



GLOBAL ENVIRONMENT FACILITY
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STRATEGY ON
**Adaptation
to Climate
Change** FOR THE

LEAST DEVELOPED COUNTRIES FUND
(LDCF) AND THE SPECIAL CLIMATE
CHANGE FUND (SCCF)

Strategy on Adaptation to Climate Change for the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF)



A local farmer harvests dorghum produced from seeds donated by the Food and Agriculture Organization (FAO) through the "Improving Seeds" Project.

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Executive Summary

Dryland near Manatuto, Timor-Leste. Water scarcity can lead to both drought and desertification as well as instigate conflict in communities and between countries.

The LDCF/SCCF Programming Strategy for adaptation covers LDCF and SCCF operations and activities for the four years from July 1, 2010 to June 30, 2014. The main objective of this strategy is to mobilize and program adequate resources to finance adaptation activities under the Least Developed Countries Fund and the Special Climate Change Fund, in line with (a) the guidance by the UN Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP); (b) developing country adaptation needs; (c) results of evaluations of funds for adaptation; (d) evolving and diversifying landscape of funds for adaptation; and (e) efforts to raise the level and scale of interventions funded under the LDCF and SCCF. The overall approach to programming builds on the achievements of the GEF adaptation portfolio, including a pilot program in the GEF trust fund and subsequent experiences in managing the LDCF and SCCF, and their initial evaluations.

As an operating entity of the Financial Mechanism of the UNFCCC, the Global Environment Facility (GEF) has a unique mandate to assist the developing countries. With respect to adaptation, the role of the GEF has been recently enhanced by the following factors:

- the scientific and empirical evidence on the impacts of climate change has reached an unprecedented level of international consensus and awareness;
- developing country demand for adaptation funding has grown exponentially as well as the estimated costs of adaptation;
- the parties to the UNFCCC have provided clear guidance to the GEF on adaptation, underlining its responsibility to assist developing countries to meet the goals of the Convention, including continuing its efforts to mobilize additional resources.
- independent evaluations have stressed both the importance of scaling up the effort, as well as dramatically increasing the funding which is a prerequisite for increasing the scale of impact; and;
- the need for predictable and adequate funding for adaptation has been recognized as a key feature of a successful global climate regime.

The LDCF and the SCCF have been established directly under the Climate Convention (UNFCCC). As highlighted at the 2009 Copenhagen UNFCCC COP and in the following negotiating sessions, new and additional financing is needed to support adaptation. The role of the GEF in catalyzing resources for climate-resilient development has been strengthened through the management of the LDCF and SCCF, which have been already included as part of the “fast start” package for climate change financing post COP15.

The LDCF and SCCF, whose priority is adaptation, are managed and administered independently of the GEF Trust Fund. This financing strategy proposes:

- Increasing the funding, in order to support the increase in volume and scale of intervention, taking advantage, for example, of the programmatic approach and other appropriate modalities;
- Increasing the predictability of the funding, in order to better facilitate medium-term planning of the resources
- Channeling GEF-managed adaptation financing resources through LDCF and SCCF, as the GEF-5 programming document does not include adaptation.

The paper presents, inter-alia: (i) an analysis of the role of the GEF in financing adaptation; (ii) a summary of previous GEF experience in adaptation financing and a clarification of what is adaptation in practice; (iii) a distinct but consistent financing strategy for each fund; and (iv) a results-based management framework, including monitoring and reporting on results. The paper presents information on possible programming approaches at different financing levels and on different possible programming levels across the funds.



The view from the Polar ice rim during Secretary-General Ban Ki-moon's visit to witness firsthand the impact of climate change on icebergs and glaciers. The visit was part of the UN Chief's campaign urging Member States to negotiate a fair, balanced and effective agreement at the 2010 UN Climate Change Conference in Copenhagen.

The Role of the GEF on Adaptation to Climate Change

Introduction

The recognition that the GEF has a role in financing adaptation to climate change goes back to the early guidance to the financial mechanism of the UNFCCC. According to the GEF Operational Strategy, approved by the Council in 1995, *“the strategic thrust of GEF-financed climate change activities is to support sustainable measures that minimize climate change damage by reducing the risk, or the adverse effects, of climate change. The GEF will finance agreed and eligible enabling, mitigation, and adaptation activities in eligible recipient countries.”* In particular, the Strategy defines *“adaptation activities as those that minimize the adverse effects of climate change.”* The strategy, consistent with Convention guidance, called for a staged process of GEF support: an initial stage to finance studies, assessments and capacity building, followed by an implementation stage to finance the implementation of adaptation measures. The latter was based on Articles 4.1. and 4.4. of the Convention, which identified the needs for financing specific adaptation measures, including insurance, to assist vulnerable developing countries to meet the costs of adaptation.

The parties to the UNFCCC subsequently established LDCF and SCCF, and asked the GEF to manage them. As a result, the GEF has increasingly focused its adaptation financing under the LDCF and SCCF portfolios. with these basic tenets of sustainability while incorporating new findings on good practice in biodiversity conservation and sustainable use.

Scientific Consensus on Climate Change Adaptation, Impacts and Vulnerability

In parallel with the evolution in Convention guidance, scientific understanding of climate impacts also dramatically increased awareness and concern for the need to respond to climate change. The publication of the Fourth Assessment Report of the IPCC in 2007 summarized the increasing scientific evidence of the

observed increase in global average temperatures due to the increase in anthropogenic GHG concentrations since mid-20th century. In addition, the report emphasized the urgency of actions to avoid irreversible damage to human communities, development sectors and ecosystems based on the scientific consensus that, even if the international community commits to aggressively mitigate GHG emissions, climate change impacts will continue for many decades.

More scientific research is expected to further explore with increasing precision the impacts of climate change on earth systems and particularly what these impacts mean for human societies and economies. Changes in temperature, however small, affect an enormous set of biophysical processes, many of which are complexly interlinked and/or poorly understood. For example, early results of research on impacts of climate change on the oceans suggest that, even a +2°C temperature change would likely be catastrophic and irreversible for much marine life.

What is certain is that climate change is already having an adverse impact and that the most vulnerable countries and the poorest communities within developing countries will be the ones most adversely affected and least able to respond to the effects of climate change.

Adaptation Economics and the Gap between Supply and Demand

Several studies have recently made preliminary estimates of the costs of adaptation and agree on the following conclusions: climate change is ongoing and further significant impacts are now inevitable; the costs of adaptation are difficult to estimate, as they depend on many factors, including mitigation scenarios and the timing and manner in which adaptation measures are locally implemented; the costs will be high. For example the UNFCCC in its publication Investment and Financial

BOX 1 GEF RESEARCH ON ADAPTATION ECONOMICS

To advance the understanding of climate risks and responses, the GEF has co-financed a study with McKinsey & Company to investigate the economics of climate adaptation (the ECA study), in partnership with UNEP, Swiss Re, and the Rockefeller Foundation. An analytical framework, developed specifically for this study, is being applied in developing and developed countries, through a diverse set of case studies. The framework identifies where and from which type of hazard a country is most at risk, together with the magnitude of the expected loss, and reveals what sets of adaptation measures should be considered, based on societal costs and benefits of implementing the measures. These, in turn, can readily become primary inputs in adaptation strategies developed by individual countries.

Some early findings are already generating important insights. In Mali, for instance, ECA focused on climate zone shift hazard (i.e., changes in average temperature and precipitation) to model crop and livestock loss valuations under two economic growth pathway set of assumptions. In the worst case climate change scenario, the value of five main crops could decrease by 18% and livestock by 7%. The work on the measures builds on Mali's NAPA. Measures can be classified into two main themes: (1) optimizing location and mix of activities; and (2) technical adaptation of the land use system. Implementation of a collection of measures within these themes will likely provide benefits larger than potential loss due to climate zone shift. Without considering additional revenue (e.g., cash crops), low-tech behavioral measures such as low tillage, zai (i.e., planting seeds in holes to force rainwater penetration), level curves and open wells appear most cost effective. The analysis suggests vaccines are the most cost effective way to address impacts on livestock.

Flows to address Climate Change estimated *additional investment and financial flows needed for adaptation in 2030* amount to several tens of billions of dollars.

Furthermore, at COP15, Parties cited the paper "*Support needed to fully implement national adaptation programs of action (NAPAs)*"¹, prepared by the Least Developed Countries Expert Group (LEG), which indicated a need for financial resources for the full implementation of priorities identified in NAPAs of at least USD 1.93 billion during their deliberations with respect to matters relating to least developed countries². These figures validate the developing countries' request for a much more significant level as well as predictability of resources for adaptation under the Convention, its funds and its financial mechanism, particularly when combined with findings that the climate change is already affecting the lives of the poorest and most vulnerable. The costs however of taking early action to address adaptation concerns are substantially less than the costs of addressing the potential damage caused by the changing climate.

UNFCCC Guidance to the GEF on Adaptation

The GEF has received a significant amount of guidance on adaptation throughout the last 15 years from the UNFCCC (Annex I). Convention guidance on adaptation has dramatically evolved from the initial staged approach (COP1, COP4), particularly in Marrakech (COP7, 2001), when the GEF was requested to finance *pilot or demonstration projects to show how adaptation planning and assessment can be practically translated into projects that will provide real benefits*, and to manage the newly established climate change funds, the LDCF and the SCCF.

In response to increasing scientific concern and empirical evidence, recent Convention guidance to the GEF³ has increased its focus on adaptation (Annex II). This guidance addresses both the impacts of climate change on human life and development, as well as on vulnerable ecosystems, and begins responding to assessments showing the costs of adaptation to developing countries, estimated to amount to several tens of billions of dollars.



Villagers in Pessuapa, Colombia, make use of their local, ever-diminishing watering hole. Over the past years climate change has forced water shortages, particularly severe in the indigenous Wayuu's arid territory in northeast Colombia.

Following the establishment in 2001 of the LDCF and SCCF under the UNFCCC at COP7 the GEF was asked to manage the funds in its role as a financial mechanism; the GEF is therefore currently managing under the guidance of the Climate COP, two independent funds whose priority is adaptation. This is in addition to its conventional operations under the GEF Trust Fund. In order to avoid duplication between the GEF Trust Fund and the new funds, it is proposed to channel all GEF-managed adaptation financing resources through the LDCF and the SCCF.

¹ http://unfccc.int/files/cooperation_support/least_developed_countries_portal/ldc_expert_group/application/pdf/ldc_support_needed_091209.pdf

² FCCC/SBI/2009/L.27, "Matters relating to the least developed countries. Draft conclusions proposed by the Chair." – CP.15, Copenhagen Accord.

³ FCCC/SBI/2009/L.27, "Matters relating to the least developed countries. Draft conclusions proposed by the Chair." – CP.15, Copenhagen Accord.



A view of heavy flooding caused by monsoon rains in Punjab Province, near the city of Multan, Pakistan.

Rationale for a Financing Strategy for the LDCL and SCCF

The need for a significantly more robust financing of the LDCF and the SCCF, and the proposal to align the GEF replenishment process with that of the funds are based on five main pillars:

- Responsiveness to Convention Guidance;
- Responsiveness to developing country needs and consequent need for predictability of resources;
- Moving to the next stage of LDCF and SCCF funding – a programmatic approach;
- Responsiveness to Independent Evaluations of the Strategic Priority on Adaptation (SPA) and the LDCF; and,
- Complementarity among different adaptation-related funds.

Responsiveness to Convention Guidance

The main pillars of the guidance to the GEF that has directed key financial and operational commitments to finance adaptation are as follows:

- At COP7 in 2001, the UNFCCC created and asked the GEF to finance adaptation pilot and demonstration projects under the GEF trust fund and to manage two voluntary adaptation-focused funds, the *Least Developed Countries Fund* (LDCF) and the *Special Climate Change Fund* (SCCF);
- In response to that guidance in 2003 the GEF Council approved the allocation of USD 50 million under the climate change focal area for a pilot adaptation program, the Strategic Priority on Adaptation (SPA) during GEF-3/GEF-4. The resources under the SPA pilot have been committed

and an independent evaluation has been carried out by the GEF Evaluation Office (See document GEF/ME/C.39/4); and approved the establishment of the new, separate trust funds, the *Least Developed Countries Fund* (LDCF) and the *Special Climate Change Fund* (SCCF);

- At COP12, in Nairobi, the developing countries group pointed out the importance of a financial mechanism with greater balance between mitigation and adaptation activities. They questioned the adequacy of the GEF response to the adaptation needs of developing countries in accordance with guidance by the Conference of the Parties. This criticism has been recurrent during the most recent UNFCCC COPs. In response to the Convention and to developing country needs, the GEF Secretariat proposes to replenish the LDCF and SCCF, whose governance, structure and operational modalities are particularly appropriate for adaptation, as part of a comprehensive adaptation program in both financial and operational terms;
- During the twenty-sixth session of the Subsidiary Body for Implementation, although no decision was taken, the SBI “recognized the need for the GEF to continue its efforts to mobilize additional resources to support the implementation of national adaptation programme of action (NAPA) project activities under the LDCF.”⁴ During the last UNFCCC COP parties recognized the urgent need for financing concrete adaptation action to reduce the adverse impacts of climate change. It was agreed that “enhanced action and international cooperation on adaptation is urgently required to ensure the implementation of the Convention by enabling and supporting adaptation actions aimed at reducing vulnerability and building resilience in developing countries, especially in those that are particularly vulnerable, especially least developed countries, small island developing States and Africa⁵;

⁴ FCCC/SBI/2007/L.2, “Least Developed Countries Fund. Draft conclusions proposed by the Chair.”

⁵ FCCC/SBI/2009/L.27, “Matters relating to the least developed countries. Draft conclusions proposed by the Chair.” – CP.15



Low-lying Pacific islands are vulnerable to sea level rises

It was furthermore noted that “scaled up, new and additional, predictable funding as well as improved access shall be provided to developing countries, in accordance with the relevant provisions of the Convention, to enable and support enhance action on [...] adaptation [...]”⁶

- In particular, in the thirty-first session of the Subsidiary Body for Implementation (SBI), under the matters relating to Article 4 of the Convention and the least developed countries, although no decision was taken, the GEF and its agencies were praised for the steps taken to improve the processing of applications for funding of the implementation of NAPA projects under the LDCF and for the constructive dialogue among the LDCs, the LEG, and the GEF and its agencies on the provision of enhanced support for the preparation and implementation of NAPAs⁷;
- In addition, also at the thirty-first session, the SBI,⁸ in the context of LDCF, further reinforced the need for additional financial resources for the full implementation of priorities identified in NAPAs as being at least USD 1.93 billion, as

concluded by the recent paper produced by the LEG.¹⁰ The Draft conclusions proposed by the chair at COP15 in 2009, even while no decision was taken, provide further guidance to the GEF, requesting it to continue providing enhanced support to developing countries in preparation and full implementation of the National Adaptation Programmes of Action (NAPAs) under the LDCF. *The complete text of the guidance is available in Annex II.*

Responsiveness to Developing Country Needs and Predictability of Resources

The current size of the funds is very small compared to the urgent adaptation needs of vulnerable countries, which have been assessed at around USD 2 billion for the LDCF alone. (See paper “*Support needed to fully implement National Adaptation Programs of Action (NAPAs)*”¹⁰.” The GEF is fully capable to manage a much higher volume of resources as it does under the GEF Trust Fund. A more commensurable amount for adaptation would allow the GEF and donor parties to

meet their commitments vis-à-vis the Convention. This argument is further explained below under “Financing Needs.”

Moreover, a major limitation to the effectiveness of the LDCF and SCCF has been the lack of predictability of financial resources. Unlike the GEF, which is replenished every four years, the LDCF and SCCF receive voluntary contributions without a regular replenishment schedule. Countries and agencies that support their work need to know the available resources sufficiently far in advance to plan their projects and especially their programs; this is an impossible exercise when resources are mobilized in relatively small amounts on an ad-hoc basis.

In addition, though once project-based, now the LDCF and SCCF are looking to expand their scale and scope through a programmatic approach, in response to both donor and recipient demand, and now facilitated under the GEF’s new procedures under the GEF-5. However, this will be possible only if the volume of financing increases significantly. (See next section).

A programmatic approach: the next stage of LDCF and SCCF funding

An important element of the proposed structure of future funding is that it would also entail a shift to a more programmatic approach to adaptation than has previously been the practice for the two funds. Funding under the LDCF and SCCF has, to date, largely been of a pilot project nature, in which the primary purpose of the activities supported has been to demonstrate how adaptation can be addressed practically on the ground in individual sectors and across regions. This pilot phase has resulted in a significant amount of learning, as well as the development 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 start a process of national and global scaling up.

With this second phase of funding, the LDCF and SCCF will, therefore, move away from a project by project approach, and scaling up adaptation at the level necessary to catalyze climate-resilient development in the vulnerable sectors, priority areas of intervention, countries and regions. Programmatic approaches submitted under the LDCF and SCCF will be consistent with the reforms approved for GEF-5 and its new

streamlined project cycle. This phase will likely continue to include investments in adaptation activities directly on the ground, but will also, 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 utilize 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 financing target of USD 1 billion combined for each fund is linked to these needs.

Responsiveness to Independent Evaluations

An independent evaluation on the LDCF was carried out jointly by the Danish International Development Agency (DANIDA) and the GEF Evaluation Office “Evaluation of the Least Developed Countries Fund (LDCF) for Adaptation to Climate Change” and was published in September 2009. The evaluation provided an analysis and documentation of the results and lessons learned from the operations of the LDCF in financing and promoting climate change adaptation in the least developed countries. The evaluation was first presented to the LDCF/SCCF Council at its seventh session November 2009 in document GEF/LDCF.SCCF.7/5 and GEF/LDCF.SCCF.7/inf.4 and an initial management response was provided in GEF/LDCF.SCCF.7/inf.5.

As a follow up, the GEF has undertaken several actions in response to the conclusions and recommendations presented in the evaluation report. The GEF secretariat has worked actively over the last 12 months to take advantage of the recommendations provided by the evaluation report and to address all of the concerns raised in the report. In particular, the GEF has streamlined the LDCF project cycle, has strengthened the relations with the LDCs and has developed and circulated user-friendly materials for LDCs to access LDCF resources. This effort has been recognized by DANIDA in a follow up memo released in May 2010: ‘Review of the follow up on the LDCF evaluation and information update on the LDCF and SCCF’ (see GEF.LDCF.SCCF.9/inf.7.). **The major criticism to the LDCF**

⁶ Ibid

⁷ Ibid

⁸ Ibid

⁹ http://unfccc.int/files/cooperation_support/least_developed_countries_portal/l_dc_expert_group/application/pdf/l_dc_support_needed_091209.pdf

¹⁰ Ibid

remains the inadequacy of resources to address the most urgent and immediate adaptation needs of the LDCs.

Also of relevance to the LDCF and SCCF are the outcomes of a recent Independent Evaluation of the Strategic Priority for Adaptation (SPA), a precursor to the LDCF and SCCF, prepared by the GEF Evaluation Office. The report was mandated by the GEF Council at its 38th meeting in November 2008, and provides an independent assessment of the SPA strategy, implementation and quality of projects, and identifies lessons on how to increase the resilience of GEF supported projects.

The main conclusions of the evaluation state that SPA has succeeded in fulfilling its mandate to “establish pilot or demonstration projects to show how adaptation planning and assessment can be practically translated into projects that will provide real benefits, and may be integrated into national policy and sustainable development planning on the basis of information provided in the national communications, or of in-depth national studies, including NAPAs and of the staged approach endorsed by the Conference of the Parties in its decision 11/CP.1”¹¹. It was also found that the SPA has, meanwhile, succeeded in ensuring that the funded projects were consistent with the principles of the GEF Trust Fund, including criteria concerning incremental costs and Global Environmental Benefits (GEBs). The evaluation further concludes that the SPA portfolio represents a satisfactory degree of diversity in terms of sectors, themes and regions covered, that projects have generally been consistent with the objectives of the SPA, including the criteria outlined in the SPA guidelines¹², and that most adaptation measures funded under the SPA are “no regret” options.

In response to these evaluations, this strategy is incorporating the lessons and recommendations that have emerged as a result of these exercises, and they will furthermore be reflected in the administration and implementation of the LDCF/SCCF funds. Also in response to these finding, this strategy is requesting an appropriate scale-up of resources that will be available to the LDCF and SCCF funds.



Complementarity among Different Adaptation-Related Funds

The GEF finances adaptation activities through its independent, distinct, yet complementary, trust funds: the LDCF, the SCCF, the GEF Trust Fund. Further, the GEF provides secretariat services to Adaptation Fund Board on an interim basis. It is important to clarify and increase understanding of the distinctions and complementarities between the GEF-managed adaptation funds and other funds that address adaptation.

As mentioned in the previous sections, the GEF mandate on adaptation can be at this stage fulfilled under the LDCF and SCCF, as the global benefits required by the trust fund can be generated through projects and programs that reduce vulnerability of ecosystems of global significance. These projects are both eligible under the SCCF, which has vulnerable ecosystems as a priority identified by the UNFCCC COP, and under the LDCF, as identified by the NAPAs.



Secretary-General Ban Ki-moon (standing) holds a press conference to launch the high-level Advisory Group on Climate Change Financing, intended to expedite financing to developing countries combating climate change. Prime Minister of the United Kingdom Gordon Brown and Meles Zenawi, Prime Minister of Ethiopia, will head the Advisory Group.

The adaptation pilots financed under the GEF Trust Fund through the Strategic Priority on Adaptation illustrate the importance of programming adaptation measures in the other GEF focal areas like Biodiversity, International Waters, and Land Degradation. As part of the GEF 5 focus on integrated, cross focal area approaches in natural resources, opportunities would be sought where countries have interest to link climate change adaptation measures with other GEF interventions in natural resources to take advantage of cross-convention synergies, needed sector reforms, and programmatic approaches. Interventions related to food security, water resources, and coastal oceans are especially complex and would benefit from integrated approaches.

With respect to the Adaptation Fund, as all funds have adaptation as the top priority there may be a conceptual risk of overlap in scope. However, it is equally important to recognize that the LDCF was created to address all the specific needs of the LDCs under the Convention, besides adaptation and will likely remain the leading financial mechanism for the implementation of NAPAs.

The SCCF has three additional financing avenues besides adaptation, which include technology transfer, followed by support for specific sectors and economic diversification. There are many other elements that diversify these funds, make them all unique, and significantly distinguish their respective mandates and *modus operandi*.

First, there is a strong mandate from the UNFCCC Convention (LDCF and SCCF) and the Kyoto Protocol (Adaptation Fund) to keep these as distinct funds. Second, there are three aspects that make the Adaptation Fund unique. These are: its revenue regime; the composition of its governing body; and the "direct access" modality. On the other hand, the LDCF and SCCF are maintaining their established modality for project financing that shareholders and stakeholders are familiar with whereas the Adaptation Fund presents innovative features including an alternative approach to adaptation financing. Since the Adaptation Fund Board has only recently finalized the Operational Policies and Guidelines and related issues (fiduciary standards, etc), other criteria to differentiate among those funds may arise in the future, whereas the LDCF and SCCF funds will continue to operate in their conventional manner and with conventionally mobilized resources, with the option of including innovative elements as proposed in previous sections.

In addition to the funds that were established under the UNFCCC, other funds that address adaptation were created, such the Pilot Program on Climate Resilience (PPCR) under the Climate Investment Funds managed by the World Bank and adaptation financing for Africa managed by UNDP, among others. These funds have characteristics that distinguish them from the LDCF and SCCF and make them fully complementary. For example, these funds maximize their financing efforts in targeted countries, while LDCF and SCCF have the mandate to finance all eligible countries under the Convention. There is an ongoing effort to take full advantage of the synergies among these funds and to reduce duplication. The Bank and UNDP funds have developed their programs consistent with the experience built through the implementation of projects under the LDCF and SCCF.

¹¹ UNFCCC decision 6/CP.7.

¹² GEF/C.27/inf.10



In Cambodia, an LDCF project addresses adaptation measures that include: training of adaptation experts in agricultural extension teams; implementation of pilot projects in local communities; rainwater harvesting techniques; measures to decrease soil erosion and preserve genetic diversity in rice agriculture; changed design of reservoirs and irrigation channels to prevent risks from increased peak flows

Financing Adaptation Action: Adaptation Pilot and Climate Change Funds

Through the Adaptation Pilot under the GEF Trust Fund, the LDCF and the SCCF, the GEF has financed concrete adaptation measures on the ground, gathered experience, and learned valuable lessons regarding actions to reduce vulnerability in core development sectors such as agriculture, water and health. More than 90 adaptation projects have been approved for funding (Work Program and CEO endorsed), including 26 under the SPA, 42 under the LDCF, and 24 under the SCCF. Yet, available resources – only USD 292 million and USD 167 million* have been pledged so far respectively for the LDCF and the SCCF – remain very limited. SPA resources have all been committed, and there is currently a large unmet demand from the most vulnerable countries. Similarly, SCCF resources have nearly all been allocated, and mobilizing resources for pipeline projects is contingent upon an adequate SCCF financing in the near term.

30. The experience and lessons learned through these programs and projects have been pivotal to help the GEF and its agencies better understand what adaptation means in practice, e.g., how adaptation can be integrated into development to make it climate-resilient, and how to estimate the costs of adaptation. Based on its broad experience at the operational, technical and policy levels, the GEF remains uniquely qualified to manage a larger amount of adaptation resources to respond to countries' adaptation needs. This strategy focuses on building on the pilot experience and scaling up through a robust financing of the funds.

31. Initial evaluations and reactions from both donors and client countries agree on the need to move from a project-based approach to a more programmatic, sectoral or national level, to maximize the impact of the LDCF/SCCF resources and fully mainstream adaptation into development. Another important lesson learned from the initial phase in managing the funds is that both the amount and predictability of resources are important. The funds have mainly suffered from the

fact that countries and agencies were never able to predict and therefore program the amount of resources available. Taking these lessons into account, the recent climate change talks have called for scaled up, additional, predictable and adequate funding to enable and support enhanced action on adaptation. This strategy is therefore based on this identified need for sufficient and predictable resources for adaptation.

Adaptation in Practice

One of the main accomplishments of the GEF adaptation program has been to test and demonstrate adaptation in practice. The literature is quite exhaustive with respect to defining and measuring different aspects and levels of vulnerabilities, but is less generous in providing examples and guidance on how to plan and implement adaptation actions. This is mostly because the effectiveness of adaptation measures must be tested on the ground and lessons must be learned by doing. In some areas, such as water resources and coastal management, cross-sectoral tools such as Integrated Water Resources Management (IWRM) and Integrated Coastal Management (ICM) show promise for sustaining protein from fisheries and introducing efficient irrigation for food crops.

The LDCF and the SCCF, together with the experience from the pilot projects financed under the SPA, are a relevant source of practical operational knowledge. They provided vulnerable countries and communities, as well as the GEF network of agencies who assisted them, initial resources to finance a pioneering adaptation portfolio. This experience has resulted in a much clearer sense of what adaptation means in practice, how to implement it, and how to estimate its costs. The strategy proposed in this document is consistent with these findings, as briefly summarized below.

Climate-Resilient Development

The LDCF and the SCCF have been operational for only a few years, however many relevant lessons have



In Bhutan, where river valleys are prone to massive floods when Himalayan glaciers reach critical thresholds, an LDCF project has helped to finance adaptation measures to increase disaster risk management capacity in affected valleys (including the integration of climate change risks), and to implement artificial lowering of water level in glacial lakes and creating early warning systems.

already been learned. The funds were established to support projects aimed at reducing vulnerability and increasing the adaptive capacity to climate change by financing the implementation of adaptation measures as part of efforts to foster *climate-resilient development and ecosystem resiliency*. The first lesson learned was how to put in practice the initial concrete actions on the ground, and to use the available knowledge about vulnerability as the basis for proactive, preventive adaptation actions. GEF agencies and vulnerable governments and communities collaborated together in defining how to protect human needs essential for

continued development (e.g., water resources and drinking water supplies, food security, and health) when threatened by the adverse impacts of climate change. Adaptation was viewed and applied in the context of development and was not addressed in isolation. To achieve the objective of climate-resilient development, climate change adaptation interventions (i.e., climate change risk-response measures) were integrated into national development policies, plans, programs, projects and actions. In the case of the LDCF, the proposed approach for effective implementation of NAPAs was to integrate urgent and immediate

adaptation measures into the development activities of each LDC, taking into account national circumstances and economic and social priorities.

For example, in Bhutan, where river valleys are prone to massive floods when Himalayan glaciers reach critical thresholds, an LDCF project has helped to finance adaptation measures to increase disaster risk management capacity in affected valleys (including the integration of climate change risks), and to implement artificial lowering of water level in glacial lakes and creating early warning systems. The integration of all these measures into existing development plans resulted in a decreased risk of expected significant destruction of agricultural areas, and prevention/limitation of human and economic losses.

In Cambodia, an LDCF project addresses vulnerabilities shared by many countries around the world. As the country's agriculture sector is prone to both drought and floods, adaptation measures include: training of adaptation experts in agricultural extension teams; implementation of pilot projects in local communities; rainwater harvesting techniques; measures to decrease soil erosion and preserve genetic diversity in rice agriculture; changed design of reservoirs and irrigation channels to prevent risks from increased peak flows; and lessons learned disseminated to national and international levels. Both projects are being implemented by UNDP.

Additional Costs of Adaptation — the Basis for GEF Financing under the LDCF/SCCF

Addressing the adverse impacts of climate change imposes an additional cost on vulnerable countries in their effort to achieve their development goals. In the context of the funds, the term *additional costs* was adopted and defined to mean the costs imposed on vulnerable countries to meet their adaptation needs due to the adverse impacts of climate change¹³. Access to LDCF/SCCF resources is justified by identifying and meeting the costs of adaptation defined as *additional costs over business as usual*. Activities that would be implemented in the absence of climate change constitute a project *baseline*, (or *business-as-usual*) and the costs of achieving this development scenario are referred to as *baseline costs* or *business-as-usual*

¹³ In particular, for the purpose of UNFCCC Decision 3/CP.11 "Further guidance for the operation of the Least Developed Countries Fund," the term "additional costs" means the costs imposed on vulnerable countries to meet their immediate adaptation needs.

¹⁴ This decrease in the use of the sliding scale has had the added benefit of increasing the amount of cofinancing in the project, as previously the sliding scale offered guidance also in terms of the adequate size of cofinancing, which appears to have had the consequence of serving as a constraint on the amount of cofinancing provided.

financing. The altered plan of action required to implement adaptation measures needed to reduce vulnerability, build adaptive capacity, and an overall increase of resilience to climate change, comprises the LDCF/SCCF financed *adaptation project or program*.

Estimating the Costs of Adaptation

Considering that the LDCF and SCCF were among the first funds of their kind, initially it was challenging for the countries and implementing agencies to assess *ex-ante* the additional cost of adaptation, as the construction of detailed baseline and adaptation scenarios can be quite complex, time-consuming, and imprecise. Consequently, to simplify the estimate of the additional costs, vulnerable countries have successfully used the option of a sliding scale or proportional scale – proposed as a streamlining tool for the LDCF and the SCCF – which takes into account the size and nature of projects. If the project's financing structure fits within the limits set by this scale, the project's requested funding shall be considered an acceptable approximation of the project's additional cost. More recently, with knowledge and experience that has been generated through these funds as well as the SPA, the use of the sliding scale has decreased.¹⁴ As studies on the costs of adaptation are still ongoing, LDCF and SCCF project portfolios will retroactively provide hard data on the costs of adaptation after project completion to contribute to the broader and longer term discussion on the costs of adaptation worldwide.

Innovative Features of LDCF and SCCF

Programming under the LDCF and SCCF has several innovative features, which have been tested on the ground with positive feedback from stakeholders. These include:

- **The application of the Additional Cost principle:** As highlighted above, the concept of additional costs has been applied to determine the level of LDCF/SCCF funding. In both the LDCF and the SCCF, eligible adaptation funding is defined in the context of development, and is not based on generating global benefits as defined for conventional operations in GEF focal areas;



Women and children in the Sudan watch the arrival of the UN Mission (UNMIS) team and traditional community leaders, advocate the need for peaceful co-existence between neighbors on the route shared in search of pasture and water.

- **Allowance for Full-cost Funding:** In those rare cases where no baseline of activities can be identified, the LDCF (this is the case for LDCF only) will pay the full-costs of the adaptation project, provided that it targets an urgent and immediate need as defined in the NAPA;
- **Expedited Project Cycle:** All pipeline and project reviews and approvals have been undertaken on a rolling basis. Full projects, defined as projects requesting more than USD 2 million of LDCF funding have been approved by Council on a “no objection” basis. Only in cases where four Council members object to a project will it need to be submitted to a Council meeting for discussion (this has, however, to date never occurred). The SCCF follows the expedited GEF trust fund project cycle;
- **Increased limit for CEO Approval (Mid-Sized Projects):** Under the LDCF approval procedures, the CEO is authorized to approve projects of up to USD 2 million in size, notifying Council of such approval on a “no objection” basis. This represents a significant increase in CEO commitment authority,

which is normally limited to USD 1 million for projects within the GEF Trust Fund. The SCCF follows the GEF trust fund project cycle.

- **Ongoing dialog with recipient countries, especially LDCs:** the GEF Secretariat is engaged in multiple activities to disseminate information on how to access LDCF and SCCF resources. In particular, is financing in collaboration with the UNFCCC Secretariat, sub-regional workshops that are aimed at building local capacity to access financing for adaptation under these funds.



Sand dune fixation experiments with drought resistant plants at Sabzewar, Iran. In order to control erosion and protect the irrigation network of the country the Government of Iran with the help from Food Agriculture Organization under the UN Development Programme carried out drought resistant experiments in catchment areas.

Adaptation Strategy In 2010–2014

Goal, Impact, Objectives, Outcomes, Scope and Activities

GOAL:

To support developing countries to increase resilience to climate change through both immediate and longer-term adaptation measures in development policies, plans, programs, projects and actions.

IMPACT:

Reduce absolute losses due to climate change, including variability.

OBJECTIVES:

The goal will be achieved through two equally important objectives. One is to reduce vulnerability to climate change of sectors, areas, countries, communities and ecosystems, and the other is to increase adaptive capacity.

OUTCOMES:

- Adaptation objectives and budget allocations incorporated in broader development frameworks
- Risk analysis and vulnerability assessment incorporated as part of development programs and project planning
- Adaptation practices developed and implemented to respond to climate change-induced stresses in development sectors and vulnerable ecosystems
- Climate change and variability -induced disaster planning mechanisms developed and applied
- Reduced absolute losses due to climate change, including variability
- Awareness raised and communities involved in disaster planning, preparedness and prevention
- Strengthened institutional adaptive capacity to implement adaptation measures



- Diversified and strengthened livelihoods
- Enhanced climate resilience of relevant development sectors and natural resources

SCOPE:

The strategy is focused on a robust financing of the *Least Developed Countries Fund and the Special Climate Change Fund*. If properly financed, these two Climate Change funds currently have the possibility to meet a significant share of the demand for adaptation of some of the most vulnerable countries in the world.

Result-Based Management Framework for Adaptation to Climate Change

The Adaptation Strategy utilizes a *Result-Based Management Framework* (RBM) to be adopted at project/program design stage and applied to measure progress throughout implementation. The framework developed for the LDCF/SCCF draws upon the framework developed for the GEF Trust Fund but is tailored to the adaptation mandates of the two funds. The framework also relies on previous work carried out by UNDP (GEF/LDCF.SCCF.2/Inf.4), GEF's adaptation



From the air, rows and rows of planted trees grow in the Cap-Haitien countryside.

task force, and the GEF Evaluation Office (GEF/LDCF. SCCF.4/Inf.4). The GEF Trust Fund's RBM framework was built on the strategic programming for the GEF-4 focal area strategies and their associated indicators (GEF/C.31/10). Since the LDCF and SCCF are structured differently than the GEF Trust Fund and operate through the core sectors that link adaptation and development instead of dealing with global environmental benefits and focal areas, the RBM framework presented here has been adjusted to reflect this difference. The results based management framework (RBM) for the LDCF/SCCF will incorporate monitoring and reporting at three levels: program (LDCF/SCCF adaptation programs);

intervention areas (sectors/areas of intervention); and project level. Implementing an RBM system is part of a process intended to equip the Secretariat with the tools needed to assess how the LDCF and SCCF interventions contribute toward the funds' overall objectives.

The key components of the RBM framework will include both planning and reporting instruments. As funding mechanisms for adaptation and other specific needs of developing countries under the UNFCCC, the LDCF and SCCF take their mandate from the Climate Convention. The Conference of the Parties to the Convention (COP) provides guidance to the GEF, which manages these funds, to identify program priorities and operational modalities for financing within the broad scope of the mandate of each Fund. The second component of the RBM is reporting that is linked to implementation. Similar to the exercise conducted for the GEF Trust Fund's active portfolio, an *Annual Monitoring Review (AMR)* will be developed as the principle instrument for reporting on active LDCF and SCCF projects. Portfolio review guidelines will be developed to monitor, project implementation progress, progress towards achievement of increased resilience/reduced vulnerability/increased adaptive capacity to the adverse impacts of climate change, realization of co-financing¹⁵, and actions taken to achieve sustainability and replicability.

The GEF Secretariat will work closely with the Agencies, adaptation taskforce, and the Evaluation Office to apply the proposed RBM framework, including work on a more robust list of recommended adaptation indicators. An outline of the RBM results framework and a list of sample project level indicators by sector/area of intervention are provided. The RBM framework is described in some detail in Annex III.

Proposed Innovative Features of the LDCF and the SCCF

It is worth noting that the Climate Change Funds (LDCF and SCCF) follow the operational rules of the GEF Trust Fund except for when Convention guidance decides otherwise. For example, the GEF project cycle, fiduciary standards, voting modalities and other procedures fully apply to the SCCF. The LDCF has, per UNFCCC guidance request, a streamlined project cycle. Both funds do not apply the Resource Allocation Framework

¹⁵ Taking into consideration that co-financing for adaptation has a different connotation than in GEF.

(recently denominated STAR, as the system has been developed for climate change mitigation) and apply the additional costs principle associated to adaptation benefits as opposed to the incremental costs and global benefits.

Based on this principle, all innovative proposals listed in GEF/R.5/20, *Draft Policy Recommendations for the Fifth Replenishment of the GEF Trust Fund*, if appropriate, may be utilized in managing the LDCF and SCCF, including: the expanded access for additional implementing agencies; the option to engage countries more directly with the GEF Secretariat and develop national plans on adaptation if predictable resources are available under these funds.

SPECIFIC FOCUS ON GENDER:

The profound effects of climate change on livelihoods are directly related to low resiliency and high vulnerability. In particular, climate change, including variability, can severely alter people's ability to manage natural resources, affecting livelihood and food security. These risks implicitly threaten jobs, homes, and access to basic resources, including food and water. Experience shows that interventions to strengthen livelihoods and food security from external shocks are more efficient and effective when gender differences are properly understood and addressed. As the LDCF and the SCCF have prioritized a broad range of sectors that support livelihoods, while focusing on the most vulnerable, it is crucial that project design and the Result-Based management functions adequately assess vulnerability, considering socioeconomic and gender issues.

As the processes and procedures for the LDCF and SCCF become more advanced, greater attention is being paid to gender and vulnerability analysis. Increasing attention is being given to the differences between men and women within at-risk populations. Implementing agencies will be encouraged to conduct gender analysis in order to understand women's and men's different activities and responsibilities, and their access to resources and decision-making. Vulnerability analyses will be required to take gender differences into account and will be an important input into project design. For example, these analyses will focus on the different ways that women and men vulnerable to climate change; and the strengths and skills of women and men that projects need to build on to increase adaptive capacity.



Rural women sell mango and sweet potato jam at the food processing shop in Bantantinting, Senegal. They produced the jam with a Multifunctional Platform Project introduced by the United Nation's Development Programme (UNDP), helping women and girls to no longer spend several hours a day gathering firewood or collecting water.

The project results frameworks for the LDCF and SCCF will include indicators that are disaggregated by gender as appropriate, in particular those related to outputs and outcomes related to adaptation assets created in support of individual or community livelihood strategies. Gender will be integrated as appropriate in all results frameworks and in updated operational guidance. The LDCF/SCCF funds will also benefit from the work underway by the GEF Secretariat to develop specific operational guidance for strengthening socio-economic and gender analysis and identifying appropriate indicators. The results of this work will become part of project design requirements and part of project review criteria.



Another important issue is the relative comparative advantage of the different GEF agencies for support of adaptation projects. This topic has been discussed by GEF stakeholders. Some of the agencies have proved to be leaders in adaptation activities, but others have yet to develop or implement any adaptation project or program, or have showed a lack of specific development and adaptation expertise. For this reasons, GEF partners, countries and other stakeholders have emphasized the need to expand the network of agencies so as to include a wider range of adaptation experience and capabilities. For example, agencies such as the International Red Cross, with direct expertise on disaster risk management and prevention, and the World Food Program, with a strong presence in the field managing food security and community-level services relevant to climate variability and change, have been identified as appropriate candidates for additional agencies to implement the LDCF and the SCCF.

BOX 2 EXAMPLE: WORLD FOOD PROGRAM AND ADAPTATION

Climate change adaptation and disaster risk reduction play a prominent role in WFP's Strategic Plan for 2008 to 2011. The WFP's *disaster risk reduction, preparedness and response* programs offer significant opportunities to enhance sustainable development. Guided by governments, who have the primary responsibility for consistent disaster prevention and mitigation policies, and working with other partners, WFP enhances national disaster risk reduction and adaptation frameworks with its experience and services, field presence, and programs to help communities reinforce their essential food and nutrition security systems and infrastructures – including voucher, cash and food-based safety nets.

In countries where WFP has a continuing presence, *vulnerability analysis and mapping* helps the organization, governments, and other stakeholders identify hungry poor populations, where they are located, and the nature and causes of their vulnerabilities. WFP's Food Security Analysis Service and its unique network of about 120 specialists posted around the world answer these fundamental questions through about 90 assessments every year.

As a further response to the impacts of climate variability, WFP activities such as targeted food-supported employment programs are being deployed to build flood defenses and small-scale irrigation systems, fix dunes to stop the encroachment of the desert onto agricultural land, plant trees to mitigate the impacts of floods and landslides, harvest water and to rehabilitate depleted land.

These activities help vulnerable communities adapt to the actual and expected impacts of climate change. In 2007 WFP food or cash-based employment programs targeted to food insecure communities amounted to USD 280 million, reaching over 13 million people. They contributed to the construction or rehabilitation of 1,579 ponds, 1,571 wells, 14,305 kilometers of irrigation systems, and 1,621 kilometers of dykes. 169,884 hectares of land were protected, cultivated or rehabilitated and made available for agricultural production, and 152,851 hectares of land were reforested throughout the world. With GEF support, these programs could be expanded and more effectively tailored to incorporate climate change adaptation needs.



Villagers digging an irrigation canal in the village of Dodoma, Tanzania. Elevated heat, evaporation rates, and drought create greater demands for crop irrigation and more frequent famines through crop failure. Projections show billions of people will suffer from water and food shortages in the future resulting in deepening poverty, further political instability, and forced migration.



Least Developed Countries Fund (LDCF)

THE LEAST DEVELOPED COUNTRIES FUND IS AIMED AT ADDRESSING THE SPECIAL NEEDS OF THE LEAST DEVELOPED COUNTRIES (LDCS) UNDER THE CLIMATE CONVENTION; ADAPTATION HAS BEEN IDENTIFIED AS THE MOST RELEVANT ISSUE; THE FUND MUST FINANCE THE ADAPTATION NEEDS OF THE LDCS THAT ARE MOST URGENT AND IMMEDIATE.

PURPOSE UNDER THE CONVENTION:

The Least Developed Countries Fund (LDCF) was established in response to guidance received from the Seventh Conference of Parties to the UNFCCC meeting in Marrakech in 2001. It is designed to support projects addressing the urgent and immediate adaptation needs of the Least Developed Countries (LDCs), focusing on reducing the vulnerability of those sectors and resources that are central to human and national development, such as water, agriculture and food security, health, disaster risk management and prevention, and infrastructure, as identified and prioritized in their National Adaptation Programmes of Action (NAPAs).

PREPARATION FOR PROGRAMMING:

Of the 48 eligible LDCs, 48 have already received support to prepare their NAPAs. The remaining four countries are in differing stages of preparing the proposals for NAPA support. GEF has already disbursed USD 12 million to support the NAPA preparation phase.

PROGRAMMING PRIORITIES:

Following the preparation phase, the demand has exponentially grown for the implementation of NAPAs. Programming priorities indicated by the NAPAs are in the following sectors: *water resources; food security and agriculture; health; disaster preparedness; infrastructure; and natural resource management.* *Community-based adaptation* is also considered a cross-sectoral priority requiring urgent attention. Especially for LDC/SIDS, improved coastal management would be a priority.

The Special Challenge of Food Security and Water under the LDCF

The gap in funding for adaptation is rapidly growing in the closely related areas of water resources, coastal oceans, and food security. The rapid recent warming of the oceans influences continental rainfall patterns and ice melt. The result is that droughts and floods worsen, sea level rises, fisheries are impacted, coastal storm vulnerability is increased, and acidification from excessive carbon sequestration in the oceans dissolves coral reefs with pending catastrophic damage to coastal communities. Moreover, elevated heat, evaporation rates, and drought create greater demands for crop irrigation and more frequent famines through crop failure.

These linked impacts of climate change pose very complex adaptation challenges that are additional to the existing policy and management failures facing hydropower, water supply, irrigation, fisheries and water resources management, including the commonly ignored areas of groundwater and coastal management. Climate stress is only one of the multiple stresses on water and coastal ocean resources that need to be collectively addressed along with adaptation to a changing climate if drinking water supplies, protein from fisheries, food from irrigation, and electricity are to be sustained. Projections show billions of people will suffer from water and food shortages in the future resulting in deepening poverty, further political instability, and forced migration.

Based on NAPA priorities and on the project demand under the LDCF, the adaptation strategy under this fund is therefore expected to give high emphasis to water and food security. Some of the most direct impacts of climate change, including climate variability, will continue to be on agriculture and food systems. More frequent and intense climate-related events already have adverse impacts on food availability, accessibility, stability and utilization. Increasing temperatures and declining precipitation reduce yields, force transitions to lower valued commodities, and cause volatility in commodity prices. Farmers in food insecure regions, especially those that rely on local production to meet their food needs are particularly vulnerable to global

climate variations and price fluctuations. Even small changes in temperature and humidity levels pose risks for food safety and human health, with humans, plants, livestock and fish facing exposure to new pests and diseases.

Climate change worsens the living conditions of farmers, fishers and forest-dependent people, many of whom are already food insecure. Climate induced disasters reduce livelihood assets and opportunities, increasing the number of people at risk of hunger in both rural and urban areas. More than 90 per cent of exposure to natural disasters is in the developing world and the poor are at greatest risk of losing assets and livelihoods. As they lack adequate insurance coverage food insecurity will continue to increase.

The Sub-Saharan Africa is particularly vulnerable to reduced agricultural productivity, increased water insecurity and increased risks to human health with nutrition, health and education implications. For example, in Ethiopia and Kenya, two of the world's most drought-prone countries, children aged five or less are respectively 36 and 50 percent more likely to be malnourished if they were born during a drought. Rural people's ability to cope with climate change impacts depends on the existing cultural and policy context, as well as on socio-economic factors like gender and the distribution of household assets.

Sustainable food security practices and climate change adaptation and mitigation strategies can be supportive and reinforcing. Climate and weather risk management strategies (the emerging concept of "climate services" akin to more traditional weather services) also can support sustainable agriculture and fisheries practices.

In managing the LDCF, the GEF and its network of agencies have built relevant on-the-ground experience in financing adaptation action and learned lessons on activities that are particularly significant to reduce vulnerability and increase adaptive capacity of LDCs and other vulnerable countries.

LDCF Activities

Consistent with the priorities identified by the NAPAs, the LDCF finances the activities that are linked to the most urgent and immediate adaptation needs of the LDCs, or activities whose further delay could increase vulnerability, or lead to increased costs at a later stage. As climate change impacts all sectors of development, the adaptation activities that are financed under the LDCF are integrated, or "mainstreamed," into each LDC's development plan.

A few examples follow that show specific activities ready for or under implementation in response to priorities identified by the NAPAs under the LDCF.

WATER:

Improved rainwater harvesting facilities in each village; System of Rice Intensification prescriptions reduce vulnerability to changing precipitation amounts and patterns; Modifications to design of reservoirs and irrigation channels, and to management of these features and natural ponds to better manage climate change induced risks. *Building Capacities to Integrate Water Resources Planning in Agricultural Development (Cambodia, UNDP)*

In addition, drought management planning, floodplain management and early warning systems, more efficient water supply and irrigation technologies, and institutional reforms through IWRM can help sustain water and food supplies. In addition, ICM in coastal areas and ecosystem-based approaches to fisheries can help reduce vulnerability to multiple disasters, including saltwater intrusion to drinking supplies while sustaining fish protein sources.

Moreover, integrated coastal zone management in coastal areas and ecosystem-based approaches to fisheries can help reduce vulnerability to multiple stresses, including saltwater intrusion to drinking supplies while sustaining fish protein sources.

FOOD SECURITY/AGRICULTURE: ACTIVITIES INCLUDE:

Crop diversification; Improved cropping sequences; Conservation tillage; More efficient water use in irrigation; community-based supplemental irrigation; Food storage; Creation of an enabling environment for Climate Risk Management; Policy development and implementation; Institutional coordination; and Generation of knowledge and awareness raising. Project example: *Climate Adaptation from Rural Livelihoods and Agriculture in Malawi (AfDB)*

DISASTER RISK MANAGEMENT: ACTIVITIES INCLUDE:

Increase disaster risk management capacity in affected valleys; Artificial lowering of water level in glacial

lakes; Creation of an Early Warning System for glacial flashfloods – Project example: *Reduce CC-induced Risks and Vulnerabilities from Glacial Lake Outbursts in the Punakha-Wangdi and Chamkar Valleys in Bhutan (UNDP)*.

NATURAL RESOURCES MANAGEMENT

(Bangladesh) - Pilots implemented at community level including (i) forest management and mangrove/wetland restoration leading to natural coastal protection; (ii) innovative ways of securing potable water; (iii) promotion of alternative livelihoods; and, (iv) improving institutional and technical capacity, including Early Warning Systems.



A group of women villagers raise their hoes with song, as they prepare for terracing a hilly ground for conservation and irrigation, in preparation of planting crops. Ngozi, Burundi

Workers on a farm financed with a loan from the Grameen Bank project for poverty eradication. Bogra, Bangladesh



LDCF Financing Needs

CURRENT AND PROJECTED FINANCING NEEDS:

A recent assessment of the financing needs to support the implementation of NAPAs carried out by the UNFCCC Secretariat estimates that the costs of adaptation range between USD 800 million and USD 1.7 billion. These estimates were reinforced during COP15, where the Parties recognized the conclusions of a paper prepared by the LEG, "Support needed to fully implement national adaptation programmes of action (NAPAs)", and stressed the need for financial resources for the full implementation of priorities identified in 48 NAPAs as being at least USD 1.93 billion¹⁶. As the LDCF is the fund especially established under the Convention to pay these costs, the estimated financing need for the LDCF is consistent with the analysis of the UNFCCC. The activities to be financed will be consistent with the priorities identified by the NAPAs, through a programmatic approach that will build on project experience and maximize impact by reducing vulnerability and increasing the adaptive capacity of the most important and vulnerable development sectors.

A recently published analysis carried out by the UNFCCC Secretariat, "Investment and financial flows to address climate change: an update," utilized the National Adaptation Programmes of Action (NAPAs) as a tool to estimate the costs of adaptation at project level, identified through bottom up assessments in the 38 NAPAs so far completed. In total, these countries have identified about 430 "urgent and immediate" adaptation projects, of which the cost of 385 has been evaluated. The estimated total cost of these projects is over USD 800 million with an average project cost of approximately USD 2 million (excluding a single USD 700 million project). Table 1 illustrates the sectoral breakdown of NAPA projects.

In addition, a recent evaluation of the LDCF carried out jointly by DANIDA and the GEF Evaluation Office, assessed that *any replenishment of the LDCF for the longer term should be sufficient to support whole NAPA programmes, rather than individual project implementation.*

TABLE 1: PROJECTS IDENTIFIED IN NATIONAL ADAPTATION PROGRAMMES OF ACTION, BY SECTOR

Sector	Total cost (USD)
Water resources	841,204,099
Agriculture/livestock/fisheries	357,840,182
Coastal management/marine ecosystems	150,823,182
Terrestrial ecosystems/biodiversity	132,574,526
Early warning and forecasting	89,531,263
Health	46,688,000
Energy	23,514,120
Education	21,729,734
Insurance	8,225,000
Tourism	1,850,000
Total	1,673,980,106



The United Nations Development Programme (UNDP) works to empower herder groups in Must, Mongolia. Many herders now develop their own land-use plans, conservation maps and sustainable practices for water, forest and pasture management. These new methods improve the herders' livelihoods while protecting the biodiversity of the region.

¹⁶ CFCCC/SBI/2009/L27, "Matters relating to the least developed countries. Draft conclusions proposed by the Chair." – CP.15, Copenhagen Accord.

It is difficult to compare the estimates of adaptation projects in NAPAs with the global estimates of adaptation costs such as those given in the 2007 UNFCCC report for several reasons. First, the NAPAs are not intended to address medium to long-term adaptation, but to identify urgent and immediate adaptation needs. So far, fewer than 41 countries have completed NAPAs and it is questionable whether these can be extrapolated to the rest of the developing world. Second, the total investment needs per project may not represent annual investment needs but cumulative needs. And third, it can be difficult to determine the extent to which climate change is a primary cause or more a justification for investments.

Based on lessons learned from LDCF experience, there is a need to significantly increase the impact achieved at the project level and expand the scale and scope of the LDCF projects and programs on the ground at the sectoral and national levels. In order to achieve this objective, resources under the LDCF must significantly grow. The process initiated by the NAPAs and the analysis provided by the reports identifying the most urgent and immediate needs remain seminal steps to be scaled up and replicated at the sectoral and national level. The LDCF remains the only mechanism created by and accountable to the Climate Convention with respect to the urgent and immediate needs of the LDCs, and this strategy highlights the responsibilities of donor countries to honor their commitments under the Convention.

In conclusion, despite the fact that estimating the financial needs for adaptation for the LDCs remains difficult, it is imperative that at least USD 600 million be mobilized within the next 4 years to finance the urgent and immediate adaptation needs of the Least Developed Countries to implement the National Adaptation Programmes of Action as estimated by the UNFCCC. Projected financing scenarios for the LDCF and SCCF are described in some detail in Table 2 and Annex IV.



Secretary-General Ban Ki-moon (second from right) meets with one of the victims of the recent floods during a visit to a disaster management centre sponsored by the government. Sirajganj, Bangladesh

Special Climate Change Fund (SCCF)

IN THE CONTEXT OF THE GEF ADAPTATION STRATEGY, AND ON FINANCING ADAPTATION IN GENERAL, THE SPECIAL CLIMATE CHANGE FUND (SCCF) CURRENTLY PLAYS A PIVOTAL ROLE AS IT IS THE FUND WITH A LARGE POTENTIAL TO ADDRESS THE ADAPTATION NEEDS OF VULNERABLE COUNTRIES WORLDWIDE.

Unlike the LDCF, which is specifically dedicated to the urgent and immediate needs of the LDCs, the SCCF is open to all vulnerable developing countries. In addition, it may finance a wide range of concrete adaptation measures, which may include longer term horizons. Projects have the option to focus on long-term planned response strategies, policies, and measures, rather than short-term activities.



PURPOSE UNDER THE CONVENTION:

The Special Climate Change Fund (SCCF) was established in response to guidance received from the Seventh Conference of Parties to the UNFCCC meeting in Marrakech in 2001. It is designed to finance activities, programs and measures related to climate change that are complementary to those funded by GEF under the climate change focal area, in the areas of:

- Adaptation to climate change;
- Technology transfer;
- Selected sectors including: Energy, transport, industry, agriculture, forestry and waste management; and
- Economic diversification.

Among these four categories, adaptation has the top priority. This strategy brief note describes the essential features of the SCCF Adaptation program. The Scope of the Adaptation Strategy encompasses only the first financing window of the Special Climate Change Fund on Adaptation (a).

ELIGIBILITY:

All developing countries that are parties to the United Nations Framework Convention on Climate Change (UNFCCC) are eligible to receive financial support for adaptation interventions to be integrated into development activities.

REPARATION FOR PROGRAMMING:

The adaptation program under the SCCF does not allocate resources for enabling activities limited to assessing vulnerability to climate change and identifying adaptation needs. Projects proposed under this fund are to be for implementation of adaptation activities under priority areas of intervention as identified by the Climate Convention.

PROGRAMMING PRIORITIES:

Starting to implement adaptation activities promptly where sufficient information is available to warrant such activities, inter alia, in the areas of:

- water resources management
- land management
- agriculture
- health
- infrastructure development
- fragile ecosystems, including mountainous ecosystems
- integrated coastal zone management.
- improving the monitoring of diseases and vectors affected by climate change, and related forecasting and early-warning systems, and in this context improving disease control and prevention.
- supporting capacity building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change, including contingency planning, in particular for droughts and floods in areas prone to extreme weather events.



Secretary-General Ban Ki-moon (left) inspects a mosquito net, a key malaria preventer, at Mwandama Millennium Village, Malawi.

SCCF Activities

Eligible activities are directly related to the programming priorities listed above. Financing adaptation activities under the SCCF may include a wide range of options, including policy reform. Selected examples of concrete adaptation activities that are already under implementation under the existing adaptation SCCF program are:

HEALTH:

Cost-effective strategies and measures developed that reduce the long-term risk of climate change impacts on diseases such as malaria etc; Roll Back Malaria programme and other campaigns up-scaled to take into account climate change; Adjustments to existing health regulations to factor in climate change risks – project example: *Integrating climate change into the management of priority health risks in Ghana.*-UNDP

INTEGRATED COASTAL MANAGEMENT:

Improved management of drainage system; Implementation of adaptation measures such as beach nourishing at particularly important sites; Construction of hydrological models; Institutional support for implementation of integrated coastal zone management and disaster management; (Guyana, WB; Egypt, UNDP); *In addition, ICM in coastal areas can help reduce vulnerability to multiple disasters, including saltwater intrusion to drinking supplies; and ecosystem-based approaches to fisheries that help sustain fisheries for protein sources.*

WATER RESOURCES MANAGEMENT IN RESPONSE TO GLACIAL RETREAT:

Filling knowledge gaps on links between climate change, glacial retreat and socio-economic/ecological effects; Capacity development and policy support for integrated water management and prioritization of limited water resources at national and community levels; Pilot measures and improved water management promoted in agriculture and hydroelectricity sectors; Innovative ways of meeting potable water needs. *Regional (Bolivia, Ecuador, Peru) WB.*



A view of Huayna Potosí, a mountain in Bolivia's Andean chain. The Huayna Potosí is home to a glacier melting at rates exceeding scientific projections, making its glacier one of the fastest melting in the world.
Huayna Potosí, Bolivia

IMPROVED WATER RESOURCES MANAGEMENT IN RESPONSE TO DROUGHTS, FLOODS, AND WARMING.

Real-time-data-sharing and hydrologic drought/flood prediction and warning systems; catchment protection; drought management planning; flood, floodplain, land use management measures; water use efficiency for water supplies and irrigation for food crops as part of IWRM strategies; groundwater protection and management for alternative supplies; sustainable fisheries management to adapt to lake warming; *Drought management in the Amazon River Basin and for flood and floodplain management in the Plata River Basin; Senegal River Basin; Lake Malawai/Nyassa/Niassa Basin.*

POTENTIAL USE OF FISCAL INSTRUMENTS.

Given the wide range of sectors and economic activities that need to be engaged, broader fiscal policies and economic measures may sometimes be appropriate in addition to the specific activities listed above. . While detailed analysis and careful design will be essential, numerous fiscal measures could be designed consistent with the economies and circumstances of vulnerable

countries to make them more climate-resilient. Examples include: (i) tax-breaks for climate appropriate reconstruction after disasters, (ii) government supported insurance programs and policies for farmers, coastal and other vulnerable communities linked to climate appropriate investments and behaviors and (iii) technical assistance to help governments take climate change risks into account in their national economic planning, particularly for climate sensitive sectors with public ownership or control such as water and other infrastructure. There is considerable opportunity to incorporate risk management more generally in national economic planning decisions in the most vulnerable countries given the large impact of climate disasters, especially in smaller economies. There is an opportunity to integrate "climate services" akin to weather services as part of national economic planning systems.

The engagement of ministries of planning and economic development would be sought in order to influence development planning and investments. Developing countries may wish to engage in discussion of such strategies or related fiscal measures.

²³ Aside from national communications and TNAs, the GEF has provided support to several corporate programs on capacity building, such as National Capacity Self-Assessment and the Country Support Program.

BOX 3 THE SPECIAL CHALLENGE OF SMALL ISLAND STATES

Small island developing states (SIDS) will receive priority funding from the SCCF as *SIDS have been consistently identified among those countries most vulnerable to the changing climate*. In particular, the IPCC in its fourth assessment report noted that small islands have characteristics which make them especially vulnerable to the effects of climate change sea level rise and extreme events.

Climate change for many SIDS is an issue of survival. For SIDS the issues of sea level rise, coastal zone management, water management interventions and human health will need specific attention. Small islands states also have many critical and unique ecosystems which are highly vulnerable to the changing climate.



Secretary-General Kofi Annan delivers his statement at the opening of general debate of the high-level segment on Programme of Action for Sustainable Development of Small Island Developing States.

SCCF Financing Needs


CURRENT AND PROJECTED FINANCING NEEDS:

The major obstacle emphasized by our stakeholders, including the agencies and the client countries, is the uncertainty that currently exists with respect to how much money is available to develop adaptation projects under the SCCF. The SCCF is the only fund established under the Climate Convention whose resources are currently available under for all vulnerable developing countries (only LDC countries, by definition, are eligible for LDCF resources). The demand under the SCCF to date is no less than USD 100 million per year, with much greater demand expected to come in the near future, while the fund totals USD 110 million, of which only USD 100 million is for adaptation. (More projects might be also proposed if more resources were available.) To meet the demand and ensure financing predictability, the GEF estimates the need for USD 400 million for the SCCF adaptation window for a 4 year financing cycle, to finance the necessary adaptation activities under the priority sectors listed above. Projected financing scenarios for the LDCF and SCCF are described in some detail in Annex IV. Alternative scenarios are discussed in Table 2.

The mandate of the SCCF is broad enough to incorporate the category of projects that were so far financed under the SPA (trust fund), for example those that address the vulnerability of ecosystems. An example of activities that were previously financed under the SPA portfolio (trust fund) and could be financed under the SCCF include addressing climate impacts on coral reefs, mangrove, forest and other vulnerable ecosystems, and, as in the example listed below, agro-biodiversity of global significance.

EXAMPLE OF ADAPTATION ACTIVITIES FOR AGRO BIODIVERSITY CONSERVATION:

Extension services are given the capacity to provide information and advice to farmers on agro biodiversity conservation and effective coping measures to climate risks; Farm-based adaptation practices are developed and implemented, including water harvesting regimes, soil conservation, flood protection terracing, stress-resistant local varieties; Improved access to seasonal forecasts for farmers; Agreements between farmers, farmer groups, provincial and district governments to govern the use of resources and agro-biodiversity developed in the pilot sites; a Seed Insurance Scheme



Members of the United Nations Security Council visit a soil and water conservation watershed project to protect the environment, implemented by the United Nations Development Programme, the International Labour Organization and the World Food Programme during their four-day mission to the country. Gonaives, Haiti

is being piloted in selected communities to promote agro biodiversity and improve resilience of local farmers – project examples: *Sustaining agricultural biodiversity in the face of climate change (Tajikistan, UNDP)*; similar project, *Yemen (WB)*.

Different Financing Scenarios and Expected Results

It is estimated that the financial needs for adaptation under the LDCF and SCCF are in the order of USD 1 billion total combined for the two funds, for the current 4 year period (2010-2014). In the event that this “target scenario” of USD 250 million per year (USD 150 and USD 100 M/yr for LDCF and SCCF respectively) is not achieved, the Secretariat has also analyzed two alternative financing scenarios of at least USD 175 million/year (USD 105 and USD 70 M/yr for LDCF and SCCF respectively) and at least USD 200

million/year (USD 120 and USD 80 M/yr for LDCF and SCCF respectively), aiming to demonstrate to what degree the objectives in the LDCF/SCCF Results Based Management framework can be expected to be reached under different levels of financing (Table 2).

A key difference between the target scenario and the two alternative scenarios is the degree to which the LDCF and SCCF would be able to implement a more programmatic approach to adaptation both at national and regional levels. With lower levels of available funding, programming is likely to continue to be project and sector focused with less room for more cross cutting programmatic approaches that mainstreams adaptation into policies and planning and supports a more comprehensive multi-sector process to achieve more climate resilient national economies. In general, project activities and investments in the lower range scenarios are likely to be smaller in both scale and scope and would remain mostly of a pilot nature as sufficient funding would not be available to significantly upscale successful pilot experience.

Another key difference between the target scenario and the two alternative scenarios is that the proportion of LDCF/SCCF programming going into concrete on-the-ground investments in climate resilience would likely be smaller if projects remain small. Genuine impact on large development baselines (e.g. large scale investment programs in the agriculture sector by multilateral banks) generally requires a high level of financial commitment to generate the necessary interest and commitment by the baseline partner(s). Smaller investments like MSPs (which would be more common under the USD 175 million and USD 200 million scenarios) are more easily attached to project-like investments which are usually limited to a particular region and/or sector, and generally tend to have a higher focus on capacity development

(e.g. through pilot and enabling activities). While smaller scale capacity building activities are certainly beneficial to generate learning and localized adaptation benefits, there is now sufficient knowledge on effective adaptation options to start scaling up activities and thus to have a more fundamental impact on the climate resilience of development sectors. Considering the limitations imposed by the USD 175 million/year and USD 200 million/year scenarios in terms of achieving a more programmatic approach to adaptation programming, a higher focus on concrete on-the-ground investments, and having a significant impact on climate resilient development in LDCs and SCCF-eligible countries, the GEF Secretariat recommends a financing of at least USD 250 million/year.

TABLE 2: FUNDING SCENARIOS FOR 2010-2014 AND EXPECTED RESULTS

Objectives	Key Expected Outcomes	Scenario 1: \$175M LDCF: \$105M SCCF: \$70M	
Objective CCA-1 - Reducing Vulnerability: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level	Outcome 1.1: Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Most LDCs and some SCCF-eligible countries are able to mainstream adaptation into selected sector plans and development frameworks at country level and in vulnerable areas.	
	Outcome 1.2: Reduced vulnerability to climate change in development sectors	Most LDCs and some SCCF-eligible countries are able to implement small to medium scale national level adaptation investments in one or two key vulnerable sectors and/or sub-regions.	
	Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Some LDCs and some SCCF-eligible countries are able to showcase, on a pilot basis, options for diversified and strengthened livelihood strategies.	



Funding Scenarios per year for 2010-2014 Key Targets			
	Scenario 2: \$200M LDCF: \$120M SCCF: \$80M	Target Scenario: \$250M LDCF: \$200M SCCF: \$175M	Core Outputs
	Most LDCs and most SCCF-eligible countries are able to mainstream adaptation into many sector plans and development frameworks at country level and in vulnerable areas, but in a non integrated manner; some able to implement a programmatic approach.	Most LDCs and some SCCF-eligible countries are able to implement a programmatic approach to adaptation across development frameworks at country level and in vulnerable areas	Output 1.1.1: Adaptation measures and necessary budget allocations included in relevant frameworks
	Most LDCs and some SCCF-eligible countries are able to implement small to medium scale national adaptation investments in one or two key vulnerable sectors and/or sub-regions; some in programmatic manner.	Most LDCs and some SCCF-eligible countries are able to implement a programmatic approach to adaptation across development frameworks at country level and in vulnerable areas	Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability
	Most LDCs and some SCCF-eligible countries are able to showcase, on a pilot basis, options for diversified and strengthened livelihood strategies; some achieve replication and scaling up.	Some LDCs and some SCCF-eligible countries are able to replicate and scale up strengthened livelihoods and income strategies beyond pilots.	Output 1.3.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability



TABLE 2: FUNDING SCENARIOS FOR 2010-2014 AND EXPECTED RESULTS

Objectives	Key Expected Outcomes	Scenario 1: \$175M LDCF: \$105M SCCF: \$70M
Objective CCA-2 - Increasing Adaptive Capacity: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level	Outcome 2.1: Increased knowledge and understanding of climate variability and change-induced threats at country level and in targeted vulnerable areas	Most LDCs and some SCCF-eligible countries are able to conduct and update vulnerability assessments and disseminate risk information for selected development sectors at country level and in targeted vulnerable areas. Most have basic systems in place for the dissemination of risk information.
	Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Some LDCs and some SCCF-eligible countries are able to rapidly respond to some extreme weather events through early warning systems and risk reduction measures.
	Outcome 2.3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	A most of local populations in most LDCs and some SCCF-eligible countries is aware of climate change and has some degree of ownership for local adaptation and climate risk reduction processes.
Objective CCA -3 - Adaptation Technology Transfer: Promote transfer and adoption of adaptation technology	Outcome 3.1: Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas	Some LDCs and some SCCF-eligible countries are able to successfully deploy relevant adaptation technologies in selected development sectors.
	Outcome 3.2: Enhanced enabling environment to support adaptation-related technology transfer	Most LDCs and some SCCF-eligible countries are able to set up enabling environments for technology transfer and train selected stakeholders in transfer of adaptation technology.



Funding Scenarios per year for 2010-2014 Key Targets			
	Scenario 2: \$200M LDCF: \$120M SCCF: \$80M	Target Scenario: \$250M LDCF: \$200M SCCF: \$175M	Core Outputs
	Most LDCs and some SCCF-eligible countries are able to conduct and update vulnerability assessments and disseminate risk information for selected development sectors at country level and in targeted vulnerable areas; some in an integrated manner, across development sectors. Some have systems in place for the dissemination of risk information, with national-level coordination support.	Most LDCs and some SCCF-eligible countries are able to conduct and update integrated vulnerability assessments and disseminate risk information capturing climate induced threats across national development sectors. Some LDCF and SCCF-eligible countries have early warning systems in place through regionally coordinated interventions.	Output 2.1.1: Risk and vulnerability assessments conducted and updated Output 2.1.2: Systems in place to disseminate timely risk information
	MSome LDCs and some SCCF-eligible countries are able to rapidly respond to most extreme weather events through early warning systems and risk reduction measures.	Some LDCs and some SCCF-eligible countries are able to anticipate and rapidly respond to the majority of predicted extreme weather events through early warning systems and comprehensive risk reduction measures, and most of the targeted population is covered by some risk reduction measures.	Output 2.2.1: Adaptive capacity of national and regional centers and networks strengthened to rapidly respond to extreme weather events Output 2.2.2: Targeted population groups covered by adequate risk reduction measures
	The majority of local populations in most LDCs and some SCCF-eligible countries is aware of climate change and has some degree of ownership for local adaptation and climate risk reduction processes.	The majority of local populations in most LDCs and some SCCF-eligible countries is aware of climate change and has a high degree of ownership for local adaptation and climate risk reduction processes. Processes are in place for further learning and exchange of information with other vulnerable groups.	Output 2.3.1: Targeted population groups participating in adaptation and risk reduction awareness activities
	Most LDCs and some SCCF-eligible countries are able to successfully deploy relevant adaptation technologies in selected development sectors; some are able to do so in an integrated, programmatic manner across development sectors.	Most LDCs and some SCCF-eligible countries are able to successfully deploy relevant adaptation technologies in an integrated, programmatic manner across development sectors.	Output 3.1.1: Relevant adaptation technology transferred to targeted groups
	Most LDCs and some SCCF-eligible countries are able to set up enhanced enabling environments for technology transfer and train selected stakeholders in transfer of adaptation technology; some in a programmatic way/taking advantage of regional platforms when appropriate.	Most LDCs and some SCCF-eligible countries are able to implement a more integrated and programmatic approach for technology transfer and train most relevant stakeholders in transfer of adaptation technology.	Output 3.2.1: Skills increased for relevant individuals in transfer of adaptation technology



At the request of the Government of Algeria, the United Nations Development Programme (UNDP) and the Food and Agriculture Organization (FAO) are involved in a project to increase and integrate the production of livestock and cereals in the Saida region, 200 miles south-west of Algiers.

TABLE 3: ESTIMATED FINANCING NEEDS FOR THE LDCF AND THE SCCF IN 2010-2014

LDCF			SCCF		
Objectives	Amount	Percent	Objectives	Amount	Percent
Agriculture/Food security	\$180,000,000	30%	Water Resources Management	\$120,000,000	30%
Water Resources Management	\$120,000,000	20%	Agriculture/Land Management	\$100,000,000	20%
Disaster Preparedness and Risk Management	\$90,000,000	15%	Infrastructure Development	\$ 40,000,000	10%
Community Level Adaptation	\$90,000,000	15%	Fragile Ecosystems	\$ 40,000,000	10%
Natural Resources Management	\$60,000,000	10%	Integrated Coastal Zone Management	\$40,000,000	10%
Health	\$30,000,000	5%	Health	\$20,000,000	5%
Infrastructure	\$30,000,000	5%	Disaster Risk Management	\$20,000,000	5%
			Cross Cutting Issues	\$20,000,000	5%
Total	\$600,000,000	100%	Total	\$400,000,000	100%

Conclusion


In closing, based on Convention guidance, responsiveness to developing countries' needs, including predictability of resources, and a commitment to complementarity and maximization of GEF-managed funds and resources, this strategy includes a request for a strong financing of the *Least Developed Countries Fund* (LDCF) and the *Special Climate Change Fund* (SCCF). The financial needs estimated for adaptation under the LDCF and SCCF for the current four-year period 2010-2014 are of USD 1 billion total (or USD 250 million per year combined for LDCF and SCCF), as illustrated in Table 3 below.

101. Alternative financing scenarios – one proposing USD 200 million and the other proposing USD 175

million per year combined for LDCF and SCCF – and the expected results associated with each scenario have also been described, along with the recommended financing scenario of USD 250 million per year (or USD 1 billion total) in Table 2 in the previous section.

102. Estimated financial breakdown per sector for USD 1 billion scenario over the 2010-2014 period has been derived, as described in Annex IV, the results of which are presented in Table 3 below.

103. Therefore, the GEF Secretariat is asking the LDCF/SCCF Council to approve this strategy as the basis for guiding the programming of resources in fiscal years 2010-2014.



A farmer maintains his field of sea-buckthorns in Mongolia. An important natural resource, sea-buckthorn is used for the prevention of soil erosion and the production of food and medicine products. The United Nations Development Programme (UNDP) Altai-Sayan Project, which works to preserve the biodiversity of the region, has helped Mongolian farmers by converting unused land into an agricultural park Uvs, Mongolia



Compilation of UNFCCC Guidance

Decision 11/CP.1, *Initial guidance on policies, programme priorities and eligibility criteria to the operating entity or entities of the financial mechanism*, see <http://unfccc.int/resource/docs/cop1/07a01.pdf#page=34>

Decision 2/CP.4, *Additional guidance to the operating entity of the financial mechanism*, see <http://unfccc.int/resource/docs/cop4/16a01.pdf#page=5>

Decision 5/CP.6, *The Bonn Agreements on the implementation of the Buenos Aires Plan of Action*, see <http://unfccc.int/resource/docs/cop6secpart/05.pdf#page=36>

Decision 5/CP.7, *Implementation of Article 4, paragraphs 8 and 9, of the Convention* (decision 3/CP.3 and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol), see http://unfccc.int/files/cooperation_and_support/ldc/application/pdf/13a01p32.pdf

Decision 6/CP.7, *Further guidance for the operation of the Least Developed Countries Fund*, see <http://unfccc.int/resource/docs/cop9/06a01.pdf#page=13>

Decision 7/CP.7, *Funding under the Convention*, see <http://unfccc.int/resource/docs/cop7/13a01.pdf#page=43>

Decision 27/CP.7, *Guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the least developed countries fund*, see <http://unfccc.int/resource/docs/cop7/13a04.pdf#page=6>

Decision 7/CP.8, *Initial guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Special Climate Change Fund*, see <http://unfccc.int/resource/docs/cop8/07a01.pdf#page=17>

Decision 8/CP.8, *Guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Least Developed Countries Fund*, see <http://unfccc.int/resource/docs/cop8/07a01.pdf#page=19>

Decision 4/CP.9, *Additional guidance to an operating entity of the financial mechanism*, see <http://unfccc.int/resource/docs/cop9/06a01.pdf#page=9>

Decision 5/CP.9, *Further guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Special Climate Change Fund*, see <http://unfccc.int/resource/docs/cop9/06a01.pdf#page=11>

Annex I



Compilation of UNFCCC Guidance

Decision 6/CP.9, *Further guidance for the operation of the Least Developed Countries Fund*, see <http://unfccc.int/resource/docs/cop9/06a01.pdf#page=13>

Decision 1/CP.10, *Buenos Aires programme of work on adaptation and response measures*, see <http://unfccc.int/resource/docs/cop10/10a01.pdf#page=2>

Decision 8/CP.10, *Additional guidance to an operating entity of the financial mechanism*, see <http://unfccc.int/resource/docs/cop10/10a01.pdf#page=19>

Decision 3/CP.11, *Further guidance for the operation of the Least Developed Countries Fund*, see <http://unfccc.int/resource/docs/2005/cop11/eng/05a01.pdf#page=10>

Decision 1/CP.12, *Further guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Special Climate Change Fund*, see <http://unfccc.int/resource/docs/2006/cop12/eng/05a01.pdf#page=3>

Decision 2/CP.12, *Review of the financial mechanism*, see <http://unfccc.int/resource/docs/2006/cop12/eng/05a01.pdf#page=6>

Decision 3/CP.12, *Further guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Special Climate Change Fund*, see <http://unfccc.int/resource/docs/2006/cop12/eng/05a01.pdf#page=3>

Decision 7/CP.8, *Initial guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Special Climate Change Fund*, see <http://unfccc.int/resource/docs/cop8/07a01.pdf#page=17>

Decision 7/CP.13, *Additional guidance to the Global Environment Facility*, see <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=33>

Draft decision -/CP.14, *Further guidance for the operation of the Least Developed Countries Fund*, see http://unfccc.int/files/meetings/cop_14/application/pdf/cp_ldcf.pdf

Draft decision -/CP.14, *Additional guidance to the Global Environment Facility*, see http://unfccc.int/files/meetings/cop_14/application/pdf/cp_gef.pdf



FCCC/SBI/2009/L.27 MATTERS RELATING TO THE LEAST DEVELOPED COUNTRIES



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Agenda item 6 (b)
Matters relating to Article 4, paragraphs 8 and 9, of the Convention
Matters relating to the least developed countries

Matters relating to the least developed countries

Draft conclusions proposed by the Chair

1. The Subsidiary Body for Implementation (SBI) took note of the oral report by the Chair of the Least Developed Countries Expert Group (LEG), and welcomed the report on the sixteenth meeting of the LEG, held in Bangkok, Thailand, from 24 to 26 September 2009.¹
2. The SBI thanked the Government of the United Republic of Tanzania for hosting the first training workshop on the implementation of national adaptation programmes of action (NAPAs) in Dar es Salaam from 19 to 23 October 2009, and expressed its gratitude to the Government of Ireland for providing financial resources to support the work of the LEG.
3. The SBI welcomed the submission by Parties of 43 NAPAs to the secretariat as at 8 December 2009. It noted the important role played by the LEG in assisting least developed country (LDC) Parties with the preparation of NAPAs, and invited the LEG to continue to assist the LDCs that have not yet completed their NAPAs to complete and submit these as soon as possible, in collaboration with the Global Environment Facility (GEF) and its agencies.
4. The SBI expressed its appreciation to the LEG for the progress it has made under its work programme for 2008–2010² and took note of the updated priority activities in the work programme. The SBI welcomed the publication of the *Step-by-Step Guide for Implementing National Adaptation Programmes of Action*,³ the training on NAPA implementation conducted through the workshop referred to in paragraph 2 above, and the advice given to LDC Parties.

¹ FCCC/SBI/2009/13.

² FCCC/SBI/2008/6, annex I.

³ UNFCCC, 2009. *Step-By-Step Guide for Implementing National Adaptation Programme of Action*. LDC Expert Group, the GEF and its agencies. Available at <http://unfccc.int/resource/docs/publications/lde_napa2009.pdf>.

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Annex II

DRAFT CONCLUSIONS PROPOSED BY CHAIR

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5. The SBI further expressed its appreciation to the GEF and its agencies for the steps taken to improve the processing of applications for funding of the implementation of NAPA projects under the Least Developed Countries Fund (LDCF) and for the constructive dialogue among the LDC Parties, the LEG and the GEF and its agencies on the provision of enhanced support for the preparation and implementation of NAPAs and encouraged those involved to continue this dialogue.
6. The SBI encouraged those LDC Parties that wish to submit updates to their NAPAs and revisions to the project lists and profiles contained in their NAPAs to do so using the guidelines contained in the report on the sixteenth meeting of the LEG.⁴
7. The SBI recognized the work of the LEG in producing the paper “Support needed to fully implement national adaptation programmes of action (NAPAs),”⁵ which indicated, inter alia, a need for financial resources for the full implementation of priorities identified in NAPAs of at least USD 1.93 billion. It invited Parties to consider the findings of this paper.
8. The SBI endorsed the draft terms of reference for the review of the experiences gained from implementing the LDC work programme, including experience gained in accessing funds from the LDCF.⁶ The review is scheduled to take place at the thirty-third session of the SBI. The SBI encouraged the LEG to collaborate with relevant organizations in collecting and analysing the information necessary for the review.
9. The SBI invited Parties to submit to the secretariat, by 30 August 2010, their views on possible elements for a future mandate of the LEG, including its renewal and expansion.
10. The SBI requested the secretariat to prepare a synthesis report on possible elements for a future mandate of the LEG, taking into account the submissions referred to in paragraph 9 above and inputs provided by the LEG at its eighteenth meeting, for consideration by the SBI at its thirty-third session, with a view to recommending a decision on a future mandate of the LEG for adoption by the Conference of the Parties at its sixteenth session.
11. The SBI requested the LEG to keep it informed of its efforts in implementing its work programme over the period 2008–2010.
12. The SBI invited Parties in a position to do so to continue to provide financial and other resources required for the implementation of the LEG work programme, including for the training workshops on NAPA implementation.
13. The SBI invited the GEF, in its capacity as the entity entrusted with the operation of the LDCF, to support, when sufficient voluntary funding has not been provided from bilateral sources, the organization, under the guidance of the LEG, of four regional workshops in 2010 to provide training and technical support to LDCs in order to advance the process of implementation of NAPAs.
14. The SBI, recognizing the urgent and immediate adaptation needs of the LDCs, encouraged Parties to continue to provide financial and other support for the timely implementation of priority activities identified in NAPAs, including through contributions to the LDCF.

⁴ FCCC/SBI/2009/13, annex I.

⁵ <http://unfccc.int/resource/docs/publications/09_ldc_sn_napa.pdf>.

⁶ FCCC/SBI/2009/13, annex III.



Result-Based Management Framework Adaptation to Climate Change

LDCF/SCCF RBM FRAMEWORK

Goal:	Support developing countries to become climate resilient by integrating adaptation measures in development policies, plans, programs, projects and actions.
Impact:	Reduced absolute economic losses at country level due to climate change, including variability
Indicator:	Economic loss trend over a project period and beyond due to climate change, including variability
Metric:	Total property loss per event in USD/ Number of people affected by event during the project lifetime (Use CRED or Country Data)

OBJECTIVE 1:

Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
Outcome 1.1: Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	<p>Indicator 1.1.1 Adaptation actions implemented in national/sub-regional development frameworks (no. and type)</p> <p>Indicator 1.1.2. Adaptation actions implemented in national/sub-regional development frameworks (no. and type)</p> <p>Indicator 1.1.3: For each action listed under Indicator 1.1, indicate to what extent targets set out in plans have been met (score) 1 = Not Significantly (<49%) 2 = Significantly (50-79%) 3 = Principally (>80%)</p>	Output 1.1.1: Adaptation measures and necessary budget allocations included in relevant frameworks	<p>Indicator 1.1.1.1: Development frameworks that include specific budgets for adaptation actions (list type of development framework and briefly describe the level of the action)</p> <p>Indicator 1.1.1.2 Sectoral strategies that include specific. budgets for adaptation actions (list type and level)</p> <p>Indicator 1.1.1.3. Regulatory reform and fiscal incentive structures introduced that incorporate adaptation as climate change risk management (list type and level)</p>
Outcome 1.2: Reduce vulnerability in development sectors	<p>Based on development sector(s) that project/program targets, select appropriate indicator(s) from list below or provide relevant indicator to track reduced vulnerability in targeted development sector:</p> <p>Indicator 1.2.1: Infection rates of population to climate –sensitive diseases as compared with past population infected per year under similar climatic conditions (% change)</p>	Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	<p>As with Outcome indicators, include or select indicator(s) relevant to sector project/program is targeting.</p> <p>Indicator 1.2.1.1.: Health measures introduced to respond to climate sensitive disease (type and level)</p> <p>Indicator 1.2.1.2: Resilient infrastructure measures introduced to prevent economic losses (type and level)</p>

Annex III

Result-Based Management Framework Adaptation to Climate Change

OBJECTIVE 1:

Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
<p>Outcome 1.2: Reduce vulnerability in development sectors</p>	<p>Indicator 1.2.2: % of targeted population covered by innovative insurance mechanisms (disaggregated by gender)</p> <p>Indicator 1.2.3: Number of additional people provided with access to safe water supply and basic sanitation services given existing and projected climate change (disaggregated by gender)</p> <p>Indicator 1.2.4: Increase in water supply targeted areas (tons/m3)</p> <p>Indicator 1.2.5: Increase in agricultural productivity in targeted areas. (tons/ha)</p> <p>Indicator 1.2.6: Water availability for energy production (liters/gallons available for hydropower)</p> <p>Indicator 1.2.7: Energy production from hydropower (kW/hr generated from hydro)</p> <p>Indicator 1.2.8: % change in projected food production in targeted area given existing and projected climate change (food production is measured in tons/year)</p> <p>Indicator 1.2.9: % change in food availability² given existing and projected climate change (food availability is measured in tons/year)</p> <p>Indicator 1.2.10: % change in income generation in targeted area given existing and projected climate change</p> <p>Indicator 1.2.11: % of population with access to improved flood and drought management (disaggregated by gender)</p>	<p>Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability</p>	<p>Indicator 1.2.1.3 Climate resilient agricultural practices introduced to promote food security (type and level)¹</p> <p>Indicator 1.2.1.4. Sustainable drinking water management practices introduced to increase access to clean drinking water (type and level) Examples:</p> <ul style="list-style-type: none"> • Tube wells • Rainwater harvesting • Purification • Water storage • Other <p>Indicator 1.2.1.5. Sustainable water management practices introduced to increase access to irrigation water under existing and projected climate change (type and level) Examples:</p> <ul style="list-style-type: none"> • Drip irrigation • Reducing losses • Reducing evapotranspiration rates • Rainwater harvesting • Water storage • Other <p>Indicator 1.2.1.6. Sustainable water management practices introduced to increase energy production from water resources under existing and projected climate change (type and level)</p> <ul style="list-style-type: none"> • Watershed management • Other <p>Indicator 1.2.1.7. Type and level of innovative insurance mechanisms introduced to reduce climate induced damages</p>

¹ Level: refers to the geopolitical scope of the action, (i.e., community-level, local-level, state/province-level, national level, regional level, etc)

² Food availability refers to the portion of total food production in tons/year that is actually consumed by the population.



Result-Based Management Framework Adaptation to Climate Change

OBJECTIVE 1:

Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
Outcome 1.2: Reduce vulnerability in development sectors	<p>Indicator 1.2.12. % of livestock farmers covered by a monitoring and early warning and response measures scheme for climate-sensitive diseases</p> <p>Indicator 1.2.13. % of cropland area covered by a monitoring and early warning and response action scheme for climate sensitive plants pests and diseases (Ha)</p> <p>Indicator 1.2.14. Vulnerability and risk perception index (Score) – Disaggregated by gender</p> <p><i>The score for this indicator will have to be assigned based on the results of a conducted survey. The score ranges from 1 to 5 and below are the explanations of the rankings.</i></p> <ol style="list-style-type: none"> 1. Extreme vulnerability 2. High Vulnerability 3. Medium Vulnerability 4. Low Vulnerability 5. No Vulnerability 	Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	Indicator 1.2.1.8. Type and level of integrated disaster response measures to extreme climate events introduced to increase number of lives saved
Outcome 1.3 Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	<p>Indicator 1.3.1. Households and communities have more secure access to livelihood assets (Score) – Disaggregated by gender</p> <p><i>The score for this indicator will have to be assigned based on the results of a conducted survey. The score ranges from 1 to 5 and below are the explanations of the rankings.</i></p> <ol style="list-style-type: none"> 1. No access to livelihood assets 2. Poor access to livelihood assets 3. Moderated access to livelihood assets 4. Secure access to livelihood assets 5. Very secure access to livelihood assets 	Output 1.3.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	Indicator 1.3.1.1: % of targeted households that have adopted resilient livelihoods under existing and projected climate change

Annex III

Result-Based Management Framework Adaptation to Climate Change

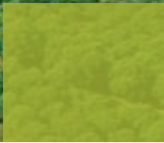
OBJECTIVE 1:

Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
Outcome 1.3 Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	<p>Indicator 1.3.2. % increase per capita income of farm households due to adaptation measures applied</p> <p>Indicator 1.3.3. % of increase per capita income of households outside of climate change vulnerable sectors due to adaptation measures applied</p>		

OBJECTIVE 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
Outcome 2.1 Increased knowledge and understanding of climate variability and change-induced risks at country level and in targeted vulnerable areas	Indicator 2.1.1. Relevant risk information disseminated to stakeholders (Yes/No)	<p>Output 2.1.1 Risk and vulnerability assessments conducted and updated</p> <p>Output 2.1.2 Systems in place to disseminate timely risk information</p>	<p>Indicator 2.1.1.1. Update risk and vulnerability assessment (Yes/No)</p> <p>Indicator 2.1.1.2. Risk and vulnerability assessment conducted (Yes/No).</p> <p>Indicator 2.1.2.1. Type and scope of monitoring systems in place Examples:</p> <ul style="list-style-type: none"> • Early warning systems • Climate threat monitoring systems • Event impact monitoring
Outcome 2.2 Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Indicator 2.2.1. No. and type of targeted institutions with increased adaptive capacity to minimize exposure to climate variability (describe number and type)	Output 2.2.1 Adaptive capacity of national and regional centers and networks strengthened to rapidly respond to extreme weather events	



Result-Based Management Framework Adaptation to Climate Change

OBJECTIVE 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
<p>Outcome 2.2 Strengthened adaptive capacity to reduce risks to climate-induced economic losses</p>	<p>Indicator 2.2.2. Capacity perception index (Score) (disaggregated by gender)</p> <p>The score ranges from 1 to 5 and below are the explanations of the rankings.</p> <ol style="list-style-type: none"> 1. No capacity built 2. Initial awareness raised (e.g. workshops, seminars) 3. Substantial training in practical application (e.g. vocational training) 4. Knowledge effectively transferred (e.g. passing examination, certification) 5. Ability to apply or disseminate knowledge demonstrated <p>Indicator 2.2.3. Reduced annual property losses from baseline (Changes in annual losses \$US in the projected area)</p> <p>Please indicate the measured \$US change in annual property losses from the baseline that has happened due to the project.</p>	<p>Output 2.2.2 Targeted population groups covered by adequate risk reduction measures</p>	<p>Indicator 2.2.1.1. No. of staff trained on technical adaptation themes (per theme) – (disaggregated by gender)</p> <p><i>Specify the type of adaptation themes first, then indicate the actual number per theme disaggregated by gender.</i></p> <ul style="list-style-type: none"> • Supporting livelihoods • Mangrove reforestation • Coastal drainage/irrigation system • Community-based adaptation • Erosion control/soil water conservation • Microfinance • Special programs for women • Livelihoods • Water storage • Information and communication technologies (ICT) and information dissemination • Other <p>Indicator 2.2.2.1. % of population covered by climate change risk reduction measures (disaggregated by gender)</p> <p><i>Please provide the measured % of population covered by adequate risk reduction measures disaggregated by gender.</i></p>

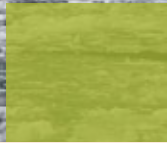
Annex III

Result-Based Management Framework Adaptation to Climate Change

OBJECTIVE 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
<p>Outcome 2.3 Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level</p>	<p>Indicator 2.3.1. % of targeted population awareness of predicted adverse impacts of climate change and appropriate responses (Score) – Disaggregated by gender</p> <p><i>The score ranges from 1 to 3 and below are the explanations of the rankings based on survey results.</i></p> <ol style="list-style-type: none"> 1. No awareness level (<50% correct) 2. Moderate awareness level (50-75%) 3. High awareness level (>75% correct) <p>Indicator 2.3.2. % of population affirming ownership of adaptation processes (disaggregated by gender)</p>	<p>Output 2.3.1 Targeted population groups participating in adaptation and risk reduction awareness activities</p>	<p>Indicator 2.3.1.1. Risk reduction and awareness activities introduced at local level (list type and scope³)</p> <p>Examples:</p> <ul style="list-style-type: none"> • Monitoring/Forecasting capacity (EWS, Vulnerability mapping system) • Policy reform • Capacity development • Agriculture diversification • Improved resilience of agricultural systems^c • Sustainable forest management • Strengthening infrastructure • Supporting livelihoods • Mangrove reforestation • Coastal drainage/irrigation system • Community-based adaptation • Erosion control/sustainable land and water management • Microfinance • Special programs for women • Livelihoods • Water storage • ICT and information dissemination • Other <p>Indicator 2.3.1.2. No. and type of community groups trained in climate change risk reduction</p>

³ In this case, "scope" refers to briefly describing the reach of these activities in terms of people involved, number of programs, number of months of implementation, etc.



Result-Based Management Framework Adaptation to Climate Change

OBJECTIVE 3:
Promote transfer and adoption of adaptation technology

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
<p>Outcome 3.1 Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas</p>	<p>Indicator 3.1.1. % of targeted groups adopting adaptation technologies by technology type (disaggregated by gender)</p>	<p>Output 3.1.1 Relevant adaptation technology transferred to targeted groups</p>	<p>Indicator 3.1.1.1. Type of adaptation technologies transferred introduced to targeted groups .Examples:</p> <ul style="list-style-type: none"> • Climate resilient irrigation technologies • Desalinization • Artificial reefs • Resilient agricultural systems • Improved seeds • Other <p>Indicator 3.1.1.2. Type of relevant climate change adaptation technology implemented in selected areas by participatory stakeholders (number of households)</p>

Annex III



Result-Based Management Framework Adaptation to Climate Change

OBJECTIVE 3:
Promote transfer and adoption of adaptation technology

Expected Outcome	Outcome Indicator	Expected Output	Output Indicators
<p>Outcome 3.2 Enhanced enabling environment to support adaptation-related technology transfer</p>	<p>Indicator 3.2.1. Policy environment and regulatory framework for adaptation-related technology transfer established or strengthened (Score) The score ranges from 1 to 5 and below are the explanations of the rankings.</p> <ol style="list-style-type: none"> 1. No policy/regulatory framework for adaptation-related technology transfer in place 2. Policy/Regulatory framework for adaptation-related technology transfer have been discussed and formally proposed 3. Policy/Regulatory framework for adaptation-related technology transfer have been formally proposed but not adopted 4. Policy/Regulatory framework for adaptation-related technology transfer have been formally adopted by the Government but have no enforcement mechanism 5. Policy/Regulatory framework for adaptation-related technology transfer are enforced <p>Indicator 3.2.2. Strengthened capacity to transfer appropriate adaptation technologies (Score) (disaggregated by gender) The score ranges from 1 to 3 and below are the explanations of the rankings based on survey results.</p> <ol style="list-style-type: none"> 1. No capacity achieved (<50% correct) 2. Moderate capacity achieved (50-75%) 3. High capacity achieved (>75% correct) 	<p>Output 3.2.1 Skills increased for relevant individuals in transfer of adaptation technology</p> <p>Output 3.2.2 Relevant policies and frameworks developed and adopted to facilitate adaptation technology transfer</p>	<p>Indicator 3.2.1.1. No. of individuals trained in adaptation-related technologies (disaggregated by gender)</p> <p>Indicator 3.2.2.1: No. of policies developed or strengthened</p>



Annex IV

Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF) projected financial breakdown per sector — \$1 billion scenario, 2010-2014

Background

This section is focused on what a financing scenario of \$1 billion combined for the two climate change funds for adaptation would produce in terms of areas of activities (or sectors) over the period 2010-2014. Based on COP guidance, observed trends in the existing LDCF and SCCF portfolios, as well as indications for future priorities by developing country Parties, as formulated in National Adaptation Programmes of Action (NAPAs) in case of the LDCF and through the demand of vulnerable developing countries in case of the SCCF, this section outlines how new resources could quickly manifest into concrete activities in some of the most vulnerable sectors and regions affected by the impacts of climate change.

Methodology

The approach taken in this analysis follows three main principles: 1) Funding through the LDCF and SCCF must always be consistent with UNFCCC decisions and guidance; 2) When prioritizing between eligible activities (as they are established by the UNFCCC), the specific needs of eligible Parties should be the primary determinant; 3) The special needs of the most vulnerable Parties (e.g. Small Island Development States, Least Developed Countries etc.) must be reasonably reflected in the framework. Based on the above approach, the current portfolio of approved projects under both the LDCF and SCCF was analyzed in terms of their regional and sectoral scope.

Using the sectoral categories established in relevant UNFCCC decisions and the programming documents for the LDCF and SCCF, each project was broken down into a number of 'fractions' based on the degree to which the project responds to each sectoral category.

E.g. a project in the LDCF primarily dealing with adaptation measures in the agricultural sector, but also involving elements of water management, risk management and community level adaptation, has been broken into the following fractions based on a best estimate from the available project documentation: *Agriculture and Food Security = 50%*, *Water Resources Management = 20%*, *Risk Management = 15%*, *Community Level Adaptation = 15%*. This way, all approved projects have been broken down into fractions, which in turn were multiplied with the total grant given, and summed for each sector under both Funds (LDCF/SCCF). The resulting analysis gave an approximate indication of the sectoral distribution in the current portfolio.

The specific sectoral categories and indication of how they were interpreted in this analysis can be found in Box 1 below. It must be stressed that the process of assigning specific sectoral fractions to each project may be ambiguous in practice as sectors are highly intertwined and cannot always be separated in a meaningful way. It was, however, deemed to be a better approach than simply assigning one category to each project (e.g. agriculture/food security in the above example), as this would skew conclusions more significantly. Best estimates and 'common sense' have been used throughout this exercise.

BOX 4 SECTORAL CATEGORIES AND SOME MAIN INTERPRETATIONS USED IN THE PROJECT ANALYSIS:

LDCF (SECTOR BREAK-DOWN BASED ON ANALYSIS OF NAPAS)

- **Water Resources Management:** improving efficiency of water use, providing new sources of water (e.g. rain water collection), improved management of crops and animals to reduce water needs for agriculture (everything relating directly to water use, including agricultural water use).
 - **Agriculture/Food Security:** Drought resistant crops, crop diversification, climate resilient crop and soil management methods, food banks (everything relating directly to crops or animals (i.e. not water) – however the practical separation between the two is often difficult).
 - **Health:** disease monitoring systems, reducing climate change vulnerability of health and health care systems.
 - **Disaster Preparedness/Risk Management:** early warning systems, meteorological capacity building and making timely information available to key stakeholders, vulnerability assessments, ‘soft’ coastal protection measures, Integrated Coastal Zone Management, updating zoning policies.
 - **Infrastructure:** roads, bridges, ‘hard’ coastal protection measures (e.g. sea walls), irrigation systems etc.
 - **Natural Resource Management:** fisheries, forestry, soil erosion, grassland management (i.e. for animal grazing), ecosystems, etc. (i.e. natural resource management that is not agriculture or water)
 - **Community Level Adaptation:** Project components that have some degree of community level intervention (e.g. pilot activities at the community level) have been rated with 1/6 in this category by default. Other projects with a more clear community focus have been rated with higher values.
- SCCF (Sector break-down taken from original COP7 decision)

SCCF (SECTOR BREAK-DOWN TAKEN FROM ORIGINAL COP7 DECISION)

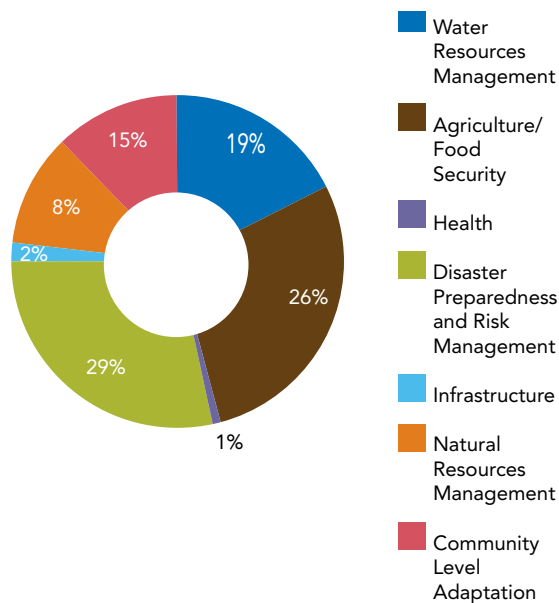
- **Water Resources Management:** improving efficiency of water use, providing new sources of water (e.g. rain water collection), improved management of crops and animals to reduce water needs for agriculture (everything relating directly to water use, including agricultural water use)
- **Agriculture/Land Management:** Drought resistant crops, crop diversification, climate resilient management methods, food banks (everything relating directly to crops or animals (i.e. not water) – however the practical separation between the two is often difficult)
- **Integrated Coastal Zone Management:** ‘soft’ coastal protection measures (e.g. beach nourishment, sand fixation, creating buffer vegetation buffer zones), climate change resilient management of coastal natural resources, updating coastal zoning policies, ‘hard’ coastal protection measures (e.g. sea walls).
- **Infrastructure Development:** roads, bridges, tourism infrastructure, irrigation systems etc.
- **Fragile Ecosystems:** Glacier fed fresh water systems, coastal ecosystems (e.g. mangroves, coral reefs etc.) threatened by sea level rise, all activities previously funded through the SPA in the sectors of Biodiversity, Land Degradation, and International Waters.
- **Health:** disease monitoring systems, reducing climate change vulnerability of health and health care systems.
- **Disaster Risk Management:** early warning systems, meteorological capacity building and making timely information available to key stakeholders, vulnerability assessments.
- **Cross Cutting Issues:** Either projects where the exact sectoral focus is currently unclear (e.g. more programmatic approaches that has not yet defined a sectoral focus), or cross cutting projects that does not fit any of the above categories (e.g. broader capacity building activities not focused on one particular sector)

Results

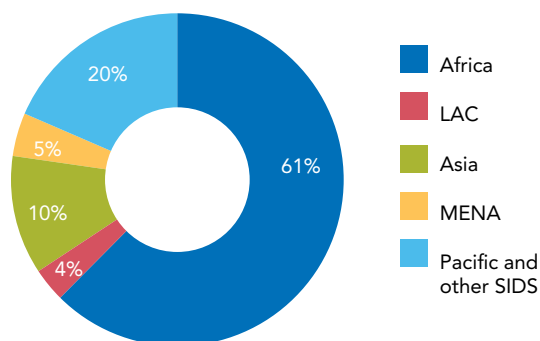
The sectoral analysis revealed that in both the LDCF and SCCF, agriculture and water management have by far been the most important project components funded to date. This is hardly surprising given the crucial importance of the two sectors in most developing countries, and that these sectors are often especially vulnerable to the impacts of climate change and variability. All of the UNFCCC-defined sectors have been targeted in the current portfolio, but some sectors have so far received less attention than others. This is most notably the case with health and infrastructure in the LDCF. Key results are summarized in figures 1 and 2 below.

FIGURE 1: SUMMARIZED RESULTS FOR THE ANALYSIS OF THE LDCF PORTFOLIO

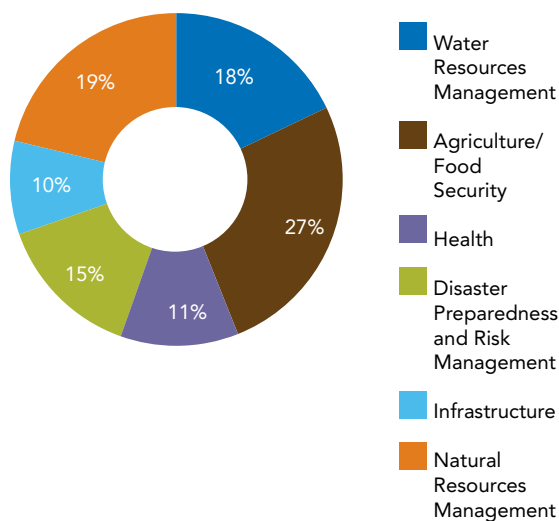
LDCF - SECTORAL DISTRIBUTION - APPROVED FUNDING



LDCF - REGIONAL DISTRIBUTION - APPROVED FUNDING



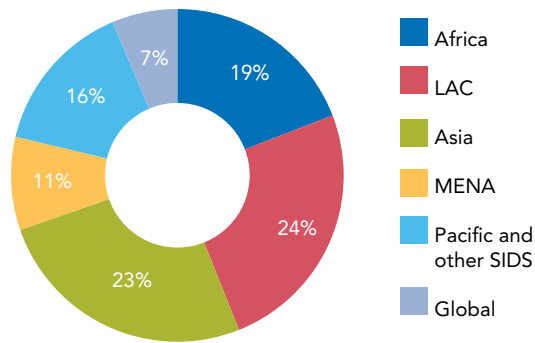
LDCF - SECTORAL DISTRIBUTION FROM NAPAS



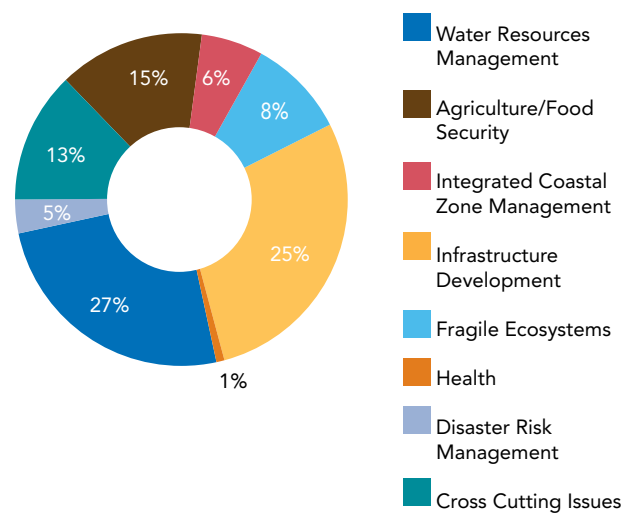
Results

FIGURE 2: SUMMARIZED RESULTS FOR THE ANALYSIS OF THE SCCF PORTFOLIO AND PIPELINE

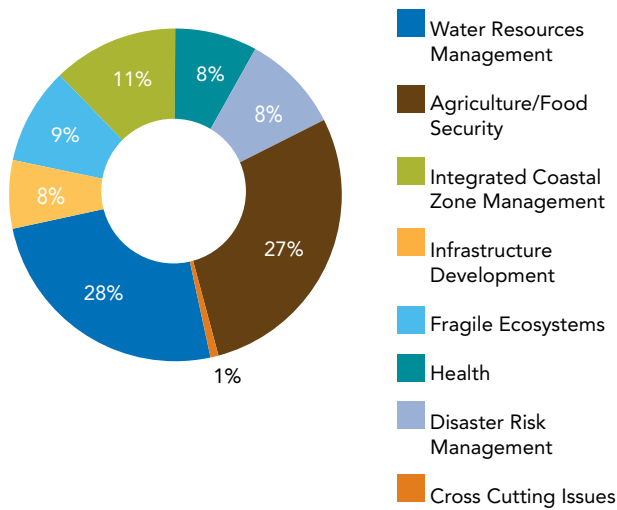
SCCF - REGIONAL DISTRIBUTION - APPROVED FUNDING



SCCF PIPELINE - SECTORAL DISTRIBUTION - PROPOSED FUNDING



SCCF - SECTORAL DISTRIBUTION - APPROVED FUNDING



Projected needs for the LDCF and SCCF in 2010-2014

Using the above analysis as a guideline, the sectoral distribution of needs in the LDCF and SCCF respectively - with a financing of \$ 1 billion combined - was estimated as shown in figure 4. Trends in needs are based on the difference between the existing portfolio and indications from NAPAs for the LDCF and the existing pipeline of SCCF projects as indicated from the GEF Agencies.

For example, health appears to have a downward tendency in the analysis (from 8% to 1% of the total demand), whereas infrastructure has an upward tendency (from 8% to 25% of the total demand) in the SCCF – this in turn results in a slightly adjusted proposed budget for the sectors compared to the existing portfolio (5% for health and 10% for infrastructure).

In general, however, the existing distribution has been given comparatively more weight, as there are still major uncertainties in terms of the precise nature of future demand, especially in the case of the SCCF. Also, the core sectors water management and agriculture have been kept at an unchanged or slightly strengthened proportion of the total under both Funds to reflect that these sectors are likely to continue to play a leading role in the total demand, in particular in Small Islands Developing States (SIDs) and Least Developed Countries (LDCs).



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Secretary-General Ban Ki-moon with a sample of polar ice during his visit to the Polar Ice Rim to witness firsthand the impact of climate change on icebergs and glaciers. The visit is part of the UN Chief's campaign urging Member States to "seal the deal" on a fair, balanced and effective agreement at the UN Climate Change Conference in Copenhagen in December.
Polar Ice Rim, Norway

ABOUT THE GEF

The Global Environmental Facility unites 182 member governments—in partnership with international institutions, nongovernmental organizations, and the private sector—to address global environmental issues. An independent financial organization, the GEF provides grants to developing countries and countries with economies in transition for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. These projects benefit the global environment, linking local, national, and global environmental challenges and promoting sustainable livelihoods.

Established in 1991, the GEF is today the largest funder of projects to improve the global environment. The GEF has allocated \$9.2 billion, supplemented by more than \$40 billion in cofinancing, for more than 2,700 projects in more than 165 developing countries and countries with economies in transition. Through its Small Grants Programme, the GEF has also made more than 12,000 small grants directly to nongovernmental and community organizations.

The GEF partnership includes 10 Agencies: the UN Development Programme, the UN Environment Programme, the World Bank, the UN Food and Agriculture Organization, the UN Industrial Development Organization, the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the Inter-American Development Bank, and the International Fund for Agricultural Development. The Scientific and Technical Advisory Panel provides technical and scientific advice on the GEF's policies and projects.

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