

Global Climate Financing Mechanisms and Mountain Systems



Preamble

This working paper contains a description of global climate financing mechanisms and mountain systems prepared for presentation at the first 'International Expert Consultation Meeting: Mountain Initiative on Climate Change' held 23-24 September 2010 in Kathmandu. The Consultation Workshop was attended by high level policy and decision makers, national experts involved in the UNFCCC process, and representatives from academia, international organisations, and development partners. Participants came from **Afghanistan, Bangladesh, Bhutan, Canada, China, Columbia, India, Italy, Kazakhstan, Lao PDR, Nepal, Pakistan, Peru, Tajikistan, and Switzerland**, and included experts from **ICIMOD, the Mountain Partnership Secretariat (FAO), World Bank, UNDP, DFID, DANIDA, FINNIDA, UNEP, and ADB**. The meeting was organised jointly by the Ministry of Environment, Govt. of Nepal (MOE/GON) and ICIMOD.

The purpose of this meeting was to identify strategic issues and topics that are of significant importance to the global mountain community in the context of climate and global change. The Rio Conference (in the form of Agenda 21) and the International Year of Mountains (2002) Declaration highlighted the need to recognise and mainstream the sustainable mountain development agenda in the development dialogue, but so far it has received only limited attention. The aim of the meeting was to provide a basis for raising important mountain issues in the ongoing UNFCCC negotiations and the upcoming Rio+20 preparatory meetings and Summit to provide the Mountain Agenda with increased impetus and recognition in these multilateral environmental negotiations and agreements.

The '**Mountain Initiative for Climate Change Adaptation in Mountain Regions**' initiated by the Government of Nepal plans to bring the mountainous countries together and build a common platform to support the Mountain Agenda. The Mountain Initiative provides a framework within which mountain countries, in collaboration with specialised global and regional agencies, can work together for greater recognition of the critical role of mountain ecosystems in the context of global climate change. It highlights the need to better advocate for mountain ecosystems based on state-of-the-art knowledge so that mountain people can be supported more effectively in their struggle to adapt to the new challenges, and enabled to benefit from emerging opportunities. The International Centre for Integrated Mountain Development (ICIMOD) is providing technical support and backstopping to the governments in the region in this initiative led by the Government of Nepal, and especially to the Ministry of Environment.

This publication is one of a series designed to support the building of a concerted effort of the mountain countries to integrate their different agendas under the broader umbrella of the Mountain Initiative. The document was prepared by consultants for the Mountain Initiative.

Global Climate Financing Mechanisms and Mountain Systems

Working paper prepared for the Mountain Initiative of the Government of Nepal and presented at the Expert Consultation Meeting: Mountain Initiative on Climate Change held 23-24 September 2010 in Kathmandu, Nepal

Othmar Schwank
Anna Bruederle
Nicole North

Ministry of Environment, Government of Nepal
International Centre for Integrated Mountain Development
Kathmandu, November 2010

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Mountain Development (ICIMOD)
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Published by
ICIMOD (for the Government of Nepal)
GPO Box 3226, Kathmandu, Nepal

ISBN 978 92 9115 172 1 (electronic)
LCCN 2010 319014

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This publication is available in electronic form at
www.books.icimod.org

Citation: Schwank, O; Bruederle, A; North, N (2010) *Global climate financing mechanisms and mountain systems*. Working paper prepared for the Mountain Initiative of the Government of Nepal. Kathmandu: GoN and ICIMOD

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Executive summary

Climate change in mountainous developing countries

Mountain systems are fragile and are regions where the early signs of climate change are becoming most evident. The adverse impacts of climate change in the mountains are disproportionate, and particularly serious in tropical and sub-tropical mountain areas.

Global climatic patterns influence the use and management of mountain ecosystems. At the same time, the outcomes of the ecosystem management practices reflect on global climate systems and the biosphere. In addition, globalisation has influenced issues relating to mountain development in various ways, particularly by widening the economic and regulatory capacity gaps among mountain states. The global environmental processes impact water resources, ecosystem stability, and natural disaster risks, and therefore the modalities of appraisal and dissemination of knowledge are important in formulating response strategies. Recent studies underscore the significance of the need to better understand the change processes in mountain systems, especially those taking place above the 'timber line'.

Developing countries generally lack adequate data, information, and knowledge on the specific biophysical and environmental change processes, and the related socioeconomic vulnerabilities. They also lack information and data on effective climate change adaptation and mitigation instruments and the multilateral and bilateral funding mechanisms that are available.

Study objectives and approach

The Mountain Initiative for Climate Change (MI) aims to promote the specific concerns of mountain states within the ongoing UN Framework Convention on Climate Change (UNFCCC) negotiations with a particular focus on adaptation. The outcome could result in specific climate adaptation related instruments and funding mechanisms for mountains for possible inclusion in the legally binding agreements under the UNFCCC and/or other multilateral environmental agreements.

ICIMOD, with the support of the German Federal Ministry for Economic Development Cooperation/Capacity Building International, Germany (BMZ/InVEnt), has provided technical assistance for the Mountain Initiative of the Government of Nepal and prepared this discussion paper for regional stakeholder consultations at a ministerial conference of mountain countries now planned for early 2011. This paper attempts to:

- Provide a detailed stocktaking of relevant multilateral and bilateral funding mechanisms, instruments, and programmes that can enable mountain governments, agencies, and communities to adapt to changing climate patterns and to embark on a climate resilient development path. It also seeks to access rules, finance flow mechanisms, kind of activities supported, constraints, and funding amount, from a mountain country perspective.
- Develop a strong case for enhanced responsiveness of existing funding mechanisms, instruments, and programmes to better address specific mountain imperatives and vulnerability factors for meeting the mid- and long-term needs of mountain countries.
- Prepare a knowledge base for capacity development in mountainous developing countries by facilitating better knowledge sharing, country preparedness in dealing with climate change related challenges and opportunities, and enhanced consultation among developing countries joining the Mountain Initiative. The paper also seeks to enable countries to address existing governance barriers that hinder smooth access to knowledge and implementation of programmes.

Assessment of funds from a mountain perspective

This assessment of climate and environmental funding mechanisms from a mountain perspective shows that the funding landscape is complex and far from optimal from a developing mountain country's perspective. The strong thematic or geographical focus of the funding mechanisms has contributed to the complexity.

The constraints or difficulties in accessing funding mechanisms apply to all developing countries, including the mountainous nations, and are significant for those with fragile environments, capacity gaps, and governance problems. The governance issues particularly apply to least developed countries (LDCs).

The available, and potential funds address short to mid-term adaptation needs. But there are inadequacies in funding for the stable, long-term programmes that are required for strengthening the knowledge base on environmental and climate change impacts, particularly in the high mountains. This type of funding is limited.

A number of funds do support regional approaches, but those for addressing upstream-downstream inter-linkages face additional barriers in access. Further, transboundary cooperation is often constrained by governance challenges among the countries involved.

In summary, the Adaptation Fund, the Special Climate Change Fund, and the Pilot Programme for Climate Resilience offer opportunities customised to the needs of mountainous countries with regard to adaptation. The process for accessing the Least Developed Countries Fund (LDCF) is very slow and still limited in scope. The level of funding and the ease of access for all funds need improvement.

Recommendations for the Mountain Initiative

The Mountain Initiative (MI) can work towards awareness raising and capacity building of members for making a stronger case on the needs of mountain ecosystems, enhancing understanding of the access rules in the funding mechanisms, and making implementing agencies respond more sensitively to the special vulnerabilities of mountain countries, in the following ways:

- Empowering regional member countries of the MAI (particularly LDCs) with regard to adaptation and mitigation measures, access and regulatory frameworks of funding mechanisms, and knowledge on the special challenges and opportunities for their ecosystems and livelihood systems; capacity building needs to consider that climate change and related funding instruments require generally higher levels of country preparedness as well as higher capacities to monitor trends systematically in order to respond adequately to environmental change
- Seeking bilateral and multilateral donor support for applied research, action research, and institutional strengthening of relevant institutions (ICIMOD, Mountain Partnership Consortium (MPC)) and others in cooperation with other regional centres/agencies) with respect to mountain sensitive climate initiatives
- Developing policy dialogue, outreach, and exchange activities and building a network of regional and international partners for knowledge sharing and transfer of experiences on capacity building, training and/or applied research in the Hindu Kush-Himalayan (HKH) region, Central Asia, the Andes Region, and mountain regions in Africa in collaboration and support with regional and global partners.

Part 1

Introduction

1 Mountain Country Concerns and Multilateral Agreements

Background

Mountain systems are fragile and serve as early indicators of climate change. Changes occurring in mountain ecosystems provide an early glimpse of what could come to pass in lower regions, thus mountains act as early warning systems (Kohler and Maselli 2009). But mountain ecosystems and livelihoods are experiencing disproportionate, adverse impacts of climate change, and the situation is particularly serious in tropical and sub-tropical regions where increased fragility leads directly to food insecurity and increased vulnerability. A recent regional climate model study for the tropical Andes shows more warming at higher elevations and an increase in inter-annual temperature variability for scenarios with greater global warming (Urrutia and Vuille 2009). The glaciers in many parts of the tropical Andes may disappear over the next few decades, which could entail severe problems in water supply (Kohler and Maselli 2009). Warming is predicted to be well above the global average in the Hindu Kush-Himalayas. The Asia Society (AS), New York, was quoted by the BBC as saying: "The repeat photographs taken at the same spot as taken 89 years ago by the 1921 British Mount Everest Reconnaissance Expedition Team, reveal a startling truth: the ice of the Himalaya is disappearing (...) They reveal an alarming loss in ice mass over an 89-year period." The statement continued: "If the present rate of melting continues, many of these glaciers will be severely diminished by the middle of this century. The melt rate in this region of central and eastern Himalayas is extreme and is devastating."

Developing countries experience a lack of adequate data, information, and knowledge on the specific biophysical and environmental change processes, and the related socioeconomic vulnerability. Mountain systems have strong upstream-downstream interlinkages and the ecosystem services provided by these ecosystems, and externalities on the systems, benefit downstream areas. But the knowledge base for designing an integrated mountain agenda, comprising inter alia effective climate change adaptation and mitigation instruments and projects that go beyond short-term needs, remain to be addressed within the framework of existing and future financial mechanisms under the UNFCCC, the World Bank, and other regional multilateral development banks.

The mountain countries need to be identified as biophysically and socioeconomically vulnerable, and needing special funding priority. The developed countries must provide substantial, clearly identifiable, and accessible funding for adaptation programmes in the mountain regions upon which billions of people depend for a variety of ecosystem services such as water, hydrological processes, weather and climate regulations, biodiversity, landscape values, and recreational and adventure benefits.

The Mountain Initiative for Climate Change (MI) initiated by the Government of Nepal and supported by a number of international networks and partners, aims to promote the specific concerns of mountain states within the ongoing UNFCCC negotiations on mitigation and adaptation with a particular focus on adaptation. The Mountain Initiative (MI) is documenting specific climate change impacts in the high mountains and highlands, and gathering best practices and the knowledge and options for sharing them at preparatory meetings of multilateral environmental agreements (MEAs), Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) and Subsidiary Bodies (SBI and SBSTA) leading to the Conference of Parties 16 (COP 16) and beyond. At a technical level, the MI envisages the enhancement of the capacity of mountain countries in the South to engage in the different initiatives under the 'fast start funding' of the Copenhagen Accord. The outcome of these efforts could result in specific climate adaptation-related instruments and mechanisms for mountains that might be included in the legally binding agreements under the UNFCCC and/or other MEAs. This paper was prepared to serve as a basis for discussion during a series of meetings including regional stakeholder consultations leading to a first Ministerial Conference of mountainous countries in 2011.

Objectives of the Study

The overall focus of this paper is to provide a base for shaping a roadmap for least developed and developing countries – particularly vulnerable mountain countries – in the UNFCCC negotiations leading to the Cancun summit (COP-16) at the end of 2010, and beyond to Johannesburg in 2011 (COP-17). It aims to provide and inspire support in favour of an integrated mountain ecosystem that supports sustainable livelihood systems. This is the view taken by the Mountain Initiative on Climate Change Adaptation. The study has three main objectives:

- The first objective is to identify, analyse, and assess the current status and portfolio of relevant, available multilateral funding mechanisms, instruments, and programmes that can enable governments, agencies, and communities of mountain countries to adapt to changing climate patterns and to enhance a climate resilient development path. This stock-taking of funding mechanisms, instruments, and programmes seeks to report on access rules, finance flow mechanisms, constraints, amount of funding that can be accessed by mountainous countries, and so on. The stocktaking shall also include a qualitative appraisal of the main bilateral initiatives.
- The second objective is to develop a strong case for reorienting existing funding mechanisms, instruments, and programmes so that they can better address specific mountain imperatives and vulnerability factors to make them more mountain friendly.
- The third objective is to prepare a synthesised set of recommendations for mountainous countries for submission to the UNFCCC negotiations, and to collectively make a concrete proposal before or at the COP16 and related events. The recommendations will focus on better knowledge sharing, capacity building, and consultation processes within developing mountainous countries joining the MI.

The study is based on a comprehensive review of available literature and online resources, including frameworks and programmes, conventions, and related documents.

Status of Climate Change Negotiations

From the Bali Action Plan to Cancun/Mexico

The 13th session of the Conference of the Parties (2007 in Bali COP13) launched a comprehensive process to enable the full, effective, and sustained implementation of the Convention through long-term cooperative action in order to reach an agreed outcome and adopt a decision at its 15th session (2009 in Copenhagen). It decided that the process would be conducted under a subsidiary body under the Convention (the AWG-LCA) that should have completed its work in 2009 and presented its outcome to the Conference of the Parties for adoption at its 15th meeting. The COP15 extended the mandate of the AWG-LCA to enable it to continue its work.

The Copenhagen Accord calls for the provision of 'scaled up, new and additional, predictable and adequate funding as well as improved access to developing countries for mitigation, adaptation, REDD-plus¹, technology development and transfer, and capacity building. In the context of meaningful mitigation actions and transparency in implementation, developed countries committed to a goal of jointly mobilising US\$ 100 billion a year by 2020 for addressing the needs of developing countries. The funding is to come from a wide variety of sources, public and private, bilateral and multilateral, and including alternative sources of finance.

With respect to a quick start, the developed countries collectively committed to provide new and additional resources, in forestry and investments through international institutions, approaching US\$ 30 billion for the 2010-2012 period with a balance in allocations for adaptation and mitigation. Funding for adaptation is to be prioritised for the most vulnerable developing countries, such as the Least Developed Countries (LDCs) and Small Island Developing States (SIDS) and Africa.

High-level advisory group on climate change financing

In February 2010, the United Nations Secretary-General Ban Ki-moon formed a new High-level Advisory Group on Climate Change Financing to work to mobilise the financing promised for climate change during COP15. The Group was established to study the potential sources for financing mitigation and adaptation activities in developing countries. The final report was to be submitted to the UN Secretary-General and to the COP15 Chair (Denmark), and the next Chair Mexico, by November 2010.

¹ Reduced emissions from deforestation and forest degradation, including the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks.

Figure 1 summarises the variety of existing bilateral and multilateral climate change funds, programmes, and initiatives. These are discussed in detail in Part 2.

Bilaterals

- ETF-IW (UK)
- ICI (Germany)
- GCCA (EC)
- IFCI (Australia)
- Cool Earth (Japan)

Multilaterals

- World Bank
 - Climate Investment Funds
 - SCF → PPCR → SREP → FTP
 - GTF
 - FCPF
- Adaptation Fund Board
 - DPAF → MDG-F (Spain) → SCCF
- UN Development Programme
 - UN-REDO → GEF Trust Fund → SPA
- Global Environment Facility
 - GEF Trust Fund → SPA
 - LDCF → SPA
- African Development Bank → CBFF
- European Investment Bank → GEEREF

Legend:

- Dark Blue Box: UNFCCC and other UN bodies
- Medium Blue Box: Multilateral Development Banks
- Light Blue Box: Bilateral

Funding Flow:

- Solid arrow: Direct funding to projects
- Dashed arrow: Funding to multilateral funds

Mountain ecosystems are highly fragile, and people living in mountainous areas of the developing world are disproportionately vulnerable due to the high food insecurity (resulting partly from climate variability), environmental hazard risks, and inadequate marketing facilities (FAO 2009). Biosphere changes occurring in these areas are characterised by ecosystem degradation and land cover changes. Though ecosystems in some of the mountain regions are improving with increased precipitation, the overall condition is degrading under the combined influence of global warming and increased human activity (ITP 2009). This context is relevant because the current GEF replenishment climate funding (see section 'Introduction to the Global Environmental Facility') targets global environmental co-benefits with strategic programmes funded in favour of other conventions – the Convention on Biological Diversity (CBD) and Convention to Combat Desertification (UNCCD).

The GEF Trust Fund programme support for CBD and UNCCD offers relevant synergies for semiarid mountain areas such as the Hindu Kush-Tibetan Plateau (including Afghanistan, Central Asia, and Sahel/East Africa). In addition, a significant GEF-5 engagement is foreseen for sustainable forest management, for which the ecosystem circumstances of higher altitude boreal forests merit attention as ecosystem services delivered by these systems are multifunctional and reach far beyond carbon sequestration in the above ground biomass.

Key issues, opportunities and risks from a mountain system viewpoint

The information and knowledge base on how climate change, along with other drivers of global change, is impacting mountain systems is still inadequate, particularly for the subtropical mountains influenced by different climate systems. For example, the HKH region is facing serious environmental and developmental challenges that are related to climate change: the more fragile ecosystems such as rainfed agricultural areas and poor and vulnerable communities are worst affected. Floods are an annual event in the Ganges, Brahmaputra, and Meghna (GBM), and Indus basins. Hundreds of lives and property and infrastructure worth billions of dollars are lost to floods, landslides, debris flows, and wild fires every year.

The need for enhancing this knowledge base by further strengthening the global and regional monitoring and observation systems was confirmed at the Geneva World Meteorological Organisation 2009 Climate Change conference. This knowledge base is crucial for framing long-term strategies and measures for adaptation to climate change. Many adaptation measures proposed by LDCs under the National Adaptation Plans of Action (NAPAs) and national communications are short term in nature and respond to climate and disaster risks resulting from weather and hydrological processes. However, the knowledge base and understanding on the mid- to longer-term impacts of climate change on the water-ice-air-ecology-human interactions in the mountains is still poor.

Mountain systems in the developing world significantly impact the climate system in both the Northern and Southern Hemispheres. The Himalayan plateau is a key influence in the Asian monsoon and this directly influences changes in the climate. Emerging scientific evidence supports that the cryosphere in this region (glaciers and snow) is also significantly impacted by transboundary air pollution, namely deposition of black carbon (ITP 2009). Desertification on the Tibetan plateau frequently results in the transport of large amounts of sand and dust to as far away as the northern Pacific, and thus also influences the global biogeochemical cycles. Climate and ecosystem resilient management of mountain areas by local populations therefore influences the global climate system and biosphere both directly and indirectly. In addition, globalisation has influenced issues relating to mountain development and has widened economic and regulatory capacity gaps among mountain states.

The modalities in generation, appraisal and dissemination of knowledge play a vital role in formulating response strategies to the global environmental change processes impacting water resources and ecosystem stability, the growing ecological footprint of economic development, and the risk of natural disasters. Recent initiatives (such as the Indus Basin programme coordinated by ICIMOD, see <http://www.icimod.org/?page=1217>) underscore the need to improve the understanding of the impacts of climate change on cryosphere and its implication for future water scenarios. Glacial fluctuations and changes in precipitation patterns are expected to alter the hydrology of river basins and could jeopardise hydropower generation and agricultural production, and consequently alter livelihoods. Hence, there is a need for research, and collection and analysis of scientific and socioeconomic data, as well as strengthening initiatives in research and development through improved international, regional, and national collaboration. It is also important to understand changes taking place above the 'timber line' in the mountain regions. This understanding is crucial to ensure the adequacy of climate change mitigation efforts.

Sustainably managed mountain ecosystems offer opportunities for in situ conservation of biodiversity in agroforestry species and medicinal plants, which are at risk under the stress of a changing climate. The perspective and need for integrated approaches to sustainable development and ecosystem management in mountain areas, therefore merits stronger reflection in the emerging architecture of global climate funding.

Part 2

Funding Mechanisms, Instruments and Facilities

2 Overview

Table 1 provides an overview of established climate funding mechanisms, instruments and facilities, and finances. Roughly 30% of all pledged funds (US\$ 26 billion) have been deposited so far and just under a quarter (23%) has been disbursed (as of 9 August 2010).

Table 1: **Overview of multilateral and bilateral climate funds**

Fund	Acronym	Type	Pledged (million USD)	Deposited (million USD)	Disbursed (million USD)
GEF Trust Fund (Focal Area Climate Change) 5th	GEF	Multilateral – GEF	1,359.38	0.00	0.00
Strategic Priority on Adaptation under GEF Trust Fund	SPA	Multilateral – GEF	50.00	50.00	50.00
Least Developed Countries Fund	LDCF	Multilateral – GEF	180.81	155.36	125.21
Special Climate Change Fund	SCCF	Multilateral – GEF	123.09	104.12	97.15
Adaptation Fund	AF	Kyoto – multilateral	162.57	162.56	5.98
UN-REDD Programme	UN-REDD	Multi-donor trust fund	74.44	54.12	29.52
Forest Carbon Partnership Facility	FCPF	Donor trust fund	220.64	166.44	4.42
Forest Investment Program	FIP	Donor trust fund	562.10	33.90	2.00
Amazon Fund (Fund Amazônia)	FA	Norway, bilateral	1,000.00	110.00	36.22
Congo Basin Forest Fund	CBFF	Development bank; multi/bilateral	165.00	165.00	0.00
International Forest Carbon Initiative	IFCI	Australia, bilateral	252.07	244.27	61.88
Pilot Programme for Climate Resilience	PPCR	Donor trust fund	981.84	174.70	9.00
Scaling-Up Renewable Energy Programme for Low Income Countries	SREP	Donor trust fund	300.13	24.00	0.00
Global Climate Change Alliance	GCCA	EU; bilateral	204.15	205.15	8.10
Global Energy Efficiency and Renewable Energy Fund	GEEREF	EU; bilateral	169.50	63.68	0.00
International Climate Initiative	ICI	BMU – D; bilateral	519.60	515.61	258.02
Clean Technology Fund	CTF	WB – multi/bilateral	4,387.75	483.50	9.30
Hatoyama Initiative	HI	Bilateral (JP)	15,000.00	5,320.00	5,320.00
MDG Achievement Fund – Environment and Climate Change thematic window	MDG	UNDP; multilateral	89.50	89.50	56.20
Total			25,802.57	8,121.91	6,073.00

Source: www.climatefundsupdate.org.

(The funding mechanisms in the last four rows, coloured, focus on many purposes or primarily mitigation, and are not discussed further in this report. The other funding mechanisms are assessed from a mountain country perspective in the following sections.)

3 UNFCCC/Kyoto Funds

Introduction to the Global Environment Facility

The Global Environment Facility (GEF) serves as the financial mechanism of the Convention. GEF projects on climate change are designed to help developing countries to contribute to the ultimate objective of the UNFCCC, which is the mitigation of greenhouse gas emissions, as well as adaptation to the adverse effects of climate change.

The Parties to the UNFCCC provide regular guidance to the GEF on policies, programme priorities, and eligibility criteria. The GEF has provided funding for climate change mitigation and adaptation under different financing avenues. As of June 2010, all GEF resources for climate change mitigation were to be provided exclusively through the GEF Trust Fund. All GEF operated funding related to adaptation was channelled through the two separate adaptation-focused Funds under the UNFCCC — the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) (of which the latter also mobilises resources for technology transfer). This new arrangement has been spelled out in the Programming Document for the 5th Replenishment, presented at the 6th Meeting for GEF-5, in May 2010.

The decision to create both funds was taken by Parties of the UNFCCC at COP7 in Marrakesh (2001). The LDCF and SCCF became operational in 2002 and are managed and administered independently from the GEF Trust Fund. They are financed through voluntary pledges from developed country Parties to the UNFCCC; the pledges are also independent of the regular GEF replenishment. However, in response to broad recognition of the need for a significantly more robust replenishment of the LDCF and the SCCF, it has been proposed to align the GEF replenishment process with that of the Funds (Revised Programming Strategy for Adaptation for the SCCF and the LDCF, submitted for discussion by the LDCF 7 SCCF Council on 1 July 2010).

The GEF develops its projects through ten Implementing Agencies (also referred to as the operational arm of the GEF): the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the World Bank, the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IAD), the International Fund for Agricultural Development (IFAD), the United Nations Food and Agriculture Organization (FAO), and the United Nations Industrial Development Organization (UNIDO). The implementing partners include governments, national institutions, international organisations, local communities, non-government organisations, academic and research institutions, and private sector entities.

In addition to these special funds established under the UNFCCC, the parties to the Kyoto Protocol established the Adaptation Fund for financing concrete adaptation projects and programmes in particularly vulnerable developing countries. The GEF has been invited by Parties to provide secretariat services to the Adaptation Fund Board, while the World Bank serves as trustee of the Adaptation Fund. These interim institutional arrangements are to be reviewed in 2011.

The GEF Trust Fund

Climate change is one of the six focal areas supported by the GEF Trust Fund, the common funding resource of the Global Environment Facility (GEF). As of June 2010, its focal area was explicitly restricted to climate change mitigation, while GEF funding for climate change adaptation was provided through the LDCF and the SCCF (see above) in order to avoid duplication.

Previously the Strategic Priority 'Piloting an Operational Approach to Adaptation' (SPA), provided a special financing avenue for adaptation activities within the GEF Trust Fund. This was established in response to a request made at the 7th Conference of the Parties (COP) of the UNFCCC in 2001. An initial allocation to the pilot of US\$ 50 million was proposed in the GEF Business Plan in November 2003, and had been fully committed by September 2009. The GEF Council has concluded that the project categories financed under the Strategic Priority on Adaptation are to be incorporated in the broad mandate of the SCCF.

The GEF Trust Fund is based on donor pledges made once every four years in a process called GEF replenishment. The GEF Trust Fund has, since its inception in 1994, provided funding of approximately US\$ 8.59 billion, 32% of which (US\$ 2.7 billion) was allocated to the climate change focal area.

Relevance for mountain countries

Resources available

Negotiations for the 5th replenishment that concluded on 12 May 2010 agreed on funding the next four years of GEF operations from 1 July 2010 to 30 June 2014. The international community has decided to increase funds for the GEF by more than 50% to US\$4.2 billion. The amount to be allocated to the climate change focal area is US\$ 1.4 billion.

Eligible countries/Parties

All developing country Parties to the UNFCCC eligible to borrow from the World Bank (IBRD and/or IDA) or eligible recipients for UNDP technical assistance through its country Indicative Planning Figure (IPF) can receive GEF grants. Its small-grants programme also supports activities of non-government and community-based organisations. These grants are up to US\$50,000. Such small grants may be particularly relevant for mountain countries where low population densities and isolation make a special case for community-based action to respond to climate change, such as reviving often sophisticated, locally apt agro-water management systems.

Activities supported

The following key points, which have emerged from recent GEF replenishment discussions on the GEF-5 programming approaches, spell out the GEF funding priorities in climate change mitigation over the period 2010-2014.

- The GEF-5 strategy will be guided by three principles: (i) responsiveness to UNFCCC guidance; (ii) consideration of national circumstances of recipient countries; and (iii) cost-effectiveness in achieving global environmental benefits.
- GEF-5 will endeavour to make a transformative impact in helping GEF-recipient countries to move to a low-carbon development path through market transformation and investment in environmentally sound, climate-friendly technologies.
- Programming of GEF resources at the country level will be based on the priority sectors, technologies, and activities identified by the countries themselves.
- Technology transfer will be promoted in all GEF-eligible countries and at various stages of the technology development cycle. In large developing countries and emerging economies, GEF intervention will emphasise opportunities to bring about large greenhouse gas (GHG) reductions, such as market transformation in the building, industry, and transport sectors; emphasis will be placed on market demonstration and commercialisation of innovative, emerging technologies. In relatively small and low-income countries, GEF support will focus on investment as well as technical and institutional capacity building while promoting energy access through renewable sources of energy; the focus will be on deployment and diffusion of commercially available technologies.
- In countries and regions experiencing large GHG emissions from deforestation and forest degradation, the GEF will promote land use, land use change, and forestry (LULUCF) activities aimed at reducing forest emissions and promoting forest conservation, afforestation, and reforestation, and sustainable forest management.
- Furthermore, the GEF will expand its engagement in the development of emerging carbon markets, potentially including the following activities: (i) capacity building to help create enabling legal and regulatory environments; (ii) support of programmatic carbon finance and other activities under the post-2012 climate regime; (iii) demonstration of technical and financial viabilities of technologies; (iv) partial risk guarantees and contingent financing for carbon finance projects; and (v) co-financing of innovative projects, with credits to be retained in the recipient country for further project replication.
- The GEF will also expand its current capacity building role in the area of national communications to the UNFCCC, including, inter alia, additional resources to assist countries with the development of greenhouse gas inventories, training and development of analytical tools required for vulnerability assessments and adaptation studies, and identification and financing of nationally appropriate mitigation actions, through national communications.
- The use of non-grant instruments will be promoted in countries where conditions are suitable and demand exists for catalysing commercial financing and leveraging investment from the private sector. Engagement with the private sector, including with small and medium enterprises (SMEs) in developing countries, will be enhanced.
- Overall, GEF-5 will place increased emphasis on transformational impacts, programmatic approaches, and sectoral issues.

Table 2 provides a detailed overview of the concrete objectives, intended outputs and outcomes, and the respective allocations for GEF-5 climate change mitigation financing.

Table 2: GEF 5 Climate change mitigation results framework

Objectives	Key Expected Outcomes	Key Targets for US\$4.2 billion replenishment	Core Outputs
Total Focal Area Allocation		\$1.4 billion	
Objective 1: Promote the demonstration, deployment, and transfer of innovative low-carbon technologies	i) Technologies successfully demonstrated, deployed, and transferred Indicator: Percentage of technology demonstrations reaching its planned goals ii) Enabling policy environment and mechanisms created for technology transfer Indicator: Extent to which policies and mechanisms are adopted for technology transfer (score of 0 to 4) iii) GHG emissions avoided Indicator: Tons of CO ₂ equivalent	\$300 million • Demonstration and deployment of 3-4 innovative technologies in 10-15 countries • 80% of the projects reaching the planned goals on the ground	Innovative low-carbon technologies demonstrated and deployed on the ground National strategies for the deployment and commercialisation of innovative low-carbon technologies adopted
Objective 2: Promote market transformation for energy efficiency (EE) in industry and the building sector	i) Appropriate policy, legal, and regulatory frameworks adopted and enforced Indicator: Extent to which EE policies and regulations are adopted and enforced (score of 0 to 4) ii) Sustainable financing and delivery mechanisms established and operational Indicator: Volume of investment mobilised iii) GHG emissions avoided Indicator: Tons of CO ₂ equivalent	\$250 million • 20-30 countries adopting EE policies and initiatives • \$1.2 billion investment mobilised for EE	Energy efficiency policy and regulation in place Investment mobilised Energy savings achieved
Objective 3: Promote investment in renewable energy (RE) technologies	i) Favourable policy and regulatory environment created for renewable energy investments Indicator: Extent to which RE policies and regulations are adopted and enforced (score of 0 to 4) ii) Investment in renewable energy technologies increased Indicator: Volume of investment mobilised iii) GHG emissions avoided Indicator: Tons of CO ₂ equivalent	\$320 million • 15-20 countries adopting or strengthening RE policies and initiatives • \$1.2 billion investment mobilised • 0.5 gigawatt new RE capacity installed	Renewable energy policy and regulation in place Renewable energy capacity installed Electricity and heat produced from renewable sources
Objective 4: Promote energy efficient, low-carbon transport and urban systems	i) Sustainable transport and urban policy and regulatory frameworks adopted and implemented Indicator: Number of cities adopting sustainable transport and urban policies and regulations ii) Increased investment in less-GHG intensive transport and urban systems Indicator: Volume of investment mobilised iii) GHG emissions avoided Indicator: Tons of CO ₂ equivalent	\$250 million • 20-30 cities adopting low-carbon programmes • \$1.2 billion investment mobilised	Cities adopting low-carbon programmes Investment mobilised Energy savings achieved
Objective 5: Promote conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry (LULUCF)	i) Good management practices in LULUCF adopted both within forest land and in the wider landscape Indicator: Number of countries adopting good management practices in LULUCF ii) Restoration and enhancement of carbon stocks in forests and non-forest lands, including peat land Indicator: Hectares restored iii) GHG emissions avoided and carbon sequestered Indicator: Tons of CO ₂ equivalent	\$50 million • (plus \$150 million to SFM) • 10-15 countries adopting good management practices and implementing projects	Carbon stock monitoring systems established Forests and non-forest lands under good management practices
Objective 6: Support enabling activities and capacity building under the Convention	i) Adequate resources allocated to support enabling activities under the Convention Indicator: Percentage of eligible countries receiving GEF funding ii) Human and institutional capacity of recipient countries strengthened Indicator: Countries and institutions supported by the GEF	\$80 million • 100% of eligible countries receiving GEF funding in accordance with COP guidance	Countries receiving GEF support for national communication, etc. National communications, etc. completed and submitted to the UNFCCC as appropriate

Source: GEF-5 Programming Document

Analysis and discussion

Objectives 3 and 5 established under the GEF-5 programming approach deserve the special attention of mountain countries. The promotion of renewable energy technologies (Objective 3) offers adaptation-mitigation synergies that are particularly important in the context of dispersed settlement structures, which characterise mountainous countries, in combination with immense potentials for hydropower development. From an adaptation perspective, access to modern energy services is recognised as an essential input to development and for enhancing adaptive capacity (e.g. through economic diversification) and off-grid renewable energy technologies, e.g. small and micro hydro as well as solar and wind are financially more viable than grid extension in areas that are marked by inaccessible terrain and low population density. From a mitigation perspective, it should be noted that huge hydropower potentials remain untapped especially in mountain countries with high poverty and lacking political stability, and the resulting low power to mobilise private funding that is crucial given the high initial investment required for hydropower development.

Under its Strategic Priority Adaptation, the GEF Trust Fund has funded projects addressing high mountain systems such as Columbia's Integrated National Adaptation Plan: High Mountain Ecosystems, Colombia's Caribbean Insular Areas and Human Health (INAP). The related scope has, under the 4th and the 5th replenishment, been taken over by the SCCF.

Large hydropower plants, however, can be controversial and their development may be constrained by public concerns, as they often alter water availability downstream, can cause the relocation of populations, and have a significant impact on existing ecosystems. Hydropower is also susceptible to constraints resulting from climate change, e.g., changing rainfall patterns with consequences for electricity production. Mountain countries could benefit from joining forces and launching regional initiatives for research and development in hydropower in mountainous regions on adaptation needs to sustain energy supply from hydropower systems as well as diffusion of small and micro hydropower technologies. GEF Trust Fund resources may be an option for funding such efforts.

Secondly, Objective 5 of the GEF-5 programming approach, i.e. conservation and enhancement of carbon stocks through sustainable management of LULUCF, may provide another important entry point for mountainous countries to tap GEF Trust Fund resources. The establishment of carbon stock monitoring systems and the restoration and enhancement of carbon stocks in forests and non-forest lands, including peat-land, are among the intended outcomes of GEF-5. Mountain countries could make the case for exploring region-specific good management practices for forests and non-forest lands in high altitude zones.

The Least Developed Country Fund (LDCF)

The COP established the LDCF in 2001 to assist LDC Parties to prepare and implement National Adaptation Programmes of Action (NAPAs). The NAPAs aim to identify 'urgent and immediate needs' of each LDC according to specific guidelines provided by the Least Developed Countries Expert Group (LEG). The LDCF receives voluntary pledges from Annex I countries.

Relevance for mountain countries

Resources available

As of February 2010, voluntary contributions of US\$ 194 million had been committed for the LDCF, of which US\$ 169 million had been received and US\$ 131 million approved (i.e. disbursed, committed, or allocated) for the implementation of concrete adaptation actions in 33 LDCs. The remaining funds are 'on-hold' for ensuring that countries with lower capacity to submit projects quickly are provided access under the principle of 'balanced access' (see <http://www.thegef.org/gef/LDCF>).

Eligible countries/Parties

All LDCs are eligible for funding from the LDCF; they are allowed to submit more than one project proposal after completing their NAPAs.

Activities supported

The LDCF supports the preparation and implementation of the NAPAs. Activities proposed through NAPAs would be those whose further delay could increase vulnerability, or lead to increased costs at a later stage. The overarching criteria for eligibility of programmes and activities to receive funds is whether the proposed project responds to (a) the eligibility criteria as spelled out in the 'Programming Paper for Funding the Implementation of NAPAs under the LDC Trust Fund', and (b) priorities identified in the NAPAs. The 'Guidelines for the Preparation of NAPAs' contain the following criteria for prioritising adaptation activities:

- level or degree of adverse effects of climate change,
- poverty reduction to enhance adaptive capacity,
- synergy with other multilateral environmental agreements, and
- cost-effectiveness.

The templates used for applying for LDCF funding and for judging project proposals reflect these criteria in a compressed format. Further, the LDCF Council, when prioritising the allocation of LDCF resources, considers the extent to which an activity may address specific vulnerabilities, thereby applying the following criteria, *inter alia*:

- loss of life and livelihoods,
- human health,
- food security and agriculture,
- water availability, quality, and accessibility,
- essential infrastructure,
- cultural heritage,
- biological diversity, and
- land-use management and forestry.

As a general rule, activities proposed for funding through the LDCF (as also through the SCCF) must focus on 'additional costs' imposed by climate change that go beyond the baseline costs or business-as-usual financing. Activities that are considered as part of the development baseline, i.e. activities that would be implemented in the absence of climate change, like improvement of public health and education systems, infrastructure for rural development, and water and sanitation, are not eligible. However, a special feature of the LDCF is that in cases where no baseline of activities can be identified, the fund will pay the full-costs of the adaptation project, provided that it targets an urgent and immediate need as defined in the NAPA (see e.g. Revised Programming Strategy for Adaptation, GEF 2010).

A Guideline (2009) has been prepared by the LDC Expert Group, GEF and its Agencies to support LDCs in implementing the NAPAs, and to guide country teams in accessing funding from the LDCF. The document provides practical guidelines for the design and implementation of concrete projects and programmes eligible for funding under LDCF. It has clear graphics that provide an overview of options and steps that need to be taken.

Between 2008 and 2010, the work programme of the LEG included the organisation of five regional training workshops for implementing NAPAs, in collaboration with the GEF and its agencies. The objective of the training was to provide technical support to LDC teams i) for the preparation of NAPAs in countries that had not completed the process (incl. Nepal and Myanmar), and ii) for the design of a NAPA implementation strategy, and to build capacity of these teams in the preparation and submission of project documents to the GEF under the LDCF. A regional workshop targeting 10 Asian LDCs took place in May 2010. Additional documentation on accessing financing under the LDCF is currently under preparation by the Secretariat. (Further information and training materials are available on the LDC Portal on the UNFCCC website: http://unfccc.int/cooperation_support/least_developed_countries_portal/lcd_expert_group/items/5337.php)

Allocations to mountain countries

Only Nepal and Myanmar, among the mountainous LDCs, had not yet submitted their NAPAs to the UNFCCC. They were in the process of preparing the documents with funding from the LDCF in mid-2010.

As regards proposals for concrete activities to implement the NAPAs with LDCF funding, Bhutan was the only LDC from the group of mountainous countries that had submitted a proposal to the GEF. The Bhutan LDCF project, for which a project grant

of about US\$ 3.45 million was approved, aims to 'Reduce climate change-induced risks and vulnerabilities from glacial lake outbursts' and is implemented by UNDP. The information – and the lessons learned, to be shared later – is available on the UNDP adaptation learning mechanism platform (<http://www.adaptationlearning.net/bhutan-reducing-climate-change-induced-risks-and-vulnerabilities-glacial-lake-outburst-floods-punakh>). For country-wise information on status of project proposal/approval under the LDCF, see <http://www.gefonline.org/Country/CountryProfile.cfm>.

Analysis and discussion

Developing countries have been requesting higher levels as well as greater predictability of resources for the full implementation of priorities identified in their NAPAs than that currently available from the LDCF. The paper 'Support needed to fully implement national adaptation programs of action (NAPAs),' prepared by the LDC Expert Group (LEG) for COP15 indicated a need of at least US\$ 1.93 billion. Another weakness of the LDCF pointed out by the eligible countries, notably in discussions on how a new financing architecture for climate change adaptation should be designed, is that the LDCF lacks direct access by developing countries entities and that it has a relatively long project cycle.

Recent developments

At COP16 the Subsidiary Body for Implementation (SBI) of the UNFCCC will review the experiences gained in preparing and implementing NAPAs, including that in accessing funds from the LDCF. The COP invited Parties and relevant organisations to submit to the Secretariat, by 17 August 2010, information on the preparation and implementation of NAPAs, including that on accessing funds from the LDCF. It was an opportunity for mountain countries that had faced difficulties in tapping LDCF funding for preparing and implementing their NAPAs to share their experiences with the SBI. It was also an opportunity to make the case for a revision of the procedural requirements to better suit their special need; e.g., improved provisions for regional approaches to access the LDCF for joint mountain country initiatives to respond to mountain specific vulnerability structures that cut across national boundaries.

SCC Fund (GEF)

In 2001 the COP decided to establish a Special Climate Change Fund (SCCF) to finance activities, programmes and measures relating to climate change that are complementary to those funded by resources from the GEF Trust Fund and with bilateral and multilateral funding (COP Decision 7/CP.7). The SCCF is meant to serve as a catalyst to leverage additional resources from bilateral and other multilateral sources. The proportional scale of co-financing is designed so that the GEF funds a larger share of smaller projects. It has the following rules:

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

Sources of funds for the SCCF are voluntary pledges from Annex II Parties of the Convention, and other Parties included in Annex I that are in a position to do so who are invited to make contributions. However, with a view to funding the SCCF (and LDCF) at a more appropriate level, and for better aligning the GEF's resources, planning and budgeting with that of the donors, it has been proposed that both funds be replenished on two or four year cycles.

The future of the SCCF is uncertain as long as the issue of 'response measures' for oil production countries is not resolved within the framework of the adaptation chapter of the AWG-LCA process, and the financial architecture under the Bali Action Plan remains undefined (see Chapter 1).

Relevance for mountain countries

Resources available

In February 2010 voluntary contributions of US\$ 110 million for the adaptation programme and US\$ 19 million for the Technology Transfer programme had been mobilised. The demand for this fund, however, was US\$ 125 million per year, and there was a waiting list of projects (<http://www.thegef.org/gef/SCCF>).

Eligible countries/Parties

In principle, the SCCF is open to all vulnerable developing countries; the COP has not adopted an explicit definition of developing countries that differentiates them from non-Annex I Parties. Its geographical emphasis is on the most vulnerable countries in Africa, Asia, and the Small Island Developing States.

Activities supported

The SCCF has four different windows (as per COP Decision 7/CP.7, on the creation of the SCCF):

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

The COP has identified adaptation to climate change as the top priority of the SCCF. Further, it has specified that SCCF resources be used to implement adaptation activities in the areas of water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, including mountainous ecosystems, and integrated coastal zone management; to supporting capacity building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change (Decision 5/CP.7, 2001).

Activities to be funded must be country-driven, cost-effective and integrated into national sustainable development and poverty-reduction strategies. They must also take into account national communications to the UNFCCC or, in the case of LDCs, NAPAs.

An overarching objective of the SCCF is to support capacity building, including institutional capacity, to make project preparatory work, constituency building, and awareness raising more informed of the likely implications of climate change. In addition, activities should focus more on prevention than on reaction, i.e. the fund seeks to implement long-term adaptation measures that increase the resilience of national development sectors to the impacts of climate change.

As a general rule, activities proposed for funding through the SCCF (as also through the LDCF) must focus on 'additional costs' imposed by climate change that go beyond the baseline costs or business-as-usual financing. Activities which are considered as part of the development baseline, i.e. activities that would be implemented in the absence of climate change, like improvement of public health and education systems, infrastructure for rural development, and water and sanitation, are not eligible. However, projects do not need to generate global environmental benefits. Local benefits can be generated by SCCF projects, as long as the case for 'additionality' can be made (see e.g. Revised Programming Strategy for Adaptation, GEF 2010).

Efforts to transfer technology under the SCCF focus on the transfer of environmentally sustainable technologies, concentrating on, but not limited to, technologies to reduce emissions or atmospheric concentrations of greenhouse gases.

Allocations to mountain countries

A regional adaptation project implemented in three Andean countries received US\$ 6.7 million co-financing from SCCF resources (Box 1). Ethiopia has submitted a project proposal for 'Coping with drought and climate change', implemented by UNDP, for which SCCF co-financing of US\$ 3.65 million was approved (total financing US\$ 20 million). In Pakistan, a 'Promotion of rural livelihoods through adaptation support programme', to be implemented by IFAD, is likely to receive US\$ 3 million as co-financing from the SCCF (total financing: US\$ 16.5 million; status: council-approved).

Analysis and discussion

The SCCF's focus on adaptation in water resources and land management, agriculture, and fragile ecosystems (including mountainous ecosystems) makes it an important option for mountain countries for accessing funding for measures to respond to the most imminent climate change threats. In addition, the SCCF supports Colombia's National Adaptation Plan (NAP) for assessing the impact of melting Andean glaciers on water availability for fragile mountain ecosystems, agricultural and

Box 1: Pilot climate change adaptation measures in the andean region (Bolivia, Ecuador, Peru)

Millions of people in the Andean region depend on run-off from glacial melt in the highlands for their daily freshwater needs. As Andean glaciers are projected to recede rapidly in the coming years, freshwater access will be severely constrained threatening agriculture, hydropower generation, and health. The GEF has financed, through the SCCF, a project to implement measures to meet the anticipated consequences of the catastrophic glacier retreat induced by climate change. This is to be achieved through the design and implementation of strategic pilot adaptation measures to address key impacts of glacier retreat, including management plans for potable water systems in urban areas; promotion of less water consuming management practices in agriculture; and measures to increase the natural water storage capacity of highland ecosystems. According to the project document the SCCF allocation amounts to US\$ 6.7 million, while project co-financing in the tune of US\$20.1 million was mobilised.

(<http://gefonline.org/projectDetailsSQL.cfm?projID=2902>)

domestic purposes, and hydroelectricity. This project aims to address all of the mentioned vulnerabilities through an integrated approach of capacity building and local pilot adaptation interventions focusing on high mountain ecosystems. The SCCF therefore offers good opportunities for national and regional projects and programmes, which are particularly relevant to meet the adaptation needs of mountain areas.

Recent GEF council documentation on a more focused approach of the diverse GEF managed climate change funds mentions that the SCCF shall cover projects that “address local adaptation needs and generate global environmental benefits in the GEF focal areas biological diversity, climate change, international waters, land degradation [...]”, which previously fell under the mandate of the Strategic Adaptation Priority (SPA) under the GEF Trust Fund. The interface between local adaptation needs and global environmental benefits is particularly relevant in the context of mountain area hydrology and biodiversity, as mountains play a crucial role as sources of water for often densely populated surrounding lowlands, and a refuge for biodiversity in a long-term global warming scenario.

SCCF and LDCF Analysis and Discussion

The main governance body for the SCCF and the LDCF is the LDCF / SCCF Council, which any GEF Council Member may choose to participate in or to attend as an observer. The governance structure of the GEF has been adopted for the LDCF / SCCF Council. Moreover, policies and procedures that apply for the GEF also apply for these mechanisms, e.g. fiduciary standards, streamlined project cycle, result-based frameworks, and monitoring and evaluation practices.

The LDCF and SCCF follow the GEF public involvement policy approved by the GEF Council in 1996. A basic provision of this policy is that all GEF-financed projects will “provide for full disclosure of non-confidential information, and consultation with, and participation as appropriate of, major groups and local communities throughout the project cycle.”

However, various developing countries have expressed concerns and objections against the manner in which the GEF has operated the LDCF and the SCCF, particularly in the implementation of COP guidance. Developing countries are concerned about an overwhelming governance control by ‘donor’ countries and a lack of transparency (see Mitchell et al. 2008). Evidence available from the GEF demonstrates that the organisation has not prioritised the adaptation needs of the most vulnerable, and has disproportionately funded projects in countries that have relatively low rates of poverty (Möhner and Klein 2007). The SCCF has invested in building capacity and knowledge of mountain systems including cryosphere, watersheds, and ecosystems. These efforts have been largely limited to Latin America.

Another criticism that has been expressed by both donors and countries eligible to receive GEF funds for adaptation is that the rules and structures make accessing funding difficult and time-consuming. A lack of transparency in decision-making that appears to be the prerogative of powerful individuals has also been attested (Mitchell et al. 2008).

Recent developments

The 'Revised programming strategy on adaptation to climate change for the LDCF and the SCCF', submitted for discussion to the LDCF / SCCF Council on 1 July 2010, calls for a shift to a more programmatic approach to adaptation under the GEF funds:

"[...] Project funding under the LDCF and SCCF has, to date, largely been concentrated on pilot projects, [...] Out of this pilot phase has evolved a significant amount of learning, as well as the initiation of a national process for addressing climate change adaptation in a number of developing countries. The natural continuation to this pilot phase, therefore, is to now start a process of national, regional, and global scaling up.

With this second phase of funding, the LDCF and SCCF will, therefore, shift towards implementing adaptation at the scale necessary to catalyse climate-resilient development in the vulnerable sectors, priority areas of intervention, and regions. This phase will [...] to a much larger degree than what is currently the case, include policy support aimed at helping countries to mainstream adaptation into policies and planning, creating the capacity necessary to absorb and utilise adaptation technology transfer, and supporting a process to achieve more climate resilient economies.

This second phase of scaling up and mainstreaming will require both higher levels of total financial resources and a much higher degree of predictability in resources available to be successful – and the request for a replenishment of at least \$500 million for each fund is linked to these needs."

Adaptation Fund

The Adaptation Fund (AF) was established in response to a decision by the UNFCCC COP7 in Marrakesh in 2001 and became operational in 2010. Its main objective is to finance 'concrete adaptation projects and programmes' in developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change. Projects and programmes to receive resources under the AF should be 'country driven and based on the needs, views and priorities' of the recipient country.

The AF is supervised and managed by the Adaptation Fund Board (AFB), which is accountable to the Conference of the Parties serving as the Meeting of the Parties (CMP). A unique feature of the AF is that it provides 'simplified direct access' to developing countries: countries can submit proposals directly through the nominated National Implementing Entity (NIE), which bears the full responsibility for the overall project / programme management, including financial management, monitoring, and reporting. The AFB must recognise the NIEs as those meeting its fiduciary standards. A group of Parties may also nominate regional and sub-regional entities as implementing entities.

The main source of financing for the AF is a 2% levy on certified emission reductions (CERs) under the Clean Development Mechanism. In addition to this, the fund may receive contributions from donor countries. All AF resources are disbursed as grants.

Relevance for mountain countries

Resources available

In April 2010, US\$ 85.26 million in cash receipts from CER proceeds had been leveraged for the AF. It has been estimated that by the end of 2012, CERs could raise up to US\$ 340 million (Germanwatch and WWF 2010). In addition, the AF has received contributions of US\$ 20 million (from Spain). At end April 2010, the total amount of funding available was US\$ 105 million.

Eligible countries/Parties

All developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change are eligible to receive funding. The operational guidelines explicitly mention, inter alia, countries with arid and semi-arid areas or areas liable to floods, drought and desertification, and with 'fragile mountainous ecosystems'.

Activities supported

The AF finances concrete adaptation projects (with outcomes and outputs that are more narrowly defined in scope, space, and time) and programmes (i.e. a process, plan, or approach for addressing climate change impacts that is broader than the scope of an individual project). Adaptation projects can be implemented at the community, national, and transboundary levels. Adaptation to the adverse effects of climate change and increasing climate resilience must be the principal and explicit aim of projects and programmes that receive funding. Criteria for assessing project and programme proposals by the AFB include,

- support of concrete adaptation actions;
- economic, social and environmental benefits, with particular reference to the most vulnerable communities;
- cost-effectiveness;
- consistency with national sustainable development strategies, national development plans, poverty reduction strategies, national communications or adaptation programmes of action, or other relevant instruments;
- meeting relevant national technical standards, where applicable;
- no duplication of project with other funding sources,
- learning and knowledge management component to capture and feedback lessons; and
- justification for the funding requested on the basis of the full cost of adaptation.

Further, decisions on the allocation of resources of the AF take into account:

- level of vulnerability of the recipient country or region;
- level of urgency and risks arising from a delay in taking adaptation action;
- ensuring access to the fund in a balanced and equitable manner;
- potential for lessons learned in project and programme design and implementation to be captured;
- securing regional co-benefits to the extent possible, where applicable;
- maximising multi-sectoral or cross-sectoral benefits; and
- adaptive capacity to the adverse effects of climate change.

Allocations to mountain countries

In the first round of disbursements in 2010, a total of eight project proposals were submitted to the AFB, five of which were recommended for adoption. At its ninth meeting held from 14-16 June 2010, the AFB approved four proposals, including one under the direct access modality, by the Centre de Suivi Ecologique, a national implementing entity from Senegal. The only proposal related to mountainous ecosystems was submitted by Pakistan for a project on glacier lake outburst prevention, with the UNDP acting as a multilateral implementing entity. The proposal was approved and Pakistan will receive US\$ 3.96 million from the AF, with at US\$ 3.5 million co-financing by the Government of Pakistan and US\$ 500,000 by ICIMOD. (For a review of the proposal see: http://www.adaptation-fund.org/system/files/AFB.PPRC_.1.8%20Technical%20Review%20of%20Project%20Concept%20AFB_%20MIE_DRR_2010_1_Pakistan.pdf)

Analysis and discussion

Mountain country adaptation needs and vulnerabilities clearly fall within the priority areas for AF support as outlined in the operational guidelines: "...countries with [...] areas liable to floods, [...] and with fragile mountainous ecosystems." The proposal submitted to the AFB by Pakistan for a project on glacier lake outburst prevention will render valuable experience, which can benefit other mountain countries that are in a process of exploring options to tap AF resources. The option to submit adaptation project proposals to be implemented at a transboundary level is also highly relevant for mountain areas cutting across several national territories. Mountain countries may explore opportunities to nominate regional or sub-regional entities as implementing entities under the special direct access option. Joining forces to set up such an entity would certainly help in meeting the fiduciary standards requirements of the AFB.

In addition, among the multilateral climate change funds, the AF has the most representative governance structures, with specific seats in the AFB reserved for LDCs and SIDS. The AFB is composed of 16 members and 16 alternates representing Parties to the Kyoto Protocol, as follows:

- 2 representatives from each of the five UN regional groups
- 1 representative of the Small Island Developing States
- 1 representative of the Least Developed Country Parties

- 2 other representatives from the Parties included in Annex I to the Convention (Annex I Parties), and
- 2 other representatives from the Parties not included in Annex I to the Convention (non-Annex I Parties).

A list of Members of the Adaptation Fund Board as of February 2010 is available at http://unfccc.int/files/cooperation_and_support/financial_mechanism/adaptation_fund/application/pdf/afb_membership_ver_20100210.pdf

The AF proceedings are highly transparent, including through a dedicated website that contains comprehensive information and all key documentation on decisions taken by the AFB.

In addition, the direct access option for developing country institutions makes the AF unique and may be seen as a pilot. Experience with the special governance structure of the AF will have to be analysed now that it enters into operation and may provide a basis for decisions on new financial mechanisms to be established over the coming months. Mountain countries might consider dialogues to exchange knowledge and experience with regard to the special challenge of preparing national entities for recognition as the NIE by the Adaptation Fund Board.

Recent developments

A review of all matters relating to the Adaptation Fund is proposed to be undertaken at the 6th session of the CMP in November 2010, with a view to ensuring its effectiveness and adequacy, including in relation to its institutional arrangements.

4 Clean Development Mechanism

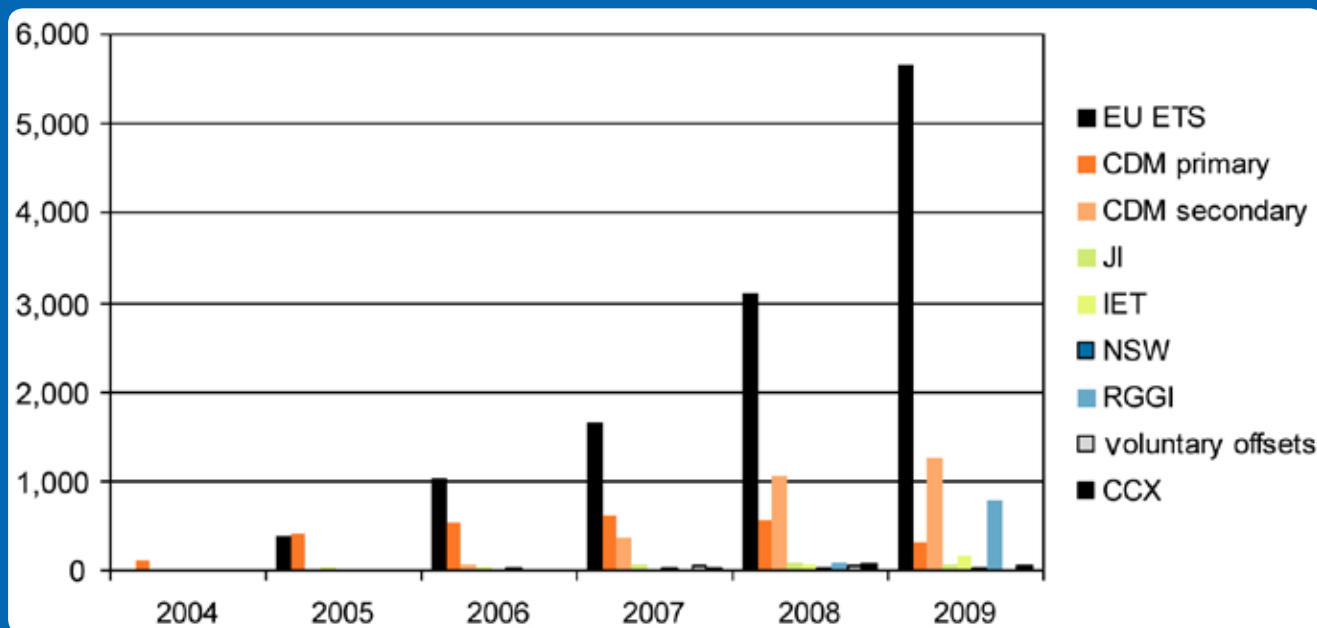
Mitigation in the Energy and Industry Sector

The Clean Development Mechanism (CDM), established under the Kyoto Protocol, has catalysed clean energy related investments, if any, mainly in emerging economies. Africa, smaller Asian and Latin American countries, and LCDs have been largely sidelined. The transaction volume of the global carbon market has increased rapidly since 2005 and did not significantly suffer from the financial and economic crisis (Figure 2).

Overall turnover witnessed spectacular growth from 100 million tCO₂e in 2004 to 8.2 billion tCO₂e in 2009. The EU-ETS accounted for 69% (more than 5.6 billion t) of the 2009 turnover, followed by CDM, with 19% (more than 1.5 billion t), i.e., CDM is approximately a third of the size of the Emission Trading System of the European Union (EU-ETS). Joint Implementation under the Kyoto Protocol (JI), International Emission Trading (IET), and voluntary schemes have been responsible for only 3% of turnover. The volume of voluntary emission reductions in global carbon markets is negligible, although the North American demand increased during 2008-2009 in response to the emerging regional cap and trade regimes.

The volumes in terms of types of projects from which CERs have been transacted have been summarised by the World Bank (2009). HFC decomposition projects played a key role in 2004-2006, but their transaction share gradually dropped over 2007 and 2008. Renewable energy (nearly 45%) and energy-efficiency projects (about 35%) constituted half of the transaction volumes in 2008, indicating that energy projects increased their market share during 2007-2008.

Figure 2: Transaction volume in the different carbon market segments (million tCO₂e)



CCX = Chicago Climate Exchange (voluntary trading system in the USA)

EU ETS = EU emissions trading scheme

NSW = New South Wales (mandatory trading system in the Australian state of New South Wales)

RGGI = Regional Greenhouse Gas Initiative (mandatory in 10 states of the northeast US)

Source: International Bank for Reconstruction and Development / The World Bank: Clean Development Mechanism in China (2010)

The UNFCCC site provides an overview of the global geographical distribution of registered projects (<http://cdm.unfccc.int/Projects/MapApp/index.html>; 2278 as of June 2010). China dominates in large size projects, India, Brazil and Mexico are next with a portfolio spread over all project size classes. CDM is still significantly underrepresented in Africa, West and Central Asia and in particular, in LDCs/ mountain countries. In Africa, Uganda has three registered projects. In Latin America, Bolivia has four, while Peru and Colombia with higher levels of economic development and significant potential have 21 and 23 registered projects, respectively. Yunnan province in China alone has 94 registered projects of which 89 are in the hydropower sector.

There are 1420 CDM projects registered within the HKH region (including the afforestation/reforestation sector), but the geographical distribution is very uneven (Table 3). Mountains as such do not establish a barrier to access CDM markets.

The creation of a Programme of Activities (PoA) and the EU position in climate negotiations have created hopes that smaller developing countries will play a more important role in the 2nd commitment period (2012+). The small hydro sector, and to a lesser degree solar and biogas energy, would have a potential for clustering of projects under PoA. Further, the EU has stated it would limit the CERs allowed for import from major economies to the EU ETS, which would offer more offset opportunities to other developing countries, particularly Africa and LDCs. The distribution of registered CDM projects within the HKH region, however, reveals that the barriers in the smaller, weaker economies are significant and may not easily be overcome in the post 2010 period. Countries such as Peru/Colombia/Chile or Indonesia/Vietnam/Thailand would be better placed if the supply potential from the largest players China/India/Brazil/Mexico is constrained in the post 2012 period.

Table 3: Number of registered CDM projects (status June 2010) in the HKH region

Country	Number of registered projects
Afghanistan	0
Bangladesh	2
Bhutan	2
China	892
India	515
Myanmar	0
Nepal	2
Pakistan	7
Total	1420

Source: UNFCCC (2010) <http://cdm.unfccc.int/Projects/MapApp/index.html>

Further the fate of the UN's offset mechanisms after 2012 is uncertain in general as the large Annex I countries such as US and Japan have been studying alternative markets that can generate more carbon credits. A Japanese environment ministry official recently expressed the concern that CDM is unlikely to create a sufficient supply of future global offset credits. This has prompted Japan to explore alternative crediting concepts outside the CDM, such as bilateral offset mechanisms. Under such arrangements, rich nations would directly negotiate with poor countries to set the terms and conditions under which offset credits could be generated.

Although the US has been silent on how it thinks the UN crediting mechanisms should evolve after 2012, market observers (Point Carbon 2010a) understand it is exploring bilateral agreement models. One source close to the UN negotiations told Point Carbon News there is a desire by the US for more flexible, less bureaucratic offset markets that offer an alternative to "routing everything through a UN agency". "Washington and Tokyo are very far from Bonn," the source said, referring to the German city that is home to the executive board, the UN panel that approves CDM projects.

CDM Afforestation/Reforestation

Afforestation and reforestation (A/R) Clean Development Mechanism was designed to comply with the Kyoto Protocol for mitigating climate change. The rules and methodologies took time to emerge; they follow the outline of the Marrakesh Accord. By end June 2010, only 15 A/R CDM projects had been approved – of 2278 that had been registered. This reflects the hesitation of buyers to invest in A/R project types as well as the complexity of rules in successfully developing A/R CDM projects. The economic potential will remain limited in the post 2012 period.

While REDD+ has entered the readiness phase, many actors have been trying to explore the potential of the voluntary market A/R in the context of emerging REDD+ markets, that consider lessons learned from the complexity of the A/R CDM process.

Voluntary carbon markets are significantly smaller and show higher volatility compared to compliance markets. At present, voluntary carbon credits are not providing a basis to build a forestry strategy for mountain countries as demand is limited and not long term but dependent on business cycles. In 2009, 50 million t of CO₂ equivalents of voluntary carbon credits were traded 'over the counter'. The share of all forestry projects was 24%, afforestation/ reforestation (10%) followed by forest management and agroforestry with around 7% each (Bloomberg New Energy Finance 2010).

Scaling-up Renewable Energy Program (SREP)

The Scaling-Up Renewable Energy Program for Low Income Countries (SREP) comes under the Strategic Climate Fund (a multi-donor Trust Fund within the World Bank's Climate Investment Funds). Its overall objective, still being finalised, is to support investments in a small number of low-income countries for energy efficiency, renewable energy and access to modern sustainable energy. The fund seeks to:

- serve as a model in assisting low income countries to foster a transformational change to low carbon pathways by exploiting renewable energy potential;
- overcome economic and non-economic barriers to scale up private sector investments to achieve SREP objectives; and
- highlight economic, social and environmental co-benefits of renewable energy programmes.

The fund is hence an opportunity for countries facing significant barriers in attracting CDM investors to build up capacity and markets, which could also become viable for carbon investments into the renewable energy sector of low-income mountain countries after 2012.

5 REDD+

Introduction

Annual emissions from land-use change, mainly deforestation and degradation in tropical developing countries, account for approximately 20-25% of the total anthropogenic emissions of greenhouse gases (UNFCCC 2006). According to the UN Food and Agriculture Organization, global forest areas are still decreasing by more than 7 million hectares every year. Measures to address the ongoing loss of forests and forest carbon stocks therefore play a key role in climate change mitigation. It is now widely acknowledged that it will be impossible to reach the target of a maximum global average temperature increase of 2°C without tapping the mitigation potential that lies in avoiding deforestation and forest degradation.

Options for a mechanism to stimulate action to this end are being discussed under the term REDD – reducing emissions from deforestation and forest degradation. The basic idea of the proposed mechanism is to create a financial value for carbon stored in forests, offering incentives for developing countries to reduce emissions from forestlands. A new type of the commodity of ‘carbon credits’ (similar to those already established under the flexible mechanisms of the Kyoto Protocol) would be created as a measure of the change in forest carbon stocks (NB: not a measure of carbon itself). The REDD concept has been extended to ‘REDD+’, which goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks.

A significant flow of funds from industrialised to developing countries could result if developing countries can sell their forest carbon credits on a carbon market that is emerging (e.g. in the framework of a binding emission targets regime and a post-Kyoto carbon trading scheme). Forest nations could thus be rewarded for their action towards conserving their forest carbon stocks and be provided with resources for pro-poor development, conservation of biodiversity, and securing ecosystem services. The potential synergies between effective forest conservation and management, and increasing resilience of social and ecological systems to climate change, are also acknowledged and taken into account in the design of a REDD+ mechanism.

Challenges in establishing a REDD+ mechanism

The design of an appropriate REDD+ mechanism is not easy as it needs to do justice to the complexity of the social, environmental, and economic interrelations which are characteristic for the forest sector.

Firstly, high deforestation, degradation, and unsustainable management practices in many forest-rich countries result from a nexus of adverse political and economic incentives and a lack of law enforcement. Approaches at the international level to stimulate REDD action in developing countries must be based on a sound understanding of these factors. The IPCC in its 4th Assessment Report (2007) notes that major barriers to enacting effective policies against forest loss are (i) profitability incentives that often run counter to forest conservation and sustainable forest management; (ii) many direct and indirect drivers of deforestation that lie outside of the forest sector, especially in agricultural policies and markets; and (iii) limited regulatory and institutional capacity and insufficient resources that constrain the ability of many governments to implement forest and related sectoral policies on the ground.

Secondly, civil society groups have expressed concerns about potential implications of the activities included under ‘plus’ for indigenous people, local communities, ecosystems, and biodiversity. With regard to ‘conservation’, it has been evoked that the establishment of national parks has often implied large-scale evictions and loss of rights for indigenous peoples and local communities. The term ‘sustainable management of forests’ might encourage the payment of subsidies to commercial logging operations, which may again be associated with risks to the livelihoods of indigenous peoples or village communities. ‘Enhancement of forest carbon stocks’, as non-government organisations point out, could result in conversion of land (including forests) into industrial tree plantations, with serious implications for biodiversity, forests, and local communities.

Need for effective governance frameworks

There is broad agreement that in order to achieve a successful mitigation outcome, while at the same time safeguarding against negative social and environmental impacts, REDD+ states will need to significantly enhance their governance capacities in the forest sector, i.e., regulatory capacity, law enforcement, and sectoral legitimacy. First, effective and accountable governance will be critical to ensure that emissions reductions are permanent and not displaced elsewhere through leakage. Second, systems will have to be established for monitoring not only emissions reductions and removals, but also 'non-carbon' issues, like implications for the various stakeholder groups, the local environment, and biodiversity.

The international community has, therefore, engaged in a conceptual debate about what constitutes 'good governance' in specific national and sectoral contexts. A process of developing provisions on monitoring in relation to governance, as well as forms of reporting and verification, is evolving under several multilateral fora, including the UNFCCC, the Forest Carbon Partnership Facility (FCPF) administered by the World Bank, the UN REDD Programme (UN-REDD) and the World Bank's Forest Investment Programme (FIP).

For mountain countries, deforestation and forest degradation are not only important mitigation entry points, but also – maybe more than in any other ecosystem context – issues where there are adaptation imperatives. Destruction and degradation of mountain forests can accelerate erosion and expose land to the risk of landslides, floods, and avalanches. This type of disaster risk is already being aggravated through climate change induced alterations in rainfall patterns. International REDD+ regulation therefore deserves special attention by mountain countries as a potential source of funding for first priority adaptation action.

It must be noted that mountain areas bring about special challenges in relation to several aspects of REDD+ readiness. Mountain reliefs, for example, require different technical solutions for effective land use monitoring systems than lowland tropical forests. Further, mountain forests require distinct methodologies for greenhouse gas (GHG) inventories and reference emission levels (REL) due to their unique biological characteristics and species composition.

In addition, the typical small scale contiguous patches of a certain land use in mountainous reliefs will pose a special challenge when registering REDD+ projects, as it will be difficult to reach required minimum mitigation volumes within one site, and transaction costs for monitoring, reporting, and verification (MVR) will be higher than for large forest patches in the lowlands.

Donors who support REDD+ readiness have paid little attention to the need for distinct mountain forest methodologies. Mountain countries should join forces to make a case for their special needs in the context of REDD+ readiness, and should try to establish supra-national structures for research on the above-mentioned issues.

REDD under the UNFCCC

REDD was first introduced as an item into the agenda of the COP to the UNFCCC at its 11th session in Montreal in 2005 through a proposal by a group of countries calling themselves the Coalition for Rainforest Nations. The proposal was taken up at COP13 in Bali 2007, which resulted in an inclusion of REDD plus in the Bali Action Plan. It calls for 'Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries (REDD); and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries'.

Debates in the run up to COP15 in November 2009 put a lot of emphasis on the need to include social and environmental safeguards in any REDD+ agreement. Major progress was made during the Copenhagen negotiations on these issues, culminating in a draft AWG-LCA text on REDD+ with few brackets remaining, which indicates agreement on seven safeguards to be promoted and supported when undertaking REDD+ activities:

- Activities should be consistent with national forest programmes and international conventions
- Transparent and effective national forest governance is needed, respecting national sovereignty
- Knowledge and rights of indigenous peoples must be respected
- Full and effective participation of stakeholders, in particular indigenous peoples and local communities, must be ensured
- The conservation of natural forests and biological diversity must be ensured

- The risk of reversal must be addressed
- The displacement of emissions must be reduced

A few brackets also remain in the section of the AWG-LCA draft text, which spells out the concrete steps to be taken by developing country Parties who plan to engage in REDD. The current draft requests them to develop, in accordance with national circumstances and respective capabilities, (i) national strategies or action plans, (ii) national forest reference emission levels, and (iii) national forest monitoring systems with, as appropriate, sub-national monitoring and reporting as an optional interim measure.

Reference to financing and institutions for REDD was moved to the overall AWG-LCA text on finance. Agreement was also reached among negotiators that REDD plus will be implemented in phases:

- **Phase 1:** A readiness, or country preparedness 'pre-carbon' phase, comprising planning (development of national strategies or action plans, policies and measures) and capacity building
- **Phase 2:** Implementation of national policies and measures, and national strategies or action plans and, as appropriate, sub-national strategies; this could involve further capacity-building, technology transfer, and results-based demonstration activities
- **Phase 3:** Results-based actions to reduce emissions

In addition, the main outcome document of COP15 in Copenhagen (2009), the 'Copenhagen Accord', recognises the crucial role of REDD and calls for the immediate establishment of the REDD+ mechanism. In the section on financing, it is explicitly mentioned that REDD+ financing needs to be scaled up. Negotiations were continued during the Climate Change Talks in Bonn in June 2010, with no significant new outcomes on REDD, but renewed hope that an agreement may be reached at COP16 in Cancun.

For developing countries that are planning to engage in REDD plus activities, the latest outcomes of international negotiations have created more clarity on likely requirements for participating in the mechanism. The REDD+ text arising from COP15 provides a fairly sound basis to move forward in the preparation of national strategies, the establishment of national systems for monitoring, reporting, and verification (MRV), as well as in setting national reference levels, to attain 'REDD+ readiness'.

Despite this progress, many issues concerning design of a global REDD+ mechanism and implementation at national level comprising programmes/projects at the sub-national level remain unresolved and will require more detailed negotiations. A key point on which agreement is still pending is whether to take a national or sub-national level approach to setting a baseline scenario and implementing MRV. Leakage concerns could be addressed more effectively with a national approach, but this would imply strong requirements for monitoring capacities as well as good governance and transparent benefit-sharing mechanisms, given that credits or incentives would be received and managed by governments in those countries. Attracting private investment to public REDD+ programmes would also be a major challenge. A sub-national level approach could enable all countries, having reached a defined level of country preparedness, to attain the possibility to participate in this mechanism at least with pilot activities. This would also enhance options for active engagement of local stakeholders and the mobilisation of the private sector. As per the existing AWG LCA draft text, private actors cannot receive UNFCCC certificates directly; these would have to be issued by national governments. A compromise between the two options would be a scalable 'partially national' approach that would allow countries with limited capacities to start at the sub-national level and scale up to a national approach as these improve with time.

Finance

In principle REDD+ activities can be financed through public funds or on a carbon markets basis. These markets, in turn, can either be voluntary carbon markets, or compliance markets, i.e., markets emerging from an international regime with binding emission targets. In fact, a combination of both funding options is the most likely scenario over the medium term. At the current status of negotiations under the UNFCCC, it is not clear to what degree financial resources for REDD+ actions will be mobilised from either of these sources. Currently, REDD+ pilot projects can only sell carbon credits through voluntary markets. Voluntary carbon markets provide valuable experience and lessons for countries preparing for REDD+ in terms of understanding methodological and implementation issues. However, apart from afforestation and reforestation initiatives under the Clean Development Mechanism (A/R CDM), compliance markets are closed to forestry projects until the end of 2012.

Box 2: Overview of the most important funding channels for REDD+ activities in the three phases set out by UNFCCC AWG-LCA

For Phases 1 and 2:

- Quick-start funding mobilised under the Interim REDD+ Partnership Initiative
- UN-REDD
- FCPF Readiness Fund
- FIP (Forest Investment Program, part of Climate Investment Funds)
- Bilateral and multilateral initiatives (Norway, Australia, Congo Basin Forest Fund, voluntary markets)

For Phase 3:

- FCPF Carbon Fund
- GEF Trust Fund
- Binding markets

There is broad agreement that the complex 'failed market' and 'failed governance' conditions prevailing in the forest sector in many developing countries cannot be expected to change simply as a result of additional financial incentives aimed at governments that may flow through carbon market channels. Substantial funding will be needed for capacity building to achieve REDD+ readiness in developing countries; it has been estimated that such capacity building finance may amount to around US\$ 1.5 billion in the 'fast start' period 2010-2012 alone (Project Catalyst, 2010, "Making Fast Start Finance Work". Briefing Paper, June 2010).

Public funding is currently available through different channels, both within multilateral and bilateral initiatives. The main objective of most of these funding schemes is to help REDD+ candidate countries in their readiness efforts and to build up the required governance capacities. Many donors have decided to allocate substantial shares of the fast-start funds to which they have committed at COP15 to REDD+ projects. The following sections provide an overview of the most important multilateral and bilateral funding avenues in place for funding projects in the area of REDD+ preparation and implementation.

It is likely that there will be a progressive downscaling of fund-based finance for REDD+ over the medium term in favour of a predominantly market-based finance approach, which potentially offers much greater financial resources. Box 2 provides an overview of the most important funding channels for REDD+ activities in the three phases set out by the UNFCCC AWG-LCA.

Interim REDD+ Partnership Initiative

An interim partnership arrangement for REDD+ was established under the leadership of Norway at a meeting in Oslo in May 2010 between 58 countries.² This global forest partnership is intended to provide a voluntary, non-legally binding framework for immediate action to scale-up REDD+ actions and finance. It aims to promote transparency around financing and in existing and new international REDD initiatives. At their first meeting, the countries pledged almost US\$ 4 billion to quick-start implementation in 2010-2012. The resources will be allocated "to build sustainable and robust REDD+ capacity, including for national monitoring systems in developing countries, by effectively channelling financial and technical support to effective REDD+ actions, including results-based payments [...]". An organisational framework was also established that ensures the inclusion of representatives of relevant stakeholders. The UN and the World Bank provide secretariat services for the partnership. (For further information on the Oslo Forest and Climate Conference, see <http://www.oslocfc2010.no/>. The outcome document of the conference can be downloaded under <http://www.oslocfc2010.no/pop.cfm?FuseAction=Doc&Action=View&pDocumentId=25017>).

The UN REDD Programme

The United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation (UN REDD Programme) was launched in 2008 with the principal objective of assisting developing countries in preparing and implementing national

² As of May 27, 2010, the Partnership included the following 58 Partner countries: Angola, Argentina, Australia, Belgium, Brazil, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, China, Colombia, Costa Rica, Democratic Republic of Congo, Denmark, Dominican Republic, Ecuador, Equatorial Guinea, Finland, France, Gabon, Germany, Ghana, Guyana, India, Indonesia, Italy, Japan, Kenya, Laos, Malaysia, Mali, Mexico, Nepal, the Netherlands, Nigeria, Norway, Panama, Papua New Guinea, Peru, Philippines, Republic of Congo, Rwanda, Sao Tomé and Príncipe, Singapore, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Togo, Uganda, United Kingdom, United States and Vietnam.

REDD+ strategies. The UN REDD Programme is a multi-donor trust fund that allows pooling of resources aimed at supporting climate change mitigation through REDD+. The programme convenes expertise of FAO, UNDP, and UNEP in the forestry sector of developing countries. The programme is funded through voluntary pledges by donor countries.

The programme is built on two main pillars: national REDD+ programmes and global activities. The REDD+ programme aims to help countries develop national REDD approaches that ensure both the use of reliable methodologies to assess emission reductions, and equitable outcomes. Currently, the programme supports REDD+ activities in nine countries and budgets have been allocated for implementing national programme proposals in eight.

At the global level, the UN-REDD Programme works towards the following objectives: (i) to build, compile, and disseminate REDD+ expertise, knowledge, and 'best practices'; (ii) to facilitate consensus building in the area of REDD+ at the international level; and (iii) to coordinate REDD+ support efforts by various actors and ensure consistency in approaches. The four specific outcomes for UN-REDD programme activities at the global level have been defined as: (a) improved guidance on measurement, reporting and verification (MRV) approaches; (b) increased engagement of various stakeholders in the REDD+ agenda, including indigenous peoples and non-Annex 1 decision makers; (c) ensuring that forests continue to provide multiple benefits for livelihoods and the environment; (d) increased confidence in REDD+ amongst decision makers, to ensure that a REDD+ mechanism is included in a post-2012 climate change agreement.

Relevance for mountain countries

Resources available and countries selected for funding

So far, three countries – Norway, Denmark, and Spain – have pledged a total amount of US\$ 74.4 million to fund activities under the UN REDD Programme that is supporting REDD+ readiness activities in the following nine pilot countries: Democratic Republic of Congo, Tanzania, Zambia, Indonesia, Papua New Guinea, Viet Nam, Bolivia, Panama, and Paraguay. Allocations totalling US\$ 42.6 million have so far been approved by the UN REDD Policy Board to fund national programmes in eight countries. National programmes in four UN-REDD pilot countries (DRC, Indonesia, Tanzania and Viet Nam) are now being implemented.

In order to respond to the interest expressed by a number of REDD countries, the programme has created an option allowing new countries to become partners. In October 2009, 13 new partner countries had observer status on the UN-REDD Policy Board, and they qualified to receive technical assistance, benefit from networking possibilities, participate in regional workshops and have access to knowledge shared on its online workspace. Funding for full REDD+ readiness processes at the national level from the UN REDD Programme is, however, not immediately possible due to a lack of financing. The new partner countries are Argentina, Ecuador, Cambodia, Costa Rica, Kenya, Mexico, Nepal, Nigeria, the Philippines, Republic of Congo, Solomon Islands, Sri Lanka and Sudan. In principle, the programme is open to admission for other interested countries.

Activities supported

The activities in the nine pilot countries supported through UN REDD funds – referred to as National UN Joint Programmes (NJPs) – may deliver all or some of a country's readiness needs, depending upon country circumstances. The process of designing national REDD strategies should be a collaborative effort of a broad range of stakeholders and is informed by the technical expertise of FAO, UNDP, and UNEP. NJPs follow the agreed UN Development Group format for Joint Programmes (available at <http://www.undg.org/index.cfm?P=240>). The UN-REDD Secretariat provides operational guidance on engaging with indigenous peoples, other forest dependent communities, and civil society organisations. The following criteria are being applied when NJP proposals are reviewed:

- Ownership of the NJP by government and non-government stakeholders
- Level of consultation, participation and engagement
- Programme effectiveness, coherence with country strategies and other relevant initiatives, and cost-efficiency
- Management of risks and likelihood of success
- Consistency with the UN-REDD Programme Framework Document
- Compliance with UN-REDD operational guidance and the UN Joint Programme format (incl. cover page, results framework, budget, etc.)

A June 2010 workshop on knowledge sharing in the area of MRV (Box 3) is a good example of a global activity under the UN REDD Programme that helps countries coordinate their efforts towards REDD+ readiness and realise capacity building synergies. The workshop facilitated the coordination of methodological approaches and helped countries build links to globally operating research institutions in the area of satellite imagery. Coordination of national efforts and expertise sharing on REDD+ issues specific to mountain regions in general, or a specific mountain area, may be of great value for governments in mountain countries as that can help them accelerate progress towards REDD+ readiness.

Analysis and discussion

Mountain country aspirations to benefit from the UN REDD Programme may, given the limited financial resources for additional national REDD programmes, be best targeted at the global level activities. To make the Programme's global objective of building and disseminating REDD+ expertise, knowledge, and 'best practice' more relevant for mountainous countries, these countries may consider advocating for the establishment of a UN REDD mountain country programme component. Such a programme can explore methodological and governance issues specific to mountain forests (boreal zone), where the below ground/above ground potentials for carbon sequestration are significantly different from those in tropical lowland forests.

The Forest Carbon Partnership Facility

The Forest Carbon Partnership Facility (FCPF) has been established by the World Bank with the two key objectives of (i) building capacity for REDD+ in developing countries in tropical and subtropical regions, and (ii) testing a programme of performance-based incentive payments in some pilot countries. The programme component aiming at the first objective is referred to as 'readiness mechanism' and is focused on the REDD-specific agenda (rather than covering a broad range of forest-related issues), but builds on existing country activities that support sustainable forest resource management and land use programmes. A Carbon Finance Mechanism, the second component of the FCPF, works towards the latter objective; activities under this mechanism are on a relatively small scale and are intended to set the stage for a much larger system of positive incentives and financing flows in the future.

Resources under the Readiness Mechanism are provided as grants; the Carbon Fund to be established under the Carbon Finance Mechanism will provide performance-based payments to countries that have achieved verified emission reductions. The overall objective of the FCPF is to generate experiences in implementation of REDD+ activities and to derive methodological lessons on carbon finance. These insights will feed into the ongoing preparations for a larger global programme of incentives for REDD+. The FCPF was announced at the COP13 in Bali and became operational in 2008.

Relevance for mountain countries

Resources available

A target of US\$ 185 million has been set for the FCPF Readiness Fund to support REDD+ readiness efforts in 37 countries. Eleven countries had contributed US\$ 107 million in June 2010. Similarly, about US\$ 51 million has been pledged for the Carbon Fund – the target is to mobilise US\$ 200 million.

Box 3: Knowledge and experience sharing under the UN REDD programme

A Workshop 'Making REDD+ work: Sharing knowledge on systems for measurement, reporting and verification (MRV)' was organised by the UN REDD Programme in Guadalajara, Mexico in June 2010. The main goal of the workshop was to identify best practices in implementing MRV systems for REDD+, while identifying current challenges, bottlenecks, and data issues. Over 30 UN REDD pilot and partner countries discussed methodological approaches to monitor forest land use changes; developing greenhouse gas (GHG) inventories for forests; measuring reference emission levels (REL) and reference levels (RL), and estimating emission factors (carbon stock changes) by implementing solid national forest inventories. The Group on Earth Observations (GEO), which brings together earth observation agencies from around the world, contributed important inputs to the workshop and offered its support to work jointly with the UN REDD Programme to make satellite imagery available to countries, which will allow for better integration of MRV systems. Participants in the meeting agreed to strengthen capacity building towards improved design and operation of MRV systems along the lines of the current cooperation between the Brazilian National Institute for Space Research (INPE) and the UN Food and Agriculture Organization.

Eligible countries/Parties

All tropical and sub-tropical member countries of the IBRD or the IDA are eligible REDD Participant Countries. The Participants' Committee selects REDD countries based on their submission of a Readiness Plan Idea Note (R-PIN). The main selection criteria for receiving resources from the FCPF Readiness Fund are

- relevance of the country in the REDD context, i.e. amount of forest area and forest carbon stocks, and relevance of the forests in the country's economy and poverty reduction;
- quality of the R-PIN, which is evaluated on the following criteria, inter alia: (i) ownership of the proposal by both the government and relevant stakeholders; consistency between national and sectoral strategies and the proposed REDD Strategy; clarity of responsibilities for the execution of REDD activities to be financed;
- geographic and biome balance within the Readiness Fund country portfolio; and
- variety of approaches with a view to optimal learning outcomes of the FCPF, with priority given to country proposals that suggest innovative and/or comprehensive approaches for monitoring and reporting, as well as distribution of REDD revenues; and for combining REDD with poverty reduction, livelihood enhancement, and/or land tenure rights, including alternative forest sector or other governance arrangements.

By signing a Participation Agreement, countries commit to prepare a Readiness Plan, for which they may request a Preparation Grant of US\$ 200,000. Once their Plan is accepted, they can seek a larger Readiness Grant to implement the Readiness Plan, subject to availability of resources in the Readiness Fund.

REDD Participant Countries who receive support under the Readiness Fund and are able to demonstrate progress towards meeting the goals set out in the Readiness Plan can submit a proposal to the second FCPF Mechanism with a view to selling emission reductions from one or more programmes to the Carbon Fund

Activities supported

Two separate mechanisms have been set up to support the objectives of the FCPF, namely the Readiness Mechanism and the Carbon Finance Mechanism.

Readiness Mechanism activities relate to technical assistance and capacity building for REDD+. Areas for which REDD countries can request support under the Readiness Mechanism are

1. establishment of a reference scenario for emissions from deforestation and forest degradation;
2. adoption of REDD Strategies; and
3. design of a REDD monitoring system.

Countries seek to arrive at a credible estimate of their national forest carbon stocks and sources of forest emissions, work out their national reference scenarios for emissions from deforestation and forest degradation, calculate opportunity costs of possible REDD+ interventions, adopt and complement national strategies for stemming deforestation and forest degradation, and design national monitoring, reporting and verification systems for REDD+.

Box 4: Nepal and REDD+

Nepal joined the Forest Carbon Partnership Facility (FCPF) of the World Bank by preparing a Readiness Preparation Proposal (RPP) for Reducing Deforestation and Forest Degradation (REDD+), which was assessed during the 6th Participant Committee Meeting of the FCPF on 1 July 2010. Subsequently, a second phase grant allocation was made.

The RPP mainly deals with readiness activities in order to make Nepal ready for Carbon Trade after 2012. Nepal intends to use the fund for establishing a national readiness agreement, stakeholder consultation and participation, preparing a REDD+ strategy, developing an institutional framework and studying the social and environmental impacts of REDD+. The fund will also be used for developing a reference scenario and designing a monitoring system for REDD and other benefits. The basic thrust of Nepal's RPP is to contribute to the livelihoods of the poor by contributing to climate change adaptation through forest management

Source: REDD Cell, Ministry of Forest and Soil Conservation, Kathmandu.

In some cases, planning and implementing activities at the regional level may be justified. Regional intervention would be warranted if it is deemed more effective or more efficient to tackle problems at a level above the nation state, for example, to take into account international ecosystem dimensions (relevant to contain leakage), or economies of scale in monitoring.

The Carbon Finance Mechanism provides a small number of countries that have made significant progress towards REDD+ readiness (incl. though establishing inclusive ownership, adequate monitoring systems, and credible reference scenarios) with the possibility of receiving performance-based payments for their verified emission reductions from the Carbon Fund. The basic idea of the Carbon Finance Mechanism is to pilot incentive programmes for REDD+ based on a system of compensated reductions. Payment structures will build on the options for REDD+ that are currently being discussed under the UNFCCC. Before a country can enter into the Carbon Finance Mechanism, an Emission Reductions Programme has to be designed to show how the emission reductions will be achieved. A wide range of approaches can be envisaged for these Emission Reduction Programmes, including reform and transformation processes in the following areas:

- **General economic policies and regulations:** taxation, subsidies, rural credit, certification, law enforcement
- **Forest policies and regulations:** taxation, subsidies, certification, concession regimes, land tenure and land rights, forest law governance and enforcement, zoning, protected areas, payment for environmental services
- **Forest management:** forest fires, reduces impact logging, reforestation
- **Rural development:** community development, rural electrification and community forestry

Analysis and discussion

The FCPF, by pursuing geographic and biome balance within its Readiness Fund country portfolio, aims to test a variety of approaches with a view to optimal learning outcomes. Mountain contexts constitute an important part of the global ecosystem portfolio and these countries should therefore feature prominently on the list of FCPF readiness mechanism countries. The group of mountain countries could advocate for the FCPF to devise comprehensive MRV methodologies that are appropriate for their specific contexts and to explicitly include them as a focus for support.

The Forest Investment Programme

The Forest Investment Programme (FIP) is one component of the World Bank's portfolio for carbon finance support. It is a targeted programme within the Strategic Climate Fund (SCF). Figure 3 provides an overview of the World Bank's climate change portfolio. The SCF was established to provide financing for pilots or for scaling up activities aimed at a specific climate change challenge or within a particular sector through targeted programmes. The FIP, as one of these targeted programmes, supports developing countries' efforts to reduce deforestation and forest degradation, and to enhance sustainable forest management for the protection of carbon reservoirs. The FIP focuses on providing up-front bridging finance for readiness reforms and public and private investments identified through national REDD readiness strategy building efforts. Rather than providing sufficient incentives to significantly reduce forest related GHG emissions in eligible countries, the FIP is intended to leverage incentives to be established under a UNFCCC forest mechanism.

Relevance for mountain countries

Resources available

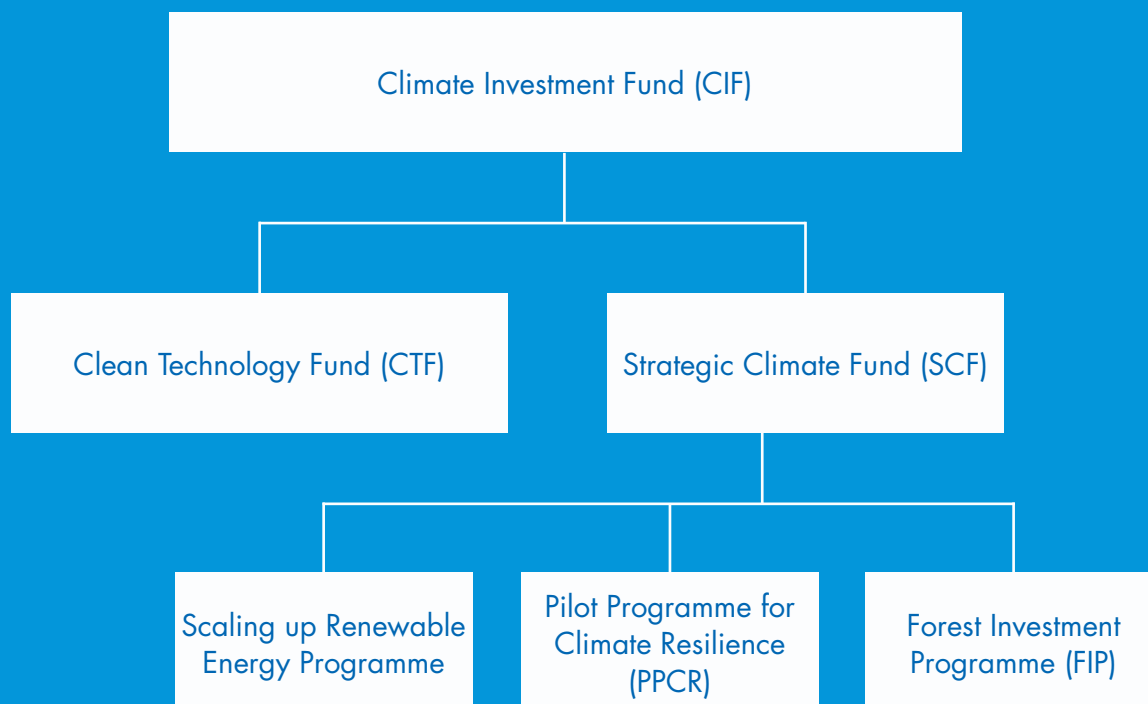
The current level of pledged financing available for the FIP is US\$ 558 million. The donors who have pledged funding for the FIP so far are Australia, Denmark, Japan, Norway, United Kingdom, and United States of America.

Eligible countries/Parties

The number of country and regional pilots to receive funding from the FIP is determined based on the level of total financing available. The aim is to ensure that the scale of investment for each pilot is sufficient to have a transformative effect. Five countries – Burkina Faso, Ghana, Indonesia, Laos, and Peru – were approved as initial FIP pilot countries at an FIP Sub-Committee meeting in March 2010. The FIP Expert Group has been invited to propose a list of six additional pilots to the Sub-Committee for consideration at its next meeting. The following criteria are applied for the selection of pilot countries under FIP:

- Potential to lead to significantly reduced greenhouse gas emissions through REDD+ activities whilst protecting biodiversity and supporting rural livelihoods

Figure 3: Core components of the Climate Investment Funds at the World Bank



- Potential to contribute to FIP objectives and adherence to FIP principles, notably potential to initiate transformational change taking into account institutional capacities, investment climate, forest governance, and involvement and empowerment of civil society, including indigenous peoples and local communities as well as the private sector
- Potential of mainstreaming FIP investment in ongoing policy framework and ongoing development activities; including the potential to build on planned and on-going investments through the MDBs, and possibilities to leverage funds from the private sector or other sources of investments
- Country preparedness, ability and interest to undertake REDD initiatives and to address key direct and underlying drivers of deforestation and forest degradation, taking into account government efforts to date, government willingness to move to a strategic approach to REDD and to integrate the role of forests into national sustainable development, and government ability to effectively absorb additional funds, recognising on-going forest programmes.
- Country distribution across regions and biomes: the pilots should be representative of the broad spectrum of forest issues, such as various degrees of deforestation and degradation as well as potential for carbon and other GHG related mitigation approaches.

Activities supported

The four specific objectives of the FIP are as follow:

- To facilitate steps towards transformational change in forest related policies and practices in developing countries. This is pursued, inter alia, through financing investments and related capacity building necessary for the implementation of policies and measures; through strengthening cross-sectoral ownership for implementation of REDD strategies at the national and local levels; through facilitating private investment in alternative livelihoods for forest dependent communities; and through improving forest law enforcement and governance.
- To pilot replicable models to generate understanding and learning in the area of REDD; to this end, FIP funded programmes and projects are complemented by a priori and ex post impact assessment.
- To facilitate the leveraging of additional financial resources for REDD, including through a possible UNFCCC forest mechanism.
- To provide experience and feedback in the context of the UNFCCC deliberations on REDD.

To achieve these objectives, the FIP supports investments in the following areas:

- Institutional capacity, forest governance and information, such as: implementation of systems for forest monitoring, information management and inventory; support for legal, financial and institutional development including forest law enforcement, cadastral mapping, and land tenure reform; removal of perverse incentives favouring deforestation and degradation; cross-sectoral and landscape based planning exercises; transfer of environmentally sound technology; and building capacities of indigenous peoples and local communities.
- Investments in forest mitigation measures, including forest ecosystem services, such as forest conservation; promotion of payments for environmental services and other equitable benefit-sharing arrangements; restoration and sustainable management of degraded forests and landscapes; afforestation and reforestation on previously deforested land; restructuring of forest industries and promotion of company-community partnerships; forest protection measures; improved land management practices; and promotion of forest and chain of custody certification.
- Investments outside the forest sector necessary to reduce the pressure on forests, such as alternative livelihood and poverty reduction opportunities; alternative energy programmes; agricultural investments in the context of rationalised land-use planning; and agricultural intensification, including agroforestry.

In line with the overall principles of the SCF, the FIP investments also aim to contribute to multiple co-benefits such as biodiversity conservation, protection of the rights of indigenous peoples and local communities, and poverty reduction through rural livelihoods enhancements.

Recent developments

The first set of pilot countries were selected only in March 2010 and therefore, the process of designing concrete activities to be funded under the FIP is still ongoing. An Operational Guidelines has been prepared and the FIP Sub-Committee reviewed it in June 2010. The procedures and modalities laid out in this document will provide the basis for approving FIP financing to the pilot countries (<http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/FIP%203%20Rev%201%20Operational%20Guidelines%20with%20Track%20Changes%20AK%206%208%202010.pdf>).

GEF Trust Fund SFM/REDD+ Strategy

Since its inception in 1991, the GEF Trust Fund has provided resources for forest conservation and management in developing countries. In the period until 2006, these resources were drawn from two of its six focal areas, namely biodiversity and land degradation. In 2007, the focal area of climate change was extended to cover forest projects as well. A pilot programme on Sustainable Forest Management (SFM) was introduced for the 4th replenishment period (2007–2010), focusing on support for cross-sectoral cooperation.

The overall goal of the GEF-5 SFM/REDD+ Strategy is to “achieve multiple environmental benefits from improved management of all types of forests”. This programme includes a special incentive mechanism for countries planning to combine allocations from different relevant focal areas (biodiversity, climate change, and land degradation) for the funding of more comprehensive SFM/REDD+ and LULUCF projects that generate multiple environmental and social benefits. A separate US\$ 250 million funding envelope for SFM/REDD+ is to be created to operate this incentive mechanism.

Relevance for mountain countries

Resources available

In response to the call for “...substantial finance to reduce emissions from deforestation and forest degradation...” spelled out in the Copenhagen Accord, the new funding cycle (GEF-5 2010-2014) provides for increased support to actions reducing deforestation. Up to US\$ 1 billion is to be available for the implementation of a dedicated SFM/REDD+ programme, which is expected to leverage substantial additional funding from other sources.

Eligible countries/Parties

All GEF eligible countries with forests capable of delivering benefits in biodiversity, greenhouse gas emission mitigation, and local livelihoods are eligible to receive funding under the GEF SFM/REDD+ programme. All types of forests, ranging from tropical and sub-tropical forests to woodlands, are eligible for funding.

Activities supported

GEF funding for SFM/REDD+ will be focused on the implementation phase of REDD+. Only under 'special circumstances' will the GEF also finance REDD+ readiness activities. Areas of activities that may receive GEF Trust Fund resources under the new programme include among others:

- forest policy (re-) formulation,
- forest protected area creation and management,
- forest inventory and carbon measurement and monitoring,
- reduced-impact logging and certification of timber and non-timber forest products, and
- payment for ecosystem services.

Some concrete examples may be:

- developing national systems to measure and monitor carbon stocks and fluxes from forests and peat lands;
- strengthening forest-related policies and institutions, developing policy frameworks to slow the drivers of carbon emissions from deforestation and forest degradation;
- establishing innovative financing mechanisms and piloting projects to reduce emissions from deforestation and forest degradation; and
- developing alternative livelihood methods for local communities to reduce emissions and sequester carbon.

Climate and Forest Initiative, Norway

The Norwegian Government has a Climate and Forest Initiative, first announced during COP13 in Bali in December 2007, for on-the-ground promotion of REDD+ and for facilitating the development of international REDD+ architecture. The initiative is anchored in the Norwegian Government's intent to prevent a global average temperature increase beyond 2°C through measures to reduce deforestation and forest degradation in developing countries, and the inclusion of REDD+ in a global post-2012 climate regime under the UNFCCC. Apart from the emission reduction rationale, Norway's REDD+ activities are also aimed at realising substantial benefits in the areas of biodiversity and sustainable development, including poverty reduction and indigenous peoples' rights. The conservation of natural forests to maintain their carbon storage capacity is therefore an important element.

By launching the Climate and Forest Initiative, Norway has decided to take immediate action to generate knowledge and expertise for cost-effective and verifiable reductions in greenhouse gas emissions before a global post-2012 regime is in place. In order to pave the way for the inclusion of REDD+ in a post-Kyoto regime, Norway is ready to fund necessary early investments for REDD+ readiness at national level in developing countries, in particular in building capacity for monitoring trends in forest cover and biomass, for collection of data on forest carbon volumes, and for analysis of data to provide reports on emission levels. The initiative also contributes to capacity building at international level, including through close collaboration with selected international NGOs and by supporting the development of reports by internationally recognised research institutions.

In 2009, Norway also coordinated the work of the Informal Working Group on Interim Financing for REDD (IWG-IFR) which published a report on how REDD may be financed in the short term. In June 2010 it organised a global meeting on REDD+ by inviting the forest ministers from key developing countries and has pledged increased support for REDD+ initiatives.

Activities supported and guiding principles

The initiative applies to countries with all types of tropical forests. All recipient countries must have the clear political intention of working systematically to reduce deforestation and forest degradation, and must later demonstrate it in practice. This work will include developing and implementing national REDD strategies, addressing all significant drivers of deforestation and degradation, involving indigenous and local communities in strategy development, while protecting their rights and opportunities for development.

Box 5: GEF funding for Columbia

In Columbia, GEF has recently approved a US\$ 3 million project aiming to establish a market mechanism for promoting and facilitating voluntary GHG emissions mitigation and offsetting. This GEF/IADB initiative contains, as a central element, national capacity building for REDD+ and the generation of verified emission reductions (VERs) from REDD+ pilot projects.

The approach to achieve REDD+ readiness at national level consists mainly of the establishment of key institutions in and for those developing countries that have been selected as partners. This includes national coordinating units for each forest country, preferably at government level, which will be responsible for coordinating REDD efforts, developing strategies, overseeing implementation and liaising with the international support structure; and an international support programme for each national unit, headed by an international organisation selected by the recipient country, which will coordinate international contributions and ensure that REDD initiatives draw on all available international expertise and capacity. In addition, the Norwegian initiative works towards the establishment of a support structure at the international level, which might also be assigned responsibilities like knowledge management, systematic dissemination of information on tested methodologies, and capacity building within REDD-relevant fields. This support structure should be aligned to the framework established under the UNFCCC.

As no substantial emission reduction can be expected in the preliminary capacity building phase, progress is measured against milestones for the capacity building process and support will gradually be withdrawn from partner countries that do not achieve the benchmarks. Emission reduction targets are to be introduced as soon as they are feasible because the ultimate objective is to allocate support for REDD efforts based on performance.

The principle of national ownership is key to the initiative. It is therefore a condition that participating countries draw up a national REDD+ strategy, that this strategy is developed through a broad-based, transparent, and inclusive process, and that all key actors are given an opportunity to participate. Important elements of national REDD+ strategy development include:

- thorough analyses of the drivers of deforestation and forest degradation, and the best ways of dealing with them;
- establishment of a system for monitoring forest cover and biomass and collecting data on forest carbon volumes, and for reporting on emission levels from deforestation and forest degradation;
- incorporation of sustainable development concerns, including opportunities for economic and social development for the local population, conservation of biodiversity, and promotion of respect for local and indigenous peoples' rights;
- establishment of systems and national plans to prevent carbon leakage and ensure lasting results;
- Institutional and capacity building for national and local authorities, including anti-corruption measures and measures to increase transparency in forest and land use management;
- mechanisms for compensation for ecosystem services,
- establishment of the necessary legal, administrative, and economic framework for sound, sustainable forest and land use management, and of the necessary capacity to ensure compliance; and
- cost effectiveness (maximum possible reduction in emissions per unit of expenditure).

Resources available

Norway is prepared to allocate up to US\$ 466 million per year to REDD+ efforts. The Norwegian Initiative allocates funds through both multilateral and bilateral channels. The multilateral approach is also intended to enhance coordination of efforts by international actors and to ensure a coherent response to REDD needs. Multilateral support under the initiative is provided through the following:

- UN REDD Programme: approximately US\$ 30 pledged for 2010
- World Bank's Forest Carbon Partnership Facility: US\$ 40 million allocated in 2008-2010
- World Bank's Forest Investment Programme: up to approximately US\$ 150 million pledged for 2010-2012
- Congo Basin Forest Fund (CBFF) hosted by the African Development Bank: up to US\$ 77 million pledged for 2008-2010, US\$ 29 million allocated in 2008-2009
- International Tropical Timber Organization (ITTO): approximately US\$ 4 million pledged for 2010
- Support to civil society, research and evaluation through NORAD: approximately US\$ 27 million in 2010

As a general rule, bilateral channels are only used in countries where multilateral initiatives and/or multi-donor cooperation are also in progress, so that the necessary capacity is already in place or being built up. Exceptions are made for two categories of countries: (i) countries that have already made so much progress at national level that Norway can immediately provide performance-based support for the implementation of an established strategy (such as Brazil); (ii) countries with which Norway has long experience of cooperation on natural resource management, and which have already started internationally supported REDD programmes (such as Tanzania). To date, bilateral support has been provided or pledged to the following countries and funds:

- The Brazilian Amazon Fund: up to US\$ 1 billion pledged until 2015 (allocations dependent upon results in form of verified emission reductions from REDD activities)

- Guyana's REDD+ Investment Fund (GRIF): approximately US\$ 30 million pledged in 2010; up to approximately US\$ 250 million until 2015 (allocations based on performance)
- Tanzania: up to approximately US\$ 78 million pledged over 5 years

The Norway initiative is intended to serve as a catalyst for contributions from other countries because real results can only be achieved if other countries also provide substantial resources. (For more details refer to the following – official website of the Climate and Forest Initiative: <http://www.regjeringen.no/en/dep/md/Selected-topics/climate/the-government-of-norways-international-.html?id=548491>; Report of the Informal Working Group on Interim Finance for REDD+ (IWG-IFR), coordinated by the Norway Government REDD Initiative: http://www.regjeringen.no/upload/md/vedlegg/klima/klima_skogprosjektet/iwg/report%20of%20the%20informal%20working%20group%20on%20interim%20finance%20for%20redd+%20iwg%20ifr_final.pdf; Reports financed or coordinated by Norway's International Climate and Forest Initiative: <http://www.regjeringen.no/en/dep/md/Selected-topics/climate/the-government-of-norways-international-/looking-for-more-information.html?id=586627>).

Box 6: The Brazilian Amazon Fund

The Amazon Fund was established in 2008 as part of Brazil's wider climate change strategy to reduce deforestation of the Amazon by 80% (compared to 1994–2005 levels) by 2020. The unique feature of the Fund is that the allocations are based on performance in terms of verified emission reductions through approved projects and programmes. The projects and programmes should prevent, monitor, and combat deforestation, besides promoting the preservation and sustainable use of the Amazon Biome. Notably, up to 20% of the Fund's disbursements may support the development of systems for monitoring and controlling deforestation in other Brazilian biomes and in biomes of other tropical countries. The fund is managed by BNDES, the Brazilian Development Bank, and is open to contributions from individuals, companies, and national governments. Norway has committed US\$1 billion, conditional on performance. This early support will enable the fund to become operational immediately and start supporting governments, landowners, and projects to avoid deforestation. To meet its targets, the fund needs US\$ 21 billion over 10 years.

Other Bilateral Donors

Australia's International Forest Carbon Initiative

Australia's International Forest Carbon Initiative, operational since 2007 and jointly administered by the Australian Department of Climate Change and Energy Efficiency and AusAID, supports national capacity building in the South East Asia and Pacific region, and seeks to provide momentum to support the inclusion of REDD in a post-2012 global climate change agreement. To achieve this two-dimensional objective, Australia has pledged US\$ 240 million, which will, however, not be disbursed through a new fund or governance structure but rather through established channels of bilateral cooperation. The key element of Australia's approach is to support practical demonstration activities through collaborative Forest Carbon Partnerships with Indonesia and Papua New Guinea.

US AID support for REDD

As part of its broader economic development goals, USAID seeks to reduce deforestation, increase sequestration, and enhance sustainable forest management, in order to help to mitigate climate change and enhance the resilience of local communities to climate variability and change. USAID has programmes in more than 25 countries that aim to increase, maintain, or reduce the rate of loss of carbon stocks. The USAID and NASA collaboration on the space-based observation system SERVIR is of particular relevance (Box 7) in the context of REDD+ methods for monitoring.

Box 7: Applying space-based assets to REDD+ monitoring

For a number of years, USAID and NASA have been collaborating to develop tools that apply space-based observations to development assistance. SERVIR is a U.S. led, high-tech regional satellite visualisation and monitoring system that supports decision-making in the areas of, inter alia, climate change adaptation and environmental management. SERVIR includes several products that may potentially be employed in the context of REDD+ monitoring. The U.S. Government is currently developing regional hubs, the first in Central American, the second in Africa, and the most recent in the Himalayan region, to apply remotely sensed information to help track and combat wildfires and improve land use and agricultural practices.

Source: http://pdf.usaid.gov/pdf_docs/PDACM036.pdf

6 Pilot Programme for Climate Resilience

Introduction

The Pilot Program for Climate Resilience (PPCR), approved in November 2008, is a target programme developed under the World Bank's Strategic Climate Fund (SCF) (see Figure 3).

The PPCR has been established to finance pilot programmes for integrating considerations of climate resilience into core development planning in partner countries, by providing incentives for scaled-up action and transformational change. Pilot programmes funded under the PPCR are strategically aligned with other donor-funded activities that aim to generate experience and knowledge useful to designing scaled up adaptation measures.

The operations and activities of the PPCR are overseen by the PPCR Sub Committee under the Strategic Climate Fund Committee, with equal representation of donor and recipient countries. The PPCR provides financing through the multilateral development banks (MDBs) to support programmes in the relevant eligible countries.

The bulk of funding under the PPCR is provided in the form of grants. However, the PPCR also includes concessional lending that can be blended with existing sources of concessional funding and national resources to increase the climate resilience of existing development priorities. The following countries have been invited to participate in the PPCR:

Country Programmes

Bangladesh
Bolivia
Cambodia, Kingdom of
Mozambique, Republic of
Nepal
Niger, Republic of
Tajikistan, Republic of
Yemen
Zambia

Regional Programmes

Caribbean

Dominica
Grenada
Haiti
Jamaica
Saint Lucia
Saint Vincent & the Grenadines

Pacific

Pacific
Papua New Guinea
Samoa
Tonga

The criteria used to identify countries invited to participate in the PPCR include the level of vulnerability to climate change hazards and risks, country preparedness to move towards climate resilient development plans, and country distribution across regions and types of hazards. The PPCR will provide financing through the multilateral development banks (MDBs) to support programmes in the selected pilot countries. The recipient country and relevant MDBs prepare proposals jointly for PPCR funding. The PPCR Sub-Committee may approve allocation of PPCR resources for programmes and other activities and costs based on the proposals submitted.

Goal

The goal of the PPCR is to help countries transform to a climate resilient development path, consistent with national poverty reduction and sustainable development goals. As a pilot programme supporting learning-by-doing, PPCR implementation ultimately aims to result in an increased application of knowledge on integration of climate resilience into development. The PPCR will complement, even go beyond, currently available adaptation financing in providing finance for programmatic

approaches to upstream climate resilience in development planning, core development policies, and strategies. The PPCR will promote a participatory approach towards development of a broad-based strategy to achieve climate resilience at the national level in the medium and long-term. The process will involve a broad range of stakeholders from cross-sectoral government departments, non-government actors, including civil society groups and highly affected communities, and the private sector. The PPCR aims for equal efforts from all development partners to cooperate, engage in dialogue, and align behind the strategic approach as a common platform. The immediate outcomes of the PPCR programmes should include the following:

- Increased capacity to integrate climate resilience into country and/or sectoral strategies
- More inclusive strategies for climate resilient growth and development
- Increased awareness of vulnerabilities and potential impacts of climate change among governments and non-government stakeholders, including the private sector
- Scaling-up of investment for broader interventions and programming for integrating climate resilience into national/sectoral, private sector and/or sub-national level development plans and budgeting
- Improved coordination among key stakeholders to implement country-specific climate resilient programmes

According to the design document, the overall objective of the PPCR is to pilot and demonstrate ways to integrate climate risk and resilience into core development planning, while complementing other ongoing activities (PPCR/SC.1/CRP.1). The pilot programmes implemented under the PPCR should be country led, build on the NAPA and other relevant country studies and strategies, and be strategically aligned with the Adaptation Fund and other donor funded activities to provide pilot finance in the short term so as to learn lessons that will be useful in designing scaled-up adaptation financing. The PPCR aims to contribute to achieving the objectives of the SCF by seeking to provide incentives for scaled-up action and transformational change in integrating consideration of climate resilience in national development planning consistent with poverty reduction and sustainable development goals.

Relevance for Mountain Countries

Resources available

In January 2010, a total amount of US\$ 146 million was available to support PPCR programmes. The programming and financing modalities provide for a grant amount of up to US\$1.5 million for Phase 1 activities (which lead to a 'strategic programme for climate resilience') for single country pilots and regional programmes. The specific amount is to be approved by the PPCR Sub-Committee, based on a work plan and budget for Phase 1 submitted by the pilot country.

Eligible countries/Parties

In order to be eligible to receive funding under the PPCR, the applicant countries (i) must be ODA eligible (according to the OECD/DAC guidelines), and (ii) must have an ongoing lending programme and/or on-going policy dialogue with a multilateral development bank. Priority is given to highly vulnerable LDCs. The number of countries to be supported is

Box 8: Developing Nepal's Strategic Programme for Climate Resilience

Based on recommendations of an independent Expert Group, Nepal has been selected as one of the countries to participate in the PPCR. The following activities are envisaged for addressing gaps in the NAPA, and also ensuring compliance with the PPCR Guidelines, while developing Nepal's Strategic Programme for Climate Resilience:

- Assessment of climate change risk to estimate, evaluate, and rank climate change risks affecting individual vulnerable communities and sectors
- Adaptive capacity assessment focusing on vulnerable communities and sectors
- Definition of priority action needs/investments
- Resilience assessment to ensure that proposed investments promote and enhance resilience within vulnerable communities/sectors and at the national level
- Cost/benefit analysis of proposed priority measures to demonstrate overall economic benefit of such measures
- Design of implementation modalities to ensure sound, transparent and timely management of PPCR programmes and funds

Source: <http://www.ppcrnepal.gov.np>

determined based on, among other things, the resources available for the PPCR and the objective of providing scaled up resources in the pilot countries. Regional or sub-regional programmes that bring together a number of country programmes may also be proposed by groups of countries.

Activities supported

Two types of investments are supported under the PPCR: 1) funding for technical assistance to enable developing countries to build upon existing national work to integrate climate resilience into national and sectoral development plans; 2) funding public and private sector investments identified in national or sectoral development plans or strategies addressing climate resilience.

The pilot programmes implemented under the PPCR should:

- be country led;
- build on the NAPA and other relevant country studies and strategies;
- complement the existing adaptation funding and be supportive of the emerging operations of the Adaptation Fund; and
- support actions that are both an outcome of a comprehensive planning process and consistent with the development and poverty reduction goals of the country.

Immediate outcomes of a PPCR programme should include:

- an increased capacity to integrate climate resilience into country development strategies;
- a more inclusive approach to climate resilient growth and development;
- an increased awareness of the potential impact of climate change;
- scaled-up investment for broader interventions and programming related to climate resilience; and
- improved coordination among stakeholders regarding country-specific climate resilient programmes.

The programme is carried out in two phases. The core activities in Phase 1 are the facilitation of a cross-sectoral dialogue process to arrive at a common vision of climate resilience in the medium and long-term, and formulation of a strategic approach for climate resilience. A Strategic Programme for Climate Resilience, outlining an underlying investment programme, should be developed in Phase 1. Endorsement by the PPCR Sub-Committee (PPCR-SC) of the Strategic Programme for further development marks the transition to Phase 2. The second phase focuses on implementing the Strategic Programme through actions such as support to policy reform, institutional capacity building, and scaling up other investments in key sectors.

Allocations to mountainous countries

The PPCR seeks to create a knowledge base of a wide range of resilience-building measures appropriate for different geographical areas, groups and sectors. To cover vulnerable mountain environments, the programme has considered countries in mountain regions on two continents: the Himalayas in South Asia and the Andean region in Latin America. Nepal and Bhutan have been chosen as candidate countries for the Himalayan region, given the potentially serious implications associated with rapid glacial melt confronting these countries. With further screening using adaptive capacity criteria linked to the Human Development Index (HDI), Nepal obtained a higher priority rating than Bhutan. India was also considered as a potentially vulnerable mountain region, with an HDI ranking not vastly dissimilar to that of Nepal. Within the Andean region, the PPCR Expert Group examined Bolivia, Chile, Colombia, Ecuador, and Peru. Based on considerations of HDI ranking, existing vulnerabilities that may be aggravated by climate change – like exposure to weather related hazards – and country preparedness, Bolivia was selected as the country with the highest vulnerability in the region.

Analysis and Discussion

Even though only a limited number of countries have been chosen for pilot programmes under the PPCR, the funds have a potential to deliver useful lessons that can benefit a large number of other countries. The equal representation of donor and recipient countries in the PPCR Sub-Committee that approves programme proposals gives developing countries adequate control over the selection of pilot countries and funding allocations.

7 EU Climate Initiative

Global Climate Change Alliance

In September 2007 the European Union initiated a Global Climate Change Alliance (GCCA), administered by Europe-Aid (the European Commission's Co-operation Office), for building new alliances on climate change with the poor and most vulnerable developing countries. The Alliance aims to help build adaptive capacities in the most vulnerable developing countries to the adverse effects of climate change through political dialogue and cooperation within established channels of the European Commission at national and international level. Apart from adaptation, technical and financial support will also be targeted in four other priority areas: reducing emissions from deforestation, enhancing the participation of poor countries in the CDM, promoting disaster risk reduction, and integrating climate change into poverty reduction efforts.

Relevance for mountain countries

Resources available

The GCCA is financed primarily through the European Commission's thematic programme on 'Environment and sustainable management of natural resources, including energy', for which additional resources have been allocated for the 2008-2010 period. A total funding of EUR10 million in 2008, EUR35 million in 2009, and EUR50 million in 2010 have been made available from the EU budget. Further, under the 10th European Development Fund, EUR40 million was made available to the ACP (African, Caribbean and Pacific) countries for regional action. With additional pledges from two EU member states of EUR 4.6 Million, the total amount available in the 2008-2010 for GCCA was EUR139.6 million.

Eligible countries/Parties

GCCA support is targeted primarily at LDCs and SIDS. A number of pilot countries have been selected for allocation of the initial resources. Among other criteria, the GCCA has prioritised countries that have national and/or sectoral climate change policies in place or in preparation to ensure the integration of climate change into development strategies, plans, and budgets. Eligible countries should also have a proven willingness to enhance policy dialogue and cooperation on climate change with the EU. Besides, the GCCA prioritises countries that have already received, or are ready to receive ODA in the form of General or Sectoral Budget Support. Presence of an EC Delegation with sufficient capacity to prepare and follow up implementation of the GCCA programme, as well as the countries' involvement in UNFCCC negotiations, were other criteria for selection of GCCA pilot countries.

Activities supported

The following activities are considered within the five priority areas defined for GCCA support:

- Adaptation to climate change: In LDC and SIDS, the fund will support the implementation of the NAPA. In countries other than LDCs, it supports the preparation of such plans. Pilot adaptation projects are also supported in the areas of water, agriculture, and sustainable management of natural resources. The GCCA also supports research on the impact of climate change in developing countries.
- Reducing emissions from deforestation in developing countries: The GCCA aims to help strengthen national capacities to monitor deforestation and develop national strategies to combat deforestation and forest degradation. Moreover, the GCCA supports expansion of the Forest Law Enforcement, Governance and Trade (FLEGT) initiative.³

³ The Forest Law Enforcement, Governance and Trade (FLEGT) initiative seeks to combat the growing problem of illegal logging and related trade. The principal objective is to improve governance in timber-producing countries and to set up voluntary partnerships with them so that only legally harvested timber enters the EU. Among other facets, the EC provides support to community-based forest management and helps to propagate lessons from its initiatives in terms of national laws and policies. It also works with partner governments to ensure that key underlying factors, such as land tenure and access to forest resources, local participation in the fight against illegal logging, etc. are upheld. For more details, see http://europa.eu/legislation_summaries/development/sectoral_development_policies/r12528_en.htm

- Enhancement of participation in the Clean Development Mechanism (CDM): The GCCA aims to strengthen capacities and provides technical support for cost-effective project development. In particular, it supports the preparation of CDM project proposals that are well suited to the specific conditions in the LDCs and SIDS.
- Promotion of disaster risk reduction (DRR): The GCCA supports activities to improve climate forecasting and information systems, and the translation of collected data into effective preparedness measures. Moreover, the GCCA supports measures aimed at assisting developing countries in the implementation of the Hyogo Framework.
- Integration of climate change into poverty reduction strategies and programmes: This involves promoting the inclusion of adaptation plans in development strategies and strengthening the institutional capacity of the LDCs and SIDS in this area. Moreover, the GCCA supports systematic integration of climate change considerations in mid-term reviews of country and regional strategy papers.

Allocations to mountain countries

From the group of mountainous countries, the following have been selected for GCCA funding to date: Ethiopia (EUR 8 million, type of support to be identified in 2010); Tanzania (EUR 2.2 million, support for the setting up of eco-villages with community actions in resources management and renewable energy); Nepal (EUR 7 million, type of support to be identified in 2010); and Rwanda (EUR 4.6 million, implementation of the existing NAPA, focus on sustainable land management and land registration).

Analysis and discussion

From the viewpoint of mountainous countries, the GCCA priority area on CDM is of special interest: It is the explicit objective of the Alliance to 'level the playing field and promote a more equitable geographic distribution of CDM projects'. It seeks to build capacities and provide technical support to those developing countries that have found it difficult to participate in the flexible mechanism of the Kyoto Protocol due to the special conditions that characterise mitigation options. For example, bundling of small-scale agriculture, forestry, and other land use (AFOLU) projects for CDM eligibility may be an area where mountain countries can apply for support under GCCA.

Another highly relevant GCCA priority area for mountainous countries is disaster risk reduction. On this, the Alliance allocates support to international collaborative research on the impacts of climate change in developing countries and regions. It seeks to improve climate forecasting and information systems, and the translation of collected data into effective preparedness measures. These objectives are in line with the call of mountain countries for efforts to strengthen the global observation systems and thereby narrow the knowledge and information gaps on how climate change is impacting mountain systems.

For more information see

- Summary of sectoral development policies – http://europa.eu/legislation_summaries/development/sectoral_development_policies/r13016_en.htm;
- Communication from the European Commission to the Council and the European Parliament on Building a Global Climate Change Alliance between the European Union and poor developing countries most vulnerable to climate change, 2007 – http://ec.europa.eu/development/icenter/repository/env_cc_GACC_com2007_0540_en.pdf;
- A complete updated list of countries selected for support under the GCCA – http://ec.europa.eu/development/policies/9interventionareas/environment/climate/climatechangealliance_en.cfm;
- The European Commission's strategy to help developing countries respond to adverse effects of climate change – http://ec.europa.eu/development/icenter/repository/env_cc_com_2003_85_en.pdf

Global Energy Efficiency and Renewable Energy Fund

The Global Energy Efficiency and Renewable Energy Fund (GEEREF), initiated in 2007 by the European Commission and operational since 2008, is a public-private partnership (PPP) that provides global risk capital through private investment for energy efficiency and renewable energy projects in developing countries and economies in transition. Its objective is to accelerate the transfer, development, use, and enforcement of environmentally sound technologies for poor countries. It is sponsored by the European Union, Germany, and Norway and is advised by the European Investment Bank Group (European Investment Bank and the European Investment Fund). GEEREF is registered as an instrument qualifying as Official Development Aid (ODA) by the OECD Development Assistance Committee (DAC).

Relevance for mountain countries

Resources available

The target funding size for the GEEREF is EUR 200-250 million. In September 2009 it had secured a total EUR 108 million through funding from the European Commission, Germany, and Norway. With this funding, the GEEREF aims to leverage risk capital from the private sector of at least EUR300 million up to EUR1 billion (envisaged leverage factor: 12.5).

Eligible countries/Parties

The GEEREF invests exclusively in emerging markets outside the European Union. Priority is given to ACP countries (a group of 79 African, Caribbean and Pacific developing countries). It also invests in Latin America, Asia and neighbouring states of the EU. Priority is given to investment in countries with policies and regulatory frameworks on energy efficiency and renewable energy.

It does not directly provide funding to renewable energy and energy efficiency projects or enterprises. Structured as a Fund-of-Funds, GEEREF invests in private equity funds that specialise in providing financing and small and medium-sized enterprises (SMEs), which should focus on renewable energy and energy efficiency projects and/or technologies. The candidate private equity funds should focus on projects requiring up to EUR 10 million equity investments and fulfilling a substantial gap in the market.

Activities supported

The GEEREF focuses on two broad categories of projects:

- renewable energy projects (including but not limited to small hydro, solar, wind, biomass and geothermal); and
- energy efficiency (including but not limited to waste heat recovery, energy management in buildings, cogeneration of heat and power, energy storage and smart grids).

The emphasis is placed on deploying technologies with a proven technical track record rather than on exploring completely new energy technology solutions.

Apart from providing risk capital to sub-fund investments in line with the priorities outlined above, the fund includes a technical assistance facility, amounting to 10%-20% of the fund size depending on the actual needs for capacity building, which is likely to be larger in less developed economies.

Allocations to mountain countries

The GEEREF portfolio so far comprises three funds:

- The Renewable Energy Asia Fund (REAF), targeted at Asia (primarily India), focuses on operationally and economically mature technologies.
- The Evolution One Fund invests in emerging clean technology and environmental markets in southern Africa.
- Barefoot Power is a social enterprise supplying low-cost solar equipment to off-grid populations in Uganda, Kenya, Papua New Guinea, Vanuatu and several of the ACP countries.

Box 9: Global Index Insurance Facility

The Global Index Insurance Facility (GIIF) has been established to help mitigate weather and catastrophic risks in African, Caribbean and Pacific countries through the application of index insurance. Index insurance solutions guarantee beneficiaries, including smallholders, rapid payments following natural disasters once a pre-determined index (e.g. centimetres of rainfall, variation of temperature, wind-speed) has been triggered. As compared to conventional schemes, index insurance has the advantage of not being based on direct damage assessment. Instead compensations are paid out for losses that result from the variation of pre-defined indices. Payments will be made once a pre-defined threshold is reached. As this is easily verifiable, disputes will be minimal. This helps to lower transaction costs and to speed up payments to the affected populations.

The application of Index Insurance Schemes will allow ACP countries to mitigate the increasing risks from natural hazards due to climate change and to reduce the vulnerability of their populations. The GIIF is to be implemented by the International Finance Corporation (IFC), a member of the World Bank Group.

The European Commission (EC), the first donor to the GIIF, has provided EUR 24.5 million to the facility.

Analysis and discussion

Of the three GEEREF portfolio components, Barefoot Power is maybe the one that is most relevant for mountainous countries. The provision of low-cost lighting and information and communication technologies to dispersed populations that have no prospect of electrification in the near future may provide a viable option for mountain communities to access information (e.g. in the context of early warning and agro-meteorological advisories). Further, the CDM Executive Board is exploring methodologies to facilitate the eligibility of projects for replacing diesel fuel-based electricity by (solar PV based) LED lighting under the CDM Programme of Activities. (GREEFER homepage: <http://geeref.com/posts/display/25>; Short summary on the GREEREF by the European Commission: http://ec.europa.eu/environment/jrec/energy_fund_en.htm and http://ec.europa.eu/environment/climat/pdf/key_elements.pdf).

Recent Developments of the European Commission's Climate Change Finance Strategy

As part of the EU's commitment made at COP15 in Copenhagen in December 2009, the European Commission is exploring the option to establish a joint climate finance initiative to channel finances mobilised within the EU for mitigation and adaptation to climate change in developing countries. In order to give more visibility to the EU's commitments made in Copenhagen last year, such an EU climate action finance platform would combine European Commission and Member States' grants for climate change action with funds from the European Investment Bank (EIB) and other European financial institutions. In 2009, EIB loans in support of Europe's climate goals, including that for renewable energy projects in Egypt, Kenya, Turkey, and Vanuatu, among others, amounted to nearly EUR 17 billion. In April 2010 the European Commission proposed increasing the ceiling on EIB financing outside the EU by EUR 2 billion in the period 2011-13, and dedicating this extra lending to the fight against climate change.

Part 3

Conclusions

8 Conclusions and Recommendations

Assessment of Funding Mechanisms and Prospects from a Mountain Perspective

The climate and environmental change funding landscape is quite complex. The variety and complexity of this financial architecture has historical and political roots and it is far from optimal from a user's perspective. It shows that responding only to specific thematic (e.g., forest) or geographical issues (e.g., Amazon/Congo basin) can end in additional complexity. However, it cannot be in the true interest of small island or mountain countries to add additional thematic diversity in the funding architecture by addressing specific adaptation needs in coastal or mountain systems.

Table 4 shows a qualitative assessment of the funds with respect to a number of important criteria for mountainous developing countries. The governance of the funds, for instance, is not equally transparent for all the funding sources; also not all of the funds show an equally high thematic affinity for mountainous countries. Here, especially the Kyoto/UNFCCC funds (LDCF, SCCF, AF) lead the way. The Adaptation Fund is probably also the most accessible one for developing mountain countries with regard to adaptation, while SREP is an example for a fund that specifically addresses needs of low-income countries with regard to market development for renewable energy in mitigation.

Table 4: **Assessment of the funds according to selected criteria from a mountain and developing country perspective**

Fund Criteria	GEF	LDCF	SCCF	AF	PPCR	UN-REDD	FCPF	FIP	SREP	GCCA	GEEREF
Focus on mitigation, adaptation or sequestration	Mitigation/cross-cutting	Adaptation	Adaptation	Adaptation	Adaptation	Mitigation/carbon sequestration	Mitigation/carbon sequestration	Mitigation/carbon sequestration	Mitigation	Adaptation and mitigation	Mitigation
Transparency of fund governance	x	xx	xx	xxx	x	xx	xx	x	x	x	x
Thematic affinity for MC	x	xxx	xxx	xxx	xxx	xx	xx	x	xx	xx	x
Accessibility for MC	xx	xx	xx	xxx	x	xx**	xx**	x	xxx	xx	x
Integrated*, multi-component, sustainable development	xxx	x	xx	x	xx	x	x	x	x	xx	x
Addresses longer-term needs also	xx	x	xxx	xx	xxx	xx	xx	xxx	xx	xx	xx
Funds for systematic observation / knowledge base	NA	NA	xxx	x	NA	x**	x	x	NA	xx	NA
Short project preparation lead time	x	x	x	xx	xx	xx	xx	x	xx	xx	x
Eligibility for regional projects	xx	NA	xx	xxx	NA	xx**	NA	NA	NA	x	?

MC = mountain country; NA = not applicable, x = low, xx = middle, xxx = high compliance with the criterion

* e.g., ecosystem approach

** special window for mountain country advocacy under UN-REDD's or FCPF's global activities

The funds have a bias towards addressing short or mid-term adaptation needs. There is inadequate funding for the stable, long-term finance required to strengthen the knowledge base on environmental and climate change impacts, particularly in high mountain systems. But the SCCF, PPCR, and also FIP do also address longer-term needs.

There are significant domestic barriers in terms of institutional capacity for putting in place measures providing the information needed for the development of a coherent response strategy in mountain countries. Only the SCCF, and to a certain extent the European GCCA, provide funds for systematic observation or knowledge base development.

A number of funds support regional approaches, especially the AF, but also UN-REDD, the SCCF, and the GEF Trust Fund. Regional approaches addressing upstream-downstream inter-linkages face additional barriers in access. Under the SCCF, programmes linking thematic topics such as water, biodiversity, forests, food security, upstream downstream to the development agenda (climate resilient development) are eligible at country or regional basin level (e.g., 'la Plata basin'). However, such programmes also pose significant challenges at the governance level in terms of transboundary cooperation among the countries involved.

The high-level advisory group on Climate Change Financing is working on a more coherent approach for future climate funding needs. Whether a significant reform and simplification of funding structures will result from the process up to Cancun, and if that will reflect in a legally binding agreement, remains uncertain. Climate change action, and with it the adaptation needs of countries with particularly fragile ecosystems such as mountains, faces the risk of being stranded among other key global topics such as the Gulf of Mexico crisis or the financial market reform discussed in the G20. The environmental disaster in the Gulf of Mexico and the recent developments in the US congress are relevant in this context, because in the absence of a cap and a trade bill in the US, mobilising resources of the order of US\$ 100 billion per annum by 2020 is likely to face constraints. In a recent statement, the BASIC countries (Brazil, South Africa, India, and China) have addressed the threat that slow progress in climate funding poses for reaching a climate agreement in Cancun or South Africa.

Recommendations for Addressing Development of a Knowledge Base and Capacity Building

The multilateral or bilateral funding mechanisms, instruments, and pilots for climate change mitigation and adaptation have emerged through a step-wise political process and are not specifically designed for addressing the needs of countries or regions with specific geographic circumstances. Constraints or difficulties in accessing existing and emerging funding mechanisms apply not only to mountainous countries but to others as well. They are significant for all developing countries with fragile environments, capacity gaps, and governance problems. This applies in particular to LDCs.

One barrier specific to mountain countries is the existence of a knowledge gap on the impact of climate and environmental change on mountain systems, and the vulnerability of the socioeconomic systems in mountain areas to globalisation and related changes. The road to adaptation in the vulnerable mountain countries and ecosystems is, therefore, not at all clear. Response measures are urgently needed to gain better understanding of the dynamics in mountain systems and build a knowledge base for sustained long-term interventions. The special climate change fund (SSCF) and the Pilot Programme for Climate Resilience (PPCR) offer such opportunities, but the level of funding and the ease of access are inadequate from a mountain country perspective. These are the types of funds that need further enhancement and specificity.

The challenge is to present the needs of the mountain ecosystems better, enhance understanding of the access rules in the existing funding mechanisms, and make implementing agencies respond more sensitively to the special needs and vulnerabilities of mountain countries. For this the Mountain Initiative, supported by partners such as ICIMOD, Mountain Partnership, International Institute for Environment and Development (IDEAM), and Institute of Hydrology, Meteorology and Environmental Studies, can work towards awareness raising and capacity building for mountainous developing countries in the following ways:

Empowerment of individual countries (particularly LDCs) in different mountain regions

Development of training and capacity building modules for policy and decision makers/negotiators of mountain regions in the subtropics and tropics on the following:

- Specifying the prevailing knowledge gaps for adaptation measures in the mid- and long- term range, taking into consideration available documents such as the NAPA
- Access rules, modalities, projects to be funded, and so on, under existing and future funding mechanisms, instruments, and pilots
- Special challenges and opportunities for ecosystems and livelihood systems in mountain countries with regard to climate change adaptation and mitigation initiatives, and need for a country preparedness/regulatory framework for accessing and utilising mitigation and adaptation funds and facilities. The target group, duration, objectives and outcomes of the 5-10 days training need further consideration.

Capacity building needs to take into consideration that climate change and related funding instruments require generally higher levels of country preparedness as well as higher capacities to monitor trends systematically for responding adequately to environmental change. The focus of a work programme for the post Cancun period has to be on assessments of gaps and needs, and comparative advantage of institutions with a good knowledge of national circumstances of mountain countries such as ICIMOD, IDEAM, and other implementation partners that could act as regional centres in favour of a mountain agenda.

Applied research, action research and institutional strengthening

Relevant institutions in mountain countries need to be strengthened through various kinds of applied or action research and pilot implementation with respect to mountain sensitive climate initiatives. ICIMOD, MPC, and others, in cooperation with other regional centres and agencies, can acquire additional knowledge and qualifications for supporting the building up of local institutions. For this, additional resources will be required from outside the UNFCCC funding mechanisms. It is recommended that regional centres and agencies associate, together with partners from regional countries, with capacity building initiatives of multilateral and bilateral development agencies such as the World Bank, UNEP, UNDP, UN REDD, GTZ, SDC, and NORAD. They need to develop and submit high-quality applied research-cum-development project proposals in order to succeed.

Policy dialogue, outreach and exchange

The Mountain Initiative needs to continuously contribute towards building a cooperation network of regional and international partners to promote policy dialogue and outreach among mountain countries. The global benefit of building an information base on the rapid changes, especially in the cryosphere and biosphere above the timberline in the mountains, is not well understood at the international level due to a paucity of data. The Mountain Initiative could significantly enhance the prospects for activities in knowledge sharing and transfer of experiences with respect to capacity building, training and/or applied research in the Hindu Kush-Himalayan region, Central Asia, the Andes region, and the mountain regions in Africa.

References and other resources

- FAO (2009) *Remuneration of Positive Externalities in Mountain Regions*. Rome: Food and Agriculture Organization
- FAO (2010) *Impact of the global forest industry on atmospheric greenhouse gases*, FAO Forestry Paper No. 159. Rome: Food and Agriculture Organization
- Germanwatch and WWF (2010) *International action on adaptation and climate change: What roads from Copenhagen to Cancún? Briefing Paper*. Bonn: Germanwatch and Gland: WWF International. www.germanwatch.org/klima/ad-cph-canc.htm
- Hamilton, K; Peters-Stanley, M; Marcello, T (2010) *Building Bridges: State of the Voluntary Carbon Markets 2010*. Washington DC: Ecosystem Marketplace and New York: Bloomberg New Energy Finance. http://moderncms.ecosystemmarketplace.com/repository/moderncms_documents/vcarbon_2010.2.pdf
- Institute of Tibetan Plateau Research (ITP) (2009) *Report of the 1st Third Pole Environment (TPE) Workshop*. Beijing: ITP
- Kohler, T; Maselli, D (eds) (2009) *Mountains and climate change, from understanding to action*. Bern: Geographica Bernensia, supported by Swiss Agency for Development and Cooperation and an international team of contributors
- Mitchell, T; Anderson, S; Huq, S (2008) *Principles for delivering adaptation finance*. Brighton: Institute of Development Studies
- Möhner, A; Klein, RJT (2007) *The Global Environment Facility: Funding for adaptation or adapting to funds?* SEI Climate and Energy Programme Working Paper. Stockholm: Stockholm Environment Institute
- UNFCCC (2006) *Background paper for the workshop on reducing emissions from deforestation in developing countries*. Bonn: UNFCCC Secretariat
- Urrutia, R; Vuille, M (2009) 'Climate change projections for the tropical Andes using a regional climate model: Temperature and precipitation simulations for the end of the 21st century.' *J. Geophys. Res.* 114: D02108
- World Bank (2010) *Clean development mechanism in China*. Washington DC: The World Bank

Internet resources

Climate Funds Update, an independent website. www.climatefundsupdate.org/Home

Acronyms and abbreviations

(with explanations)

A/R	afforestation and reforestation project activities (eligible under the CDM)	ICIMOD	International Centre for Integrated Mountain Development
ADB	Asian Development Bank	IDA	International Development Association
AF	Adaptation Fund	IDEAM	Instituto de Hidrología, Meteorología y Estudios Ambientales
AFB	Adaptation Fund Board	IET	International Emission Trading
AfDB	African Development Bank	IFAD	International Fund for Agricultural Development
AFOLU	agriculture, forestry and other land use	IPCC	Intergovernmental Panel on Climate Change
AGW-LCA	Ad-Hoc Working Group on Long-Term Cooperative Action under the UNFCCC	IPF	indicative planning figure
CBD	Convention on Biological Diversity	ITTO	International Tropical Timber Organization
CBFF	Congo Basin Forest Fund	IWG-IFR	Informal Working Group on Interim Financing for REDD
CDM	Clean Development Mechanism under the Kyoto Protocol	JI	Joint Implementation under the Kyoto Protocol
CERs	certified emission reductions; a Kyoto Protocol unit equal to 1 metric tonne of CO ₂ equivalent (CERs are issued for emission reductions from CDM project activities.)	KP	Kyoto Protocol
CMP	Conference of the Parties to the UNFCCC serving as the Meeting of the Parties (to the Kyoto Protocol)	LDC	Least Developed Countries
COP	Conference of the Parties to the UNFCCC	LDCF	Least Developed Countries Fund
EBRD	European Bank for Reconstruction and Development	LEG	Least Developed Countries Expert Group (under the UNFCCC)
EU ETS	Emission Trading System of the European Union	LULUCF	land use, land use change, and forestry
FAO	United Nations Food and Agriculture Organization	MI	Mountain Initiative for Climate Change
FCPF	Forest Carbon Partnership Facility (established by the World Bank to build capacity for REDD+ and to test a programme of performance-based incentive payments)	MDBs	multilateral development banks
FIP	Forest Investment Programme (one component of the Strategic Climate Fund, which is part of the World Bank Climate Investment Funds)	MEA	multilateral environmental agreement
GEF	Global Environment Facility	MIE	multilateral implementing entities (to access funding under the Adaptation Fund; multilateral organisations and regional development banks that have been identified by the Adaptation Fund Board as meeting the fiduciary standards adopted by the Board)
GHG	greenhouse gas	MRV	measurement, reporting and verification of actions and support (e.g., in the context of REDD, establishing reference emission levels, national monitoring systems, use of IPCC guidelines)
GTZ	Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation Agency)	NAPA	National Adaptation Programme of Action
HFC	hydrofluorocarbons	NASA	National Aeronautics and Space Administration of the USA
HKH	Hindu Kush-Himalayas/n	NIE	national implementing entity (can be nominated by Kyoto Protocol Parties to access funding from the Adaptation Fund; national legal entities that have been identified by the Adaptation Fund Board as
IADB	Inter-American Development Bank		
IBRD	International Bank for Reconstruction and Development		

	meeting the fiduciary standards adopted by the Board and accredited as NIE)	SCF	Strategic Climate Fund (part of the World Bank Climate Investment Funds)
NJPs	National UN Joint Programmes to be developed by UN REDD pilot countries	SDC	Swiss Agency for Development and Cooperation
NORAD	Norwegian Agency for Development Cooperation	SFM	sustainable forest management
ODA	Official Development Assistance	SIDS	Small Island Developing States
PPCR	Pilot Program for Climate Resilience (one component of the Strategic Climate Fund, which is part of the World Bank Climate Investment Funds)	SMEs	small and medium enterprises
		SPA	Strategic Priority of 'Piloting an Operational Approach to Adaptation' within the GEF Trust Fund
PoA	programme of activities	UNCCD	United Nations Convention to Combat Desertification
REDD	reducing emissions from deforestation and forest degradation	UNDP	United Nations Development Programme
REDD+	reducing emissions from deforestation and forest degradation, including the role of conservation, sustainable management of forests and enhancement of forest carbon stocks	UNEP	United Nations Environment Programme
		UNFCCC	United Nations Framework Convention on Climate Change
SBI	Subsidiary Body for Implementation of the UNFCCC	UNIDO	United Nations Industrial Development Organization
SBSTA	Subsidiary Body for Scientific and Technological Advice of the UNFCCC	VERs	verified emission reductions (from REDD+ pilot projects)
SCCF	Special Climate Change Fund	WB	World Bank
		WMO	World Meteorological Organization

Annex

Annex: Factsheets on Funding Mechanisms, Instruments and Pilots

The GEF Trust Fund

Common funding resource of the Global Environment Facility (GEF), which was entrusted in 1994 to become the financial mechanism for, inter alia, the UNFCCC. One of the six focal areas of the GEF Trust Fund is climate change (as of 2010 restricted to mitigation).

Main objective: To support developing countries and economies in transition toward a low-carbon development path

Eligible countries/Parties	Developing country Parties to the UNFCCC (for large funds – governments; for small grants of up to \$50,000 – NGOs and CBOs)
Detailed objectives	<p>To promote</p> <ul style="list-style-type: none"> • Demonstration, deployment, and transfer of innovative low-carbon technologies • Market transformation for energy efficiency in industry and the building sector • Investment in renewable energy technologies • Energy efficient, low-carbon transport and urban systems • Conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry • Enabling activities and capacity building under the UNFCCC
Kind of activities supported	<ul style="list-style-type: none"> • In small and low-income countries: investment, technical and institutional capacity building, while promoting energy access through renewable sources of energy (focus on deployment and diffusion of commercially available technologies) • In countries experiencing large GHG emissions from deforestation and forest degradation: LULUCF activities aimed at reducing forest emissions and promoting forest conservation, afforestation and reforestation, and sustainable forest management • Support for the development of emerging carbon markets, including, for example, capacity building to help create enabling legal and regulatory environments • Capacity building for national communications to the UNFCCC
Sources of funding	Regular replenishment through a process in which donor nations commit money every four years
Amount available	US\$ 1.4 billion to be allocated to climate change mitigation in the GEF-5 period (2010-2014)
Governance and accountability	Main governing body: GEF Council, an independent board of directors, with primary responsibility for developing, adopting, and evaluating GEF programmes; accountable to the UNFCCC. Council members represent 32 constituencies (16 from developing countries, 14 from developed countries, and two from countries with transitional economies); consensus-based decision making; and 'open door policy' toward non-government organisations and representatives of civil society
Guidance for access	http://www.thegef.org/gef/node/1433
Further information	<ul style="list-style-type: none"> • GEF website: http://www.thegef.org/ • GEF 5 programming approach for 2010-2014: http://www.thegef.org/gef/sites/thegef.org/files/documents/GEF.R.5.31.pdf • Overview of the GEF project cycle: http://www.thegef.org/gef/project_cycle • Information on UNFCCC Guidance to the GEF: http://unfccc.int/cooperation_support/financial_mechanism/guidance/items/3655.php • Access to full documentation on decisions regarding GEF-5 replenishment: http://www.thegef.org/gef/council_meetings/Rep_meetings • Country-wise overview of programmes and projects selected for GEF funding: http://www.thegef.org/gef/gef_projects_funding • Guidelines and templates for the submission of project proposals: http://www.thegef.org/gef/guidelines

Least Developed Countries Fund (LDCF)

Established in 2001 under the UNFCCC (COP-7 in Marrakesh), operational since 2002, operated by the GEF

Main objective: To address special needs of LDCs, particularly in the preparation and implementation of National Adaptation Plans of Action (NAPAs)

Eligible countries/Parties	The 48 LDC Parties to the UNFCCC; governments
Detailed objectives	<ul style="list-style-type: none"> • Preparation of NAPAs • Implementation of NAPAs <p>Activities proposed through NAPAs are those whose further delay could increase vulnerability, or lead to increased costs at a later stage. Criteria for prioritising activities: (i) level or degree of adverse effects of climate change; (ii) poverty reduction to enhance adaptive capacity; (iii) synergy with other multilateral environmental agreements; (iv) cost-effectiveness</p>
Kind of activities supported	<ul style="list-style-type: none"> • Adaptation activities as spelled out and prioritised in NAPAs, addressing specific vulnerabilities, e.g., measures that help • Ensure food security • Increase in water availability and accessibility • Enhance economic growth rate of the poor • Enhance responsiveness to the immediate needs of affected communities • Enhance adaptive capacity and resilience at community and national levels • Protect and enhance livelihoods • Reduce (direct) threats due to climate change (hazard/disaster reduction)
Sources of funding	Voluntary pledges from Annex I countries
Amount available	US\$194 million (committed as of Feb 2010)
Governance and accountability	Main governing body: LDCF / SCCF Council (any GEF Council Member may choose to participate in this body or to attend as an observer); accountable to the UNFCCC; equal representation of donor and recipient countries; same governance structure, policies and procedures that apply to the GEF
Guidance for access	Step-by-Step guide to implement NAPAs, including a quick guide to accessing the LDCF: http://unfccc.int/resource/docs/publications/ldc_napa2009.pdf
Further information	<ul style="list-style-type: none"> • General info about the LDCF <ul style="list-style-type: none"> – http://unfccc.int/cooperation_support/least_developed_countries_portal/ldc_fund/items/4723.php – http://www.thegef.org/gef/LDCF – http://www.adaptationlearning.net/ – NAPAs submitted to the UNFCCC, incl. links to NAPA documents: http://unfccc.int/cooperation_support/least_developed_countries_portal/submitted_napas/items/4585.php • Guidance on the preparation and implementation of NAPAs and on accessing funding from the LDCF <ul style="list-style-type: none"> – UNFCCC Guidelines for preparing NAPAs, including objectives, guiding elements, process, structure of NAPA document, criteria for selecting priority activities: http://unfccc.int/resource/docs/cop7/13a04.pdf#page=7 – UNFCCC LDC Expert Group: Overview of preparation, design of implementation strategies and submission of revised project lists and profiles; describes the practical steps in the preparation of NAPAs and explores options for addressing problems identified by NAPA teams, while building upon lessons learned and best practices: http://unfccc.int/resource/docs/publications/ldc_tp2009.pdf – Operational guidelines for expedited funding for the preparation of NAPAs by LDCs: http://www.thegef.org/gef/sites/thegef.org/files/documents/document/NAPA_guidelines_revised__April_2002_.pdf – Criteria used to determine which programmes and activities receive funds from the LDCF: Programming Paper for Funding the Implementation of NAPAs under the LDC Trust Fund: http://www.thegef.org/gef/sites/thegef.org/files/documents/GEF.C.28.18.pdf – An overview of the project cycle of full-size projects is provided on the GEF website: http://thegef.org/gef/project_cycle <p>Guidelines and templates for the submission of project proposals can be downloaded from the GEF website under the following link: http://www.thegef.org/gef/guidelines</p> <ul style="list-style-type: none"> • Other key documents pertaining to the LDCF <ul style="list-style-type: none"> – Latest status report on the special climate change fund and the least developed countries fund (including pledges and funds allocated): http://www.thegef.org/gef/sites/thegef.org/files/documents/ldcf_sccf_7_inf_2%20status%20report%20on%20the%20sccf%20and%20ldcf_v.6.pdf – GEF Revised Programming Strategy on adaptation to climate change for the LDCF and the SCCF (released 4 June 2010 for GEF Council Meeting 1 July 2010): http://www.thegef.org/gef/sites/thegef.org/files/documents/LDCF%20&%20SCCF%20Programming%20Strategy%20for%20Adaptation%20FINAL.pdf

Special Climate Change Fund (SCCF)

Established in 2001 under the UNFCCC (COP7 in Marrakesh), operational since 2002, operated by the GEF

Main objective: to finance projects relating to climate change adaptation and mitigation that are complementary to those funded by resources from the GEF Trust Fund and with bilateral and multilateral funding

Eligible countries/Parties	All vulnerable developing country Parties to the UNFCCC; governments
Detailed objectives	<ul style="list-style-type: none"> • The SCCF has four different windows <ul style="list-style-type: none"> – Adaptation (top priority) – Transfer of technologies – Energy, transport, industry, agriculture, forestry, and waste management – Economic diversification in developing countries whose economy is strongly based on fossil fuels • Overarching objective: to support capacity building, including institutional capacity, to make project preparatory work, constituency building, and awareness raising more informed of the likely implications of climate change • To serve as a catalyst to leverage additional resources from bilateral and other multilateral sources
Kind of activities supported	<ul style="list-style-type: none"> • Under the adaptation funding window, activities in the areas of <ul style="list-style-type: none"> – water resources management – land management – agriculture – health – infrastructure development – fragile ecosystems, including mountainous ecosystems – integrated coastal zone management • Support for capacity building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change
Sources of funding	Voluntary pledges from Annex II Parties of the Convention, and other Parties included in Annex I that are in a position to do so
Amount available	US\$129 million (committed as of February 2010); of which US\$110 million for adaptation, and US\$19 million for technology transfer.
Governance and accountability	Main governing body: LDCF / SCCF Council (any GEF Council Member may choose to participate in this body or to attend as an observer); accountable to the UNFCCC; equal representation of donor and recipient countries; same governance structure, policies, and procedures that apply to the GEF
Guidance for access	Programming to Implement the Guidance for the Special Climate Change Fund adopted by the COP at its 12th Session: http://thegef.org/gef/sites/thegef.org/files/documents/LDCF.SCCF_.2.4%20SCCF%20Programming%20Paper.pdf
Further information	<ul style="list-style-type: none"> • http://unfccc.int/cooperation_and_support/financial_mechanism/special_climate_change_fund/items/3657.php • http://www.thegef.org/gef/SCCF • http://www.adaptationlearning.net/ • Operational basis for funding activities under the SCCF, adopted by the GEF SCCF / LDCF Council in 2007: <ul style="list-style-type: none"> – Programming to Implement the Guidance for the Special Climate Change Fund Adopted by the COP at its 9th Session: http://thegef.org/gef/sites/thegef.org/files/documents/C.24.12.pdf • An overview of the project cycle of full-size projects is provided on the GEF website: http://thegef.org/gef/project_cycle • Guidelines and templates for the submission of project proposals can be downloaded from the GEF website under the following link: http://www.thegef.org/gef/guidelines

Adaptation Fund (AF)

Established under the Kyoto Protocol in 2001 (Marrakesh), operational as of 2010, supervised and managed by the Adaptation Fund Board

Main objective: to finance concrete adaptation projects and programmes in developing country Parties to the Kyoto Protocol that are particularly vulnerable

Eligible countries/Parties	Developing country Parties to the KP that are particularly vulnerable to the adverse effects of climate change; direct access to developing countries institutions
Detailed objectives	<p>Criteria for selection of programmes and projects</p> <ul style="list-style-type: none"> • Level of vulnerability of the recipient country or region • Level of urgency and risks arising from a delay in taking adaptation action • Ensuring access to the fund in a balanced and equitable manner • Potential for lessons learned in project and programme design and implementation to be captured • Securing regional co-benefits to the extent possible, where applicable • Maximising multi-sectoral or cross-sectoral benefits
Kind of activities supported	<ul style="list-style-type: none"> • Projects and programmes whose principal and explicit aim is to adapt and increase climate resilience; project proponent is to provide justification of the extent to which the project contributes to adaptation and climate resilience • Adaptation projects can be implemented at the community, national, and/or transboundary level
Sources of funding	2% levy on the issuance of certified emission reductions (CERs) under the Clean Development Mechanism; plus voluntary contributions
Amount available	<p>US\$ 340 million from CER proceeds (medium range estimate) plus US\$ 50 million contributions to be leveraged by 2012</p> <p>Available as of April 2010: US\$ 85.26 million from CER proceeds plus US\$ 20 million contributions</p>
Governance and accountability	<p>Main governing body: Adaptation Fund Board (AFB), accountable to the CMP; consists of 2 representatives from each of the five UN regional groups, 1 SIDS representative, 1 LDC representative, 2 other representatives from the Annex I Parties, and 2 from non-Annex I Parties.</p> <p>Unique feature: simplified direct access to developing countries; countries can submit proposals directly through nominated National Implementing Entity (NIE), accredited by the AFB</p>
Guidance for access	http://www.adaptation-fund.org/howtoapply
Further information	<ul style="list-style-type: none"> • Website of the Adaptation Fund: http://www.adaptation-fund.org/ • UNFCCC Guidelines for preparing NAPAs, including objectives, guiding elements, process, structure of NAPA document, criteria for selecting priority activities: http://unfccc.int/resource/docs/cop7/13a04.pdf#page=7 • Information on the Adaptation Fund on the UNFCCC website: http://unfccc.int/cooperation_and_support/financial_mechanism/adaptation_fund/items/3659.php • Operational Policies and Guidelines to access the Adaptation Fund: http://www.adaptation-fund.org/system/files/AFB.Operational_Policies_and_Guidelines.pdf • All relevant decisions taken by the Parties of the UNFCCC and the Kyoto Protocol that have led to the establishment of the AF and that guide its operation and management are summarised in the following document: http://www.adaptation-fund.org/system/files/AFB.B.10.Inf._3%20Background%20of%20the%20Adaptation%20Fund.final_.pdf

UN REDD Programme

Launched in 2008 as a multi-donor trust fund

Main objective: to assist developing countries in preparing and implementing national REDD+ strategies

Eligible countries/Parties	<p>9 countries selected to date as pilot countries for national programmes: Bolivia, Democratic Republic of Congo, Indonesia, Panama, Papua New Guinea, Paraguay, Tanzania, Viet Nam, and Zambia, currently no funding available for additional pilot countries</p> <p>UN REDD programme admits new countries as partner countries; every REDD+ country is eligible</p>
Detailed objectives	<ul style="list-style-type: none"> National programme component: to help countries develop national REDD approaches that ensure both the use of reliable methodologies to assess emission reductions and equitable outcomes Global programme component: (i) to build, compile, and disseminate REDD+ expertise, knowledge and 'best practice'; (ii) to facilitate consensus building in the area of REDD+ at international level, and (iii) to coordinate REDD+ support efforts by various actors and ensure consistency in approaches
Kind of activities supported	<ul style="list-style-type: none"> For national programmes in pilot countries: any activities to deliver country's readiness needs, depending upon country circumstances For activities at the global level: activities that aim at (a) developing guidance on measurement, reporting and verification (MRV) approaches; (b) increased engagement of various stakeholders in the REDD+ agenda, including indigenous peoples and non-Annex 1 decision makers; (c) ensuring that forests continue to provide multiple benefits for livelihoods and the environment; (d) increased confidence in REDD+ amongst decision makers, to ensure that a REDD+ mechanism is included in a post 2012 climate change agreement
Sources of funding	Voluntary pledges from donor countries
Amount available	US\$ 74.4 million (pledges as of June 2010)
Governance and accountability	<ul style="list-style-type: none"> Multi-donor trust fund that allows donors to pool resources aimed at supporting climate change mitigation through REDD+ Main governing body: UN REDD Policy Board, approves financial allocations and reviews progress; members are representatives of pilot countries, donors, UNPFII Secretariat, Civil Society, FAO, UNDP, UNEP
Guidance for access	UN REDD Programme Rules of Procedure and Operational Guidance: http://www.unredd.net/index.php?option=com_docman&task=doc_download&gid=361&Itemid=53
Further information	<ul style="list-style-type: none"> UN REDD Programme website: http://www.un-redd.org/ UN REDD Framework Document from 2008: http://www.undp.org/mdtf/un-redd/docs/Annex-A-Framework-Document.pdf Detailed information on benefits of the UN REDD Programme to partner countries: http://www.unredd.org/Newsletter9_Support_to_partner_countries/tabid/4670/language/en-US/Default.aspx UN REDD Programme website: http://www.un-redd.org/ Access to all documents discussed at the UN-REDD Programme Policy Board meetings: http://www.unredd.net/index.php?option=com_docman&task=cat_view&gid=86&Itemid=53

Forest Carbon Partnership Facility (FCPF)

Established by the World Bank, announced at COP13 in Bali, entered into operation in 2008

Main objective: to generate experiences in implementation of REDD+ activities and to derive methodological lessons on carbon finance

Eligible countries/Parties	<p>For readiness mechanism: borrowing member countries of the IBRD or the IDA that are located in a subtropical area or tropical area</p> <p>For carbon finance mechanism: selection based on progress achieved towards REDD+ readiness through the FCPI readiness mechanism</p>
Detailed objectives	<ul style="list-style-type: none"> • To build capacity for REDD+ in developing countries in tropical and subtropical regions ('readiness mechanism') • To test a programme of performance-based incentive payments in some pilot countries ('carbon finance mechanism'); provides a small number of countries that have made significant progress towards REDD+ readiness with the possibility of receiving performance-based payments for their verified emission reductions; intended to set the stage for a larger system of positive incentives and financing flows in the future
Kind of activities supported	<p>Readiness mechanism activities relate to technical assistance and capacity building for REDD+ in the following areas:</p> <ul style="list-style-type: none"> • Establishment of a reference scenario for emissions from deforestation and forest degradation • Adoption of REDD strategies • Design of a REDD monitoring system <p>To receive performance-based payments from the Carbon Fund, countries must propose Emission Reduction Programmes, incl. reforms / transformation processes in the following areas:</p> <ul style="list-style-type: none"> • General economic policies and regulations: taxation, subsidies, rural credit, certification, and law enforcement • Forest policies and regulations: taxation, subsidies, certification, concession regimes, land tenure and land rights, forest law governance and enforcement, zoning, protected areas, payment for environmental services • Forest management: forest fires, reduces impact-logging, reforestation • Rural development: community development, rural electrification, and community forestry
Sources of funding	Voluntary pledges from donor countries
Amount available	US\$ 185 million (mobilised as of June 2010)
Governance and accountability	Managerial body: Participants Committee (10 members from participant countries, 10 from donors and carbon fund participants collectively); selects REDD countries to participate in the Facility; takes into account findings and recommendations of the Ad Hoc Technical Advisory Panel; approves the budget allocation proposed by the Facility Management Team for a REDD country participant to develop and implement a readiness plan.
Guidance for access	<ul style="list-style-type: none"> • The FCPF Information Memorandum of June 2008 spells out the key objectives, guiding principles and eligibility criteria for both mechanisms under the Programme: http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/FCPF_Info_Memo_06-13-08.pdf
Further information	<ul style="list-style-type: none"> • FCPF website: http://www.forestcarbonpartnership.org/fcp/ • Readiness-Plan submissions of the countries selected into the Readiness Mechanism: http://www.forestcarbonpartnership.org/fcp/node/2

Forest Investment Program (FIP)

Established under the World Bank's Climate Investment Funds as one of the targeted programmes within the Strategic Climate Fund (SCF)

Main objective: supports developing countries' efforts to reduce deforestation and forest degradation, to enhance sustainable forest management and the protection of carbon reservoirs

Eligible countries/Parties	REDD+ countries; number of country and regional pilots is limited based on the level of total FIP financing available to ensure that scale of investment is sufficient to have a transformative effect; five countries approved initially (Burkina Faso, Ghana, Indonesia, Laos, Peru); six additional pilots to be selected.
Detailed objectives	<ul style="list-style-type: none"> • To facilitate transformational change in forest related policies and practices • To generate understanding and learning in the area of REDD • To facilitate the leveraging of additional financial resources for REDD, including through a possible UNFCCC forest mechanism • To provide experience and feedback in the context of the UNFCCC deliberations on REDD
Kind of activities supported	<ul style="list-style-type: none"> • Investments in institutional capacity, forest governance, and information such as implementation of systems for forest monitoring; information management and inventory, support for legal, financial and institutional development including forest law enforcement, cadastral mapping and land tenure reform; removal of perverse incentives favouring deforestation and degradation • Investments in forest mitigation measures, including forest ecosystem services such as forest conservation; promotion of payments for environmental services and other equitable benefit-sharing arrangements; restoration and sustainable management of degraded forests and landscapes; afforestation and reforestation on previously deforested land; restructuring of forest industries and promotion of company-community partnerships; forest protection measures; improved land management practices; and promotion of forest and chain of custody certification • Investments outside the forest sector necessary to reduce the pressure on forests such as alternative livelihood and poverty reduction opportunities; alternative energy programmes; agricultural investments in the context of rationalised land-use planning; and agricultural intensification including agroforestry.
Sources of funding	Voluntary pledges from donor countries
Amount available	US\$ 558 million (pledged as of June 2010)
Governance and accountability	Main decision-making body: FIP Sub-Committee (SC) under the Strategic Climate Fund Committee; oversees operations and activities of the FIP; composed of (i) up to six representatives from contributor countries; (ii) same number of representatives from eligible recipient countries to the FIP. Pilot countries under the programme may attend the FIP-SC as active observers.
Guidance for access	Recommendations for pilots under the FIP, including detailed region-wise criteria for prioritisation of activities: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/FIP%206%20Report%20of%20FIP%20Expert%20Group%20recommendations%20for%20Pilots%20under%20the%20FIP%20march%202010%20_0.pdf
Further information	<ul style="list-style-type: none"> • FIP website: http://www.climateinvestmentfunds.org/cif/node/5 • The FIP Design Document. spells out the basic rationale for the creation of the fund and key guiding principles for its operation: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/FIP_Final_Design_Document_July_7.pdf • Information on the governance of the Special Climate Fund: http://www.climateinvestmentfunds.org/cif/scf_governance • The Forest Peoples Programme, a civil society network of indigenous peoples, has raised some issues in relation to FIP provisions to protect indigenous peoples rights: http://www.ieneearth.org/docs/FIP_briefing_oct09_low_res_eng.pdf

Pilot Programme for Climate Resilience (CIF)

Established under the World Bank's Climate Investment Funds as one of the targeted programmes within the Strategic Climate Fund (SCF)

Main objective: to finance pilot programmes for integrating considerations of climate resilience into core development planning in partner countries

Eligible countries/Parties	To be eligible, countries must (i) be ODA eligible and (ii) have an ongoing lending programme and/or on-going policy dialogue with a multilateral development bank (MDB). Priority is given to highly vulnerable least developed countries.
Detailed objectives	<p>At country level the PPCR programme aims at</p> <ul style="list-style-type: none"> • increased capacity to integrate climate resilience into country development strategies, • more inclusive approach to climate resilient growth and development, • increased awareness of the potential impact of climate change, • scaled-up investment for broader interventions and programming related to climate resilience <p>Improved coordination among stakeholders regarding country-specific climate resilient programmes, and</p> <ul style="list-style-type: none"> • providing incentives for scaled-up action and transformational change.
Kind of activities supported	<p>Two types of investments are supported:</p> <ul style="list-style-type: none"> • Funding for technical assistance to enable developing countries to build upon existing national work to integrate climate resilience into national and sectoral development plans • Funding public and private sector investments identified in national or sectoral development plans or strategies addressing climate resilience
Sources of funding	Voluntary pledges from donor countries
Amount available	US\$ 146 million (pledged as of June 2010)
Governance and accountability	Main decision-making body: PPCR Sub-Committee under the Strategic Climate Fund Committee, with equal representation of donor and recipient countries; the PPCR provides financing through the multilateral development banks (MDBs) to support programmes in the relevant eligible countries
Guidance for access	<ul style="list-style-type: none"> • Programming and Financing Modalities for the Pilot Program For Climate Resilience (PPCR): http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/PPCR_Programming_Document_Final_16July_2009.pdf
Further information	<ul style="list-style-type: none"> • PPCR Programme Document, including objectives and governance structure, November 2008: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/SCF_TFC_Decision_PPCR_Governance_Jan_27_2009.pdf • Guidance Note for Regional Programs to receive Funding under the PPCR: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/GuidanceNoteonRegionalPrograms6Aprilapproved.pdf • Examples of pilot programmes in mountainous countries for which funding under the PPCR has been approved: <ul style="list-style-type: none"> – Bolivia: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/BoliviaAcceptanceTemplate.ENG_.pdf – Nepal: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/NepalAcceptanceTemplate.pdf • Figures of pledged funding for the Climate Investment Funds: http://www.climateinvestmentfunds.org/cif/funding-basics

About ICIMOD

The International Centre for Integrated Mountain Development, ICIMOD, is a regional knowledge development and learning centre serving the eight regional member countries of the Hindu Kush-Himalayas – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal. Globalisation and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people. ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues. We support regional transboundary programmes through partnership with regional partner institutions, facilitate the exchange of experience, and serve as a regional knowledge hub. We strengthen networking among regional and global centres of excellence. Overall, we are working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream – now, and for the future.





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International Centre for Integrated Mountain Development

GPO Box 3226, Kathmandu, Nepal

Tel +977-1-5003222 **email** info@icimod.org **web** www.icimod.org

ISBN 978 92 9115 172 1 (electronic)