of its programs (World Bank, 2008b, para. 13).

*Trust Fund Committee.* The TFC comprises 16 decision-making members (eight representatives from contributor countries and eight representatives from eligible recipient countries) and two non-decision-making members (a senior World Bank representative and a representative of the MDBs indicated by the MDB Committee) (World Bank, 2008b, paras. 14–15). The TFC oversees the operations and activities of the SCF; in particular, it approves SCF programs; defines the scope, objectives, and eligibility criteria for the use of SCF funds; ensures that SCF is guided by UNFCCC principles; establishes Sub-Committees for each SCF program; allocates administrative resources; approves SCF annual reports; ensures accountability of the MDBs; and reviews financial reports from the Trustee (World Bank, 2008b, paras. 14, 20). The TFC meets at least once a year and makes decisions by consensus (World Bank, 2008b, paras. 22–23).

*Sub-Committees.* There is a Sub-Committee under each SCF program, consisting of up to six representatives from contributor countries to the program, the same number of representatives from eligible recipient countries, and other representatives designated by the TFC (World Bank, 2008b, para. 26). Each Sub-Committee will, with respect to its program: approve priorities, operational criteria and financing modalities; approve financing for programs and projects; approve periodic reports to the TFC on the program's operation; and ensure complementarity and cooperation with other partners in the climate change field (World Bank, 2008b, para. 28). The procedural rules applicable to the TFC also apply to the Sub-Committees (World Bank, 2008b, para. 31).

#### 2.7.6.2.1 The Pilot Program for Climate Resilience (PPCR)

Funds pledged to the PPCR amount to US\$972 million from Australia, Canada, Denmark, Germany, Japan, Norway, the United Kingdom, and the United States (First Climate, 2010, p. 10). Of the total pledged funds, US\$614 million are grant resources and US\$358 million are concessional finance (Pilot Program for Climate Resilience Sub-Committee [PPCR Sub-Committee], 2010, para. 3).

Projects are expected to support scaled-up climate action and integration of climate resilience in national development plans (First Climate, 2010, p. 9). Funding is available for two types of investment: capacity building for developing countries in integrating climate resilience into national and sectoral development plans; and direct public and private sector investments that are in line with development plans and that address climate resilience (First Climate, 2010, p. 32).

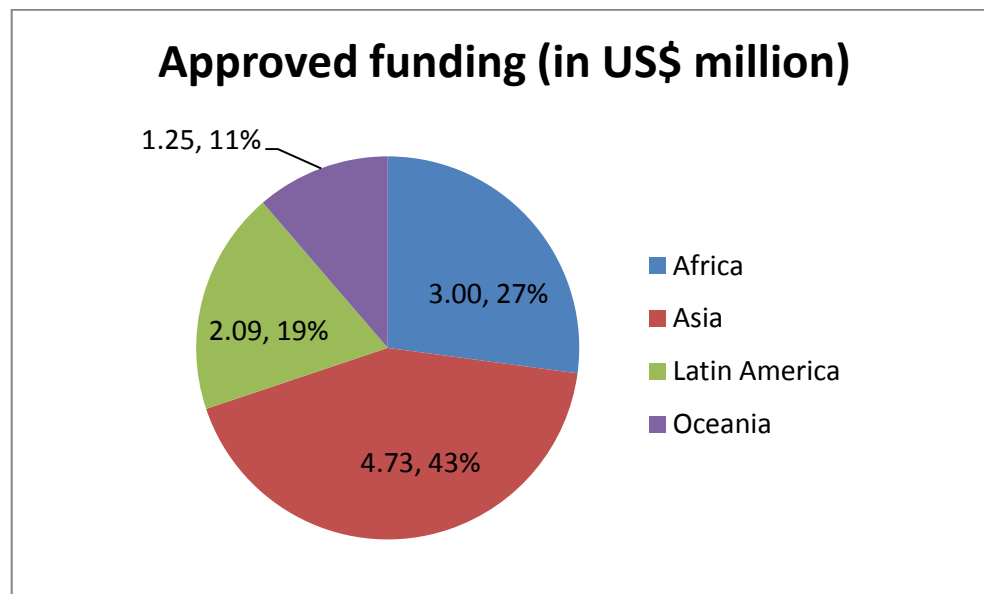
**Eligibility.** Countries must be eligible for ODA and to maintain active MDB programs (First Climate, 2010, p. 12).

**Governance.** Priorities, operational criteria, and financing modalities are approved by the PPCR Sub-Committee. It comprises, in addition to representatives from contributor and recipient countries, a representative from the Adaptation Fund Board and other observers, in line with the CIF governance structure (First Climate, 2010, p. 33).

**Accessing the funds.** PPCR pilot programs must be country-led, build on National Adaptation Programs of Action (NAPAs) and other adaptation plans, and be aligned with other sources of adaptation finance (First Climate, 2010, pp. 31–32). The PPCR is implemented in two phases, carried out by country-led missions with MDBs and other partners. In Phase 1, the country develops a Strategic Program for Climate Resilience, including an investment program; in Phase 2, the program and its investments are implemented with PPCR support (First Climate, 2010, p. 33).

As of April 2010, nine country programs and two regional programs have been identified (First Climate, 2010, p. 12). Country programs were identified in Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan, Yemen, and Zambia; regional programs were identified in the Caribbean (Dominica, Grenada, Haiti, Jamaica, Saint Lucia, and Saint Vincent and Grenadines) and in the Pacific (Papua New Guinea, Samoa, and Tonga) (First Climate, 2010, p. 31).

As of October 28, 2010, the PPCR had approved funding amounting to US\$11.061 million for Phase 1 activities in both country-specific and regional pilot programs in Bolivia, Cambodia, Grenada, Mozambique, Nepal, Papua New Guinea, Saint Lucia, Samoa, Tajikistan, Tonga, Yemen, and Zambia (PPCR Sub-Committee, 2010, paras. 8–15).



Source: Based on PPCR/SC.7/3

### 2.7.6.2.2 The Forest Investment Program (FIP)

Funds available under the FIP amount to US\$587 million, based on contributions pledged by Australia, Denmark, Japan, Norway, the United Kingdom and the United States (PPCR Sub-Committee, 2010, p. 10). FIP-funded projects and programs should provide financial and knowledge support for REDD (reducing emissions from deforestation and forest degradation) initiatives and promote sustainable management of forests in eight pilot countries with potential for REDD+, ODA eligibility, and active MDB programs (PPCR Sub-Committee, 2010, pp. 9, 12).

**Governance.** The FIP Sub-Committee approves the program priorities, operational criteria, and financing modalities. It comprises six representatives from contributor countries and six representatives from recipient countries, as well as observers from the Forest Carbon Partnership Facility (FCPF) secretariat, the GEF, the UNFCCC secretariat, the UN-REDD technical secretariat, four civil society observers, four indigenous peoples observers, four private sector observers, and two alternates (PPCR Sub-Committee, 2010, p. 40).

The Sub-Committee's Expert Group recommended, in March 2010 and June 2010, eight pilot countries for FIP-funded projects: Brazil, Burkina Faso, the Democratic Republic of Congo, Ghana, Indonesia, Laos, Mexico, and Peru (PPCR Sub-Committee, 2010, p. 40). To date, the FIP Sub-Committee has approved three investment strategy preparation grants in Burkina Faso, Indonesia, and Laos, amounting to US\$702,900 (World Bank, 2011).

### 2.7.6.2.3 The Scaling-Up Renewable Energy Program for Low Income Countries (SREP)

Under the SREP, US\$318 million is made available by Japan, the Netherlands, Norway, Switzerland, the United Kingdom, and the United States, to finance proven renewable energy technologies (First Climate, 2010, pp. 10, 12). Renewable energy technologies under the SREP include "solar, wind, bioenergy, and geothermal, as well as hydropower with capacities normally not to exceed 10 MW per facility" (World Bank, 2009b, para. 21). Financial instruments to be used by the SREP include equity and debt financing, capital cost buy-down, production incentives, grants, loans, and feed-in tariffs (World Bank, 2009b, para. 25).

**Eligibility.** To be eligible for SREP funding, countries must be eligible for ODA and for MDB concessional finance and have an active MDB program; they must not be receiving CTF financing. The program is aimed at supporting six pilot countries, prioritizing low-income countries recommended by an expert group (First Climate, 2010, p. 12).

**Objectives.** The SREP aims at piloting and demonstrating the economic, social, and environmental viability of low-carbon development in the energy sector, combining public and private efforts, creating economic opportunities and increasing access to renewable energy (World Bank, 2009b, paras. 6-7). In particular, the SREP is intended to assist low-income countries in a "transformational change" towards low-carbon development through renewable energy, by investor confidence and improving market and financial conditions (World Bank, 2009b, paras. 8-9). Furthermore, the program seeks to encourage the sharing of experiences in scaling up renewable energy, to promote public awareness on renewable energy opportunities, and to generate economic, social, and environmental co-benefits (World Bank, 2009b, paras. 10-11).

**Principles.** In line with the objectives outlined above, the SREP is based on the following principles (World Bank, 2009b, para. 13):

- a) Country-led approach, building on national policies, strengthening renewable energy policies, and integrating renewable energy into national energy plans;
- b) Programmatic and outcome-focused approach, including investment, technical assistance, and support for policy changes to increase the use of renewable energy;
- c) Prioritization of investments that allow for the generation and productive use community services such as health, education, and communication;
- d) Commitment of funds and leverage of additional financing from other sources to achieve large scale renewable energy impacts;
- e) Objective selection of a small number of low-income countries, for maximum impact;
- f) Encouragement of private investment to increase renewable energy capacity;
- g) Involvement of private sector and civil society to achieve sustainable development;
- h) Economic, social, and environmental co-benefits;
- i) Participation of indigenous peoples and local communities; and
- j) Synergies with other renewable energy programs (MDBs, GEF, and other partners).

**Governance.** The SREP Sub-Committee approves program priorities, operational criteria, and financing modalities, and selects country or regional programs based on recommendations by an Expert Group (First Climate, 2010, p. 46). In particular, the Sub-Committee selects country and regional programs, approves financing modalities, decides on SREP financing for programs and projects, approves periodic SREP reports to the SCF TFC, and ensures cooperation with GEF, UNDP, and UNEP. The SREP Sub-Committee consists of up to six representatives from contributor countries and the same number of representatives from eligible recipient countries. In addition to observers provided for in the SCF TFC rules, a representative of the Energy for the Poor Initiative will be invited as an observer to SREP Sub-Committee meetings (World Bank, 2009b, paras. 30-31).

**Accessing the funds.** The relevant MDB conducts a joint programming mission to consult on the design of a country program in one of the pilot countries. This mission should involve national and local governments, UN agencies, development partners, civil society, indigenous peoples, and local communities. The result of the joint mission should be a succinct SREP funding plan outlining how the program may assist in enhancing renewable energy investments, strategic goals, concept notes of priority projects, proposed sequencing of investment and technical assistance, and the financing required for each project, including SREP and other funding sources. The funding then is submitted to the SREP Sub-Committee for review and endorsement. Funding for specific programs or projects proposed under the plan is subject to approval by the SREP Sub-Committee, and implementation is conducted under MDB supervision (World Bank, 2009b, paras. 26-29).

In June 2010, the SREP Sub-Committee approved the following SREP pilot countries: Ethiopia, Honduras, Kenya, Maldives, Mali, and Nepal (First Climate, 2010, p. 46). No programs or projects have been approved.

### 2.7.7 The Forest Carbon Partnership Facility (FCPF)

In 2006, the World Bank proposed the creation of the Forest Carbon Partnership Facility (FCPF) to assist developing countries in reducing emissions from deforestation and forest degradation (REDD), building capacity for REDD activities and testing small-scope, performance-based pilot programs, with a view to including REDD in a future climate regime under the UNFCCC. The FCPF comprises two mechanisms and two corresponding funds for which the World Bank serves as Trustee: the Readiness Mechanism (the Readiness Fund) and the Carbon Finance Mechanism (Carbon Fund) (Forest Carbon Partnership Facility [FCPF], 2008, pp. 1–2).

The Readiness Mechanism assists tropical and sub-tropical developing countries in preparing to participate in a large-scale REDD incentive framework. This includes determining a national reference scenario of historic emissions, assessing business-as-usual trends, preparing a national REDD strategy, and establishing a monitoring system for forest emissions. The Carbon Finance Mechanism will support around five selected countries that successfully participated in the Readiness Mechanism to evaluate incentive payments for REDD programs (FCPF, 2008, p. 3).

**Principles.** The FCPF adheres to the following principles (World Bank, 2010b, Section 3.1):

- a) Respect a REDD Participant Country's sovereign right and responsibility to manage its own natural resources while encouraging effective monitoring and implementation of the Readiness Preparation Proposal and Emission Reductions Programs;
- b) Recognizing the pilot nature of the Facility, follow a “learning-by-doing” approach;
- c) Seek to ensure consistency with the UNFCCC Guidance on REDD;
- d) Comply with the World Bank's Operational Policies and Procedures, taking into account the need for effective participation of Forest-Dependent Indigenous Peoples and Forest Dwellers in decisions that may affect them, respecting their rights under national law and applicable international obligations;
- e) Build public and private partnerships for REDD among Participants and Relevant International Organizations, Relevant Non-governmental Organizations, Forest-Dependent Indigenous Peoples and Forest Dwellers, and Relevant Private Sector Entities; and
- f) Maximize synergies with other bilateral and multilateral programs on REDD.

**Governance.** The governance structure of the FCPF comprises a Participants Assembly, a Participants Committee, a Carbon Fund Participants Committee, one or more Ad Hoc Technical Advisory Panels, a Facility Management Team, and a Trustee of the Readiness and Carbon Funds (World Bank, 2010b, Article 9):

**Participants Assembly** (World Bank, 2010b, Article 10). The Participants Assembly provides general guidance to and reviews (with the power to overturn) specific decisions made by the Participants Committee. It meets annually, and Eligible REDD Countries, eligible donors, international organizations and non-governmental organizations, among others, may attend as observers.

**Participants Committee** (World Bank, 2010b, Article 11). The Participants Committee reviews the Readiness Plan Idea Notes (R-PINs); selects REDD Participant Countries; provides guidance for the Readiness Preparation Proposal (R-PP); develops criteria and procedures as well as decides on the allocation of R-PP review and grants; endorses the REDD Country Participants' Readiness Packages; provides guiding principles on the REDD methodological framework;

approves the annual budget; among other functions. It consists of 28 members: 14 from REDD Country Participants and 14 from Donor Participants and Carbon Fund Participants, meeting at least twice a year and making decisions by consensus (or, if not possible, by a two-thirds majority of the members present and voting). Observers may also be accredited to Participants Committee meetings.

**Carbon Fund Participants Committee** (World Bank, 2010b, Article 12). The Carbon Fund Participants Committee is responsible for reviewing and selecting emissions reductions programs; providing guidance to the Trustee on emissions reductions payment agreements; approving business plans and annual budgets; and other activities to facilitate the operation of the Carbon Fund.

**Ad Hoc Technical Advisory Panels** (World Bank, 2010b, Article 13). The Participants Committee, the Carbon Fund Participants Committee, the Facility Management Team and other bodies under the FCPF can establish Ad Hoc Technical Advisory Panels to provide technical advice and information. These panels must be independent, impartial, and proportionate to their tasks, and are composed of experts drawn from a roster established by the Facility Management Team.

**Facility Management Team** (World Bank, 2010b, Section 14.1). The Facility Management Team operates the FCPF, performing activities such as: conducting the initial review of R-PINs; proposing criteria for grant allocation and implementation of R-PPs; assisting REDD Participant Countries in developing and implementing R-PPs; supervising implementation and reviewing emission reduction programs; and providing secretariat services for FCPF meetings.

**Trustee** (World Bank, 2010b, Section 14.2). The World Bank serves as Trustee of both the Readiness Fund and the Carbon Fund. Its responsibilities are: administering the funds; keeping them separate from the assets of the World Bank Group; entering into Participation Agreements and any other contracts necessary to accomplish the funds' purposes; accepting contributions from Donor Participants; among others.

#### Accessing the funds:

**Readiness Fund.** Any Eligible REDD Country (defined as a borrowing member located in a subtropical or tropical area) may submit a Readiness Preparation Proposal Idea Note (R-PIN) to the Facility Management Team (FMT) (World Bank, 2010b, Section 1.1, para. 25). Upon approval of the R-PIN, the country enters into a REDD Country Participation Agreement with the World Bank, thus formally becoming a REDD Country Participant. Based on the R-PIN, the REDD Country Participant develops a Readiness Preparation Proposal (R-PP) (The REDD Country Participant may obtain R-PP Formulation Grants from the World Bank). The R-PP is reviewed by the FMT and is subject to approval by the Participants Committee (PC). The PC decides on a grant allocation for the approved R-PP (World Bank, 2010b, Article 6).

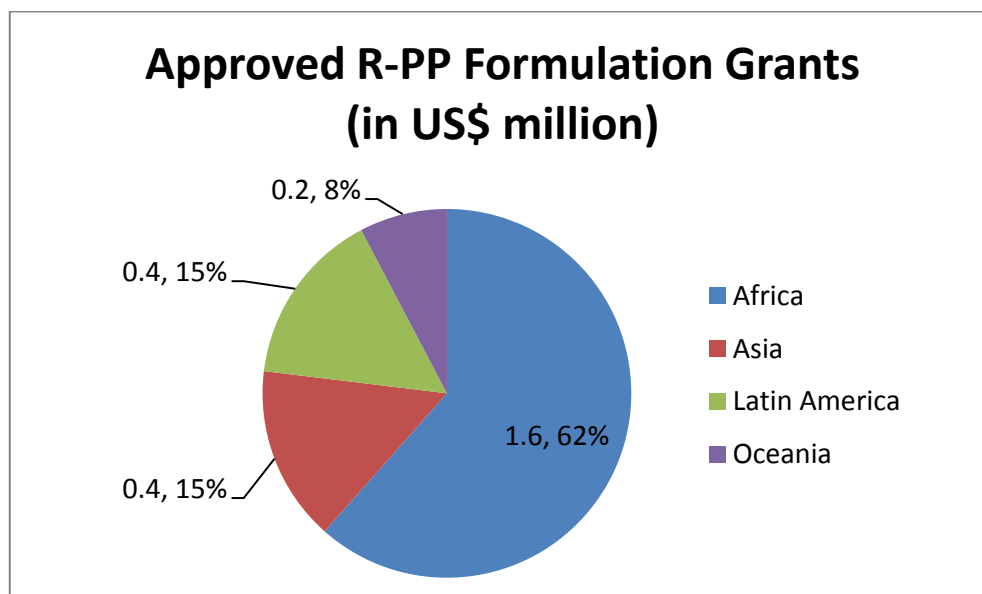
**Carbon Fund.** Based on progress in the implementation of the R-PP, the REDD Country may submit a Readiness Package to the FMT, requesting PC endorsement. If the Readiness Package is endorsed, the REDD Country Participant (or other nationally approved public or private entities) may submit Emission Reductions Programs (ERP) to the FMT, for consideration by the Carbon Fund Participants. If the ERP is selected, the World Bank may enter into an ERP Agreement with the REDD Country Participant or the nationally approved entity (World Bank, 2010b, Article 6).

As of June 30, 2010, total funding committed to the Readiness Fund over the period 2009–2012 amounted to US\$123.5 million, based on contributions from the Agence Française de Développement (AFD), Australia, Denmark, Finland,

Japan, the Netherlands, Norway, Spain, Switzerland, the United Kingdom and the United States. Total new pledges from Japan and Germany amount to US\$28.5 million over the period 2011–2012 (FCPF, 2010a, p. 26).

As of October 27, 2010, the FCPF had selected 37 countries for the Readiness Mechanism: Argentina, Bolivia, Cambodia, Cameroon, Central African Republic, Chile, Colombia, Costa Rica, Democratic Republic of Congo, El Salvador, Equatorial Guinea, Ethiopia, Gabon, Ghana, Guatemala, Guyana, Honduras, Indonesia, Kenya, Laos, Liberia, Madagascar, Mexico, Mozambique, Nepal, Nicaragua, Panama, Papua New Guinea, Paraguay, Peru, Republic of the Congo, Suriname, Tanzania, Thailand, Uganda, Vanuatu, and Vietnam. All of these except for Chile and Equatorial Guinea had signed REDD Country Participation Agreements (FCPF, 2010b).

In addition, the FCPF had approved R-PP Formulation Grants for 13 countries: Costa Rica, Democratic Republic of the Congo, Ethiopia, Gabon, Ghana, Guyana, Kenya, Laos, Liberia, Nepal, Republic of the Congo, Uganda, and Vanuatu. As each country receives an R-PP Formulation Grant of US\$200,000, total approved funding amounts to US\$2.6 million, of which more than US\$1.4 million had been disbursed (FCPF, 2010b).



Source: FCPF Dashboard.

### 2.7.8 The Congo Basin Forest Fund (CBFF)

The Congo Basin Forest Fund (CBFF) was created as a multi-donor special fund under the African Development Bank (AfDB) in June 2008, with initial funding for grants amounting to GBP 100 million (EUR 118 million) from Norway and the United Kingdom (GBP 50 million from each government) (CBFF, 2011). The rationale behind the CBFF is supporting innovative and transformational approaches to develop the capacity of the people and institutions in the Congo Basin Countries to manage their forests; helping communities find livelihoods consistent with forest conservation; and reducing the rate of deforestation (African Development Bank [AfDB], 2008, para. 2.1.5). The fund is expected to operate for 10 years (until 2018), with a mid-term review in 2012 to make any adjustments according to the post-Kyoto resolutions and a possible extension (AfDB, 2008, para. 3.23).



**Project eligibility.** The overall goal of the fund is to alleviate poverty and address climate change, by reducing deforestation rates while maintaining the benefits to local communities (AfDB, 2008, para. 2.2.1). Governments, regional economic communities, donors, other initiatives (such as the GEF), NGOs, the civil society, and the private sector help to identify priorities for funding (AfDB, 2008, para. 2.3.4). The fund supports activities that slow the deforestation rate, reduce poverty, and contribute to climate stabilization. High priority activities in the Central African Forests Commission (COMIFAC) Convergence Plan, forest preservation projects under the GEF, and REDD activities are also eligible (AfDB, 2008, paras. 2.3.1-2).

**Project selection criteria.** Projects are selected based on a two-level criteria system. In the First Cut Appraisal, a project must (AfDB, 2008, para. 2.3.5): (1) conform with the fund's objectives (promoting slowing of the deforestation rate and poverty reduction in forest communities, as well as showing a clear understanding of the context and stakeholders); (2) conform with the COMIFAC Convergence Plan; (3) be innovative; and (4) be gender sensitive (AfDB, 2008, para. 2.3.3). In the Second Cut Appraisal, the main criteria are: (1) positive impacts (including socioeconomic benefits to women) on beneficiaries and partners, (2) strong project management capacity and realistic work program; and (3) appropriate assessment and mitigation of environmental and social risks (AfDB, 2008, para. 2.3.5).

**Project cycle** (AfDB, 2008, para. 2.3.6). The funding approval process goes through the following stages:

1. Interested parties (governments or the civil society) submit project concept notes and profiles to the CBFF Secretariat;
2. CBFF Secretariat screens and ranks the submissions, submitting them to the Governing Council;
3. Governing Council reviews and comments on the submissions regarding design, technical and economic viability, sustainability, and other aspects;
4. CBFF Secretariat and the interested parties reply to the Governing Council's comments;
5. Submissions meeting the Governing Council's remarks are submitted to the AfDB for review and financial approval;
6. Submissions are sent to the appropriate level for approval in the AfDB;
7. Payments are made against performance of the proposed projects.

**Country eligibility.** Eligibility for funding is limited to COMIFAC member countries: Burundi, Cameroon, Chad, Congo, Gabon, Equatorial Guinea, Central African Republic, Democratic Republic of the Congo, Rwanda, and São Tomé and Príncipe (AfDB, 2008, para. 2.3.1).

**Governance.** The CBFF comprises a Governing Council, a Secretariat headed by a Coordinator, and staff members designated by the AfDB as necessary to implement the fund's activities (AfDB, 2008, para. 3.2).

**Governing Council** (AfDB, 2008, para. 3.8). The Governing Council provides strategic guidance to the fund, oversees its activities, and ensures broad donor and stakeholder participation. It is comprised of two co-chairs (Professor Wangari Maathai, Nobel Laureate, and Rt. Honorable Mr. Paul Martin, former Prime Minister of Canada), one donor representative (rotational), a Senior Management representative from AfDB, a civil society representative from the region, the Secretary General of the Economic Community of Central Africa States (CEEAC), and the COMIFAC President. Non-voting ex-officio members are: a representative of UNEP, a representative of the Norwegian Government,

a representative of the United Kingdom Government, the COMIFAC Executive Secretary, and a representative of the Congo Basin Forest Partnership. This composition is aimed at ensuring African ownership of the fund and its alignment with regional institutions and initiatives.

In particular, the Governing Council is responsible for the strategic direction of the fund; determining objectives and milestones; ensuring consistency of proposals with the strategic direction; building coherence among stakeholders; advocating and leveraging funds; overseeing the operation of the fund; among other functions. It meets at least twice a year (AfDB, 2008, para. 3.10). The Congo Basin Forest Partnership (CBFP) members serve as a Reference Group for the Governing Council, providing opportunities for information exchange, learning, and stakeholder participation (AfDB, 2008, para. 3.11).

**Secretariat** (AfDB, 2008, para. 3.12). The AfDB's Department of Agriculture and Agro-Industry (OSAN), based in Tunis with technical staff also based at the Cameroon and DRC Regional Offices, serves as the fund's Secretariat. The Secretariat Coordinator, appointed by the bank in consultation with the co-chairs of the fund, reports to the OSAN Director.

The CBFF is subject to audit and disbursement procedures of the AfDB, as well as to the bank's monitoring and evaluation (AfDB, 2008, para. 3.17-19). The AfDB presents an annual report on the fund's activities to the Governing Council (AfDB, 2008, para. 3.21).

A search for CBFF projects on the AfDB website reports EUR 7.8 million in 10 ongoing projects and EUR 3.8 million in four approved projects, totalling EUR 11.6 million in approved funding for 14 projects (AfDB, 2011). A May 2010 introduction brochure indicates a 15th project that does not appear on the AfDB website (AfDB, 2010a). Furthermore, a press release of the 9th Governing Council meeting, held from November 15 to 16, 2010, indicates that the council endorsed 25 additional projects (13 from governments and 12 from the civil society), amounting to EUR 63.1 million (AfDB, 2010b).

## 2.7.9 The Global Energy Efficiency and Renewable Energy Fund (GEEREF)

The Global Energy Efficiency and Renewable Energy Fund (GEEREF) is a Public-Private Partnership established by the European Union. It was proposed in 2006 by the European Commission (European Commission, 2006) and approved in 2008 by the European Parliament (European Parliament, 2008). The fund is aimed at providing risk capital for the transference of clean and renewable energy technologies to developing countries, including small hydropower, biomass, wind, and solar power projects. GEEREF participation ranges from between 25 to 50 per cent for medium to high risk operations to 15 per cent for low risk operations. It also provides technical assistance funds amounting to 10-20 per cent of the total fund size (European Commission, 2010a; European Commission, 2010b; European Commission, 2006, p. 9).

**Eligibility and funding priorities.** Developing countries and transition economies to benefit from the fund are countries of the European Neighbourhood (including North Africa and non-EU Eastern Europe including Russia), Latin America, and Asia (including Central Asia and the Middle East), with an emphasis on African, Caribbean, and Pacific (ACP) countries and a priority to invest in countries or regions with renewable energy and energy efficiency policies conducive to private sector engagement. The GEEREF does not provide finance directly to target groups; rather, it creates and funds regional sub-funds or scales up existing initiatives, subject to compatibility with the GEEREF's strategy, sound

management, implementation capacity, and a minimum proportion of commercial co-funding. The fund supports renewable energy and energy efficiency project developers and small- and medium-enterprises (SMEs), focusing on projects below EUR 10 million (European Commission, 2006, p. 9).

**Governance.** Created by the EU and funded by EU budget and member state contributions, the GEEREF is governed under the structure of the European Investment Bank (EIB) Group. It is administered by the EIB under its venture capital branch, the European Investment Fund (EIF).

So far, funding amounts to EUR 113 million, committed by the EC (EUR 75 million), Germany (EUR 24 million), and Norway (EUR 9 million). Investments have already been made in India, Nepal, Bangladesh, the Philippines and South Africa (European Commission, 2010a; European Commission, 2010b; European Commission, 2006, p. 9). In December 2009, the GEEREF announced a commitment of EUR 10 million to Evolution One Fund for clean energy investment in Southern Africa, and a EUR 12.5 million commitment to Berkeley Energy’s Renewable Asia Fund (REAF), focusing primarily on India, but in other Asian countries as well. In August 2010, a EUR 1 million grant for a Technical Support Facility was secured to Australian company Barefoot Power, which distributes household solar light equipment and off-grid generators for poor populations, mainly in Kenya and Uganda, as well as other over 30 countries, including Ghana, Haiti, India, Papua New Guinea, Tanzania, and Vanuatu (European Investment Fund, 2009; Global Energy Efficiency and Renewable Energy Fund, 2010).

## 2.8 Bilateral Sources of Funding

### 2.8.1 The MDG Achievement Fund—Environment and Climate Change Thematic Window

In December 2006, the Government of Spain signed an agreement with UNDP to establish the EUR 528 million UNDP/Spain Millennium Development Goals (MDG) Achievement Fund (MDG-F), launched in 2007 (UNDP/Spain MDG Achievement Fund [UNDP/Spain MDG-F], 2007b, p. 1). The MDG-F is divided into thematic windows comprising one or more development challenges that are central to achieving the MDGs. A proposal for an MDG-F grant may be addressed to one thematic window only (UNDP/Spain MDG Achievement Fund [UNDP/Spain MDG-F], 2007b, p. 6). “Environment and Climate Change” is one of the existing thematic windows, with an allocation of US\$89.5 million (UNDP/Spain MDG-F, 2011). In particular, this thematic field seeks to support “interventions that improve environmental management and service delivery at the national and local level, increase access to new financing mechanisms and enhance capacity to adapt to climate change” (UNDP/Spain MDG-F, 2007a, p. 3).

The MDG-F is governed by the following five principles (UNDP/Spain MDG-F, 2007b, p. 3):

1. Supporting programs anchored in national strategies and policies, including national participation throughout the program processes;
2. Economic sustainability of investments, with a commitment to capacity building;
3. High quality standards of program formulation, monitoring, and evaluation, with an orientation toward results and accountability;
4. Consolidating country-level inter-agency planning and management systems;
5. Minimizing transaction costs of fund administration, with light bureaucratic procedures, a two-stage application process, and restriction to programs with annual expenditures of US\$1–4 million.

The MDG-F Steering Committee, comprising a representative of UNDP and the Government of Spain, is responsible for setting the fund strategy, deciding on financial allocations, monitoring allocations and delivery, and tracking general progress. The Steering Committee receives technical and policy advice from the MDG-F Technical Sub Committee of each thematic area of focus of the fund. These committees are formed by 10–12 UN and independent appointed experts. The MDG-F Secretariat provides operational support for the fund, ensuring that the Steering Committee's decisions are implemented, coordinating the proposal review process, and managing the fund's monitoring and evaluation. The MDTF Office of UNDP is the Administrative Agent of the fund, managing the distribution of resources and overseeing the work of UNDP Country offices. The fund relies on UN Resident Coordinators as leaders of the UN Country Team (UNDP/Spain MDG-F, 2007b, p. 4). The MDTF Office concludes memoranda of understanding with the Participating UN Organizations involved in the implementation of the funded programs (UNDP/Spain MDG-F, 2007b, pp. 4–5).

The application and approval cycle can be summarized as follows (UNDP/Spain MDG-F, 2007b, p. 10):

1. The MDG-F solicits applications through a Request for Proposals (RfP);
2. The UN Country Team, led by UN Resident Coordinators, submits a Concept Note;
3. The Technical Sub-Committee reviews the Concept Note and makes a technical recommendation;
4. The Secretariat reviews the Concept Note (2) and the technical recommendation (3), and prepares the materials for the Steering Committee;
5. The Steering Committee decides on an indicative budget and delegates the program design to the UN Resident Coordinator;
6. The UN Country Team prepares the Joint Program (JP) document;
7. The Secretariat reviews the JP (6);
8. The Steering Committee approves the final budget;
9. The funds are transferred to the Administrative Agent (UNEP MDTF Office);
10. The JP is finalized and signed in the requesting country; and
11. Implementation of the program starts as soon as first-year funding is disbursed.

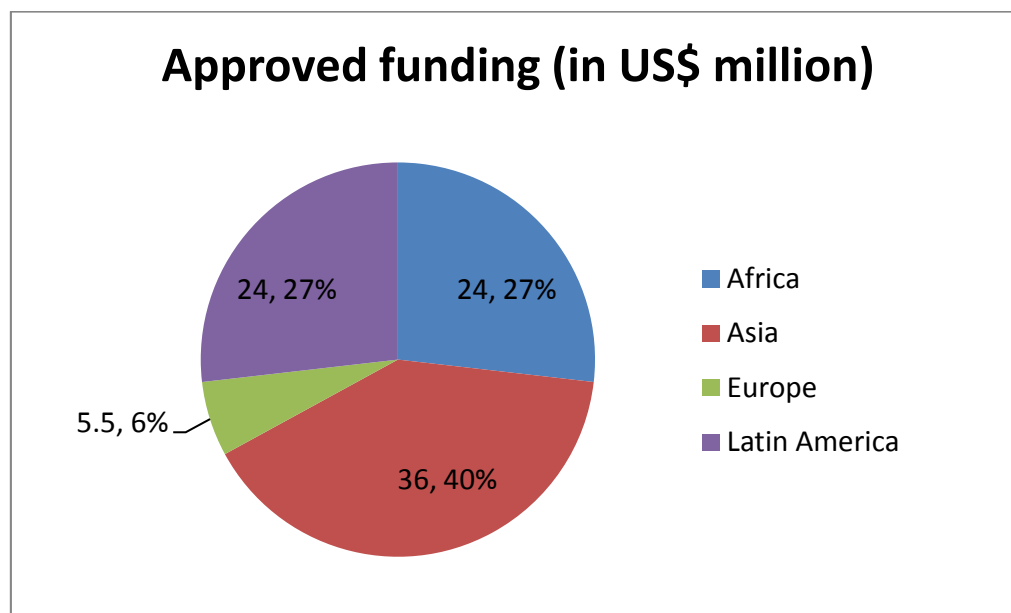
The implementation of all projects is subject to monitoring, accountability, and evaluation (UNDP/Spain MDG-F, 2007b, pp. 10–11).

Eligibility for funding is restricted to the 57 countries identified in the Spanish Master Plan for International Cooperation (UNDP/Spain MDG-F, 2007b, p. 6):

REGION	ELIGIBLE COUNTRIES
Africa	Angola, Cape Verde, Democratic Republic of Congo, Equatorial Guinea, Ethiopia, Guinea Bissau, Mauritania, Mozambique, Namibia, Sao Tome & Principe, Senegal, South Africa
Latin America	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela
Arab States	Algeria, Egypt, Iraq, Jordan, Lebanon, Morocco, Palestinian Territories, Sudan, Syria, Tunisia
Europe and CIS	Albania, Bosnia-Herzegovina, Croatia, Kosovo (UN-administered province), Macedonia, Montenegro, Serbia, Turkey
Asia	Afghanistan, Bangladesh, Cambodia, China, Timor-Leste, Philippines, Vietnam

Source: UNDP/Spain Millennium Development Goals Achievement Fund, Framework Document, p. 6.

The US\$89.5 million available for MDG-F funding under the Environment and Climate Change thematic window were allocated to 17 Joint Programs approved in Afghanistan, Bosnia and Herzegovina, China, Colombia, Ecuador, Egypt, Ethiopia, Guatemala, Jordan, Mauritania, Mozambique, Nicaragua, Panama, Peru, Philippines, Senegal, and Turkey. Most of the projects aim at strengthening, integrating, and mainstreaming environmental manage or climate change adaptation policies, as well as expanding access to environmental finance (UNDP/Spain MDG-F, 2011).



Source: Created by the authors based on UNDP/Spain MDG-F, 2011

## 2.8.2 The Global Climate Change Alliance

The Global Climate Change Alliance (GCCA) was established in 2007 by the European Union (EU) to channel the official development assistance of the EU and its member states to poor developing countries that are most vulnerable to climate change, enhancing the role of the EU in the fight against climate change and poverty (Global Climate Change Alliance [GCCA], 2011a). The EC earmarked EUR 95 million for the implementation of the GCCA under its Environment and Natural Resource Thematic Program (ENTRP) over the period 2008–2010, and EUR 40 million were allocated to the GCCA under the 10th European Development Fund (EDF) Intra-ACP (African, Caribbean, and Pacific countries) funding for regional actions. Sweden committed EUR 5.5 million, and the Czech Republic, EUR 0.2 million (GCCA, 2010a).

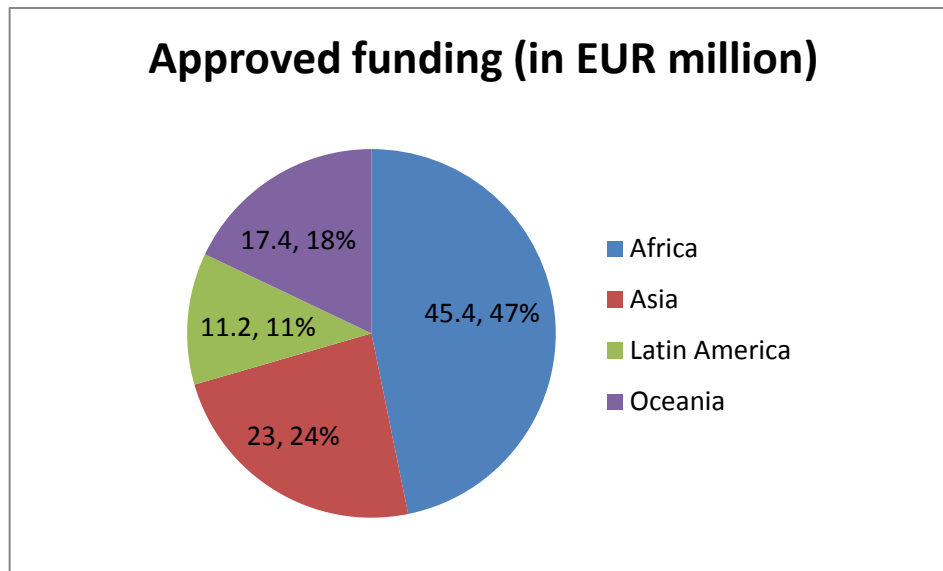
**Objectives.** The two main objectives of the GCCA are: (1) deepening the climate change policy dialogue between the EU and developing countries in the context of post-2012 negotiations, and (2) scaling up support for adaptation and mitigation measures in developing countries and to integrate climate change in their development strategies (GCCA, 2011a).

**Priority areas.** The five priority areas for funding under the GCCA are: (1) adaptation to climate change; (2) reducing emissions from deforestation; (3) enhancing participation in the Clean Development Mechanism; (4) promoting Disaster Risk Reduction (DRR); and (5) integrating climate change into poverty-reduction efforts (European Commission, 2007).

**Eligible or target countries.** Beneficiary countries are LDCs and SIDS, assuming that they are the most vulnerable to climate change impacts and have the fewest human and financial resources for adaptation (European Commission, 2007).

**Governance.** The EC manages the funds on behalf of itself and member states donors. Donations can be pooled both globally through thematic or geographic programs, and at a country or regional level. The funds are included in EC budget and managed under EC procedures. A Support Facility was created in 2009 to help with GCCA implementation. It organizes international dialogue and capacity-building events and regional workshops with country officials and stakeholders; provides support for beneficiary countries in identifying opportunities and formulating projects; and compiles and analyzes climate country data from national, regional and international communications etc. (GCCA, 2011b). The Support Facility also reports regularly on the state of the GCCA, as well as produce an annual report for the Council on GCCA's main activities and results (European Commission, 2008).

From 2008 to 2010 under the GCCA, the EC has approved EUR 97 million in funding, covering about 78.6 per cent of 18 projects in cross-cutting climate change issues. Projects include one in the Pacific Region and one in each of the following countries: Bangladesh, Belize, Cambodia, Ethiopia, Guyana, Jamaica, Maldives, Mali, Mauritius, Mozambique, Nepal, Rwanda, Senegal, Seychelles, Solomon Islands, Tanzania, and Vanuatu (GCCA, 2010b).



Source: [http://www.gcca.eu/usr//GCCA\\_Beneficiaries\\_200820092010.pdf](http://www.gcca.eu/usr//GCCA_Beneficiaries_200820092010.pdf)

### 2.8.3 The Amazon Fund

The Amazon Fund is an initiative proposed in 2008 by Brazil and operational since 2009. It aims at financing non-reimbursable investments (through grants) in preventing, monitoring, and combating deforestation, and in promoting the preservation and sustainable use of the Amazon rainforest (*Decree No. 6,527*).<sup>4</sup> The fund is formed by donations and return from investments, all deposited in an account held by the Brazilian Development Bank (BNDES).

**Target areas.** The fund supports activities in the following areas:

- Management of public forests and protected areas;
- Environmental control, monitoring and inspection;
- Sustainable forest management;
- Economic activities created with sustainable use of forests;
- Ecological and economic zoning, territorial arrangement and agricultural regulation;
- Preservation and sustainable use of biodiversity;
- Recovery of deforested areas;
- Development of systems to monitor and control deforestation in other Brazilian biomes and in biomes of other tropical countries.

**Eligibility.** Eligible projects are those aiming at preventing, monitoring, and combating deforestation, or promoting the preservation and sustainable use of the Amazon forest. Projects should contribute directly or indirectly to reducing

<sup>4</sup> This section is based on information obtained from the fund's website: Amazon Fund, 2011.

deforestation, and must comply with the Brazil's Sustainable Amazon Plan (PAS) and the Action Plan for Prevention and Control of Deforestation in the Amazon (PPCDAM). Furthermore, up to 20 per cent of the fund may be used to support deforestation control and monitoring in other Brazilian biomes and in biomes of other tropical countries.

**Project modalities.** To improve operational efficiency, analysis, and monitoring, projects financed by the Amazon Fund are grouped in four modalities:

1. Protected Areas (Environmental Management and Services): Projects to expand and preserve protected forest areas;
2. Sustainable Production Activities: Projects supporting sustainable production, trade, and use of natural resources;
3. Science & Technology Development Applied to Sustainable Use of Biodiversity: Developing research, innovation, and technology associated to sustainable production practices;
4. Institutional Development and Improvement of Control Mechanisms: Supporting environmental management, agricultural regulation, licensing, inspection, and monitoring in the Amazon region.

**Governance.** The fund is administered by BNDES, which raises funds, facilitates contracts, and monitors projects. The governance structure of the fund also includes a Guidance Committee (COFA) and a Technical Committee (CTFA).

**Guidance Committee (COFA).** The COFA has the responsibility of developing guidelines; ensuring compliance of the projects with such guidelines as well as other Brazilian norms on deforestation control; and monitoring results. It comprises representatives of three blocks: the federal government (including several ministries, the President's Office, and BNDES), governments of states in the Amazon region, and the civil society (including indigenous groups, agricultural workers, scientists, and representatives of the forestry sector and the industry). Each member has one vote within the block, and each block has one vote in committee decisions. As for state government representatives, only those with deforestation prevention and control plans have voting rights.

**Technical Committee (CTFA).** The CTFA evaluates the methodology for calculating deforested areas and the amount of carbon per hectare, and certifies emissions and emissions reductions relating to deforestation in the Amazon region. It comprises six technical and scientific experts appointed by the Ministry of Environment, in consultation with the Brazilian Climate Change Forum, for a term of three years, extendable once for an equal period. The members are unpaid, and their participation in the Committee is considered to be in the public interest. The CTFA meets at least once a year.

**Project cycle.** Proposals may be addressed to BNDES through a Consultation Letter, completed in accordance with the Information Guide on Prior Consultation (Banco Nacional de Desenvolvimento Econômico e Social [BNDES], 2009). There are six stages identifying the project in each stage of the evaluation process, numbered in reverse order:

6. Under Perspective: The Prior Consultation Letter has been received, but not all documents required have been made available.
5. Consultation Letter: All the documents listed in Module IV of the Information Guide have been made available.
4. Eligible: BNDES' Eligibility and Credit Committee decides that the application complies with BNDES' operational policies and with the fund's guidelines and criteria.



3. Under Analysis: The Management Department of the Amazon fund reviews the project in detail, assessing its central features and risks.
2. Approved: The technical recommendation for support of the project is submitted for review by the BNDES Board of Directors. Upon approval, additional documents for contracting are required from the applicant, and the contract is drafted and approved.
1. Contracted: Disbursements are made pursuant to the terms of the contract, and implementation of the project begins

In 2009 Norway pledged a donation of up to NOK 700 million (approximately US\$107 million) to the fund to finance projects between 2009 and 2015. Norway also pledged donations of up to NOK 750 million (US\$134 million) in 2010 and the same amount in 2011. BNDES received BRL 36.4 million (US\$20.9 million) from Norway in October 2009, and a second installment of BRL 49.6 million (US\$28.2 million) in August 2010. Furthermore, in December 2010, Germany's Kreditanstalt für Wiederaufbau (KfW) donated EUR 21 million to the fund, of which up to EUR 12 million to be used for emissions reductions in the Amazon forest in 2008–2009, and up to EUR 9 million for reductions in the period 2009–2010.

As of February 23, 2011, funding had been approved for 13 projects, amounting to BRL 190 million, covering 52.7 per cent of total project costs (BRL 361 million). There are 60 other projects currently under consideration in other phases of the evaluation process (Under Perspective, Consultation Letter, Eligible, and Under Analysis), requesting BRL 633 million in funding from the fund to cover 88.7 per cent of total project costs (BRL 714 million).

## 2.8.4 The Indonesia Climate Change Trust Fund

The Indonesia Climate Change Trust Fund (ICCTF) is a government-managed trust fund established in 2009 by Indonesia to help mainstream climate change in government planning and implement climate change related activities in the country.<sup>5</sup> Its two stated objectives are: “(1) to achieve Indonesia’s goals of a low-carbon economy and greater resilience to climate change, and (2) to enable the government to increase the effectiveness and impact of its leadership and management in addressing climate change issues.”

**Principles.** The principles informing the design of the ICCTF are:

1. Promoting policy dialogue between development partners and the Indonesian government on climate change issues;
2. Alignment with national development priorities;
3. Compliance with government regulations;
4. Exclusive financing of projects reviewed and approved through ICCTF project selection processes and according to ICCTF criteria;
5. Only activities approved by the Steering Committee receive financing;
6. ICCTF funding can be complemented by other national and international public and private sources;
7. Management of financial contributions by the ICCTF Trustee; and
8. Only national and local government agencies in Indonesia are entitled to submit financing proposals to ICCTF.

<sup>5</sup> This section is based on information obtained from the fund’s website: Indonesia Climate Change Trust Fund [ICCTF], 2011.

**Priority areas.** The three priority windows of ICCTF are: (1) energy and energy efficiency (including geothermal and renewable energy, less carbon-intensive plants, improved energy efficiency), (2) sustainable forestry and peat land management, and (3) resilience (projects aiming at anticipating the negative effects of climate change, dealing with risks and uncertainties of climate disruption, reducing vulnerability, and promoting a sustainable development path).

**Governance.** The governance structure comprises a Program Management Unit (PMU) with a Steering Committee (SC), a Technical Committee, and a Secretariat, working in collaboration with the Trustee, development partners, and other programs. A Ministerial Steering Committee on Coordination provides overall policy guidance and direction to the PMU.

**Steering Committee.** The SC is responsible for policy and operational guidelines, management, and monitoring and evaluation. Its Policy Forum identifies general strategic policy recommendations, including the definition of priority areas for financing. Development partners, NGOs, and civil society organizations can be represented in this forum. The Management Forum of the SC decides on management and operational aspects, approving guidelines and project proposals. The SC meets at least twice a year.

**Technical Committee.** Consisting of staff from Bappenas, the Ministry of Finance and other Ministries, the TC advises the SC on technical matters. In particular, it evaluates proposals in terms of eligibility, feasibility, sustainability, and environmental, social, and economic impact; prepares assessment reports including recommendations for approval or rejection of proposals; and develops guidelines on the mechanisms, modalities, and procedures of the Trustee. The SC is chaired by the Director of Environment of Bappenas, and their members come from governmental bodies.

**Trustee.** An Indonesian financial institution will be appointed as Trustee of ICCTF through a bidding process, to receive fund resources from developing partners and other contributors and manage them, reporting to the SC. In the interim, UNDP is acting as fund manager for the pilot projects already financed by the ICCTF.

**Secretariat.** The Secretariat supports the day-to-day operation of the PMU. Its members have technical, administrative, and financial expertise, and works full-time under the National Planning Development Agency (Bappenas) to support the SC and the TC with the administration of grant agreements, proposals, and approvals.

**Project cycle.** Project activities financed by the ICCTF follow nine steps:

1. Submission of prospective proposals by ministries and local governments, by themselves or in partnership with other partners, such as NGOs and academic institutions;
2. Pre-appraisal of prospective proposals: the Secretariat verifies eligibility of the project as well as completeness of the documentation, and submits complete proposals to the TC;
3. Assessment of the eligibility, feasibility, sustainability, and impact of the project proposal by the TC, according to criteria established by the SC;
4. Submission of project proposals from the Secretariat to the SC;
5. Approval of project proposals by the SC, based on TC recommendations;
6. Submission of notification letter to project proponents and to the Trustee, and signature of project agreement;
7. Implementation of the approved activities by a coordination team appointed by the proponent and led by a Project Manager;
8. Disbursement of funds, upon payment request to the Trustee;
9. Monitoring, evaluation and auditing.

The fund itself is also subject to yearly external auditing, as well as to monitoring and evaluation by the TC, on behalf of and reporting to the SC, and with the assistance of the Secretariat. Six criteria are to be considered in monitoring and evaluation: efficiency, effectiveness, impact, transparency, relevance, and sustainability.

As of February 2011, the fund had received US\$8.5 million from Australia and the United Kingdom. Three projects have been approved, amounting to a total of US\$4.6 million in funded projects: Sustainable Peat Land Management (US\$1.2 million), Energy Conservation (US\$2.1 million), and Public Awareness on Climate Change (US\$1.2 million). Funds currently available for projects amount to US\$3 million.

### 2.8.5 The Cool Earth Partnership and the Hatoyama Initiative

The Cool Earth Partnership (CEP) is a financial mechanism established by Japan in 2008 to provide assistance through grants, loans with preferential interest, technical assistance, and other types of aid to developing countries in reducing emissions (for example, by enhancing energy efficiency), adapting to climate change, promoting economic growth, and contributing to climate stability.<sup>6</sup> Japan would provide funds amounting up to US\$10 billion (JPY 1.25 trillion) over the period 2008–2012. Complementing the CEP, Japan pledged an extra US\$5 billion under the Hatoyama Initiative, amounting to a total of US\$15 billion.

**Funding priorities.** Funds in the CEP are divided into two components:

1. Assistance for adaptation and improved access to clean energy: Up to US\$2 billion (JPY 250 billion), through grant aid, technical assistance, and aid through international organizations.
2. Assistance for mitigation: Up to US\$8 billion (JPY 1 trillion), half of which to be provided through the “Climate Change Japanese ODA Loan” with preferential interest. The other half would be provided through capital contribution and guarantee by the Japan Bank for International Cooperation (JBIC), trade and investment insurance by Nippon Export and Investment Insurance (NEXI), government projects implemented through the New Energy and Industrial Technology Development Organization (NEDO), projects under the Asian Clean Energy Fund (Asian Development Bank, ADB), and private funds.

**Eligibility.** Countries eligible for funding are developing countries that are already making an effort to reduce greenhouse gas emissions, based on policy consultations with Japan.

**Governance.** While there is no specific governance structure for the Initiative, it is coordinated by the Japanese Ministry of Finance, and governed by a ministerial meeting composed of representatives of the Ministries of Foreign Affairs, Economy, Trade and Industry, Environment, and Finance. An advisory expert panel was established by the Ministry of Foreign Affairs, consisting of Japanese academic experts and with representatives of other ministries and governmental agencies.

**Project cycle.** Developing countries interested in obtaining funds must enter into direct bilateral negotiations with Japan. Disbursement is conditional on bilateral policy consultations, so that both parties reach a common understanding on climate change policy.

Under the Cool Earth Program Loan, Japan and Indonesia agreed on the first climate change-related ODA loan up to US\$300 million, for projects in the forestry, energy, industry, domestic, commercial, water resource management, and other sectors.

<sup>6</sup> This section is based on information obtained from the partnership’s website: Ministry of Foreign Affairs of Japan [MOFA], 2008, as well as on World Bank & UNDP, 2011

### 2.8.6 The International Forest Carbon Initiative

Australia proposed its AUD 273 million International Forest Carbon Initiative (IFCI) as the country's contribution to global action on REDD+, promoting its inclusion in a post-2012 international climate change agreement, supporting in-country capacity building activities, as well as promoting practical actions through Forest Carbon Partnerships.<sup>7</sup> Other activities include support for international carbon monitoring and accounting capacity, and supporting international efforts to develop market-based approaches to REDD+.

**Governance.** The IFCI is an ODA initiative administered jointly by the Australian Department of Climate Change and Energy Efficiency and by AusAID, the Australian Government Overseas Aid Program.

**Committed funding.** Funding for the following activities, amounting to at least AUD 100 million, has been committed under the IFCI:

- Indonesia-Australia Forest Carbon Partnership: The June 2008 partnership formalizes the long-term cooperation between Indonesia and Australia on REDD+, covering three areas: (1) strategic policy dialogue on climate change; (2) support to the development of Indonesia's National Carbon Accounting System; and (3) implementation of incentive-based REDD+ activities. The partnership incorporates:
  - The Kalimantan Forests and Climate Partnership: AUD 30 million;
  - The Sumatra Forest Carbon Partnership: AUD 30 million; and
  - Bilateral support for Indonesia on forests and climate: AUD 10 million.
- Papua New Guinea-Australia Forest Carbon Partnership: The AUD 3 million partnership established in March 2008 formalizes the cooperation on REDD+ between Papua New Guinea and Australia, and includes technical, scientific, and analytical support for REDD+ policy development.
- Roadmap for Access to International Carbon Markets: Established in November 2008, it is intended to assist Indonesia in developing technical, system, and financial pre-requisites to participate in international REDD+ carbon markets.
- Partnership with the Clinton Climate Initiative on carbon monitoring: Provides support to countries including Guyana, Tanzania, Kenya and Cambodia in developing their national forest monitoring systems.
- Participation in the REDD+ Partnership, to scale up REDD+ actions and to finance and improve their effectiveness, efficiency, transparency, and coordination.
- Asia Pacific Forestry Skills and Capacity Building Program: Initial funding of AUD 2.1 million for forestry projects in Asia-Pacific countries.
- Research Partnership on REDD: Partnership of up to AUD 3 million with the Centre for International Forestry Research (Indonesia) for research on REDD+ activities.
- Development of concept models for demonstration activities: Funding of up to AUD 1.5 million to support international NGOs in developing concept models for REDD+ demonstration activities.

Part of Australia's contributions through the IFCI are donations channeled through World Bank Funds, such as the FCPF Readiness Fund (AUD 11.7 million) and the Forest Investment Fund (AUD 10 million).

<sup>7</sup> This section is based on information obtained from the initiative's website: Australian Government, 2011.

### 2.8.7 The International Climate Initiative

The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) finances climate change mitigation and adaptation projects through its International Climate Initiative (ICI), established in 2008. It provides funding of EUR 120 million per year, obtained from the revenues of the sale of emissions allowances.<sup>8</sup> The German BMU thus hopes to provide momentum for the post-2012 climate negotiations and contribute to the discussions on a climate finance architecture.

**Objectives.** ICI focuses on promoting three areas:

1. Climate-friendly economy: energy efficiency and renewable energy, emissions reductions, investment-related measures, know-how transfer, and policy advice;
2. Adaptation: water resource management, land use, sustainable biomass production (resource management, restoration of damaged areas), health care, disaster prevention, and migration management.
3. Preservation and sustainable use of carbon reservoirs (through REDD+): conservation of carbon sinks (e.g., forests and wetlands), improving synergies between climate protection and biodiversity conservation.

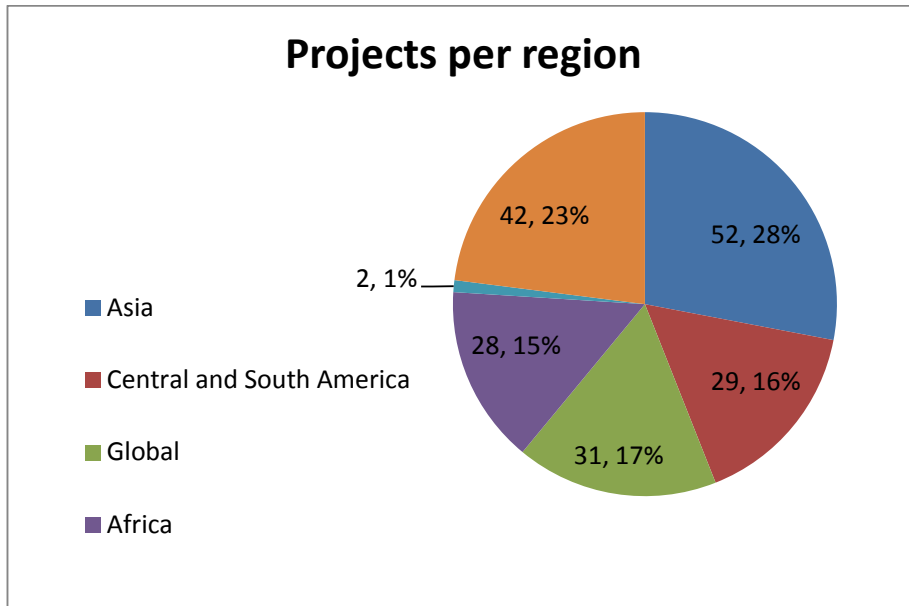
**Country eligibility and target countries.** Developing countries, newly industrializing countries, and countries with economies in transition may receive funding from Germany's ICI, while Brazil, China, India, Russia, and South Africa are major target countries. While funding primarily flows through bilateral channels, projects by multilateral organizations may also be supported.

**Eligibility.** Projects eligible for funding must be innovative, multipliable, and transferable approaches, with an impact beyond the individual project.

As of September 30, 2010, 184 projects were initiated, amounting to approximately EUR 360 million in funding, with total co-financing amounting to more than EUR 1 billion. Projects last up to five years, and are carried out by governmental entities (such as the Deutsche Gesellschaft für Technische Zusammenarbeit—GTZ—and KfW Development Bank), multilateral organizations (for example, UNEP), multilateral development banks (such as the European Bank for Reconstruction and Development—EBRD), NGOs, research institutes, foundations, and private companies.

A third of the projects funded so far have been implemented in the five major target countries (with a focus on REDD+ activities in Brazil and on the promotion of a climate-friendly economy in the other four countries), and 17 per cent of the funds have financed global projects. Projects included in the first focus of the initiative (climate-friendly economy, focusing on energy efficiency and renewable energy) account for 60 per cent of the funding; 30 per cent goes to REDD+ projects, particularly in the Amazon Region, in the Congo Basin, and in the Indonesian rainforest; the remaining 10 per cent have been allocated to 26 projects, including national adaptation strategies and ecosystem adaptation.

<sup>8</sup> This section is based on information obtained from the initiative's website: German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 2011.



Source: Author diagram

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