

LEAST DEVELOPED  
COUNTRIES

# BEST PRACTICES AND LESSONS LEARNED

in addressing adaptation in the least developed countries

volume **2**

LDC EXPERT GROUP 2012



**United Nations**  
Framework Convention on  
Climate Change



# BEST PRACTICES AND LESSONS LEARNED

IN ADDRESSING ADAPTATION  
IN THE LEAST DEVELOPED COUNTRIES,  
VOLUME 2

LDC EXPERT GROUP 2012



# TABLE OF CONTENTS

FOREWORD	5
FOREWORD	6
ACKNOWLEDGEMENTS	9
INTRODUCTION	13
<b>PART 1: BACKGROUND</b>	<b>15</b>
1.1 The least developed countries work programme sets the scene for adaptation actions in least developed country Parties	15
1.2 Preparation of national adaptation programmes of action is almost complete and implementation has become the focus	16
1.3 Growth of the Least Developed Countries Fund supports least developed country Parties in implementing adaptation measures	16
1.4 The Least Developed Countries Expert Group continues to provide solid support to least developed country Parties	19
1.5 Work on medium- and long-term adaptation compliments ongoing efforts in the least developed countries	20
1.6 Linkages between the least developed countries work programme and other work get strengthened	20
<b>PART 2: SELECTED EXPERIENCES OF LEAST DEVELOPED COUNTRIES IN IMPLEMENTING NATIONAL ADAPTATION PROGRAMMES OF ACTION AND OTHER ADAPTATION ACTIVITIES</b>	<b>23</b>
2.1 Methodology for selecting and collecting country experiences	23
2.2 Benin	25
2.3 Cambodia	29
2.4 Liberia	35
2.5 Nepal	41
2.6 Rwanda	45
2.7 Senegal	49
2.8 Samoa	53
2.9 Sudan	57
2.10 Vanuatu	61
2.11 Zambia	65

<b>PART 3: BEST PRACTICES AND LESSONS LEARNED</b>	<b>69</b>
3.1 Methodology for capturing lessons and best practices	69
3.2 Ten best practices and lessons learned in addressing adaptation in the least developed countries	70
3.2.1 Aligning adaptation planning at the national level through effective institutional arrangements	70
3.2.2 Ensuring sustainable adaptation through good national-level coordination	71
3.2.3 Working with the Global Environment Facility, its agencies and other stakeholders on adaptation projects and programmes	72
3.2.4 Strengthening the consideration of vulnerability through targeting vulnerable groups	74
3.2.5 Documenting the different elements of the national adaptation process	75
3.2.6 Monitoring and evaluating adaptation planning and implementation at different levels	76
3.2.7 Mobilizing financial resources	78
3.2.8 Accessing resources under the Least Developed Countries Fund: latest experiences	79
3.2.9 Programmatic approaches: tools to address medium- and long-term adaptation needs	80
3.2.10 Deploying sectoral approaches at the regional level	82
<b>ANNEXES</b>	<b>85</b>
4.1 Status of preparation and implementation of national adaptation programmes of action under the Least Developed Countries Fund	85
4.2 Funded projects of least developed countries under the Adaptation Fund	90
4.3 Status of implementation of national adaptation programmes of action and involvement of the least developed countries in the Pilot Program for Climate Resilience and the Africa Adaptation Programme	91
4.4 Selected publications on adaptation by the United Nations Framework Convention on Climate Change	93
4.5 Key documents of the Least Developed Countries Fund and publications by the Global Environment Facility	94

# FOREWORD

Executive Secretary, UNFCCC

The challenge of adapting to climate change, particularly for the least developed countries (LDCs), has been well recognized in the UNFCCC process and in subsequent deliberations. National adaptation programmes of action (NAPAs) embody this by recognizing the urgent and immediate needs of LDCs to adapt to climate change and by providing a special window for funding measures to respond to those needs. The NAPA process, and the establishment of the Least Developed Countries Fund, were steps taken to address this concern at the seventh session of the Conference of the Parties (COP) in 2001.

Most LDCs have now prepared their NAPAs and embarked on the implementation of identified projects. There is clear evidence that LDCs, through the preparation and implementation of their NAPAs, have gained a wealth of knowledge and awareness of climate change, developed best practices and learned valuable lessons.

At the sixteenth session of the COP in Cancun, Mexico, in December 2010, governments further recognized that adaptation must be addressed with the same priority as mitigation, and adopted the Cancun Adaptation Framework (CAF) to enhance action on adaptation. The CAF includes a process to enable LDCs, building upon their experience with the NAPAs, to formulate and implement national adaptation plans (NAPs) and an invitation to other developing countries to employ the modalities formulated to support those plans. At its seventeenth session, the COP adopted initial guidelines for the formulation of NAPs by LDCs. The COP further mandated the Least Developed Countries Expert Group (LEG) to elaborate technical guidelines for NAPs based on its initial guidelines. In this context, other countries have shown increased interest in learning from the experiences of the LDCs in the NAPA process.

In recognition of this interest, the LEG with support from the UNFCCC secretariat, has produced a publication in several volumes and in multiple languages (English, French and Portuguese). The first volume focused on the NAPA process. This second volume summarizes experiences, best practices and lessons from the implementation aspects of NAPAs, the LDC work programme and other adaptation initiatives. I am confident this will help nations in undertaking successfully the NAP process.

I would like to warmly thank the LDCs, the Global Environment Facility, its agencies and other organizations, which provided invaluable comments and inputs to this publication.



**Christiana Figueres**, *Executive Secretary*  
United Nations Framework Convention on Climate Change  
December 2012



## FOREWORD

### Chair of the LEG



The Least Developed Countries Expert Group (LEG) was established in 2001 as part of the package to support least developed countries (LDCs) in addressing the adverse impacts of climate change. Since that time, the LEG, in accordance with its original mandate, has provided technical guidance and advice to LDCs on the preparation and implementation of their national adaptation programmes of action (NAPAs). Through its new mandate, received at the sixteenth session of the Conference of the Parties in 2010 in Cancun, Mexico, the LEG now also provides technical guidance and advice on: the revision and update of NAPAs; the strengthening of gender considerations and considerations regarding vulnerable populations; the integration of NAPAs into development planning; the identification and implementation of medium- and long-term adaptation; and the implementation of the LDC work programme. Furthermore, the LEG also provides technical guidance and support to the national adaptation plan (NAP) process.

By the nature of its functions and close interaction with the LDCs, the LEG has had the privilege to witness not only the challenges faced by the LDCs, but their progress and achievements in addressing their adaptation needs through the NAPA process. Almost all LDCs have completed preparation of their NAPAs, and are now in different stages of implementing projects identified therein. NAPAs have raised awareness on climate change, provided hands-on experience in implementing concrete adaptation projects on the ground, and increased the collective knowledge on adaptation to climate change at the national and international levels. The LEG, the UNFCCC secretariat, the Global Environment Facility (GEF) and its agencies, and other partners and organizations have worked collaboratively throughout the NAPA process to support the LDCs in their efforts.

While many challenges remain, the time has come to shed light on the rich experiences that have been gained by the LDCs thus far. This publication, which is the second volume in the series, builds on the first volume and communicates experiences of selected LDCs in addressing adaptation through NAPAs and other adaptation initiatives. It draws on these experiences and others from the rest of the other LDCs, to present additional best practices and lessons learned in addressing adaptation through the NAPAs and other initiatives. It covers experiences on institutional arrangements for coordinating adaptation work at the national level, working with the GEF and its agencies, initial considerations on monitoring and evaluation of adaptation efforts, accessing and mobilizing financial resources, and deploying programmatic approaches.

For many LDCs, these best practices and lessons learned will provide valuable information when addressing adaptation since they present a variety of experiences that they could consider, tailor, and use for their specific situations. These lessons will also be particularly useful for countries that are embarking on the NAP process.

A handwritten signature in black ink, appearing to read 'P. Latasi'.

**Pepetua Election Latasi**, *Chair of the LEG*  
December 2012



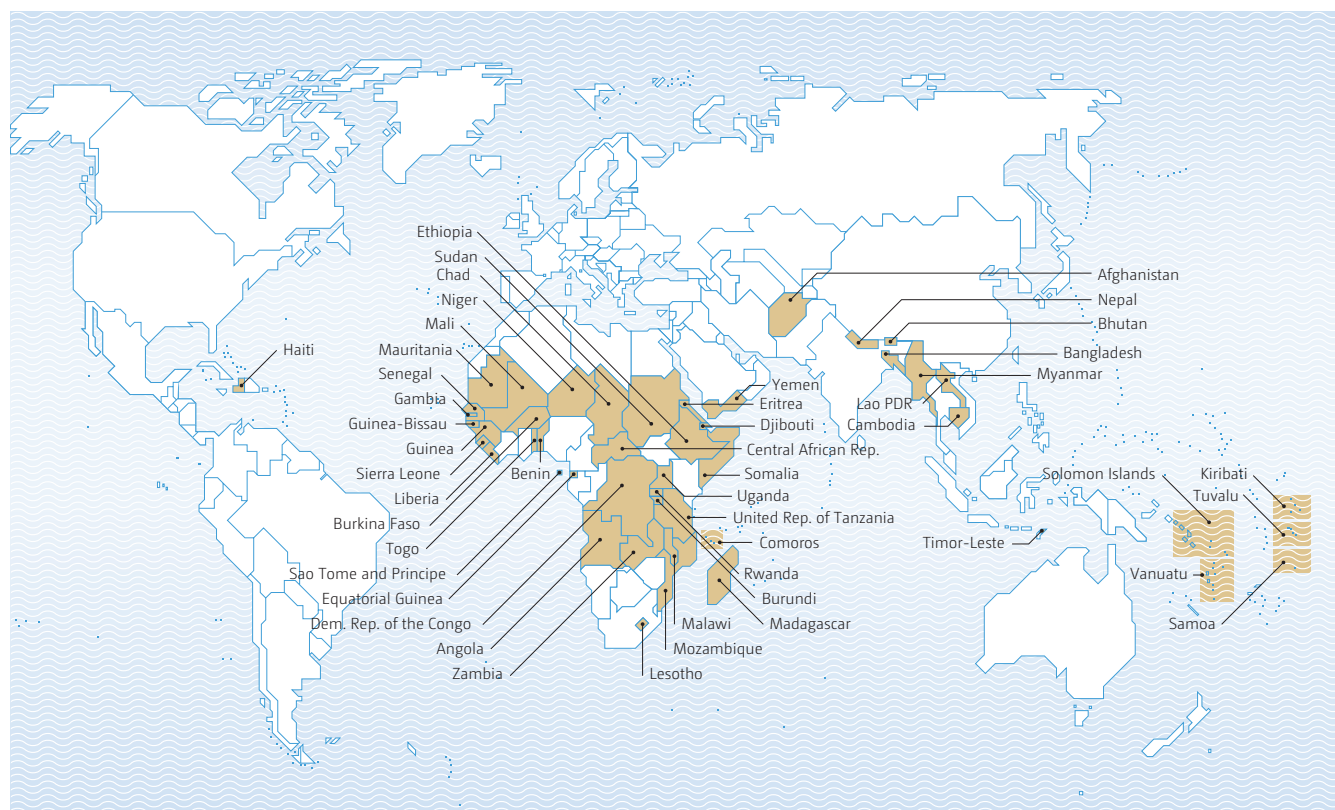




# ACKNOWLEDGEMENTS

This publication was prepared by the Least Developed Countries Expert Group with support from the UNFCCC secretariat Adaptation Programme. In carrying out this task, valuable assistance and advice was received from members of the teams working on national adaptation programmes of action in least developed countries, and representatives of the Global Environment Facility and its agencies.

Figure 1 Least developed countries that are party to the UNFCCC as of December 2012



## ABBREVIATIONS AND ACRONYMS

AC	Adaptation Committee
CEO	Chief Executive Officer
CGE	Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention
COP	Conference of the Parties
FAO	Food and Agriculture Organization
GEF	Global Environment Facility
GCOS	Global Climate Observing System
GLOF	Glacial Lake Outburst Flood
IFAD	International Fund for Agricultural Development
LDCF	Least Developed Countries Fund
LDCs	Least developed countries
LEG	Least Developed Countries Expert Group
NAP	National adaptation plan
NAPA	National adaptation programme of action
NGO	Non-governmental organization
NWP	Nairobi work programme on impacts, vulnerability and adaptation to climate change
PACC	Pacific Adaptation to Climate Change
PIF	Project Identification Form (or project proposal)
PPCR	Pilot Program for Climate Resilience
PPG	Project Preparation Grant
PRODOC	Full project document
SIDS	Small Island Developing State
SPREP	Secretariat of the Pacific Regional Environment Programme
UNCDF	United Nations Capital Development Fund
UNDP	United National Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization
WMO	World Meteorological Organization





## INTRODUCTION

In its ten years of existence, the least developed countries work programme (LDC work programme), in particular the national adaptation programme of action (NAPA) process, has generated a wealth of information and experience. The information and experiences have greatly contributed to a better understanding of how to address climate change adaptation. The Least Developed Countries Expert Group (LEG) has provided active support to the LDCs in preparing and implementing their NAPAs, by producing guides, tools, databases and publications<sup>1</sup> in multiple languages.

Based on these efforts, best practices and lessons learned can be identified and shared. Those included in this publication demonstrate the ability of LDCs to prepare and implement adaptation measures with limited resources, and hopefully encourage others to develop and implement initiatives and to identify alternatives to current practices. The publication also aims at promoting the exchange of experiences within the adaptation community.

This publication is the second in a series of publications produced by the LEG, to showcase best practices and lessons learned through the NAPA process and other adaptation initiatives in LDCs.

Volume two focuses on the implementation aspects of NAPAs, the LDC work programme and other adaptation

activities initiated in LDCs. It contains three parts. Part one provides background information on the LDC work programme and emerging adaptation work. Part two contains a compilation of ten country profiles to highlight progress made in LDCs in implementing NAPAs, the LDC work programme and other adaptation initiatives. Part three presents ten best practices and associated lessons.

The best practices and lessons learned covered by this second volume of the publication include the following:

1. Aligning adaptation planning at the national level through effective institutional arrangements;
2. Ensuring sustainable adaptation through good national-level coordination;
3. Working with the Global Environment Facility, its agencies and other stakeholders on adaptation projects and programmes;
4. Strengthening the consideration of vulnerability through targeting vulnerable groups;
5. Documenting the different elements of the national adaptation process;
6. Monitoring and evaluating adaptation planning and implementation at different levels;
7. Mobilizing financial resources;
8. Accessing resources under the Least Developed Countries Fund (LDCF): latest experiences;
9. Programmatic approaches: tools to address medium- and long-term adaptation needs;
10. Deploying sectoral approaches at the regional level.

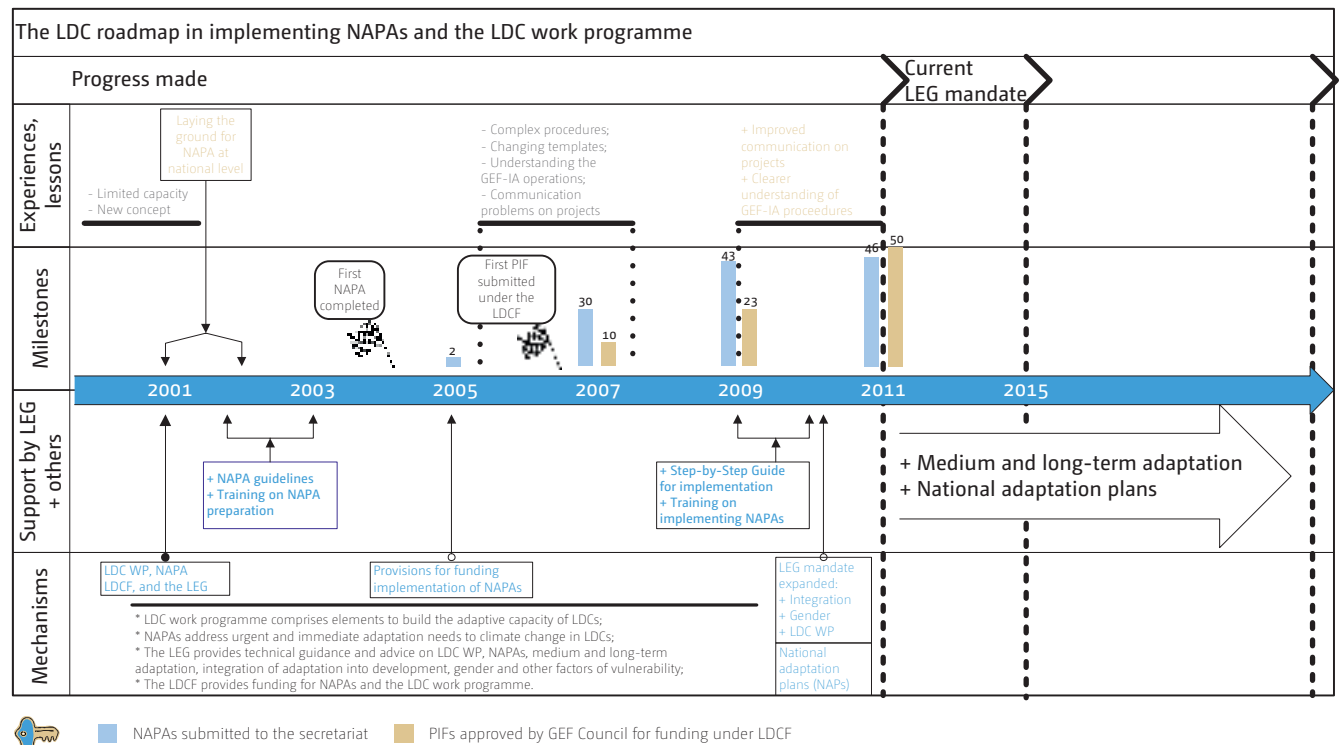
<sup>1</sup> <<http://unfccc.int/4727>>.





# PART 1: BACKGROUND

**Figure 2** The least developed countries road-map for implementing the national adaptation programmes of action and the other elements of the least developed countries work programme



## 1.1 THE LEAST DEVELOPED COUNTRIES WORK PROGRAMME SETS THE SCENE FOR ADAPTATION ACTIONS IN LEAST DEVELOPED COUNTRIES

The UNFCCC gives special consideration to LDCs in Article 4, paragraph 9, which states that “the Parties shall take full account of the specific needs and special situations of the LDCs in their actions with regard to funding and transfer of technology”. Based on this Article, the Conference of the Parties (COP) to the UNFCCC has strived to catalyse support, both within and outside of the Convention, for the LDCs to address the adverse effects of climate change.

At its sixth session, the COP adopted a resolution as input to the Third United Nations Conference on LDCs, inviting the Conference to take into account the specific needs and concerns and special situations of LDCs arising from the adverse effects of climate change, and calling upon developed countries participating in the Conference to bear in mind the need to incorporate the adverse effects of climate change in their current consideration of a possible

reform of international development cooperation.<sup>2</sup> This Conference adopted the Brussels Programme of Action for LDCs for the decade 2001-2010,<sup>3</sup> which included reducing vulnerability to natural shocks and protecting the environment as one of its commitments.

At its seventh session, in Marrakech in 2001, the COP established the LDC work programme,<sup>4</sup> the Least Developed Countries Fund (LDCF), as well as the Least Developed Countries Expert Group (LEG).<sup>5</sup> This marked the initiation of the most substantial support that has been given to the LDCs to address the adverse effects of climate change over the past decade.

<sup>2</sup> Resolution 2/CP.6.

<sup>3</sup> United Nations General Assembly. 2001. Brussels Programme of Action for the Least Developed Countries for the Decade 2001 – 2010. Available at <[http://www.un.org/special-rep/ohrls/lcd/Contributions/Report%20of%20the%20LDC%20III\\_E.pdf](http://www.un.org/special-rep/ohrls/lcd/Contributions/Report%20of%20the%20LDC%20III_E.pdf)>.

<sup>4</sup> Decision 5/CP.7.

<sup>5</sup> Decision 29/CP.7.

The LDC work programme contains elements for the preparation and implementation of NAPAs; strengthening existing and, where necessary, supporting the establishment of national climate change secretariats and/or focal points to assist the LDCs in their implementation of the Convention and the Kyoto Protocol; ongoing training in negotiation skills and language; and strengthening the capacity of meteorological and hydrological services to collect, analyze, interpret and disseminate weather and climate information to support the implementation of NAPAs.

The promotion of public awareness of climate change issues and the development and transfer of technology, particularly adaptation technology, are further another components of the LDC work programme<sup>6</sup>

**Box 1: The elements of the least developed countries work programme as defined by the Conference of the Parties in decision 5/CP.7**

**Elements of the LDC work programme<sup>7</sup>**

- (a) Strengthening existing and, where needed, establishing, national climate change secretariats and/or focal points to enable the effective implementation of the Convention and the Kyoto Protocol, in LDC Parties;
- (b) Providing training, on an ongoing basis, in negotiation skills and language, where needed, to develop the capacity of negotiators from LDC Parties to participate effectively in the climate change process;
- (c) Supporting the preparation of NAPAs;
- (d) Promotion of public awareness programmes to ensure the dissemination of information on climate change issues;
- (e) Development and transfer of technology, particularly adaptation technology (in accordance with decision 4/CP.7);
- (f) Strengthening the capacity of meteorological and hydrological services to collect, analyze, interpret and disseminate weather and climate information to support the implementation of NAPAs.

## 1.2 PREPARATION OF NATIONAL ADAPTATION PROGRAMMES OF ACTION IS ALMOST COMPLETE AND IMPLEMENTATION HAS BECOME THE FOCUS

Most LDCs have now completed preparation of their NAPAs. As of 30 September 2012, of the 48 LDC Parties that had received funding for the preparation of NAPAs, 47 had submitted NAPAs to the secretariat. The latest NAPA, of Angola, was submitted in December 2011. Somalia is the latest LDC to receive support for NAPA preparation, initiated in July 2012.

Since 2008, with an increasing number of LDCs completing their NAPAs, the focus has moved from preparation to implementation. As of 30 September 2012, 45 countries had officially submitted one or more NAPA projects to the GEF in the form of a project identification form (PIF). In total, 86 PIFs have been approved with LDCF funding amounting to USD 357.85 million. Of the projects approved, 42 have received endorsement by the Chief Executive Officer (CEO) of the GEF to start project implementation on the ground.

A comprehensive assessment of the effectiveness of the NAPAs in reducing the vulnerability of LDCs to climate change will therefore soon be possible. Greater value is expected to be derived from the implementation of NAPAs, with regard to addressing the urgent needs of the LDCs and providing experience in concrete, tangible adaptation activities.

## 1.3 GROWTH OF THE LEAST DEVELOPED COUNTRIES FUND SUPPORTS LDC PARTIES IN IMPLEMENTING ADAPTATION MEASURES

The LDCF was established to support the implementation of the LDC work programme.<sup>8</sup> The GEF was entrusted as an operating entity of the financial mechanism of the Convention, to operate the LDCF.<sup>9</sup> The COP also provided initial guidance to the GEF to focus on providing support for the preparation of NAPAs. Subsequently, in 2005, the COP agreed on the provisions for operationalizing the LDCF to support the implementation of NAPAs.<sup>10</sup>

<sup>6</sup> In accordance with decision 4/CP.7.

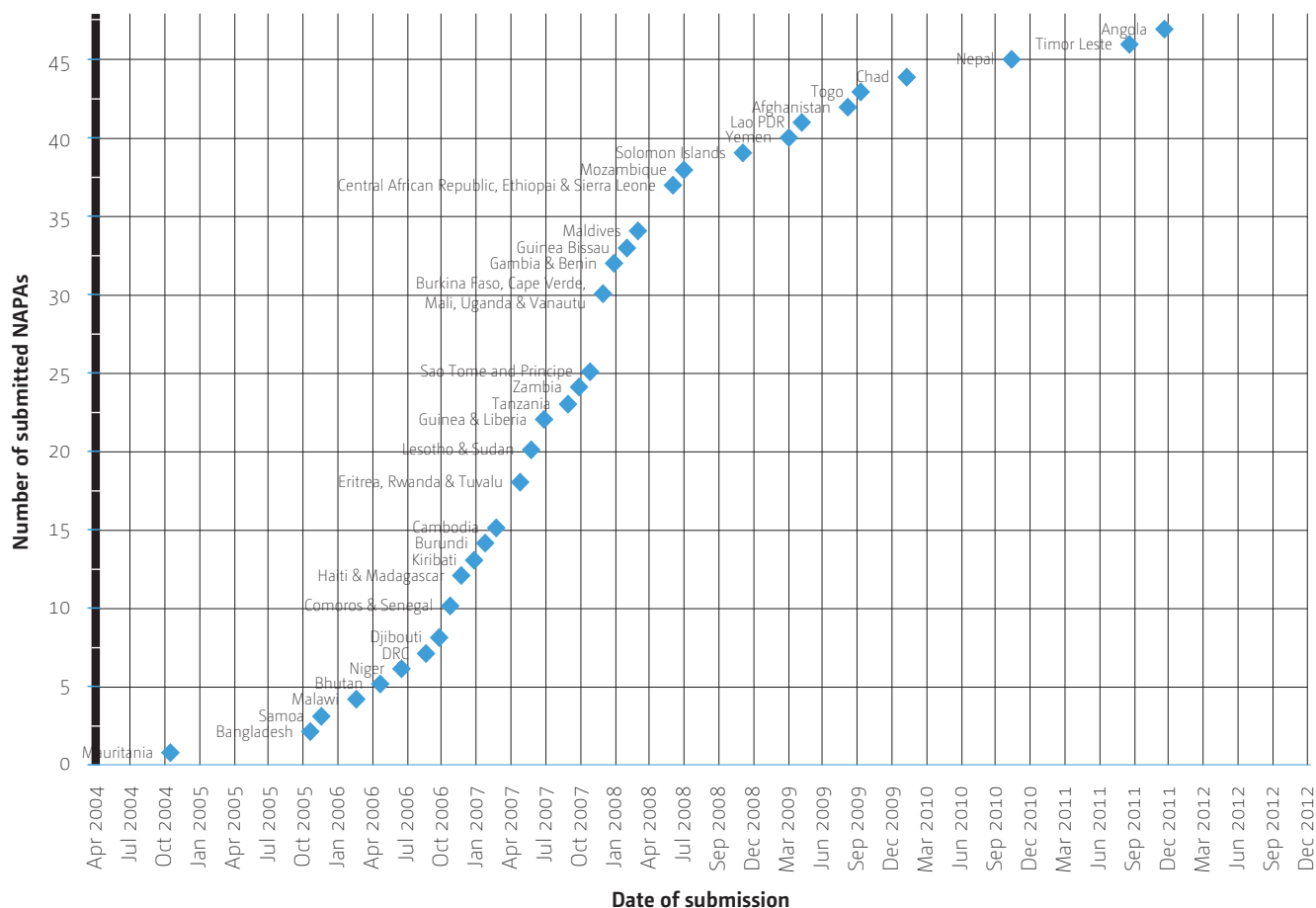
<sup>7</sup> Decision 5/CP.7.

<sup>8</sup> Decision 7/CP.7.

<sup>9</sup> Decision 27/CP.7.

<sup>10</sup> Decision 3/CP.11.

Figure 3 Timeline of submission of national adaptation programmes of action as of December 2012<sup>11</sup>



<sup>11</sup> Source: UNFCCC NAPA submitted page <<http://unfccc.int/4585.php>>.

As stated by the GEF,<sup>12</sup> the LDCF is the first and most comprehensive adaptation action-focused programme currently in operation (as opposed to studies and assessment-focused programmes) for LDCs. The limit on the amount of funding each LDC Party can access is dynamic and changes over time when new pledges are made to the LDCF. When the first LDCs completed their NAPAs and started to move to the implementation phase, 2 million USD was available in the LDCF for each country. As of 30 September 2012, the GEF announced that each LDC Party could at that time access up to 20 million USD.

In addition to supporting NAPA preparation and implementation, the COP, at its fourteenth session (2008), requested the GEF to facilitate the implementation of the remaining elements of the LDC work programme other than the NAPAs. Furthermore, at its sixteenth session (2010), the COP requested the GEF to provide funding from

the LDCF to LDC Parties upon request to enable the update of their NAPAs with a view to further improving their quality, to facilitate the integration of LDC adaptation actions into development planning and to reflect increased adaptation knowledge and changed priorities in countries.

<sup>12</sup> GEF/LDCF webpage at <<http://www.thegef.org/gef/LDCF>>.

Figure 4: Funds pledged for the Least Developed Countries Fund as at September 2012

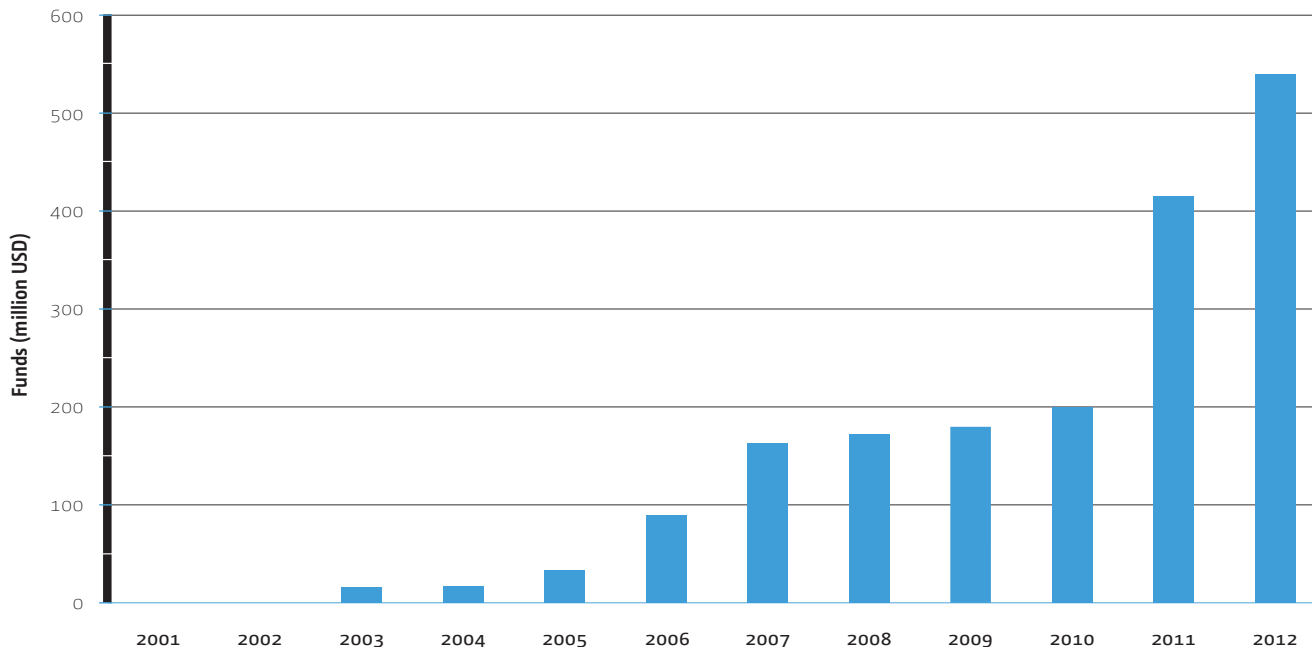
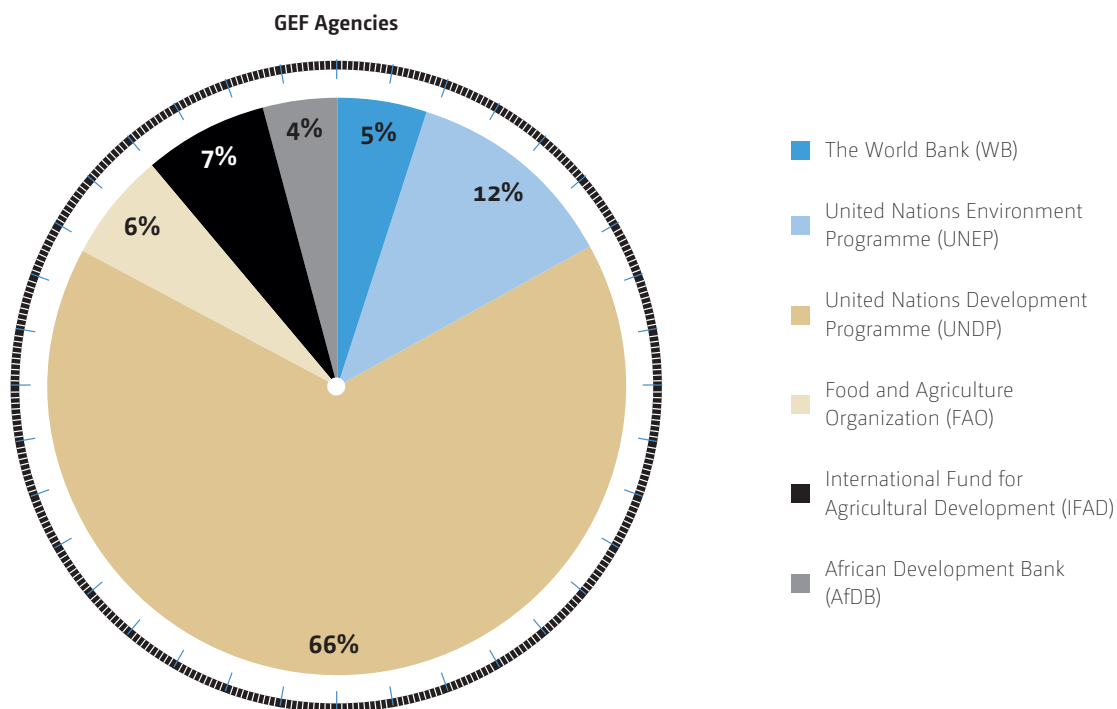


Figure 5: Distribution of projects of the national adaptation programmes of action according to the Global Environment Agency, as of August 2012



Abbreviations: GEF = Global Environment Facility.

#### 1.4 THE LEAST DEVELOPED COUNTRIES EXPERT GROUP CONTINUES TO PROVIDE SOLID SUPPORT TO LEAST DEVELOPED COUNTRY PARTIES

Since its establishment,<sup>13</sup> the mandate of the LEG has expanded with the adoption of new COP decisions<sup>14</sup> on the work of the LEG. Under its current term (2011-2015), the LEG mandate includes providing support to the LDC Parties on the NAPAs, the LDC work programme, and considerations of medium- and long-term adaptation, in particular the national adaptation plan (NAP) process.

Parties indicated in their submissions to the secretariat,<sup>15</sup> and in other fora, that they are very appreciative of the work of the LEG. They consider that the LEG has efficiently supported LDC Parties by providing technical guidance and advice in the form of information and guidelines on where to start, what to do, and how to do it, in relation to the preparation and implementation of NAPAs. The support of the LEG to the LDC Parties continues to be important and is expanding.

**Table 1 : Elements of the mandate of the Least Developed Countries Expert Group (2011-2015)**

Decisions	Mandate
29/CP.7, 7/CP.9, 4/CP.11 and 8/CP.13	LEG to provide technical guidance and advice on the preparation and implementation of NAPAs
6/CP.16	LEG to provide technical guidance and advice on the revision and update of NAPAs to improve their quality, to facilitate the integration of adaptation actions of LDCs Parties into development planning and to reflect increased adaptation knowledge and changed priorities in the country, upon request by LDC Parties
6/CP.16	LEG to provide technical guidance and advice on the identification of medium- and long-term adaptation needs, their integration into development planning and the implementation of identified adaptation activities
6/CP.16	LEG to provide technical guidance and advice on strengthening gender-related considerations and considerations regarding vulnerable communities within LDCs
6/CP.16	LEG to provide technical guidance and advice on the implementation of the elements of the LDC work programme other than the preparation and implementation of NAPAs that are relevant to the expertise of the LEG
5/CP.17	LEG to provide technical guidance and support to the NAP process, as appropriate.  LEG, in carrying out its mandate to support the identification and implementation of medium- and long-term adaptation in LDCs, to prioritize support for the formulation and implementation of NAPs  LEG to prepare technical guidelines for the NAP process, based on the initial guidelines contained in the annex of this decision  LEG to arrange a review of the technical guidelines and to identify support needs for the process of formulation and implementation of the NAPs  LEG to invite the Adaptation Committee and other relevant bodies under the Convention to contribute to its work in support of the NAP process, and to report, as appropriate

*Abbreviations:* NAP= national adaptation plan; NAPA= national adaptation programmes of action; LDC = least developed countries; COP = Conference of the Parties; GEF = Global Environment Facility.

<sup>13</sup> Decision 29/CP.7.

<sup>14</sup> Decisions 4/CP.11, 8/CP.13, 6/CP.16.

<sup>15</sup> FCCC/SBI/2010/5, paragraph 31.

### 1.5 WORK ON MEDIUM- AND LONG-TERM ADAPTATION COMPLEMENTS ONGOING WORK ON EFFORTS IN THE LEAST DEVELOPED COUNTRIES

In addition to LDCs continuing to address their urgent and immediate adaptation needs, given their extreme vulnerability to the adverse effects of climate change and their low adaptive capacity, a process for addressing medium- and long-term adaptation has emerged as a complementary effort. Addressing medium- and long-term adaptation provides the following opportunities:

- Integration of adaptation into development planning processes;
- Enhancement of adaptive capacity and resilience, including through a continuous increase of knowledge management, and the creation of opportunities for self-organization;
- The undertaking of an analytical process to examine existing policies, plans, programmes and projects at risk and, when necessary, identification of possible actions;
- Adoption of a sensitive approach to risks and development of disaster preparedness and management plans and strategies;
- Assurance of sustainable long-term environmental, social and economic development.

The implementation of the LDC work programme, and in particular the NAPAs, has generated valuable experiences and lessons that can be useful to embark on medium- and long-term adaptation processes. The COP, at its sixteenth session, decided to establish a process to enable LDC Parties, building upon their experience with the NAPAs, to formulate and implement NAPs and invited other developing country Parties to employ the modalities formulated to support those plans.<sup>16</sup> The NAP process is part of the Cancun Adaptation Framework which seeks to enhance action on adaptation, including through international cooperation and coherent consideration of matters relating to adaptation under the Convention.

In addition, the COP, at its seventeenth session, adopted a decision on NAPs which other contains initial guidelines, as well as modalities for the LDC Parties, which other developing country Parties are invited to employ. The COP, at the same session, also mandated the LEG to support the NAP process through the provision of technical guidance and support, including through the preparation of technical guidelines.

### 1.6 LINKAGES BETWEEN THE LEAST DEVELOPED COUNTRIES WORK PROGRAMME AND OTHER WORK ARE STRENGTHENED

Since the mandate was given to the LEG at COP 16 to support the implementation of the elements of the LDC work programme other than the NAPA, the LEG has been increasingly taking into consideration the linkages that exist between its work programme and other work streams under the Convention.

By engaging with the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE) and the Nairobi work programme on impacts, vulnerability and adaptation to climate change (NWP), the LEG has undertaken to foster a coherent approach to support LDCs.

Similarly, the LEG has recognized that work in promoting public awareness programmes in LDCs is best undertaken in cooperation with work on Article 6 of the Convention.<sup>17</sup>

Data collection is of paramount importance in building an information and knowledge base in support of analysis and decision processes for adaptation. As a result, the work of the Convention on enhancing cooperation with the Global Climate Observing System (GCOS) secretariat of the World Meteorological Organization (WMO) and other agencies is in this respect an important contribution to strengthening the capacity of meteorological and hydrological services to support the implementation of NAPAs and other climate change adaptation-related activities.

<sup>16</sup> Decision 1/CP.16, paragraphs 15-18.

<sup>17</sup> Article 6 of the Convention focuses on education, training and public awareness.

<sup>18</sup> Decisions 2/CP.17 and 4/CP.17.

With the operationalization of the Technology Mechanism at COP 17 in Durban,<sup>18</sup> it is expected that progress will be made in facilitating the implementation of the elements of the LDC work programme related to the development and transfer of technology, in particular adaptation technologies. The Technology Mechanism is composed of the Climate Technology Centre and Network and the Technology Executive Committee.

It is becoming increasingly important to consider the work of other recently established bodies such as the Adaptation Committee and funding windows such as the Green Climate Fund, to improve understanding and ensure policies and procedures that adequately provide access for LDCs to other forms of support for the implementation of the LDC work programme and for the NAP process.

Finally, the LEG is increasingly collaborating with regional centres to further its work, in particular for the provision of support for the implementation of NAPAs and the NAP process.





## PART 2: SELECTED EXPERIENCES OF LEAST DEVELOPED COUNTRIES IN IMPLEMENTING NATIONAL ADAPTATION PROGRAMMES OF ACTION AND OTHER ADAPTATION ACTIVITIES

### 2.1 METHODOLOGY FOR SELECTING AND COLLECTING COUNTRY EXPERIENCES

For each LDC country, information on the main vulnerabilities, status of preparation and implementation of NAPAs, and information on experiences from LDC NAPA teams, was assembled through questionnaires, interviews and a desk review of country-specific documents and data, including the NAPAs and LDCF project documents. A total of 32 countries were covered in several interviews conducted between 2010 and 2012.

The country experiences presented here are from: Benin, Cambodia, Ethiopia, Liberia, Nepal, Rwanda, Samoa, Senegal, Sudan, Vanuatu and Zambia. They offer an insight into the diversity of the experiences of LDCs in terms of geographic distribution, language (Anglophone, Francophone and Lusophone) and ecosystems (mountainous countries, SIDS, landlocked countries, subtropical regions and the Sahel region).

Besides, as a complement to the publication, the LEG continues to add the country experiences to the LDC Portal on the UNFCCC website.<sup>19</sup>

<sup>19</sup> See <<http://www.unfccc.int/lcdc>>.



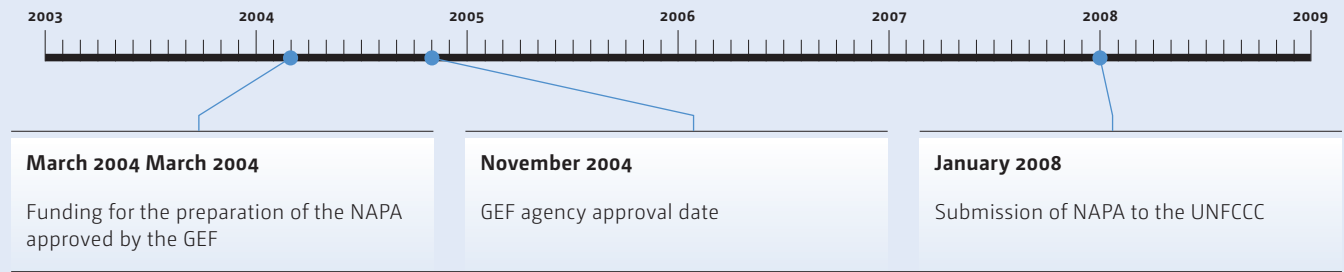
## 2.2 BENIN

Benin is a small developing nation in West Africa with an agrarian based economy.

The country has a flat terrain of which 65% is covered by shrubs and small trees which are highly altered and

degraded. The population is concentrated in the south, along the coast. Sectors which are vulnerable to the adverse effects of climate change include water resources, energy, coastal zones, health, agriculture and forestry. The livelihoods of subsistence farmers including livestock farmers and fishermen are particularly at risk.

### Timeline of the NAPA preparation process in Benin



### NAPA PROJECTS UNDER IMPLEMENTATION THROUGH THE LDCF

Benin outlined five priority activities in its NAPA, and its first project, already well under implementation, aims to strengthen the capacity of agricultural communities in four vulnerable agro-ecological zones to adapt to climate

change. The project's four components focus on piloting climate change resilient agricultural practices while improving the nation's technical capacities in forecasting, assessing, and managing the impacts of climate change and variability on the agricultural sector.

<b>Project title</b>	Integrated adaptation programme to combat the effects of climate change on agricultural production and food security in Benin
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Ministry of Agriculture
<b>Number of NAPA priority activities addressed</b>	1/5
<b>Project components</b>	<ol style="list-style-type: none"> <li>1. Systemic, institutional and technical capacities in forecasting, assessing and managing the impacts of climate change and variability on the agricultural sector.</li> <li>2. Piloting of climate change resilient agricultural practices</li> <li>3. Knowledge management</li> </ol>
<b>Cost in USD million (LDCF component/total cost)</b>	3.8/11.8
<b>First submission of the concept note (PIF) under the LDCF</b>	June 2008
<b>GEF CEO endorsement of the project</b>	January 2010
<b>Progress of implementation on the ground</b>	Project at a very advanced stage of implementation

Benin's second NAPA project aims to improve the technical capacity in climate information and early warning systems.

<b>Project title</b>	Strengthening climate information and early warning systems in Western and Central Africa for climate resilient development and adaptation to climate change
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	National Meteorological Service, Ministry of Environment, Housing and Urban Development
<b>Number of NAPA priority activities addressed</b>	1.5/5
<b>Project component</b>	1. Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level 2. Promote transfer and adoption of adaptation technology
<b>Cost in USD million (LDCF component/total cost)</b>	4.4/22.5
<b>First submission of the concept note (PIF) under the LDCF</b>	May 2012
<b>GEF CEO endorsement of the project</b>	Not yet CEO endorsed
<b>Progress of implementation on the ground</b>	Not yet started

**Implementation strategy.** In 2006 and 2007, Benin implemented a pilot adaptation project with the assistance of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ).<sup>20</sup> This initial experience provided lessons that were taken into consideration when planning the design of an implementation strategy for the NAPA. In parallel, through the NAPA, synergies with the other Rio Conventions were strengthened in particular by a careful selection of the project areas and focus among other environmental issues. Regular meetings with the Focal Points of the other Conventions have also been held.

The level of funds available in the LDCF at the time when the NAPA was submitted to the UNFCCC, coupled with the lack of timely and comprehensive information on the programmatic approach, has led Benin to adopt a single project approach for implementing its NAPA priorities.

**Experience with project implementation.** Benin's first NAPA project under implementation is aimed at raising awareness of targeted populations on the effect of climate change; integrating management of watersheds to reduce landslides and favour water infiltration; increasing access to water resources; and capitalizing and promoting the best practices drawn from the Benin/GTZ pilot activities. The bottom-up approach used when developing the first project has been highly appreciated. Moreover, the active involvement of the local authorities has facilitated project

management and helped to mobilize co-financing at the local level.

The United National Development Programme (UNDP) assisted Benin to prepare the NAPA and is also assisting the implementation of this first project. The NAPA team liaised with the UNDP national office which for a while struggled to separate the NAPA activities from the rest of its portfolio treating the NAPA as "business as usual". It slowed down the pace of the NAPA process but the situation gradually improved through extensive consultations between the NAPA team and the responsible UNDP officers which helped UNDP to become better aware of the specificities of the NAPA compared to other development projects. The relationship between the agency and the NAPA team was further improved by the full support and trust of the Minister of Environment and other senior officers at the Ministry of the UNFCCC Focal Point.

**Accessing resources for project implementation.** The procedures and guidelines to access funds from the LDCF have been understood. Benin believes that these procedures could be further streamlined for a more expeditious review of projects and compliance with the urgency of action which lies at the core of the NAPA concept.

<sup>20</sup> Now the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

With regards to the implementation on the ground of its NAPA project, Benin has applied the following approaches: effective engagement of all stakeholders of the project and Community Councils based on their co-financing contribution, designation by some municipalities of climate change Focal Points in their administration in order to follow up on the project activities, systematic evaluation of the project activities every three months and reporting to the Ministry of Environment for appropriate decisions, and project ownership by the managers of

the various departments of the ministries involved in the implementation of the project on the ground (Departments of Agriculture, Livestock, Fisheries Branch, National Directorate of Meteorology, etc.).

**Efforts to mainstream the NAPA.** Benin's NAPA is mainstreamed into some of the national initiatives, including the climate protection programme of GIZ and the programme of conservation and management of natural resources.

During the implementation of the first NAPA project in Benin, strong national and local coordination, and active involvement of local authorities at the very beginning facilitated the mobilization of co-financing and management of the project.



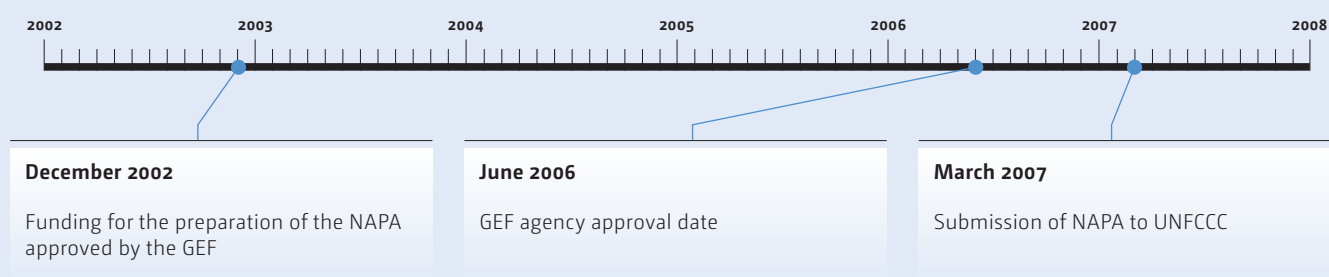


## 2.3 CAMBODIA

The Kingdom of Cambodia is located in mainland Southeast Asia. Approximately 80% of the nation's population lives in rural areas and, on average, agriculture accounts for more than 40% of GDP. As an essentially agrarian country, the Kingdom of Cambodia is highly vulnerable to the impacts of climate change. The frequency and intensity of floods, which may increase with changing climate conditions, are responsible for severe damage to rice harvests. Successions and combinations of droughts and floods have resulted in a significant number of fatalities and considerable economic losses. For example, floods accounted for 70% of rice production losses between 1998 and 2002, while drought accounted for 20% of rice production losses within the same timeframe.



### Timeline of the NAPA preparation process in Cambodia



### NAPA PROJECTS UNDER IMPLEMENTATION THROUGH THE LDCF

Cambodia listed twenty priority activities in its NAPA, and has pursued three projects under the LDCF that address

these priorities. Due to the importance of agriculture for Cambodia, the first project aims to reduce the vulnerability of the agricultural sector to climate-induced changes in the availability of water resources.

Project title	Promoting capacities-resilient water management and agricultural practices in rural Cambodia
Implementing agency	UNDP
National executing agency	Project support unit/Ministry of Agriculture, Forestry, and Fisheries.
Number of NAPA priority activities addressed	5/20
Sectors addressed	Agriculture and Water
Project components	1.Capacity development 2.Demonstration and analysis of adaptation options 3.Knowledge management
Cost in USD million (LDCF component/total cost)	2.1/4.5
First submission of the concept note (PIF) under the LDCF	May 2007
GEF CEO endorsement of the project	April 2009

<p><b>Progress of implementation on the ground</b></p>	<p>Up to mid 2012 the project has spent 67% of its total budget, which includes 76% of GEF/LCDF's US\$ 1,850,000.</p> <p>Some of the key results are:</p> <ul style="list-style-type: none"> <li>• Priorities responding to climate change impacts in 16 target communes were identified using vulnerability and risk assessment tools. Some were addressed with project support.</li> <li>• All target communes receive climatic information and use it in commune investment plans.</li> <li>• Nearly half of water management infrastructure in target districts was incorporated into adaptation measures.</li> <li>• 16 Commune Investment Plans (CIPs) in the two target districts have been incorporated into climate risk management and adaptation measures. Two provincial development plans (2011-2016) and two district investment plans (2011-2014) have also been incorporated.</li> <li>• A mediate mechanism was set up and introduced to water user groups for conflict resolutions.</li> <li>• A community-based early warning system was set up providing reliable climatic information to farmers through local volunteers who receive notices from meteorological authorities.</li> <li>• Farmers are enhancing their practical knowledge on adaptation measures in agriculture and water such as drought resilient rice varieties, a system of rice intensification (SRI), and rainwater harvesting. They later adopted at least one of the measures. Resilient rice varieties have been used on 325 hectares out of the 500 planned hectares.</li> <li>• Farmers and authorities in target districts get knowledge on climate change through a one-year awareness raising campaign. A post-campaign evaluation shows that a majority of farmers is aware of climate change, causes, and impacts on agriculture, water, and livelihoods. They also identified adaption options and have adopted them, such as using resilient rice varieties, water harvesting, and early warning information.</li> <li>• Some of the project lessons learnt and best practices are reused in other institutions' initiatives such as those of IFAD, UNDP, The United Nations Capital Development Fund (UNCDF) and Ministries of Agriculture, Women's Affairs, and Environment. They are also distributed through national and regional knowledge sharing platforms and echoed by media channels.</li> </ul>
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Cambodia's second project aims to reduce the vulnerability of coastal communities to the impacts of climate change by strengthening policy and science, and

demonstrating targeted local interventions to increase ecosystem resilience.

<b>Project title</b>	Vulnerability assessment and adaptation programme for climate change in the coastal zone of Cambodia considering livelihood improvements and ecosystems
<b>Implementing agency</b>	UNEP
<b>National executing agency</b>	Ministry of Environment
<b>Number of NAPA priority activities addressed</b>	3/20
<b>Sectors addressed</b>	Coastal zone, agriculture and water resources
<b>Project component</b>	<ol style="list-style-type: none"> <li>1. Strengthening national policy regulatory and institutional coordination for climate change adaptation programmes and strengthening climate change science at the national and provincial levels.</li> <li>2. Demonstrating coastal flood control measures in agricultural zones of livelihood significance</li> <li>3. Demonstrating coastal ecosystem-based resilience measures</li> <li>4. Monitoring and evaluation</li> </ol>
<b>Cost in USD million (LDCF component/total cost)</b>	1.9/6.1
<b>First submission of the concept note (PIF) under the LDCF</b>	May 2009
<b>GEF CEO endorsement of the project</b>	March 2011
<b>Progress of implementation on the ground</b>	<p>Some of the main results during the period November 2011- September 2012 are:</p> <ul style="list-style-type: none"> <li>• The project prepared its implementation plan and held its inception meeting in November 2011, and initiated consultations and negotiations with national and sub-national technical groups.</li> <li>• The Project Steering Committee and National Focal Points, and four Provincial Technical Working Groups, have been established. The 1<sup>st</sup> Project Steering Committee has been met and approved the annual work-plan and budget 2012, project personnel and terms of reference of senior and deputy technical advisors.</li> <li>• The project has finalised its inception phase and launched an inception workshop with participation from national, sub-national levels and development partners (around 85 persons).</li> <li>• The baseline studies and assessments needed are finalised including a proposed revision or reformulation of project indicators and targets to bring them in line with the SMART requirements. An activity-based budget is also being finalised, which is likely to lead to a revised work plan and schedule of delivery of outputs and activities for the years ahead.</li> <li>• The work on establishing climate change indicators for the coastal area is underway and is linked to the production of a State on Environment Report for the coastal area. The project has been fielded and data has been collected in the coastal provinces.</li> <li>• Maps based on satellite images of the coastal area are being prepared. The overall detailed vulnerability assessments for each of the coastal provinces and the associated adaptation plans are underway. To assist in the overall implementation a network of national focal points and four provincial working groups will play a pivotal role in producing outputs on the ground.</li> </ul>

The third project, submitted to the GEF for funding under the LDCF in August 2011, aims to ensure food security in Cambodia by building the adaptive capacity of rural

communities and reducing their vulnerability to climate change and variability through integrated micro watershed management and climate resilient agricultural practices.

<b>Project title</b>	Strengthening the adaptive capacity and resilience of rural communities using micro watershed approaches to climate change and variability to attain sustainable food security
<b>Implementing agency</b>	FAO
<b>National executing agency</b>	Ministry of Agriculture, Forests and Fisheries, Ministry of Environment in collaboration with Ministry of Water Resources Management
<b>Number of NAPA priority activities addressed</b>	4/20
<b>Sectors addressed</b>	Forestry, Soil, Water and Agriculture
<b>Project component</b>	<ol style="list-style-type: none"> <li>1. Integrating adaptation into agriculture and food security policies and planning.</li> <li>2. Participatory integrated micro watershed management to reduce climate impact on natural resources and agriculture</li> <li>3. Demonstrating and promoting climate resilient agricultural practices through farmer field schools</li> <li>4. Piloting climate resilient alternative livelihood options targeted at women</li> </ol>
<b>Cost in USD million (LDCF component/total cost)</b>	5.6/24.4
<b>First submission of the concept note (PIF) under the LDCF</b>	August 2011
<b>GEF CEO endorsement of the project</b>	Not yet CEO endorsed
<b>Progress of implementation on the ground</b>	Not yet



#### **NAPA Preparation and implementation strategy.**

According to the Cambodia NAPA team, the NAPA preparation process went very well and this was facilitated by the guidelines prepared by the LEG. Cambodia's NAPA preparation included a survey of rural households, informal leaders, local authorities, and non-governmental organizations in 17 out of Cambodia's 24 provinces and municipalities, to identify, at the grassroots level, vulnerability to climate change, existing coping mechanisms to climate hazards and climate change impacts, as well as key adaptation needs. However, once the NAPA was completed and endorsed by the Government the whole process stopped, e.g. the NAPA team broke up as there were no further activities. Some of the lessons of this experience include:

- In the absence of other processes, NAPAs should be a tool for addressing immediate, medium and long-term adaptation needs in LDCs;
- The NAPA should be regarded as a continuous process in LDCs rather than a project that will end at some point;
- There should be a mechanism to sustain the NAPA team beyond the preparation of the NAPA. The team can play a key role in engaging line ministries to integrate climate change adaptation into national



development plans. The team can also play key roles in mobilizing resources for implementing NAPAs, including support for understanding, appreciating and reasoning for co-financing if it has to be provided.

Implementation of the Cambodian NAPA aims to significantly contribute to the achievement of the Cambodia Millennium Development Goals and national sustainable development objectives as articulated by the Royal Government of Cambodia. Upon completion, the following measures were identified as priorities to enable implementation of the NAPA:

- Mobilization of resources to address technical, financial and institutional capacity of government agencies and of local communities in addressing climate change;
- Establishment of a mechanism for inter-ministerial cooperation, coordination and monitoring for the implementation of the NAPA;
- Awareness raising on climate change issues, including on the NAPA;
- Integration of climate change issues into national policies and programmes.

Involvement of all key stakeholders - vulnerable groups, community councils, concerned government ministries

and agencies, NGOs, and donor agencies was noted as a prerequisite for the successful implementation of the NAPA.

**Experience with project implementation.** Three projects have been developed and are being implemented on the ground. GEF agencies have had an influence on the choice and formulation of the NAPA project in Cambodia. Their influence is relative to the comparative advantage they offer to the country, including on the ground capacities, and existing portfolios of work. As a means to control the process Cambodia had to ensure that the projects are fully in line with the priorities identified in the NAPA.

**Institutional arrangements in the country.** The national climate change office was established in mid-2003, with support from a GEF-funded project to facilitate the preparation of the initial national communication. The office was then elevated to a department level in late 2009, and it still needs support to build its technical and institutional capacity. Since its establishment the climate change department has built some capacity, but more capacity building is required at coordination and individual levels. The next step in strengthening institutional arrangements in Cambodia is the establishment of a national inter-ministerial technical team for climate change.

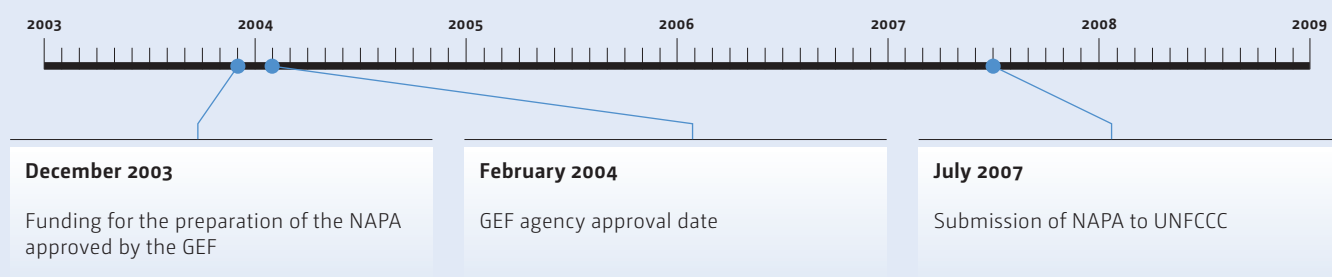


## 2.4 LIBERIA

Liberia, a country situated on the Atlantic Coast of West Africa, has already experienced reduced productivity linked to changing climatic patterns in its key economic sectors of agriculture, fisheries, and forestry. The socioeconomic consequences of this reduced productivity fall particularly on rural populations whose livelihoods depend on natural resources. Rural communities currently represent 70% of the country's population. Thus, for Liberia, the key development challenges vis-à-vis

climate risks are linked to: the degradation of agricultural lands and the loss of biodiversity, which put small holder households at risk; the absence of an effective early warning system that would allow farmers and other stakeholders to make informed decisions on production strategies; and coastal erosion in low-lying areas such as the urban centres of Robertsport, Monrovia, Buchanan, and Cestos. The objective of the NAPA process in Liberia is to build awareness about climate risks, solicit feedback on urgent and immediate needs, and synthesize a wide range of information.

### Timeline of the NAPA preparation process in Liberia



### NAPA PROJECTS UNDER IMPLEMENTATION THROUGH THE LDCF

Liberia identified three priority activities in its NAPA and has proposed three projects under the LDCF that, once implemented, aim to address its three priorities. The first

project intends to reduce vulnerability and build the resilience of local communities and socioeconomic sectors to the additional threats of climate change in Liberia's low-elevation coastal zones.

<b>PROJECT TITLE</b>	Enhancing resilience of vulnerable coastal areas to climate change risks in Liberia
<b>IMPLEMENTING AGENCY</b>	UNDP
<b>NATIONAL EXECUTING AGENCY</b>	Ministry of lands, mines and energy
<b>NUMBER OF NAPA PRIORITY ACTIVITIES ADDRESSED</b>	2/3
<b>PROJECT COMPONENTS</b>	1.Capacity development 2.Demonstration measures to reduce vulnerability 3.Knowledge management and up-scaling
<b>COST IN USD MILLION (LDCF COMPONENT/TOTAL COST)</b>	3.3/8.1
<b>FIRST SUBMISSION OF THE CONCEPT NOTE (PIF) UNDER THE LDCF</b>	February 2009
<b>GEF CEO ENDORSEMENT OF THE PROJECT</b>	June 2010
<b>PROGRESS OF IMPLEMENTATION ON THE GROUND</b>	Implementation on the ground under way

The second project will increase resilience of poor, agriculture-dependent communities and decrease the vulnerability of the agriculture sector to climate change.

The project's four components were endorsed by the GEF CEO in October 2011 and, as stated below, recruitment of a national project coordinator is well under way.

<b>Project title</b>	Enhancing resilience to climate change by mainstreaming adaptation concerns into agricultural sector development in Liberia
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Ministry of Agriculture
<b>Number of NAPA priority activities addressed</b>	1/3
<b>Project components</b>	1.Capacity development 2.Enhancing resilience to climate change by mainstreaming adaptation concerns into agricultural sector development in Liberia
<b>Cost in USD million (LDCF component/total cost)</b>	2.6/8.7
<b>First submission of the concept note (PIF) under the LDCF</b>	April 2010
<b>GEF CEO endorsement of the project</b>	October 2011
<b>Progress of implementation on the ground</b>	Recruitment of the national project coordinator under way

The third project will help to strengthen Liberia's climate-related monitoring capabilities and early warning systems. It will also help to increase the availability of information

for responding to climate shocks and planning adaptation to climate change.

<b>Project title</b>	Strengthening Liberia's capability to provide climate information and services to enhance climate resilient development and adaptation to climate change
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Environmental Protection Agency, Ministry of Land, Mines and Energy
<b>Number of NAPA priority activities addressed</b>	1/3
<b>Project components</b>	1.Improving the climate monitoring network, archiving databases, access to satellite environmental products and ability to issue forecasts 2.Establishment of an early warning system for the dissemination and communication of extreme weather warnings, seasonal outlooks and increased risks due to climate change 3.Strengthening of institutional capacities to develop policies and strategies that are sensitive to climate change
<b>Cost in USD million (LDCF component/total cost)</b>	7.4/35.8
<b>First submission of the concept note (PIF) under the LDCF</b>	April 2012
<b>GEF CEO endorsement of the project</b>	Not yet CEO endorsed
<b>Progress of implementation on the ground</b>	PIF not yet approved by the LDCF

## NAPA PROCESS

Liberia is a post conflict country that started its NAPA soon after peace was restored in the country. Liberia swiftly moved through each step of the NAPA preparation phase and is now in the NAPA implementation phase. This good progress is in part due to the fact that the country has considered the NAPA to be its most important means to

address climate change challenges. As a result, NAPA was given priority in the country before any other activities under and outside the Convention, including the initial National Communication. The NAPA has been developed based on extensive stakeholder inputs obtained in a series of consultations. Additional information was gathered through expert studies and research, all of which revealed that environmental degradation is occurring at various

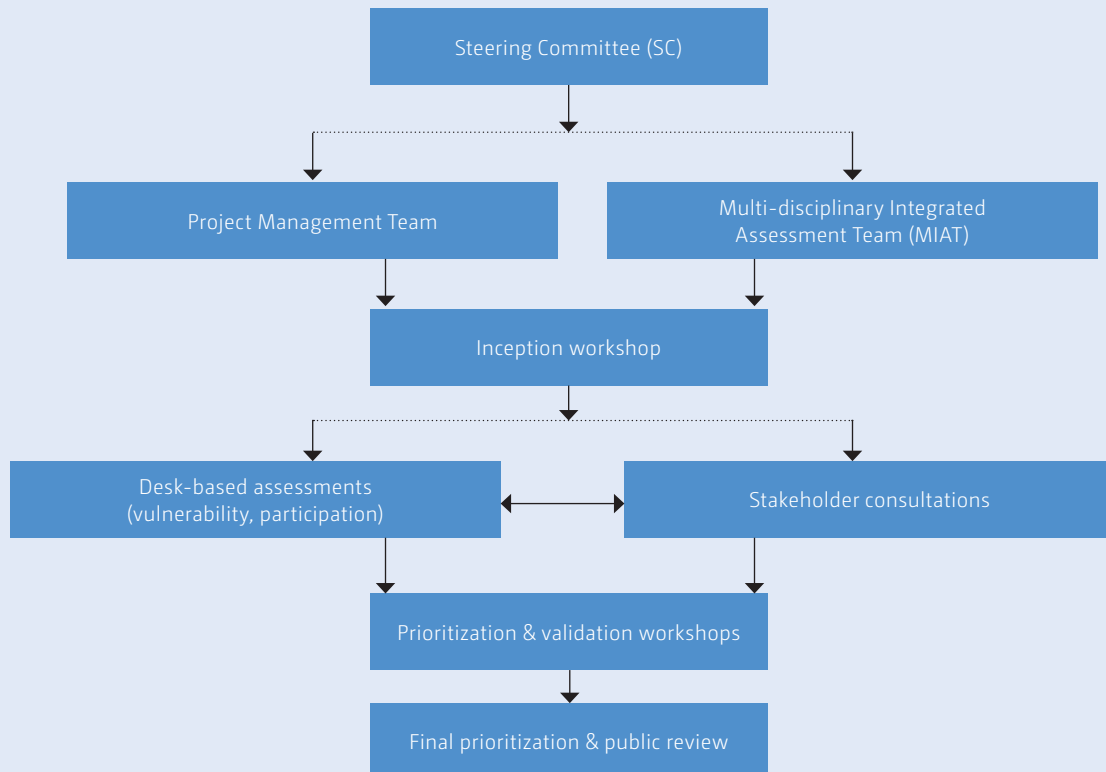
levels throughout the country, a situation that is being exacerbated by increasing climatic variability.

The NAPA is Liberia’s very first document to work on addressing adaptation to climate change. The NAPA process was participatory, involving multiple stakeholders and national consultants. The process began with the establishment of an administrative structure, which included: a) the *National Steering Committee* which provided strategic oversight and guidance; b) the *Multidisciplinary Integrated Assessment Team* which conducted climate change studies and vulnerability assessments; and finally c) the *Project Management Team* which was responsible for the day-to-day administration of the process. Figure 7 illustrates the organizational chart of the NAPA process. Today, part of the NAPA team is still working in this field. A major activity in the NAPA process was to carry out the participatory vulnerability assessment, which identified climate change related problems as well as traditional coping mechanisms and strategies among key stakeholders and in key areas of the country. The vulnerability assessment was followed by the national stakeholders’ consultation. In addition to summarizing the climate change related issues and traditional coping strategies, the consultation identified requisite adaptation needs of Liberia as well as barriers

to proposed adaptation measures. The Prioritization of Adaptation Workshop followed the national stakeholders’ consultation. This workshop identified appropriate national adaptation measures.

Furthermore, the NAPA has also provided a platform to talk about climate change broadly at the national level, although awareness of climate change at the policy-making level is still rather low. Nevertheless, the NAPA experience has helped to raise awareness within the wider public and link noticeable changes in the environment to climate change. The efforts put in the process need to be maintained and scaled up for further sensitization of all relevant stakeholders. The biggest challenges faced by Liberia in undertaking the NAPA process have been limited capacity and expertise and the lack of sufficient and complete meteorological data (mainly influenced by the war). As a result of the NAPA, it became overwhelmingly clear that the adverse effects of climate change variability and extreme events are already significantly impacting sustainable development priorities in Liberia. At the policy level, several adaptation initiatives aimed at reducing the adverse effects of climate change while promoting sustainable development were identified as being of the highest priority.

Figure 7 Organizational chart of Liberia’s NAPA process



**NAPA implementation.** Liberia's first NAPA project submitted to the LDCF is under implementation. The project is essentially based on an infrastructure intervention. A smaller component involves training of the local communities on how to crush rocks for embankment. Co-financing is mainly provided through in-kind contributions. The project aims to protect the coast in three zones. Two of these zones are receiving primary attention due to their location in high risk areas where the population is faced with flooding and intrusion of salt water into soil and freshwater. A project leader has been designated for each area of intervention. As of 19 May 2012, the project coordinator has been recruited and the technical drawings are ready. Several designs were proposed to the Government for selecting the most appropriate ones. As of October 2012, work on the ground has been challenged by the rainy season which started earlier than planned. It becomes imperative to build revetments to prevent flooding. The working conditions are difficult with the rain but due to the urgency of the project, the work has continued throughout the rainy season such as to avoid major delay.

In parallel, the implementation of the second NAPA project is commencing and a third NAPA project is currently being prepared by the Environmental Protection Agency. It focuses on early warning systems and the capture and analysis of required climate information, especially in the areas of forestry, fisheries and agriculture. For this third project, the development of the PIF is currently in an advanced stage and is planned to be submitted to the GEF very soon. The GEF agency involved is UNDP and the LDCF amount requested is around USD 4 million.

With three NAPA projects at different stages of implementation, Liberia is in the process of addressing its three most urgent priorities, which are agriculture, coastal zones and early warning.

**Accessing resources for NAPA implementation.**

Accessing funds from the LDCF has not been a challenge

for Liberia. Liberia believes that their progress is mainly due to the pro-active role played by the country through its national Focal Point. The latter has been the focal point both for the UNFCCC and the GEF for many years and has helped to move the NAPA process from design to implementation. One challenge, which was finally overcome, was co-financing. The NAPA team has had to thoroughly explain to the national stakeholders, in particular government officials in ministries related to the projects, what co-financing entailed. Co-financing is now mainly being provided through in-kind contributions and through other ongoing projects.

**Medium- and long-term adaptation considerations.**

Liberia would like to start its NAP process through efforts to strengthen existing human resources and institutional arrangements. Currently, there is a multilateral environmental unit, which includes a climate change work stream, and which is hosted by the Environment Protection Agency. The climate change team is, however, currently composed of only a coordinator who has to oversee all work on climate change in the country, including adaptation, energy efficiency activities, activities related to the Clean Development Mechanism (CDM) and the programme on reducing emissions from deforestation and forest degradation in developing countries (REDD). There is a need for at least two or three additional officers to ensure continuity within the climate change team and the institutional set-up. One of the many efforts that would need to be put in place is to increase awareness of policy makers so that they understand the importance of a strong, continuous institutional arrangement.

The second priority for Liberia to embark on the NAP process is enhancing the capacity to collect, analyze and store relevant data, in particular meteorological data. Until recently, the country had no trained meteorologists. Since China has started offering scholarships for meteorological studies, Liberia is likely to have more meteorologists in the near future, who will also be able



to engage on climate change issues at the regional and international levels. Meteorological activities in Liberia are fragmented between different institutions. A project is under development for establishing a national meteorology agency. It needs to be approved by the President. At time of writing, legal work was finalized to recognize this new government agency. In parallel, the academic curriculum is under revision to include courses related to environmental issues, in particular climate change.

**Integration of climate change adaptation into development plans.** The second edition of Liberia's Poverty Reduction Strategy Paper (PRSP) is under development. Integration of climate change issues is planned, in particular adaptation issues in various sectors. In addition, Liberia, through the Ministry of Planning and Economy, is being supported by the International Union for Conservation of Nature (IUCN) for integrating gender considerations in relation to climate change into a zero draft of a gender and climate change strategy. When completed, this draft will be integrated into the second PRSP.



With three NAPA projects at different stages of implementation, Liberia is in the process of addressing its three most urgent priorities, which are agriculture, coastal zones and early warning.

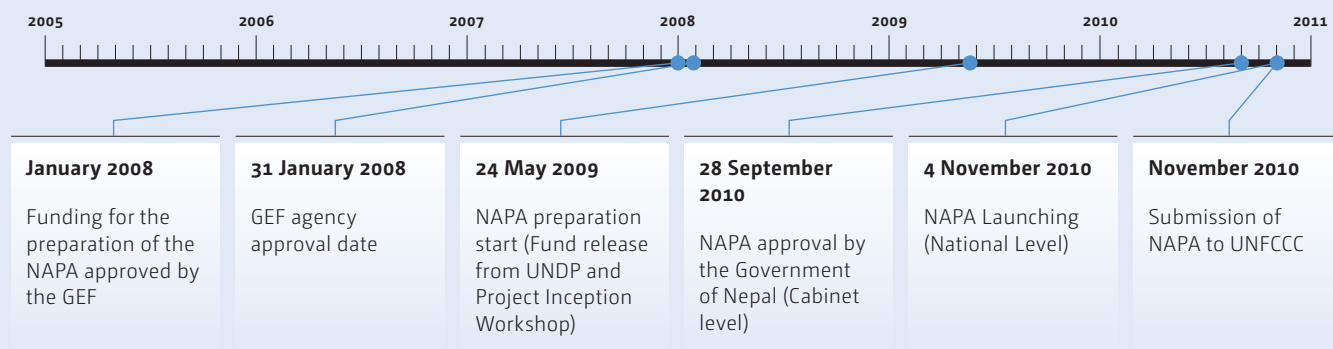


## 2.5 NEPAL

Nepal is a land-locked mountainous country situated in the central Himalayas. The population is predominantly rural with above 85% engaged in farming, predominantly for subsistence purposes. At 33%, the agriculture sector is the second largest contributor to GDP after services

at 39%, followed by industry at 23%, and tourism. Nepal is highly vulnerable to climate change. The country's own vulnerability assessments suggest that more than 1.9 million people are highly vulnerable to the impacts of climate change and 10 million are increasingly vulnerable, with climate change likely to increase these numbers significantly in the future.

### Timeline of the NAPA preparation process in Nepal



### NAPA PROJECTS UNDER IMPLEMENTATION THROUGH THE LDCF

As indicated below, Nepal listed nine priority programmes in its NAPA. One of these priorities is addressing Glacial Lake Outburst Floods (GLOFs) through the improvement of monitoring and disaster risk reduction efforts. As trends in Nepal's flooding are closely related to the effects of higher temperature in high mountains, the nation has witnessed

increased glacier and snow melt causing some 20 glacial lakes to currently be at risk of bursting. Nepal's first project under the LDCF aims to reduce human and material losses from GLOF in the Solukhumbu district and prevent catastrophic flooding events in the Terai and Churia Range. The project concept note was submitted to the GEF in May 2011.

<b>Project title</b>	Community based flood and glacial lake outburst risk reduction
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Department of Hydrology and Meteorology and Department of Water Induced Disaster Prevention (to be confirmed as the PDD is yet to finalise)
<b>Number of NAPA priority activities addressed</b>	2/9
<b>Sectors addressed</b>	Water
<b>Project components</b>	1. Glacial Lake Outburst Flood (GLOF) risk reduction in the High Mountains 2. Community-based flood risk management in the Terai/Churia Range
<b>Cost in USD million (LDCF component/total cost)</b>	6.9/25.8
<b>First submission of the concept note (PIF) under the LDCF</b>	May 2011 and GEF approval (PIF) July 2011
<b>GEF CEO endorsement of the project</b>	Not yet CEO endorsed (PPG not submitted yet)
<b>Progress of implementation on the ground</b>	Full project document under development

## NAPA PROCESS

Nepal's NAPA constitutes the first deliverable of an ecosystem-based national approach. The main objective of the NAPA is to reduce vulnerability and increase adaptive capacity of a mountainous region by addressing urgent and immediate but also medium and long-term adaptation needs. Nepal believes that this approach will provide an opportunity for incremental capacity building and enhance coherence and coordination at the national, local and community levels.

The NAPA explores ways to link adaptation to low carbon development for a series of co-benefits and economies of scale. In addition, Nepal's NAPA investigates a process for mainstreaming climate change adaptation into the national development agenda, to identify priority adaptation projects and develop local adaptation plan of action. The NAPA provides a foundation for all support to adaptation activities in Nepal, for a coherent programmatic approach and reduction of vulnerability and climate change impacts nationwide.

For on-the-ground implementation of the NAPA, local adaptation plans for action (LAPAs) were initiated. The LAPAs detail site-specific local adaptation actions to implement through taking a community-based adaptation approach. In November 2011, the Government of Nepal approved the National Framework for future LAPAs to promote and ensure integration of adaptation actions/ options into the local planning process.

**NAPA implementation.** For accessing LDCF funding, Nepal has packaged its combined NAPA profiles on forest and ecosystem management for supporting climate-led adaptation innovations and ecosystem-based adaptation. The combined profiles have been integrated into one NAPA project which was submitted to the LDCF for funding. The project should also benefit from an existing global ecosystem-based adaptation programme for different mountainous ecosystems (in Peru, Uganda and Nepal) which is managed by UNEP, UNDP and IUCN.

Outside the LDCF, the Nepal Climate Change Support Programme (NCCSP) has been launched to implement adaptation actions based on one of the NAPA profiles: increasing community based adaptation through integrated management of agriculture, water, forests and biodiversity. The initial cost of the programme will be approximately £ 14.6 million, of which £ 7 million will be met by the United Kingdom Department for International Development and £ 7.6 million (£ 8.6 million) by the European Union. Based on Nepal's NAPA and

Climate Change Policy 2011, at least 80 percent of the total budget should be channeled to field level activities. This programme has two main results: 1) development of local and regional level mechanisms to implement and promote scalable initiatives; 2) capacity-building of relevant institutions at national and local levels to support the design, implementation and monitoring of climate change mainstreaming interventions.

As of August 2012, 70 LAPAs were prepared, with implementation to begin in the near future under the NCCSP. In addition, baselines have been documented and monitoring & evaluation indicators have been developed for implementation of LAPAs to mark progresses and acknowledge changes in addressing climate vulnerabilities and enhancing adaptive capacity.

**From NAPA to a Strategic Programme for Climate Resilience.** Building upon the experiences gained during the preparation of the NAPA and the institutional arrangements established to support it, Nepal has been selected as one of the countries to participate in the Pilot Project for Climate Resilience (PPCR). The PPCR, which is a programme that has been initiated by the World Bank, is further enhancing Nepal's ecosystem-based approach to build resilience of vulnerable communities. Under the PPCR, the country has prepared a strategic programme for climate resilience (SPCR) focusing on three key elements for building resilient communities:

- Enhancing the resilience of natural water systems, as essential resources for sustained social and economic development;
- Enhancing the resilience of vulnerable communities and their environment;
- Strengthening capacity for climate change risk management as a means for the transformational change needed to integrate systematic risk management into development planning.

The SPCR cost estimate is USD 86 million. One of the components, "Mainstreaming Climate Change Risk Management into Development" (USD 7.1million) is currently under implementation.

Nepal has used its NAPA as an entry point for financing adaptation beyond the LDCF. It also builds on experiences and outcomes of the NAPA process to develop programmes that will shape adaptation activities along different spatial and time scales. Nepal's NAPA also promoted the establishment of a coordination mechanism to address climate change issues.



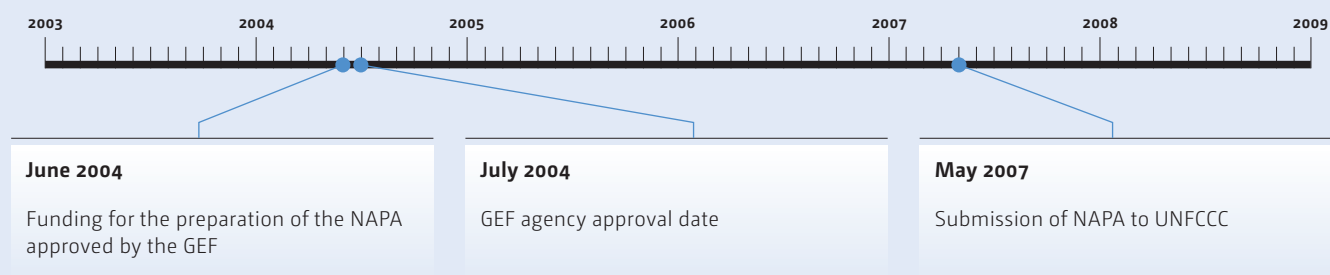


## 2.6 RWANDA

Rwanda is a densely populated mountainous country in southeast Africa. In 2002, the agriculture sector alone accounted for 43% of GDP and sustained almost 90% of the country's population, 83% of which resides in rural areas. Agricultural productivity however depends almost

exclusively on the quality of the rainy season, which makes the country particularly vulnerable to climate change. The increased frequency of droughts, floods, landslides, and erosion currently being observed in Rwanda considerably decreases the country's ability to produce food. In Rwanda, women have become active agents of transition and future gender equality is being considered.<sup>21</sup>

### Timeline of the NAPA preparation process in Rwanda



### NAPA PROJECTS UNDER IMPLEMENTATION THROUGH THE LDCF

Rwanda identified seven priority activities in its NAPA, and has pursued a project under the LDCF that will implement two of these priorities. The overall objectives of the project are to strengthen national meteorological and hydrological services by establishing Early Warning and Disaster Preparedness Systems and Support for

Integrated Watershed Management for the whole county. The project also aims at reducing the vulnerability of the Gishwati ecosystems and their associated Nile-Congo crest watersheds, and the people that derive their livelihoods from them, to the increased floods and droughts brought on by climate change. Approved by the GEF CEO in March 2010, the project's implementation is currently under way.

<b>Project title</b>	Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in flood prone areas
<b>Implementing agency</b>	UNDP & UNEP
<b>National executing agency</b>	Ministry of Natural Resources (MINIRENA)
<b>Number of NAPA priority activities addressed</b>	2/7
<b>Sectors addressed</b>	Meteorology, hydrology, agriculture, water resources, agro-forestry
<b>Project components</b>	<ol style="list-style-type: none"> <li>1. Climate risk assessment and forecasting</li> <li>2. Climate change adaptation planning and response strategies</li> <li>3. Reduction of the adverse effects of floods and droughts in the Nile-Congo crest watersheds and Gishwati ecosystem</li> <li>4. Knowledge management</li> </ol>
<b>Cost in USD million (LDCF component/total cost)</b>	4/16.4
<b>First submission of the concept note (PIF) under the LDCF</b>	October 2008
<b>GEF CEO endorsement of the project</b>	March 2010
<b>Progress of implementation on the ground</b>	Implementation is under way

<sup>21</sup> Source: Mageza-Barthel, R., in Governance and Limited Statehood Series. 2012. Gender in transitional justice. Pp.185,186.

**NAPA implementation.** Rwanda decided to implement its NAPA projects in the sequence presented in the NAPA, being aware that the initial projects are cross-cutting and deal with integrated watershed management. The current project is being implemented concurrently with the UNDP-Japan Adaptation for Africa Project (AAP). It is entitled “Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa-Building a Comprehensive National Approach in Rwanda”. It also has linkages with the Climate change Adaptation and Development Initiative (CC-DARE: Climate Change and Development, Adapting while reducing vulnerability), a project coordinated by UNEP which ended in 2010.

In 2007-2008, when Rwanda moved into NAPA implementation, the support was provided by UNEP as the selected GEF agency. As UNEP does not have a country office in Rwanda, a partnership was initiated to engage UNDP in order to help with work that has to be done on the ground. UNEP was providing assistance with the early warning component of the project. Despite the support, challenges were encountered in the following areas: (i) understanding different formats and procedures used by the agencies and the GEF which led to a long process of adjusting the project proposal developed by the NAPA team to fit the GEF requirements and (ii) reasoning for co-financing.

**Accessing resources.** Only two people in Rwanda have dealt with the process of accessing funds from the LDCF, and that have the basic experience to work on other projects. As a result, and due to the difficult procedures and requirements for developing LDCF projects, the Ministry of Natural Resources, responsible for the first NAPA project, could not undertake the process. As a result,

the project was developed and is being implemented by the Rwanda Environment Management Authority (REMA) in partnership with Rwanda Meteorological Agency (Meteo Rwanda). More training is needed to build capacity in Rwanda for developing projects and applying for funding from international funding windows such as the LDCF.

**Integration of climate change adaptation into development plans.** In the Rwanda NAPA, the process of selecting priorities was closely linked to the various national and sectoral policies of Rwanda. In addition, the NAPA was used to inform the second national poverty reduction strategy, the Economic Development and Poverty Reduction Strategy (EDPRS). The EDPRS specifically states that “an incentive framework will be put in place to implement the NAPA”. As a result of such integration, government counterpart funding including parallel projects is foreseen as one of the key potential financing opportunities for implementing the NAPA. The climate change team will mobilize local NGOs, the private sector and civil society organizations as well as bilateral support.

**Medium- and long-term adaptation considerations.** To lay the ground for the NAP process, Rwanda needs, inter alia to be supported in collecting and analyzing data in particular: expanding data collection, getting access to available data that can be applied at the community level, enabling the generation of secondary data from other primary sources for application to climate change adaptation, and receiving tools and training for analyzing data in key thematic areas (meteorology, hydrology, agriculture, water resources, agro-forestry, specific issues related to landlocked countries, etc.).

In Rwanda substantial progress has been made to integrate the NAPA into development strategies and as such, the NAPA was used to inform the second national poverty reduction strategy.





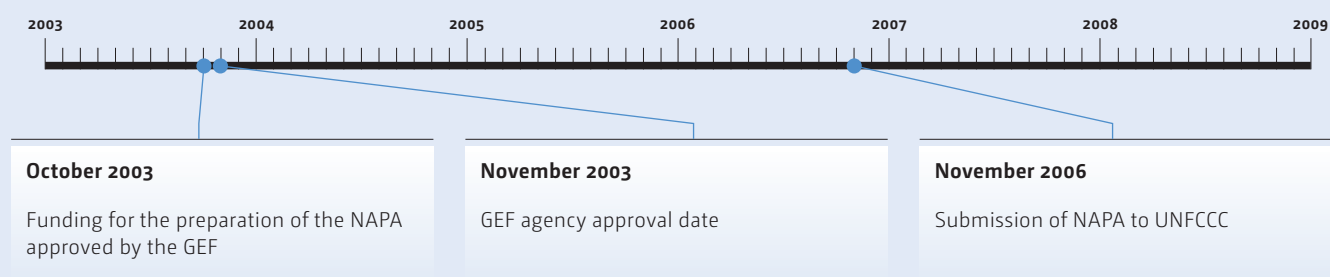


## 2.7 SENEGAL

Senegal is a Sahelian country located at the western tip of Africa. Overall, its soils are not very fertile and are often fragile, susceptible to wind and water erosion. In semi-arid regions like Senegal, shortage of water is a serious issue. The systematic use of groundwater to sustain people and livestock is a development imperative because of the

degradation of soil and lack of surface water resulting from the sharp drop in rainfall observed in the past years. Consequently, one of the most vulnerable sectors as identified in Senegal NAPA are water resources. Other vulnerable sectors include agriculture and food security, as well as coastal zones. The populations most at risk are women, market gardeners and fishermen.

### Timeline of the NAPA preparation process in Senegal



### NAPA PROJECTS UNDER IMPLEMENTATION THROUGH THE LDCF

Senegal listed four priority activities in its NAPA. Its first project aims to address two of these priorities through increasing the resilience of agricultural production systems and associated value chains to climate impacts on the water sector and ensuring the supply and availability

of water for agricultural use in a scenario of increasing climate change-induced water scarcity. By targeting a climate vulnerable resource important for sustaining agriculture, the project will contribute to ensuring food security and rural livelihood objectives that are undermined by the effects of climate change.

<b>Project title</b>	Climate change adaptation project in the areas of watershed management and water retention
<b>Implementing agency</b>	International Fund for Agriculture (IFAD)
<b>National executing agency</b>	Ministry of Agriculture, Ministry of Hydraulics and National Water System, and Ministry of the Environment, Nature Protection, Water Retention and Artificial Lakes
<b>Number of NAPA priority activities addressed</b>	2/4
<b>Project components</b>	<ol style="list-style-type: none"> <li>1.Capacity-building, awareness raising and knowledge management at the national level</li> <li>2.Water harvesting and watershed management</li> <li>3.Water conservation and efficient irrigation</li> <li>4.Monitoring and evaluation</li> </ol>
<b>Cost in USD million (LDCF component/total cost)</b>	5.5/15.675
<b>First submission of the concept note (PIF) under the LDCF</b>	June 2010 (re-submission date)
<b>GEF CEO endorsement of the project</b>	Not yet CEO endorsed
<b>Progress of implementation on the ground</b>	Field implementation about to start

**NAPA process.** The institutional arrangement to address climate change issues in Senegal are well defined. A national committee on climate change was established in 1997/1998, resulting in increased national stakeholder awareness of climate change issues prior to the preparation of NAPA. The existing arrangement has helped to create positive momentum for progress in the NAPA process. The NAPA process in Senegal is in line with the Country's decentralization efforts. More responsibility has been transferred to local authorities, in particular in terms of decision-making power, on issues related to natural resources and the environment.

Soon after the submission of the NAPA, the project under the UNDP and UNEP joint climate change adaptation and development initiative (CC Dare) started. It implements some of the NAPA priorities and is now close to completion.

**NAPA implementation.** During the preparation phase, there were no clear plans for an implementation strategy. This was one of the experiences shared by many other countries during the workshop of the Least Developed Countries Expert Group in Bamako in February 2010.<sup>22</sup> The focus for many, including Senegal, was on the preparation of the NAPA document. However, despite this lack of visibility at that stage, Senegal presented its NAPA priority projects by clustering them according to a programmatic approach and providing detailed cost descriptions. In addition, during the implementation phase, quite naturally, Senegal's long time bilateral partners were mobilized for future support.

The first project submitted to the LDCF was developed with the assistance of IFAD and focuses on the management of water resources. The NAPA team that drafted the PIF received several comments from IFAD for the PIF to be revised to more adequately address the first NAPA priorities. In order to proceed with the project, Senegal wrote to the secretariat to inform them that the NAPA had been (slightly) revised to change the priorities. The project finally received the endorsement of the GEF CEO in January 2012.

Several NAPA priorities are currently packaged into projects and being implemented through sources of funding other than the LDCF, including bilateral funds.



In addition, other ongoing adaptation actions have been directly financed by the Government without the support of bilateral or multilateral partners.

**Accessing resources.** So far, accessing LDCF resources and other resources for implementing the NAPA priorities has not been a major challenge for Senegal. Collaboration between agencies and government officers in Senegal has always been maintained on a peer-to-peer basis resulting in open and equal collaboration. Senegal's strong institutional anchor and engagement in climate change issues has meant that implementing agencies were fully associated in the development of projects from the beginning.

<sup>22</sup> More information on this workshop and the LEG workshops in general available at <http://www.unfccc.int/lcdc>.



Accessing LDCF resources and other resources for implementing the NAPA priorities has not been a major challenge for Senegal. The country has always maintained a peer-to-peer and open collaboration with its bilateral and multilateral partners. Senegal was the first LDC to accredit a national implementing entity under the Adaptation Fund.

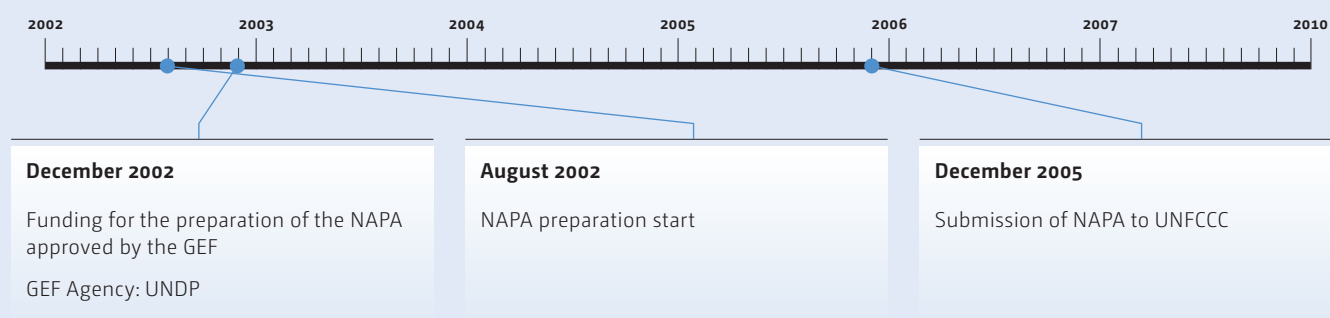


## 2.8 SAMOA

Samoa, like other small island development states is highly vulnerable to natural disasters and to external economic and trade developments. These natural disasters include tropical cyclones, prolonged periods of drought, extreme flooding, pests and sudden outbreaks of diseases, storm surges and sea level rise.

Climate change and sea-level rise are serious concerns given that 70% of Samoa's population and infrastructure is located on low-lying coastal areas. Samoa's economy largely depends on its natural resources, which are reliant on favorable climatic conditions for growth and sustenance.

### Timeline of the NAPA preparation process in Samoa



### NAPA PROJECTS UNDER IMPLEMENTATION THROUGH THE LDCF

The NAPA covers nine different sectors including agriculture and food security, health, early warning systems, water resources, tourism, planning and urban management, forestry, and coastal management and meteorology.

The objective of Samoa's first NAPA project under the LDCF was to increase resilience and adaptive capacity of the country to the threat of climate change, through targeted adaptation interventions in four thematic areas: health, agriculture and food security, ecosystem management, and early warning systems.

<b>Project title</b>	Integrated climate change risks in agriculture and health sector adaptation in Samoa
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Ministry of Natural Resources and Environment, National Health Services, Ministry of Agriculture and Fisheries
<b>Number of NAPA priority activities addressed</b>	4/9
<b>Sectors addressed</b>	3
<b>Project components</b>	1.Climate risk information management 2.Agriculture sector adaptation 3.Health sector adaptation 4.Knowledge management
<b>Cost in USD million (LDCF component/total cost)</b>	2.255/2.150
<b>First submission of the concept note (PIF) under the LDCF</b>	April 2007
<b>GEF CEO endorsement of the project</b>	February 2009
<b>Progress of implementation on the ground</b>	Project close to completion

Samoa's second NAPA project under the LDCF sought to enhance the resilience of forest ecosystems in Samoa.

<b>Project title</b>	Integration of climate change risk and resilience into forestry management (ICCRIFS)
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Ministry of Natural Resources and Environment, Ministry of Agriculture and Fisheries
<b>Number of NAPA priorities addressed</b>	1/9
<b>Project components</b>	1.Policy mainstreaming and institutional strengthening 2.Community-based adaptation implementation 3.Knowledge management
<b>Sectors addressed</b>	4 (Health, agriculture and food security, ecosystem conservation and early warning system)
<b>Cost in USD million (LDCF component/total cost)</b>	2.640/2.150
<b>First submission of the concept note (PIF) under the LDCF</b>	December 2009
<b>GEF CEO endorsement of the project</b>	March 2011
<b>Progress of implementation on the ground</b>	Mid-way into implementation

Samoa's third NAPA project under the LDCF focused on the integration of climate change and disaster risks and resilience in tourism-related policy-instruments, planning and management of tourism development areas and community-based tourism operations.

<b>Project title</b>	Enhancing the Resilience of Tourism-reliant Communities to Climate Change Risks
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Samoa Tourism Authority, Ministry of Natural Resources and Environment
<b>Number of NAPA priorities addressed</b>	1/9
<b>Project components</b>	1.Revising planning processes, regulations and financial instrument relating to tourism operators in Samoa 2.Implementation of climate change adaptation measures in nationally demarcated tourism development areas
<b>Sectors addressed</b>	2 (Tourism industry, ecosystem conservation)
<b>Cost in USD million (LDCF component/total cost)</b>	2.150/4.100
<b>First submission of the concept note (PIF) under the LDCF</b>	December 2011
<b>GEF CEO endorsement of the project</b>	Full project document under preparation. i.e. not yet CEO endorsed
<b>Progress of implementation on the ground</b>	-

The remaining NAPA priorities have been packaged in two projects and are being implemented outside of the LDCF. Their implementation is supported by the European Union (EU), UNDP and the GEF Pacific Adaptation to Climate Change (PACC) programme.

**NAPA process.** The main objectives of Samoa's NAPA are: to develop and implement immediate and urgent project-based activities to adapt to climate change and

climate variability; to protect life and livelihoods of people, infrastructure and environment; to incorporate adaptation measures and goals into national and sectoral policies, and development goals; and to increase awareness of climate change impacts and adaptation activities in communities, civil society and government. Samoa's NAPA was considered at an early stage as Samoa's adaptation framework. Therefore, any donors or agencies willing to support Samoa's



work on adaptation to climate change have done so under the NAPA framework.

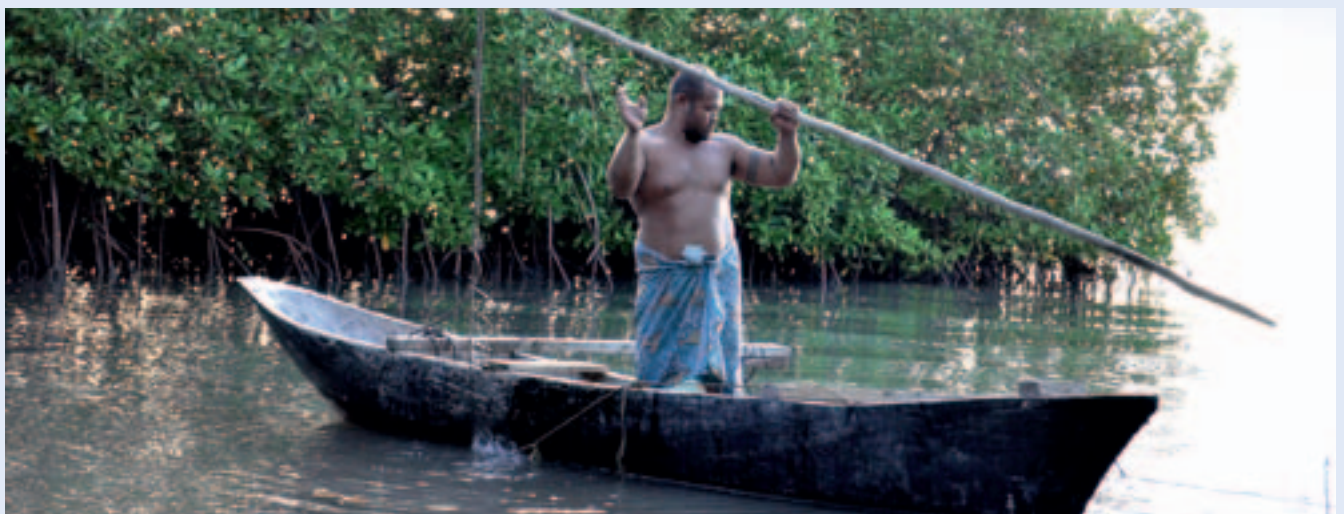
Prior to the NAPA process, Samoa was engaged in climate change activities through the preparation of the first National Communication and the implementation of a stand-alone adaptation project. Since then, Ministries are comfortable with dialogue on climate change issues. Although coordination can be further improved to build capacity for the development of policies, the NAPA process has established good institutional arrangements to address climate change adaptation in Samoa.

**NAPA implementation.** Samoa used an integrated approach to combine priorities identified under the NAPA and to strategically plan the implementation of these priorities in line with its national development strategy and policies. Samoa's NAPA includes nine project profiles, which outline priority and urgent adaptation activities in the most vulnerable sectors. Three of these NAPA priority activities are already under implementation outside the LDCF including with the support of the EU (USD 20 million for the water sector), UNDP (land use planning) and the GEF Pacific Adaptation to Climate Change (coastal zones). Of the remaining NAPA sectors, five sectors have been targeted for funding under the LDCF.

Taking into account the key vulnerabilities identified in Samoa's climate risk profile, rather than focusing on one sector for LDCF consideration, the Government of Samoa prepared an integrated project proposal to implement adaptation activities in four sectors identified in the NAPA, namely: (i) climate health; (ii) agriculture and food security; (iii) ecosystem conservation; and (iv) early warning systems. The decision to develop an integrated approach was based on the following four considerations: enhancement of coherence and integration and increase of national ownership; scaled-up adaptation efforts, scaled-up funding for adaptation activities and opportunity for continuous engagement of several partners and increase efficiency of adaptation actions and economies of scale.

**Accessing resources:** Samoa took three years between the completion of its NAPA and the submission of its first NAPA project document (PIF) to the LDCF for accessing funding. This was due to the lack of clarity at that time of the GEF guidelines for the implementation phase of the NAPA process. Samoa is being supported by UNDP, the only GEF agency permanently represented in the region. Samoa is also ready to access international funding, including the LDCF through direct access. To prepare for this, the Ministry of Finance is in the process of becoming a National Implementing Entity under the Adaptation Fund.<sup>23</sup>

Samoa used an integrated approach to combine its priorities identified under the NAPA and strategically plan the implementation of these priorities in line with its national development strategy and policies.



<sup>23</sup> National Implementing Entities under the Adaptation Fund are national institutions accredited by the Fund to receive direct financial transfers to carry out adaptation projects and programmes.

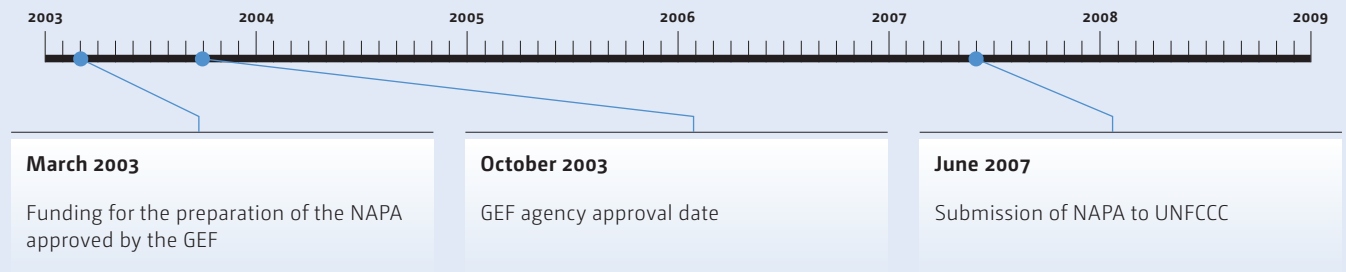


## 2.9 SUDAN

Sudan is a large East African country the coast of which intersects the Red Sea. Comprised of largely arid lands and desert, water resources in Sudan are limited, while soil fertility is low and drought is common. These underlying

conditions are exacerbated by a range of human pressures making Sudan extremely vulnerable to current and future climatic shocks. Sudan will become even more vulnerable in the face of future climate change if adaptive measures are not taken.

### Timeline of the NAPA preparation process in Sudan



### NAPA PROJECTS UNDER IMPLEMENTATION

Sudan outlined five priority activities in its NAPA, and has proposed two projects under the LDCF.

Sudan's first project under the LDCF seeks to implement an urgent set of measures that will minimize and reverse the

food insecurity and enhance adaptive capacity of small-scale farmers and pastoralists resulting from climate change, including variability in five vulnerable regions. Its components, inter alia, aim to enhance the resilience of food-production systems and food-insecure communities to climate change.

<b>Project title</b>	Implementing NAPA Priority Interventions to Build Resilience in the Agriculture and Water Sectors to the Adverse Impacts of Climate Change
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Higher Council for Environment and Natural Resources
<b>Number of NAPA priority activities addressed</b>	5/5
<b>Project components</b>	1. Implementation of pilot adaptation measures in demonstration sites 2. Building national and local adaptive capacities 3. Knowledge management
<b>Cost in USD million (LDCF component/total cost)</b>	3.7/7.3
<b>First submission of the concept note (PIF) under the LDCF</b>	August 2007
<b>GEF CEO endorsement of the project</b>	September 2009
<b>Progress of implementation on the ground</b>	Advanced stage of implementation on the ground

The second NAPA project submitted to the LDCF has the objective of increasing climate resilience of rain-fed

farmer and pastoral communities in regions of high rainfall variability through climate risk financing.

<b>Project title</b>	Climate risk finance for sustainable and climate resilient rain fed farming and pastoral systems
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	
<b>Number of NAPA priority activities addressed</b>	5/5
<b>Project components</b>	<ol style="list-style-type: none"> <li>1. Institutional framework and capacity for sustainable climate observation and early warning</li> <li>2. Capacities to design and deploy weather-index-based insurance to address residual risk and promote long term adaptation</li> <li>3. Financial service provision for farmers and pastoralists to increase adaptive capacity of rural livelihoods</li> </ol>
<b>Cost in USD million (LDCF component/total cost)</b>	3.7/7.3
<b>First submission of the concept note (PIF) under the LDCF</b>	April 2012
<b>GEF CEO endorsement of the project</b>	Not yet CEO endorsed
<b>Progress of implementation on the ground</b>	Project has just started

**NAPA process.** In Sudan, the NAPA has become a strategic document to approach investors and donors. All sectors were considered in the preparation of the NAPA. The insitutional setting for both the preparation and implementation of the NAPA is based on the existing decentralized arrangements characterizing the Sudanese governance system. This choice facilitated the selection of NAPA focal points in each of the five selected states. The NAPA was completed in three years but if it was to be done now, considering experiences and knowledge gained, it would most likely take only six months. The NAPA was the first opportunity to undertake many different climate change related studies.

**NAPA implementation.** At the time of preparation, a sound implementation strategy for full implementation of the NAPA was not considered due to a lack of clear guidelines, and the low level of funding available in the LDCF at the time. Capacity-building was not however an issue, since Sudan has many capable experts in project management and implementation.

The first NAPA project is currently under implementation. Funds were disbursed in February 2010 and implementation has now started. In each state, the implementation is overseen by the same task force as for the preparation of the NAPA. For this project, the country has recruited a project manager, a deputy project coordinator and a secretary to prepare project proposals.

A five-day inception workshop took place in March/ April 2010. To assist the implementing teams, an expert in implementation of projects was appointed for each state as well as three resource persons experienced in agriculture, water and pastoral activities to prepare for the inception workshop and implementation activities. Each NAPA team was tasked with preparing its work plan. Within two weeks the teams had to consolidate plans for their state. The project manager and his team travelled to the five states and met with the local project team and the local government to agree on a three-month work plan, on the disbursement of funds and process for monitoring and evaluating the project. In each state, responsible ministers announced a steering committee composed of government officers, research institutions and NGOs. Local communities are very excited by the prospect of the project being implemented and as a result many members are willing to work on the project, on a voluntary basis.

The second NAPA project is in an early stage of implementation, moving from the PIF to the development of the full project document.

**Gender issues.** Gender issues were fully integrated in the NAPA. Gender was one of the criteria used for ranking priority activities as part of a multicriteria analysis for the NAPA. In addition, throughout the NAPA process, women were well involved at all stages and all levels. There were women in the steering committee and state-level task force, in the technical committee and also as participants

in the various workshops organized to assess the adaptation options.

**Accessing resources.** The lack of LDCF funds has led to an equity problem. Early 2000, the GEF announced to Parties in a meeting at the margin of the intergovernmental process, that only USD 200,000 was available for each one of them for the preparation of NAPAs. Depending on the characteristics of the country, these funds were either appropriate or too little. In the case of Sudan, this was clearly not enough to consider all 25 states in the preparation of the NAPA. The team was forced to select only five states out of the 25. Today, the states excluded from the NAPA process are putting pressure on the national government calling for the same benefits from adaptation measures as those provided through the NAPA. The same lack of equity is also seen when accessing funds for project implementation.

In parallel to the LDCF, the Sudanese team uses their NAPA document to approach bilateral donors with the view to mobilizing other sources of funding than the LDCF. Sudan is also considering the possibility of mobilizing national resources to fund the implementation of the NAPA.

**Medium- and long-term adaptation considerations.** For medium- and long-term adaptation, there is a real opportunity to build on the achievements of the NAPA including the easier access to data and information, and the initial vulnerability assessments made for five of the 25 regions in the country. However, much support will be needed, in particular from the international community to better manage data and information, conduct a country-wide vulnerability assessment, and secure means of implementation of adaptation measures.

Gender issues were considered and inequity addressed by Sudan for both NAPA preparation and implementation.



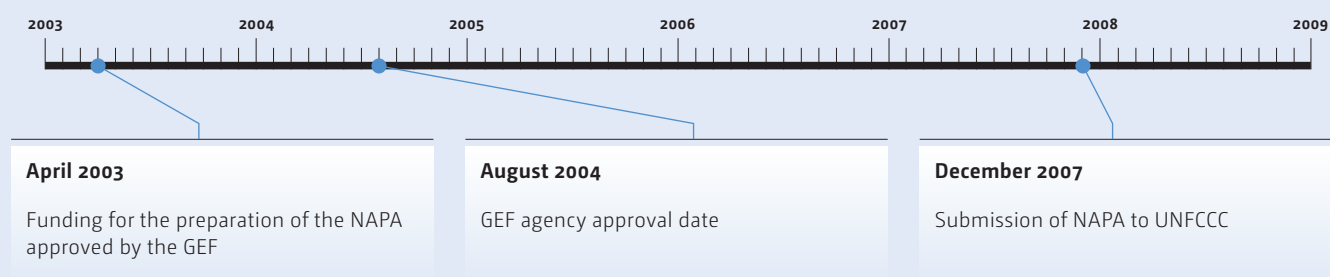


## 2.10 VANUATU

Vanuatu is an archipelago of volcanic islands and submarine volcanoes in the Western Pacific Ocean. The nation's economy is comprised of a large smallholder subsistence agricultural sector, which provides employment for over 65% of the population, and a small monetized fishing, offshore financial services, and tourism

sector. Approximately 80% of the population resides in rural areas and depends on agriculture for its livelihoods. As both agriculture and tourism are vulnerable to climate-related disasters, such occurrences have negatively impacted on economic growth and national development. Vanuatu is vulnerable to a broad range of natural and climatic disasters including tropical cyclones.

### Timeline of the NAPA preparation process in Vanuatu



### NAPA PROJECTS UNDER IMPLEMENTATION

Vanuatu listed five priority activities in its NAPA:

- Agriculture and food security (preservation/processing/marketing, modern and traditional practices, bartering)
- Water management policies and programmes (including rainwater harvesting)
- Sustainable tourism
- Community based marine resource management programmes (modern and traditional, aqua-culture)

- Sustainable forestry management

In September 2008, Vanuatu proposed a project with the objective of strengthening climate resilience and disaster risk reduction to accomplish three of its five priorities.

The overarching goal of Vanuatu's first NAPA project under the LDCF, which is co-financed by the European Commission, is to integrate climate change adaptation and climate-related disaster risk reduction into core aspects of Vanuatu's economy and resource management systems.

<b>Project title</b>	Increasing resilience to climate change and natural hazards
<b>Implementing agency</b>	World Bank
<b>National executing agency</b>	Vanuatu Meteorological Service
<b>Number of NAPA priority activities addressed</b>	3/5
<b>Project components</b>	1. Institutional strengthening for climate change and disaster risk management; 2. Increasing community resilience; 3. Promotion of improved technologies for food crop production and resilience to climate change; 4. Rural water security: increased access to secure water supply.
<b>Cost in USD million (LDCF component/total cost)</b>	3/6.2
<b>First submission of the concept note (PIF) under the LDCF</b>	September 2008
<b>GEF CEO endorsement of the project</b>	CEO endorsed (December 2012)
<b>Progress of implementation on the ground</b>	Implementation on the ground has not started

Vanuatu's second project under the LDCF aims to improve the resilience of the coastal zone to the impacts of climate change in order to sustain livelihoods, food production

and preserve and improve the quality of life in targeted vulnerable areas.

Project title	Adaptation to climate change in the coastal zone in Vanuatu
Implementing agency	UNDP
National executing agency	Department of Environmental Protection & Conservation
Cost in USD million (LDCF component/total cost)	8.28/42.71
First submission of the concept note (PIF) under the LDCF	October 2012
GEF CEO endorsement of the project	Not yet CEO endorsed
Progress of implementation on the ground	Implementation on the ground has not started

**NAPA process.** The NAPA is considered to be an important strategic document in the mobilization of donors in support of activities related to adaptation. When donors show interest in supporting Vanuatu, the NAPA is presented as a national document which is the result of an intensive national consultation process, approved by the National Advisory Committee on Climate Change and endorsed by the National Council of Ministers.

**NAPA preparation.** The preparation of the NAPA was a smooth process in Vanuatu as the work was undertaken under the authority of the National Advisory Committee on Climate Change (NACCC), a well-established climate change institutional arrangement in existence for over 20 years, established before the Rio Summit. Each step of NAPA preparation provided positive lessons. The most successful relates to the collection of valuable information on vulnerability during the stakeholders' consultations. The team went to all provinces and organized workshops in which all communities and sectors actively participated. Through these consultations, the NAPA team successfully collected sound examples of traditional and contemporary community-based adaptation which had already been implemented at the community level. One of the biggest challenges was slow disbursement of funds by UNDP, the implementing agency, which disturbed the implementation of activities.

**NAPA implementation strategy.** Prior to the start of the NAPA process, the country had already developed a draft climate change policy and implementation strategy. Both documents were used to conceptualize an implementation strategy for the NAPA priority projects. Before completion of the NAPA, the NAPA team already had a good idea on how they would move NAPA projects forward.

**NAPA implementation.** Upon submission of the final NAPA in December 2007, Vanuatu prepared a PIF. The first PIF was submitted to UNDP Samoa in January 2008 for formal submission to the LDCF. After some operational difficulties with the implementing agency, Vanuatu decided to change the implementing agency and continue the implementation process with the World Bank.

On the LDCF side, the first registered submission for approval of a PIF from Vanuatu was on 11 September 2008. This PIF was not approved. The LDCF returned the Review Sheet to the World Bank with a description of the issues blocking the proposal from being cleared. Vanuatu resubmitted its PIF. The PIF was received by the LDCF on 17 October 2008. The project was Council approved on 26 November 2008.

This NAPA project, as funded through the LDCF, has taken a very integrated approach. In reality, it is partly financed through the LDCF and partly through the EU Global Climate Change Alliance Programme (GCCA). The LDCF funds secured funding for a group of consultants based in Australia to be hired to help with developing the full project document. The development of this document took longer than expected since the consultants often changed the draft. The GCCA part of the funding is allocated for five to six years. In addition to supporting the implementation of the NAPA activities, this funding window will also be used to further enhance the national climate change institutional arrangements and support the development of relevant policies.

In September 2012, Vanuatu submitted a second project proposal to the LDCF for implementing the remaining NAPA priorities.



**Accessing resources.** The first NAPA project addresses the top five priorities in the NAPA. Vanuatu is actively trying to mobilize other partners for the implementation of the other priorities. At the same time, the NACCC is also looking into the possibility of accessing the remaining funds allocated to Vanuatu under the LDCF to implement the remaining six priorities.

**Medium- and long-term adaptation considerations.** Since many of the NAPA priorities are still relevant today, Vanuatu is considering a revision to integrate medium- and long-term adaptation priorities in the context of a NAP.

**Other elements of the LDC work programme.** Vanuatu has a good level of understanding of the other elements of the LDC work programme. The priorities for Vanuatu

are: additional support on strengthening the capacity of the meteorological and hydrological services; additional public awareness programmes; and transfer of technology for adaptation.

With WMO and the National Institute of Water and Atmospheric Research (based in New Zealand), Vanuatu is already advancing on strengthening the capacity of the meteorological services to enhance its observation network. Vanuatu is also looking into establishing automatic weather stations throughout the country with the support of other institutions. Currently, there are only seven stations for a total of 80 islands. To enhance these ongoing efforts, additional support would also be welcome and Vanuatu would ensure that they do not duplicate but complement projects undertaken with other partners.

In 1989 Vanuatu established a National Advisory Committee on Climate Change that provides advice on all climate change related activities in Vanuatu. When the NAPA process was launched it came under these institutional arrangements like all other climate change initiatives in Vanuatu.

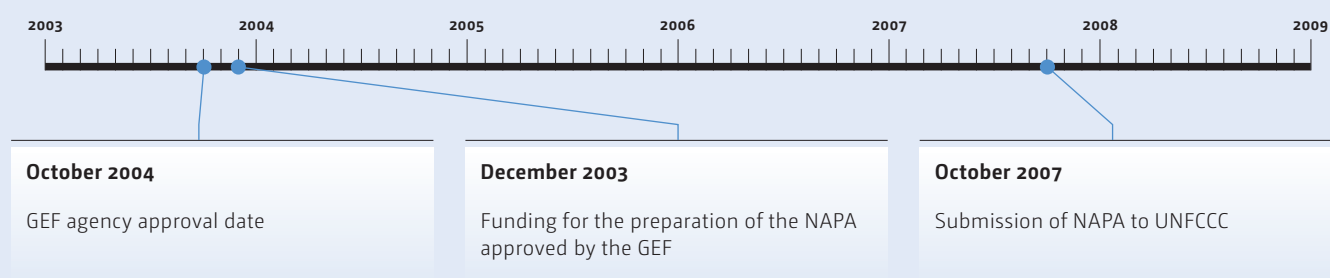


## 2.11 ZAMBIA

Zambia is a landlocked Sub-Saharan African country, the economy of which relies heavily on mining and agriculture. Over the past several decades, Zambia has experienced a number of serious climatic hazards including droughts, seasonal and flash floods, and extreme temperatures. Of these hazards, droughts and floods have increased in frequency, intensity, and magnitude since the 1980s and are adversely impacting the nation's food

and water security. The impacts of droughts and floods on agriculture, for example, which include widespread crop failure/loss, outbreaks of human and animal diseases, dislocation of human populations, and the destruction of property and infrastructure, have seriously eroded opportunities for further economic advancement. While poverty is singled out as the primary social ill affecting the majority of the population, an agricultural system seriously crippled by climate change related phenomena would greatly worsen Zambia's quality of life.

### Timeline of the NAPA preparation process in Zambia



### NAPA PROJECTS UNDER IMPLEMENTATION

Zambia listed 10 priority activities in its NAPA. A project addressing the adaptive capacity of subsistence farmers and rural communities to withstand climate change was developed as Zambia's first project under the LDCF in June 2008. The project's four components, which are now at an advanced stage of implementation on the ground, include:

- 1) Capacity development to conduct and apply climate risk assessments to planning processes;

- 2) A demonstration activity wherein adaptive practices in water and land management in drought-prone areas are piloted;
- 3) Replication of the demonstration project;
- 4) Project management.

Zambia developed its first NAPA project to build the adaptive capacity of subsistence farmers and rural communities to withstand climate change in agro-ecological regions.

<b>Project title</b>	Adaptation to the effects of drought and climate change in agro-ecological Zone 1 and 2 in Zambia
<b>Implementing agency</b>	UNDP
<b>Number of NAPA priority activities addressed</b>	3/10
<b>Sectors addressed</b>	3 (Agriculture and food security, water resources, infrastructure)
<b>Project components</b>	1. Capacity development to conduct and apply climate risk assessments to planning processes 2. Piloting of demonstration activity on adaptive practices in water and in land management in drought prone areas 3. Replication of demonstration projects 4. Lessons learned components
<b>Cost in USD million (LDCF component/total cost)</b>	4.3/14.2
<b>First submission of the concept note (PIF) under the LDCF</b>	June 2008
<b>GEF CEO endorsement of the project</b>	December 2009
<b>Progress of implementation on the ground</b>	Project at an advanced stage of implementation on the ground

In addition, Zambia proposed a second project aimed at strengthening the nation's climate monitoring capabilities, early warning systems, and available

information for responding to climate shocks and planning adaptation to climate change in May 2012.

<b>Project title</b>	Strengthening climate information and early warning systems in Eastern and Southern Africa for climate resilient development and adaptation to climate change
<b>Implementing agency</b>	UNDP
<b>National executing agency</b>	Meteorology department, Department of Water Affairs, Disaster Mitigation and Management Unit
<b>Number of NAPA priority activities addressed</b>	1/10
<b>Sectors addressed</b>	3 (Water resources, food security and terrestrial ecosystems)
<b>Project components</b>	1.Transfer of technologies for climate and monitoring climate infrastructure 2.Climate information integrated into development plans and early warning systems
<b>Cost in USD million (LDCF component/total cost)</b>	4.4/28.1
<b>First submission of the concept note (PIF) under the LDCF</b>	May 2012
<b>GEF CEO endorsement of the project</b>	Not yet CEO endorsed
<b>Progress of implementation on the ground</b>	Not yet started

**NAPA process.** The NAPA was prepared by the Ministry of Environment represented by the Council for Environment in Zambia. One of the main successes during NAPA preparation was the organization of a far-reaching consultation process which involved many different stakeholders. Although the NAPA preparation and the preparation of the first National Communication took place at the same time, the two processes were delinked and as a result the vulnerability assessment of each track was conducted without mutual consultation.

**NAPA implementation.** The first NAPA project has been CEO endorsed and implementation on the ground should follow shortly. This project focuses on adaptation to drought in two agro-economical regions of the country. As of November 2012, a steering committee has been established to oversee the implementation of the NAPA and a working group has been formed for the first project. The Ministry of Environment led the process for NAPA preparation but the implementation of NAPA projects is left to the relevant sectoral ministries, in this case, the Ministry of Agriculture. As a result, most members of the NAPA preparation team are not involved in the implementation phase.

**Accessing resources.** The funds available for NAPA preparation did not allow Zambia to cover the needs of the whole country. As a result, the team had to select priority areas. Moreover, during NAPA preparation no efforts were put into mobilizing funds from other sources than the LDCF for the implementation phase as the team

understood that only the GEF could fund the NAPA. As a consequence, identifying the co-financing for the first NAPA project was a challenging exercise.

Nevertheless, the GEF guidelines have been well understood, Zambian officials believe that the procedures are too long and cause delay for implementation. In light of the lengthy procedures, some mechanisms, such as the removal of the co-financing requirements, should be established to allow for enhanced disbursement of funds.

Zambia has had a good working relationship with UNDP, the implementing agency. UNDP has acted as a facilitator for communicating with the GEF. At the country level, UNDP assigns a portfolio to each of its officers. A designated UNDP officer is responsible for assisting Zambia in developing NAPA projects. Information sharing is also facilitated by the fact that the GEF Focal Point and the UNFCCC Focal Point is the same person.

**Integration of climate change adaptation into development plans.** Zambia is in the process of integrating its NAPA into national plans. The achievements so far have been twofold: the development of a national strategy document which draws the attention of the Government to take responsibility and develop appropriate measures; and the establishment of a dialogue with co-operating partners to mainstream environment and national resources management programmes as embedded in the Fifth National Development Plan. As

a result of those efforts, various sectoral Ministries have information about climate change in a global context. However climate change and in particular adaptation has not been included in national plans yet. For this to be achieved, more efforts need to be made to build

capacity and develop a strategy for the dissemination of information.

**Other elements of the LDC work programme.** In Zambia a climate change facilitation unit is responsible for harmonizing climate change action within the country.

Zambia is making steady progress towards integrating climate change adaptation into its national development planning processes, in particular through its work on the NAPA.





## PART 3: BEST PRACTICES AND LESSONS LEARNED

### 3.1 METHODOLOGY FOR CAPTURING LESSONS AND BEST PRACTICES

This section identifies best practices and lessons learned in the implementation of NAPAs and other adaptation initiatives in LDCs with a view to developing options for enhanced implementation of the LDC work programme and in particular the NAPAs, and to inform future adaptation plans in LDCs and other developing countries.

The collection of experiences of countries and agencies in implementing adaptation action are the first step towards identifying best practices and lessons. Further analysis, including the review of repeated action in different countries, will highlight lessons learned that are actionable and able to form best practices.

#### 3.1.1 BEST PRACTICES

The selection of the best practices featured in volume one of the series, as well as in this volume, is driven by the recognition of the need to address the concerns of those who should benefit from the practices, i.e. the LDCs. The LEG's selection criteria are based on the present and future needs expressed by the LDCs through different forums (interviews, submissions to the UNFCCC, presentations at the LEG side event, email to the LEG, etc.). Based on these criteria, the selected best practices have the potential for replication at a larger scale and/or in another country, as well as for a long term positive impact, and fall into one of the following categories:

- Effective efforts for addressing a common problem experienced by several LDCs;
- Examples of good management of the interdependencies and interconnectedness of actors/ issues/sectors.

The LEG is aware that although an increasing number of NAPA projects are under implementation, with some at an advanced stage, none have been fully completed yet and therefore, the outcome and impact of such efforts will take some time to be assessed. Therefore, the practices that are presented here apply to the early stages of implementation of adaptation measures. In some instances, the LEG could only share the state of the current practice and lessons learned, without clearly identifying a best practice.

It is hoped that these practices will provide the stakeholders involved in the NAPA process and other adaptation initiatives with a wider range of possibilities that they could eventually consider, tailor, and use for their specific situation. The opportunity to transfer interesting approaches across regions is also an important outcome of the identification of best practices and lessons learned through these publications.

#### 3.1.2 LESSONS LEARNED

The LEG is guided by two definitions of lessons learned:<sup>24</sup>

*“A lesson learned is knowledge or understanding gained by experience. The experience may be positive, as in a successful test or mission, or negative, as in a mishap or failure. A lesson must be significant in that it has a real or assumed impact on operations; valid in that it is factually and technically correct; and applicable in that it identifies a specific design, process or decision that reduces or eliminates the potential for failures and mishaps, or reinforces a positive result (Secchi, 1999 in Weber 2001).”*

The second definition, based on the Organization for Economic Co-operation and Development–Disaster Assistance Committee (OECD–DAC), defines lessons learned as *“Generalizations based on evaluation experiences with projects, programmes, or policies that abstract from the specific circumstances to broader situations. Frequently, lessons highlight strengths or weaknesses in preparation, design, and implementation that affect performance, outcome, and impact.”*

Therefore the goal is to frame lessons, based on experience, in a manner that will facilitate use in future areas and applications, and will actively facilitate learning from experience in order to avoid repeating past mistakes or reinventing the wheel. According to UNEP, a high-quality lesson must:

- Concisely capture the context from which it is derived;
- Be applicable in a different context (generic), have a clear ‘application domain’ and identify target users;
- Suggest a prescription and guide action.<sup>25</sup>

<sup>24</sup> Spilsbury MJ, Perch C, Norgbey S, Rauniyar G and Battaglini C (eds.). 2007. *Lessons Learned from Evaluation: A Platform for Sharing Knowledge* Nairobi: Evaluation and Oversight Unit, UNEP.

<sup>25</sup> Spilsbury MJ, Perch C, Norgbey S, Rauniyar G and Battaglini C (eds.). 2007. *Lessons Learned from Evaluation: A Platform for Sharing Knowledge* Nairobi: Evaluation and Oversight Unit, UNEP.

## 3.2 TEN BEST PRACTICES AND LESSONS LEARNED FROM THE LEAST DEVELOPED COUNTRIES

### 3.2.1 ALIGNING ADAPTATION PLANNING AT THE NATIONAL LEVEL THROUGH EFFECTIVE INSTITUTIONAL ARRANGEMENTS

**Best practice:** Building on and integrating institutional structures for adaptation into existing national institutional arrangements can facilitate early success through the smooth integration of adaptation into ongoing national development planning and the effective use of resources.

**Lessons learned:** When climate change adaptation initiatives are conducted in isolation of on-going national planning and implementation activities, resources are wasted in creating institutional arrangements that duplicate existing functions. Given limited technical capacity in many LDCs, this leads to reliance on external consultants or to local brain drain, as people are hired away from existing functions to manage the new adaptation initiatives.

Many LDCs have indicated that the coordination of the adaptation work in their country is greatly improved when the institution acting as climate change focal point has a clear mandate. This allows for the mobilization of other relevant stakeholders, including the civil society to address climate change adaptation in a coherent manner.

The experience of Vanuatu can be seen as a best practice, since the country has had a climate change coordination team since 1989, the National Advisory Committee on Climate Change. Its mandate is clearly defined in its terms of reference. It includes, among other responsibilities, ensuring the following:

- The provision of operational directives, taking decisions on issues arising from the UNFCCC, Kyoto Protocol and any future plans for actions as decided by the COP,
- Promotion of policy development for an effective national response to climate change,
- Coordination of international climate change negotiations with the aim of ensuring consistency, relevancy and benefits for the country in participation,
- Dissemination of information to respective departments on climate change issues,
- Recognition and encouragement of development of human resources in relevant fields,
- Establishment and coordination of the work of the national group of experts,
- Ensuring enactment of appropriate climate change Acts and legislation, and facilitating access to funding for the national climate change efforts (source Vanuatu NAPA, p.19).

Vanuatu's climate change focal point is composed of a multidisciplinary team with membership from different government agencies, civil society and other relevant stakeholders which enable the establishment of a dialogue on linking climate change adaptation with broader development initiatives.

Additional positive experiences reported by LDCs for mobilizing existing government institutions include the use of the offices with strong influence in national planning as a leader for coordinating and integrating climate change efforts and support to sectoral ministries and subnational authorities for integrating climate change adaptation into their planning processes. UNDP and UNEP are also encouraging the mobilization of such existing institutions.<sup>26</sup>

<sup>26</sup> UNDP-UNEP.2011. *Mainstreaming poverty-environment linkages into development planning: A handbook for Practitioners*: Pp 3



An engaged national climate change focal point and existing institutional arrangements can be utilized for integrating climate change into national and subnational planning processes. Initial experiences in integrating climate change into national planning processes indicate that building on existing institutional arrangements constitute good entry points for moving the efforts on linking climate change adaptation to broader development initiatives as these arrangements can contribute to the effective alignment of adaptation planning with broad development and national systems.

The most important role of national level decision makers is to ensure that climate change adaptation is recognized explicitly in core policies, such as national visions and poverty reduction strategies. To achieve this, the climate change focal point has a major role to play to mobilize relevant stakeholders. The climate change focal point should also rely on existing institutional arrangements. These efforts can then be replicated at the sub-national level.

### 3.2.2 ENSURING SUSTAINABLE ADAPTATION THROUGH GOOD NATIONAL-LEVEL COORDINATION

**Best practices:** The involvement of high-level government offices on adaptation, and a clear mandate that distributes roles and responsibilities for different players at the national and subnational levels, can lead to more effective coordination.

**Lessons learned:** In most LDCs, the NAPA process has enabled the establishment of institutional arrangements and built capacity for addressing adaptation. Most LDCs noted, however, that further work is needed to strengthen the capacity of those national institutional arrangements, including in terms of developing policies and strategies for the coordination of adaptation efforts. Some countries have included this as one of the priority activities in their first NAPA projects.

LDC experiences indicate that when the coordination of initiatives on climate change adaptation is not effective, it can lead to activities that contradict each other leading to unintended outcomes. Some countries have found that the meetings organized to review sectoral plans and/or national plans, or meetings which are held by existing committees or task forces such as the disaster risk management task force, present an opportunity to raise awareness on issues related to climate change adaptation and engage with champions from various sectors for further enhancement of coordination.

It has also been found useful to develop a communication strategy for coordination within government bodies and institutions, as well as for engaging other relevant stakeholders outside the government including academia and research groups, communities, subnational authorities, NGOs, and the international community. Based on the above, effective coordination is likely to arise from a strong political drive supported by the establishment of a legal framework for example an Act of parliament.

High-level officials can provide the political will to drive adaptation efforts and establish a robust coordination mechanism, but in most cases, technical expertise on climate change adaptation does not lie with them. There is therefore a need to identify champions within line ministries to facilitate dialogue at the highest political levels and across different sectors.

Although different countries rely on different arrangements depending on the country's history of intersectoral collaboration and the ministerial hierarchy, coordination will work best when all relevant stakeholders have an understanding of the purpose and operation of the coordination. As such, the objectives and processes of the NAPAs and NAP should be communicated clearly to all relevant Ministries by the climate change champions.

Coordination is therefore a cross-cutting effort requiring the active involvement of several ministries, especially when addressing medium-and long-term adaptation needs in the country. The ministries should have a clear mandate for their roles and responsibilities and the coordination mechanism should be a long-term arrangement.

The human, technical and financial capacity to absorb new functions or tasks can be a major limiting factor to effective coordination at the national level, requiring special attention. Multiple programmes supported by different international organizations and/or funded from different sources are necessary to achieve results. Establishment of a national funding mechanism for adaptation to climate change such as a trust fund, the provision of special training, and the sharing of information and lessons among LDCs can bolster absorptive capacity.

### 3.2.3 WORKING WITH THE GLOBAL ENVIRONMENT FACILITY, ITS AGENCIES AND OTHER STAKEHOLDERS ON ADAPTATION PROJECTS AND PROGRAMMES

**Best practices:** The use of national experts and institutions in the design and implementation of NAPA projects (funded through the GEF), increases country ownership and helps build lasting capacity to address adaptation in the long-term including through improved familiarity with GEF procedures.

**Lessons learned:** The design and implementation of adaptation projects involves a diversity of partners and stakeholders. Experience has shown that while the involvement of many partners in supporting LDCs can be beneficial in terms of having access to different types of capacities and resources, it can also slow down the process of the disbursement of funds due to many different internal disbursement procedures.

Countries which have at least one NAPA project at an advanced stage of implementation have found that it is important to ensure that stakeholder's roles are clarified at an early stage and in the case of cross-sectoral projects, all sectors should be involved at all stages of the projects, through a focal point, and this even if in some of the stages, no measures are planned for some of the sectors. These countries also found that the interaction with all relevant stakeholders (within and outside the government) should be documented and that these stakeholders should be asked to validate all important steps of the implementation process.

LDCs have different experiences with developing and managing their NAPA projects depending on the GEF agency involved. Countries have found that implementing NAPA projects through different agencies can be an opportunity to make the best use of the comparative advantages of the agencies. However, the complexities in coordination can also increase with the use of more than one agency.

A joint external evaluation of the LDCF in 2009 conducted by the Danish Development Assistance Programmes (DANIDA) and the GEF Evaluation Office<sup>27</sup> concluded that the GEF agency country offices responsible for

<sup>27</sup> DANIDA/GEF Evaluation Office. Joint external evaluation of the LDCF. September 2009.

climate adaptation planning had heavy workloads, often lacking adequate specialist technical capacity to address climate change adaptation issues. To address this gap, the agencies have recruited and trained staff that have the relevant expertise to assist countries in their climate change adaptation activities. The use of government and public sector personnel to the extent possible is a very useful way to build national capacity, as demonstrated by Benin, Bhutan, Samoa, Sudan and other LDCs. Another way to build long-term capacity of national experts is to incorporate capacity-building for project managers in the development of the project and strengthen individual expertise, as opposed to hiring consultants. Agencies have also found that by explaining to line ministries or executing agencies the process for distributing LDCF funds, they avoid confusion and help strengthening the countries' ownership of the project.

Choosing a GEF agency to assist an LDC in the implementation of a NAPA project is not always straightforward. In most cases deciding on an agency will be influenced by the broader development portfolios of the agencies in operation in the country. The DANIDA/GEF evaluation concluded that although the LDCs can decide which GEF agency to work with and changes in agencies have occurred between the NAPA preparation and implementation stages, LDC adaptation teams may have little effective negotiating power in the relationship between their country and the GEF agencies.

When it comes to project management, several LDCs found that adhering to the agencies' guidelines can avoid delays. In addition, national standards must also be adhered to, including standards set by the project management units and the funding delivery mechanisms. Several countries have reported that a project manager who has experience with project management involving local communities is an asset in this process. In addition, appointment of the project manager by the political authorities should be coordinated by the project team to ensure effective collaboration. In this regard, LDCs which are at an advanced stage of NAPA implementation, found it useful to search for expertise from existing programmes and implementation structures.

As countries implement their NAPA projects, there is a growing need for information about the comparative advantages of the different GEF agencies. This is especially relevant when countries are seeking more specialist

support for their adaptation projects, where agencies that have not traditionally worked in that country may in fact offer many advantages. In some cases, it is easier to identify co-finance for LDCF projects if the GEF agency has an existing project in an applicable sector. Information on the current and future country-assistance strategies of the various agencies is therefore useful for countries to help identify potential agencies. The specific procedures used to process a project proposal, additional to the requirements of the GEF/LDCF are also important to consider. Although they are unlikely to be prohibitive, prior knowledge could avoid frustrations about the time taken to process projects and the additional information that may be required. In some cases, agencies may have templates of what they consider to be essential elements of an adaptation project. Countries can thus use this information to better align their proposed project activities with what an agency is able to best assist them with.

### 3.2.4 STRENGTHENING THE CONSIDERATION OF VULNERABILITY THROUGH TARGETING VULNERABLE GROUPS

**Best practice:** The guiding elements of the NAPA process and the flexibility of approaches have enabled countries to focus on the most vulnerable parts of their society when designing NAPA projects. Thus, NAPA teams deployed different approaches in addressing the needs of the most vulnerable, such as women; the elderly and the youth. Approaches included participatory vulnerability and adaptation assessments, and the deliberate integration of gender considerations in the design and implementation of NAPA projects.

**Lessons learned:** Several factors can co-exist in LDCs which add to their vulnerability to climate change, including geographical, economic and social factors. These often overlap and exacerbate each other. Identifying these factors early in the adaptation planning process helps in targeting the most vulnerable groups during the implementation phase.

Nepal has developed participatory tools and techniques for assessing climate change impacts and exploring adaptation options.<sup>28</sup> The process relies on a good representation of different social groups during the participatory sessions, including women, the elderly and the youth. It develops an environment in which representatives of social groups are comfortable to contribute. A hazard mapping exercise, done prior to the vulnerability assessment was used as a basis for integrating the participants' perceived vulnerability of each sector and social group to each climatic hazard. The participants are then asked to consensually agree on a rating.

In Congo Democratic Republic, during NAPA implementation, the integration of gender consideration has been continuously pursued at each stage of the project life cycle. Women are considered as important beneficiaries of the NAPA project, and when conducting training workshops to the communities, in particular when selecting the participants to the workshops, at least 25% of the participants has to be women. In addition, the active engagement of women and disabled persons with equal skills, in the management of the project, was prioritized. Women have contributed to the decision-making process for the management of the project funds and the facilitation and implementation of the project activities. Every contract established for the project details how women will be included. Consequently, women are represented in the working group, the steering committees and the technical committee of the project.

In Lesotho, in addition to recognition of the vulnerability of the country due to its landlocked position, efforts have been made to identify the most vulnerable groups among all vulnerable groups, during the impact and risk assessment conducted during NAPA preparation. For this, a series of socio-economic factors were used to identify and map vulnerable groups and evaluate their adaptive capacities. The exercise led to the identification in most regions of small livestock farmers as being the most vulnerable group.

<sup>28</sup> Participatory tools and techniques for assessing climate change impacts and exploring adaptation options – a community based toolkit for practitioners. 2010, available at <[www.lfp.org.np/download.php?dir=summary&filename=cc\\_adaptation\\_toolkit\\_Eng.pdf](http://www.lfp.org.np/download.php?dir=summary&filename=cc_adaptation_toolkit_Eng.pdf)>.

### 3.2.5 DOCUMENTING THE DIFFERENT ELEMENTS OF THE NATIONAL ADAPTATION PROCESS

**Best practices:** Effectively documenting the national adaptation process contributes to the building of a knowledge base for adaptation and facilitates subsequent adaptation assessments and future planning. In addition, mandatory regular reporting on the elements of the process, including on projects and activities, facilitates the documentation of the process and thus, promotes the archiving and sharing of information.

**Lessons learned:** When documentation of the process is not done properly, it often becomes a challenge to make a case for the projects being proposed for implementation. In some cases, LDCs had to repeat a similar exercise to that which was done during the preparation of the NAPA while turning their project priorities into project proposals, part of this being due to lack of documented information.

The documentation of the stakeholder consultation, ranking and prioritization processes followed in the NAPA helped provide validity for the identified NAPA priorities. Through the transparent approach taken in presenting how these priorities were selected, the international community accepted NAPA priorities as being country-driven and urgent. Many lessons have been learned through the NAPA process, and these lessons, as documented in this publication, provide insight for the acceleration of the implementation of the urgent and immediate needs identified by LDCs in their NAPAs.

To ensure data and information are updated over time, countries that have relied on existing data management processes have fared better in terms of sustaining their efforts over time. For example, many countries have national statistical offices that collate and archive statistics on population, production, trade, economics, etc. on an annual basis, while meteorological services manage climate observations. Maintaining these systems as opposed to creating new data arrangements, ensures long-term access to high quality data. Arrangements to share the data with teams conducting assessments are needed, and need to be facilitated by national data sharing policies, including requirements for climate change projects (by the GEF and its agencies, or by other international programmes) to deposit their data in national data systems.

A best practice in this area is offered by Samoa, which has prepared an operative planning manual to guide cost-benefit analysis at the planning level.

By documenting adaptation processes over the long-term, an institutional memory is created and retained. In countries where there is a relatively high level of staff turnover, a system of documentation can ensure that the information is maintained, and that new staff are able to understand the evolution of the process over the long-term. In addition, documenting adaptation processes at the different stages helps to motivate those involved in planning and implementation, and sustain the momentum of the process. It also creates a string of outputs that can be used as criteria against which to measure progress, and to create transparency of the process.

In general, documenting processes includes documenting at least the process objectives, the monitoring and evaluation system, the steps and activities required to deliver the objectives, the resources, information and competences required, the risks and the measures that will be taken to eliminate or control these risks and the review and enhancement of the process.

Rwanda has started to document the processes for addressing climate change adaptation. The Rwanda Environment Management Authority, which has been leading the national response to climate change, developed guidelines<sup>29</sup> to complement existing tools for integrating climate change adaptation and mitigation into the agriculture sector. The guidelines are designed to provide basic and flexible guidance on how to: i) conduct impact and vulnerability assessments in the agriculture sector, 2) identify opportunities and entry points for integration of climate change adaptation and mitigation measures; 3) identify, analyse and integrate options for climate change adaptation and mitigation into the agricultural policy formulation, financing, implementation and evaluation at national, local and community levels. They present step by step advice for integration complemented by case studies and examples and are intended for use especially by those involved in the conception, formulation, implementation, monitoring, and evaluation and reporting of policies, strategies, plans, projects, budget, and activities for service delivery in the agriculture sector.

<sup>29</sup> Rwanda- Guidelines for Mainstreaming Climate Change Adaptation and Mitigation in the Agriculture Sector <[http://www.rema.gov.rw/rema\\_doc/IMCE\\_Doc/Guidelines%20-Agriculture.pdf](http://www.rema.gov.rw/rema_doc/IMCE_Doc/Guidelines%20-Agriculture.pdf)>.

Nepal has developed an online portal<sup>30</sup> which also serves as a repository for Nepal's resources on climate change, including official documents, publication, multi-media, etc. Nepal's initiative is also an encouraging example of the documenting of national adaptation processes, which is likely to enhance the coherence of the adaptation work in Nepal.

Adaptation as a long-term process will require assessments to be on-going, with frequent plans produced over time. This will benefit from a continuing investment and effort in assembling data, assessments and frequent updates to prioritized lists of vulnerability and adaptation measures. A long-term approach in the data and analysis will also facilitate research and expansion of the knowledge base, and will be supported by systematic observation. Countries that have well established data and information systems for various assessments undertaken under the NAPA, National Communications and for other adaptation planning activities, will find it easiest to scale up their efforts into the medium- and long-term. Besides, most adaptation benefits will accrue long after projects are over, and in order to demonstrate the value and benefits of such actions, information should be collected and maintained over the long-term.

### 3.2.6 MONITORING AND EVALUATING ADAPTATION PLANNING AND IMPLEMENTATION AT DIFFERENT LEVELS

**Best practice:** Support by the LEG in terms of monitoring can assist the LDCs in the NAPA process. The LEG has worked together with the LDCs on the review and monitoring of progress in the NAPA process at both the national and international levels. At the national level the LEG undertakes regular interactions and surveys to LDC Party representatives, including during Subsidiary Body sessions. At the international level it collaborates with LDC Parties and the GEF and its agencies to discuss progress, bottlenecks and strategies to address challenges. To complete the exercise, the LEG provides feedback through its regular reports to the SBI to recommend further action, as appropriate.

**Lessons learned:** Although some work has been done to support LDCs in monitoring progress in the NAPA process, such as by the LEG, more needs to be done to promote effective monitoring and evaluation of adaptation activities at the national level. Challenges that have already been identified point towards the need for the continuous provision of leadership, technical capacity and resources.

Monitoring and evaluation of adaptation initiatives, including the NAPA and NAP, can be done at three levels: the international level, to assess the contribution towards global goals and targets and the relevance of the international support mechanism to national development goals and priorities; the national level, to assess the achievement of nationwide goals and targets; and the project/programme level, to assess the achievement of the project/programme objectives. The ultimate goal is assessing whether the adaptation needs of the target groups have been successfully addressed.

Countries' experiences indicate that reporting, monitoring and review tend to be more efficient when there is an understanding of the way the national and

<sup>30</sup> <<http://www.climatenepal.org.np/main/?p=research&sp=onlinelibrary>>.

sectoral monitoring systems work, and a promotion of linkages with the existing monitoring systems. For example, an existing monitoring tool such as the household income survey could be enhanced to also capture information on outcomes and outputs of adaptation initiatives. The survey is usually done every five years and can constitute a low cost instrument for monitoring nationwide adaptation initiatives.

The design of monitoring and evaluation of adaptation programmes should be carried out during the design of the programmes, and not as an after-thought. The choice of metrics and indicators to guide the achievement of concrete outputs and outcomes is an important aspect of the monitoring and evaluation. Selected indicators should reflect the country context and priorities. It is likely that one set of metrics will not satisfy all intended uses – metrics useful for national level monitoring of adaptation efforts in general will not be the same ones that will be used to monitor progress of individual adaptation projects as may be carried out by the implementing agencies. However, the development of such metrics at different scales should be harmonized to ensure consistency in results.

Monitoring and evaluation can be a challenging process for countries, in particular because there is often a lack of leadership and resources to develop appropriate metrics and indicators and collect the appropriate data necessary to track progress. The appropriate metrics for the monitoring and evaluation would need to be developed with inputs from stakeholders, to ensure buy-in and eventual use of the results. A report by the National Research Council of the US Academy of Sciences (NRC 2005),<sup>31</sup> is a useful resource for designing appropriate metrics.

In May 2012, several lessons related to monitoring and evaluating adaptation were identified during a workshop on tracking successful adaptation organized by GIZ in collaboration with the Adaptation Partnership, UK Department of International Development and the United States Agency for International Development.<sup>32</sup> It was found that a clear strategy with clear outcomes will facilitate monitoring and evaluation at the national level.

At the national and project/programme levels, monitoring and evaluation offers an opportunity to improve and/or refine strategies at an early stage of the adaptation process. As the implementation of a project/programme progresses, upscaling and transferring strategies and measures for integration into sectoral and/or national strategies can also be useful. Monitoring and evaluation can also assist in identifying synergies and additional climate change and non-climate change objectives. Additionally monitoring and evaluation is an important tool for tracking multiple sources of funding. At all levels, monitoring and evaluation offers an opportunity for enhancing communication among relevant stakeholders and sharing best practices and valuable lessons.

LDCs face technical capacity constraints and need support to conduct meaningful monitoring, reporting and evaluation of their adaptation efforts. This includes support for collecting, analysing and archiving data and information, and selecting and using relevant metrics and indicators.

<sup>31</sup> National Research Council. Thinking Strategically: The Appropriate Use of Metrics for the Climate Change Science Program. Washington, DC: The National Academies Press, Available at: <[http://www.nap.edu/openbook.php?record\\_id=11292&page=R1](http://www.nap.edu/openbook.php?record_id=11292&page=R1)>.

<sup>32</sup> GIZ Result report from the workshop on tracking successful adaptation – smart monitoring for good results, available at <<http://www.bonn-perspectives.de/en/start.html>>.

### 3.2.7 MOBILIZING FINANCIAL RESOURCES

**Best practices:** The facilitation of resource mobilization through the organization of donor roundtables, the setting up of national trust funds and the mobilization of diverse organizations has proven to yield positive results in some LDCs. More resources were able to be mobilized, and more partners engaged in various roles, for the implementation of NAPA projects.

**Lessons learned:** Accessing funds from different sources is challenging for many LDCs, as is reporting on funding received, and adds an extra layer of responsibility on LDCs. Reporting to funding agencies and other partners is made easier when the supporting agencies coordinate their activities and such reporting is guided by clear national guidelines.

Several countries have engaged with donors which are present in their countries right from the start of their NAPA process. Burkina Faso, for example, increased donor interest in the country's climate change activities by promoting synergy with the other Rio Conventions, in particular by engaging the focal points of the other Rio Conventions in the NAPA steering committee. The steering committee is also composed of officers from various ministries including the line ministries such as the Ministry of Planning and Finance. Donor support has been mobilized through the organization of roundtables for donors. Such events could help strengthen the dialogue and partnership between the Government and its partners for both technical and financial support. They could also help the development of harmonized instruments and approaches for monitoring, evaluating and reporting. Some LDCs such as Benin, Bangladesh, Ethiopia, Nepal and Tuvalu are in the process of establishing a climate change financial mechanisms at the national level. Such efforts could be upheld as best practices in terms of financing climate change adaptation.

LDCs that have NAPA projects in advanced stages of implementation have also indicated that this achievement was only possible due to the active engagement of civil society, experts and communities. They see this as paramount for raising awareness and ensuring buy-in and ownership but have found that it is also an opportunity to mobilize technical and financial support including in-kind.

In general, it was found that the LDCs that have made the most progress in implementing their NAPAs are those that

are also implementing various other adaptation projects outside the Convention. These countries are often the ones with higher institutional and individual capacities as a result. Furthermore, countries such as Bangladesh, Burkina Faso, Cambodia, Mali, Niger, Sao Tome and Principe, Samoa, Zambia and others, which have more than one NAPA under implementation seem to be more capable of mobilizing resources outside of the LDCF for NAPA implementation and other adaptation projects.

Multiple sources of funding are available but it takes time and effort to mobilize available resources. To limit the number of requirements and constraints linked to accessing funds, in particular vertical funds, efforts could first be directed towards accessing the biggest sources of funding. However, in practice, for NAPA projects funded by the LDCF, the LDCF/GEF procedures override all co-financing even when the amount of co-financing is much higher than the LDCF grant.

Experiences from LDCs and other countries have shown that setting up a national trust fund is a useful way to ensure country ownership of adaptation activities, predictability of funding and enhanced coordination of support of the national priorities. Since the fiduciary requirements for a national implementing entity (NIE) accreditation by the Adaptation Fund are similar to those required for establishing a national adaptation fund, efforts should therefore be complementary.

In addition, LDCs have indicated that the active engagement of the private sector in NAPA implementation or other adaptation related activities, where possible, could provide an incentive for investment and thus be a source of additional funding. The private sector could also offer technical advice or support, especially on financial matters. However, in practice little engagement with the private sector has taken place in LDCs for the design and implementation of adaptation measures.

Most effective engagement of the private sector in addressing climate change is currently geared towards mitigation actions but there is clearly a niche for private sector involvement in adaptation, including by means of public procurement or climate insurance. As an increasing number of LDCs is moving towards the implementation of the second and subsequent NAPA projects, it would be worth exploring ways by which the implementation of NAPA projects could attract investment from the private sector and consequently assist in diversifying the sources of funding.



### 3.2.8 ACCESSING RESOURCES UNDER THE LEAST DEVELOPED COUNTRIES FUND: LATEST EXPERIENCES

**Lessons learned:** LDC Parties have learned-by-doing to access the LDCF for NAPA projects, and many earlier difficulties and obstacles in accessing funds have been overcome. There are some limitations, however. Although it is now generally recommended to implement adaptation using a programmatic approach, the current modalities for funding of NAPA projects under the LDCF are not easily applied to support the development of national programmes on adaptation. Reasons include the current focus on capacity-building and piloting activities, and the much higher resource requirements for the application of the GEF programmatic approach.

In the early years of NAPA implementation (2005-2009), most LDC Parties were struggling to access the LDCF. They found the LDCF procedures very complex and not transparent enough. Some requirements such as the sliding scale were difficult for them to apply. Many LDC Parties which had initial difficulties eventually overcame these barriers, through a process of learning by doing and actions taken by the GEF to streamline the LDCF process. According to the GEF,<sup>33</sup> observed trends show that countries are making progress in accessing resources under the LDCF, particularly in increasing project size, decreasing time between NAPA completion and the approval of the first NAPA implementation project, as well as between project approval and CEO endorsement.

Despite this progress, a number of LDC Parties are still reporting difficulties in accessing funds for the implementation of NAPA projects, including difficulties navigating the funding application process, difficulties with baselines and financing, and extended application processing times. An increasing number of LDC Parties are, however, still facing difficulties, and are trying to overcome them through continuous dialogue with the GEF, the agencies, the climate change focal point and the GEF focal point in their countries. The GEF has responded to some of the ongoing difficulties expressed by LDC Parties by further streamlining part of the LDCF project cycle.<sup>34</sup> LDC Parties interviewed by the LEG, welcome the fact that this information was made available in an easy-to-read publication and in multiple languages (English, French and Portuguese).

In May 2011, the GEF informed countries of the possibility for LDC Parties to develop a programmatic approach under the LDCF,<sup>35</sup> to be aligned with the current GEF

programmatic approach under the GEF Trust Fund. The GEF programmatic template requires a two-step process, first to define the programme and secure the GEF approval, and then formulate project proposals and have them approved<sup>36</sup> using two other sets of templates (PIF and PPG). LDC Parties have not started to utilize these in order to propose programmes, and it is still not clear whether in practice countries can avail themselves to the programmatic framework proposed by the GEF through its Trust Fund. Thus far, the only programmes funded by the LDCF are regional programmes such as the Sahel and West Africa programme in support of the Great Green Wall Initiative.<sup>37</sup>

Financial support from the GEF focuses more on building capacity than on implementing concrete projects. As such, NAPA projects are primarily designed for raising awareness in climate change at national and sub-national level, building individual and institutional capacities, and ensuring knowledge management. A smaller portion of the funding available is dedicated to pilot adaptation activities. The Adaptation Fund finances concrete adaptation projects and programmes and some LDCs have already started to make use of these funds (see annex – table 3 for the list of projects in LDCs funded under the Adaptation Fund).

At its twenty-first meeting, the LEG had an in-depth discussion with the GEF and some of its implementing agencies (UNDP, UNEP, FAO, ADB). The interaction provided an opportunity to identify the emerging issues and recommendations in relation to LDC Parties' access to resources from the LDCF, including the following:<sup>38</sup>

- It is important to clearly demonstrate the benefit of funding a particular project and the positive impact it will have on reducing vulnerability in order to develop a project rationale. This rationale is stronger if the case is built upon vulnerability and adaptation assessment based on existing work such as NAPAs, national communications, technology needs assessments, reports of the Intergovernmental Panel on Climate Change (IPCC) and a multi-criteria analysis;

<sup>33</sup> Report on the twenty-second meeting of the LEG (FCCC/SBI/2012/27).

<sup>34</sup> GEF. 2011. *Accessing Resources under the Least Developed Countries Fund*. p.12. Available at <<http://www.thegef.org/gef/node/4433>> and GEF. 2010. *Streamlining the Project Cycle and Refining the Programmatic Approach* (GEF/C.38/5/Rev.1). pp.6–9. Available at <<http://www.thegef.org/gef/node/3225>>.

<sup>35</sup> Ibidem.

<sup>36</sup> GEF programming paper, *From projects to programs: clarifying the programmatic approach in the GEF portfolio*, GEF/C.33/C, March 2008.

<sup>37</sup> <<http://www.thegef.org/gef/pubs/sahel-and-west-africa-program-support-great-green-wall-initiative>>.

<sup>38</sup> Report on the twenty-first meeting of the LEG (FCCC/SBI/2011/7) available at <<http://unfccc.int/resource/docs/2012/sbi/eng/07.pdf>>.

- It is important to develop a strategic results framework at an early stage of the project (i.e. during the project proposal/PIF stage) in order to have a clear idea of the road map for implementation;
- Projects should be developed based on a solid baseline with smart indicators and a comprehensive plan for monitoring and evaluation of NAPA projects. Existing literature could be used to assess the cost-effectiveness of the proposed options. In parallel, the international and national communities could pursue work on providing a mechanism to measure the effectiveness of adaptation measures. When it is not possible to have a quantitative assessment of the options, the assessment could at least be qualitative. Results, both good and bad, should be well documented, archived and shared;
- It is worth taking stock of on-going activities and building on lessons learned at each stage of the implementation;
- Projects will benefit from thorough consultations with relevant stakeholders during development and implementation phases. Interaction with stakeholders should be documented and opportunities provided for them to validate every important step of the implementation;
- Strong interaction between the GEF agencies operating in the country also contributes to improved project delivery;
- It is important to ensure that stakeholders' roles are clarified at an early stage and that all relevant sectors are involved at all stages through a focal point.

In addition, there is a need to support medium-and long-term adaptation, in particular as part of the NAP process. There is also a need for innovative investments in other important areas, such as legislative frameworks, national and sub-national coordination mechanisms, advocacy, national financial mechanisms and cooperation.

### 3.2.9 PROGRAMMATIC APPROACHES: TOOLS TO ADDRESS MEDIUM- AND LONG-TERM ADAPTATION NEEDS

**Lessons learned:** A programmatic approach is widely promoted as more effective than project-based approaches but there are hardly any success stories in applying this to NAPAs. The programmatic approach seems to have a lot of value at the design phase where it enables an integrated approach and facilitates integration of activities into sectoral and national activities. The choice of a programmatic approach should be entirely benefit-driven especially since the implementation phase of a programmatic approach can be cumbersome, sometimes involving navigating through complex operational lines (multiple agencies, accessing different funding windows with different reporting requirements and complex flow of funds).

Generally speaking, thus far LDCs have prioritized projects that help them deal with current climate variability and extreme weather events, and capacity-building and information dissemination. In the majority of cases, these projects are short-term in nature. This specificity of the NAPA projects is derived from the NAPA guidelines developed 10 years ago which guided countries toward developing projects as a way to implement NAPAs, and those that address urgent and immediate adaptation needs. A project-based approach is generally useful when addressing urgent needs.

One country, Uganda, attempted to aggregate its urgent needs from different sectors and areas into a coordinated set of activities that would fit under one broad area called a "programme". Uganda attempted this by collapsing and merging its NAPA priorities. Uganda wanted to minimize overheads and maximize benefits for targeted vulnerable communities. Although Uganda's programmatic approach for implementing NAPA has attracted interest from a number of organizations, it has not been successful for accessing funding under the LDCF. Uganda's experience shows that there are at least three reasons why it is challenging for countries to develop a programme under the LDCF for implementing NAPAs. First, a programme is not the best tool for addressing the immediate and urgent needs of a country as it takes time to develop a fully-fledged programme. Secondly, the GEF supports large-scale programmes that "aim at achieving large-scale

impacts on the global environment”.<sup>39</sup> Thus far, under the LDCF two regional programmes have been developed: the Sahel and West Africa programmes in support of the Great Green Wall Initiative<sup>40</sup> (total programme costs: USD 1.9 billion, including USD 101 million from the LDCF and the Special Climate Change Fund (SCCF)); and an early warning system programme in nine sub-Saharan African countries that is under development (total programme costs: USD 33.4 million, including USD 8.0 million from the LDCF and the SCCF). The third reason concerns the limited number of GEF agencies with the capacity to assist LDCs in developing a programme.

Several lessons can be derived from programmatic approaches or programmes with limited reference to climate change such as programmes developed to support sector-wide approaches, for example a national investment programme on agriculture and food security or a national forestry programme or programmes developed at the global level such as the EU GCCA programme or the Great Green Wall Initiatives. Taking a programmatic approach is however related to context: in some cases it can have very specific implications, while in other cases the approach can be vague, simply referring to some degree of integration or a combination of ideas/objectives/goals arising from different sectors.

Some interesting practices relating to programmatic approaches can be derived from national sectoral programmes such as the Tanzania National Forestry Programme. The National Environment Policy of Tanzania (NEP) identifies land degradation, loss of wildlife habitat and biodiversity, ecosystem deterioration and deforestation as critical environmental problems, requiring urgent intervention. The impacts of poverty and climate change are likely to further aggravate these problems, thus increasing the vulnerability of both urban and rural communities, as well as the vulnerability of natural resources and the environment which supports people’s livelihoods. A Joint Programme on Energy and Environment (JP11) was formulated by the government in collaboration with the UN agencies working in Tanzania under the auspice of the UN Delivering as One initiative. The main outcomes of this programme are:

- Outcome 1 - The Vice President’s Office and Prime Minister Office Regional’s Administration and Local Government are able to provide coordinated leadership. In addition, key national environmental programmes and activities were implemented.
- Outcome 2 - The key sectors (energy, water, natural resources and tourism, agriculture, livestock development and fisheries) are able to integrate

environmental sustainability and climate change into their policies, strategies, programmes and plans.

- Outcome 3 - Plans and budgets that address local environmental priorities and integrate national environment management programmes are implemented.
- Outcome 4 - The funding for environmental management from international environment funding mechanisms and projects of the clean development mechanism (CDM) are in place.

Togo’s national investment programme on agriculture and food resources provides another good example of a programmatic approach. The programme is composed of five sub-programmes on agriculture, livestock, fisheries, research and advice on agriculture, and strengthening of sectoral coordination. The programme strategic coordination is assured by an interministerial steering committee which is chaired by the Minister in charge of agriculture. It is composed of other Ministers, representatives of farmers, civil society, the private sector, and development partners. Technical coordination is provided by technical committee. Relevant stakeholders are able to engage actively in the programme as codified procedures, and guidelines have been developed to guide the process in terms of administrative and financial management and monitoring and evaluation. The programme aims to ensure, inter-alia the harmonization of partners support to the national investment plan in agriculture and food security.

Despite being polymorphic, a programme can be an important operational tool within the planning cycle, as it can facilitate the implementation of strategies through an efficient structuring of activities. A programme offers multiple benefits including the opportunity to enhance country-ownership and strengthen institutional frameworks. Other advantages include the ability to scale-up adaptation efforts, support the development

<sup>39</sup> Accessing resources under the LDCF, May 2011 available at <<http://www.thegef.org/gef/node/4433>>.

<sup>40</sup> <<http://www.thegef.org/gef/pubs/sahel-and-west-africa-program-support-great-green-wall-initiative>>.

of a coherent approach to mainstreaming climate change at policy and regulatory levels, increase cost effectiveness by enhancing the alignment of resources, and the harmonization of financial and technical partners. Furthermore, a programme could facilitate the consideration of a specific development issue at a higher level, allowing for continuous engagement of multiple stakeholders during the programme's life and also beyond. This could lead to an efficiency gain in terms of administrative management.

While programmes can differ, they share several commonalities. The main features of a programme are as follows:<sup>41</sup>

- An underlying strategic vision that builds upon medium-and long-term aspirations and is the main driver of the process;
- The aim of addressing specific objectives in a coordinated manner and utilizing resources more effectively;
- Dedicated institutional arrangements composed of capable steering, management and technical support. Such institutional arrangements contribute to ensuring government ownership of the programme's implementation;
- A broader scope than a project in terms of issues addressed and/or sectors involved and/or areas included;
- Relevant overarching objectives, results and indicators that are understandable and meaningful;
- Linkages between programme components that offer opportunities for synergy. The better the programme coordination and therefore the sharing of information, the more synergy and long-term benefits that can be achieved;
- The ability to take different forms. A programme can include only a single deliverable or many deliverables, or include a combination of ongoing support activities and new and additional ones.

Programmes can be very useful for medium and long-term adaptation initiatives such as the NAP process since medium and long-term adaptation requires more comprehensive programmatic approaches that could be used, for example, as a tool when prioritizing adaptation options and developing an implementation strategy.

### 3.2.10 DEPLOYING SECTORAL APPROACHES AT THE REGIONAL LEVEL

**Best practices:** Leadership, the alignment of institutional arrangements with existing regional coordination mechanisms, and the sustained effort of relevant stakeholders, can ensure the success of a sectoral approach at the regional level.

**Lessons learned:** A sectoral approach at the regional level can facilitate the sharing of expertise and experiences between countries in the development of adaptation plans.

Strengthening synergies through regional cooperation is probably the most appropriate step toward international cooperation in which countries usually feel a great ownership of and loyalty toward regional organizations. The case for regional coordination is strongest for producing and managing regional public goods issues and shared natural resources.

An example of regional cooperation for a sectoral response to adaptation to climate change is that of WHO and their Pan African initiative.

The WHO provided leadership as follows: the First Interministerial Conference on Health and Environment in Africa took place in Libreville, Gabon in August 2008.<sup>42</sup> At this Conference, African ministers of health and of environment explored the inter-linkages between their sectors. In their joint declaration<sup>43</sup> they committed their countries to establish a strategic alliance between the health and environment sectors, called the Health and Environment Strategic Alliance (HESA) to coordinate actions by the health and environment sectors within the development planning processes and effectively utilize health and environment linkages for protecting and

<sup>41</sup> 1. Report on the LEG twentieth meeting (FCCC/SBI/2011/11, paragraphs 21-26) available at <[http://unfccc.int/documentation/documents/advanced\\_search/items/6911](http://unfccc.int/documentation/documents/advanced_search/items/6911)>.  
2. OECD presentation from Shardul Agrawala, 2009 available at <<http://www.oecd.org/dataoecd/32/28/42356119.pdf>>.  
3. Söderlund, J. (2004) "On the broadening scope of the research on projects: a review and a model for analysis", *International Journal of Project Management* 22 pp. 665-667. Quote taken from AESOP paper, *Towards a programatic planning approach in Dutch infrastructure planning ? Lessons learned from a Dutch air quality programme* available at <<http://www.rug.nl/frw/onderzoek/duurzameWegen/TowardsAProgrammaticPlaningApproachInDutchInfrastructurePlanning.pdf>>.

<sup>42</sup> <<http://www.unep.org/health-env/>>.

<sup>43</sup> <<http://www.unep.org/health-env/pdfs/libreville-declaration-eng.pdf>>.

promoting public health and ecosystem integrity. It also aims to integrate the threat of climate change into human health efforts, and enhance collaboration among the different sectors and stakeholders.

Ministers of health and ministers of environment met again in Luanda, Angola, in November 2010. At this second interministerial conference, they adopted a Joint Statement on Climate Change, serving as the policy basis for the development of the “Framework for Public Health Adaptation to Climate Change in the African Region”<sup>44</sup>. The Framework was endorsed by ministers of health at the 61<sup>st</sup> session of their Regional Committee (Resolution AFR/RC61/R2) and also endorsed by ministers of environment (Decision of the AMCEN SS4/1). From the above decisions, ministers of health and ministers of environment have requested and supported the establishment of the Pan African Programme for Public Health Adaptation to Climate Change (PPHA).

The Health Sector’s Plan of Action for Public Health Adaptation to Climate Change in Africa 2012-2016<sup>45</sup> is now available as the first major outcome of the HESA process. The PPHA is the first sectoral and continent wide clear action plan for adaptation to climate change that comprehensively addresses the health issues. The PPHA takes a highly sectoral approach to adaptation, by focusing on the public health and environment sectors. The objectives of the PPHA are to:

- Identify health risks associated with climate change in the countries.
- Enhance national capacities in health systems so that they can address climate change threats to health;
- Facilitate the implementation of interventions in the public health and environment sectors to manage urgent and longer term risks to health;
- Facilitate research into adaptation needs and possible solutions in the health sector;
- Facilitate adaptation in other sectors through the sharing of lessons learned and experiences in different countries.

A number of positive steps can be identified within the HESA process linked to its implementation as a sector-wide plan, in which issues are addressed at different levels. The HESA process aims to enhance regional and interministerial coordination on climate change through integrating and harmonizing policy statements between ministers of environment and ministers of health in Africa. Furthermore it aims to strengthen national capacities to adapt to climate change impacts by adopting a holistic

approach that allows for a comprehensive assessment of the capacity needs and gaps and the ways to address them. The above efforts are supported by the utilization of the best available science. The levels span the regional policy-level (African Union/the African Ministerial Conference on the Environment/African Ministers of Health) to the national.

The PPHA therefore provides an adaptation response in the public health sector that is scientific, coordinated and evidence-based, in order to minimize the adverse public health effects of climate change in Africa. It focusses on African developing countries, however it terms of LDCs, and it also builds upon that fact that few countries prioritized health in the NAPA process.

Strong ties to national health institutional arrangements help ensure that the planning process is linked to national goals, through the participation of the ministries of health and environment in the countries. A new group of multidisciplinary and multisectoral national expert teams on environment and health issues, known as the Country Task Teams for health and environment issues including climate change, now exist in the majority of the African LCDs. These teams are the new driving forces that are involved inter alia in the development of the national response for public health adaptation to climate change. The process is then supported by the Joint Task Team (JTT). The JTT is made up of representatives from WHO, UNEP, the African Development Bank and other institutions. The JTT serves as the secretariat for the HESA at the international level.

The WHO- HESA process has a sectoral focus but is a regional initiative. Some of the lessons that can be deduced include:

- Sectors like health, agriculture, tourism, energy, transport etc. can benefit from interlinking with the environment sector when implementing processes, so that experts from both can inform the process;
- Minimizing competition between ministries, and promoting coordination and linkage is important for a cross-cutting issue like adaptation;

<sup>44</sup> WHO (2011) - Framework for Public Health Adaptation to Climate Change in the African Region. Document AFR/RC61/10. World Health Organization, Regional Office for Africa, Brazzaville.

<sup>45</sup> WHO (2012) – Adaptation of Climate Change in Africa: The Health Sector’s Plan of Action (2012-2016). World Health Organization, Regional Office for Africa, Brazzaville.

- A sector can build resilience against the impacts of climate change based on a firm basis of science and research;
- Regional sectoral approaches can be effective to avoid the duplication of efforts and to ensure that lessons are shared between countries that face similar risks;
- Having the firm support of ministries is important, as is processes at the country level upon a firm policy basis;
- Having a firm set of partner organizations from different spheres can assist in informing the process;
- Different components of planning and implementation can be undertaken through ministries, at the sectoral level. For example needs assessments and action plans;
- Disseminating and sharing information among the member countries is important.

## CONCLUDING REMARKS

The synthesis of adaptation-related activities in different LDCs, and the compilation of best practices and lessons learned, show that LDCs have put a lot of effort into becoming more resilient to the adverse effects of climate change. Their experiences include good progress in raising awareness, creating technical capacity and setting up institutional arrangements for adaptation. They also point to the need for more work and support in areas such as the integration of adaptation into development activities, the coordination of national institutional arrangements and external partners, and the continuity of initiated processes. Drawing from these lessons and building on existing best practices will be useful for LDCs as they continue the implementation of their NAPAs, and move towards addressing medium and long-term adaptation.

## ANNEXES

### 4.1 STATUS OF PREPARATION AND IMPLEMENTATION OF NATIONAL ADAPTATION PROGRAMMES OF ACTION UNDER THE LEAST DEVELOPED COUNTRIES FUND

**Table 2. Status of NAPA preparation and Implementation, as of 31 December 2012**

Country	NAPA submission	Status of projects submitted to the LDCF		
		Project title	PIF first submission	CEO endorsement
Afghanistan	September 2009	Project no. 1: Building adaptive capacity and resilience to climate change in Afghanistan	February 2010	October 2012
Angola	December 2012	-	-	-
Bangladesh	November 2005	Project no. 1: Community-based adaptation to climate change through coastal afforestation	April 2007	December 2008
		Project no 2: Integrating community-based adaptation in afforestation and reforestation programmes in Bangladesh	November 2011	-
Benin	January 2008	Project no. 1: Integrated adaptation programme to combat the effects of climate change on agricultural production and food security in Benin	June 2008	January 2010
		Project no 2: Strengthening climate information and early warning systems in Western and Central Africa for climate resilient development and adaptation to climate change	May 2012	-
Bhutan	May 2006	Project no. 1: Reducing climate change-induced risks and vulnerabilities from glacial lake outbursts in the Punhakha-Wangdi and Chamkhar Valleys	August 2007	March 2008
		Project no 2: Addressing the risk of climate induced disasters through enhanced national and local capacity for effective actions	May 2012	-
Burkina Faso	December 2007	Project no. 1: Strengthening adaptation capacities and reducing the vulnerability to climate change in Burkina Faso	August 2008	April 2009
		Project no 2: Reducing vulnerability of natural resource dependent livelihoods in two landscapes at risk of the effects of climate change in Burkina Faso: Boucles du Mouhoun Forest Corridor and Mare d'Oursi Wetlands Basin	April 2012	-
		Project no 3: Strengthening climate information and early warning systems in Western and Central Africa for climate resilient development and adaptation to climate change	May 2012	-
		Project no 4: Integrating climate resilience into agricultural and pastoral production/or food security in vulnerable rural areas through the farmer field school approach	July 2012	-
Burundi	February 2007	Project no. 1: Enhancing climate risk management and adaptation in Burundi	April 2010	-
		Project no 2: Community disaster risk management	June 2012	-

Country	NAPA submission	Status of projects submitted to the LDCF		
		Project title	PIF first submission	CEO endorsement
Cambodia	March 2007	Project no 1: Promoting capacities-resilient water management and agricultural practices in rural Cambodia	May 2007	April 2009
		Project no. 2: Vulnerability assessment and adaptation programme for climate change within coastal zone of Cambodia considering livelihood improvement and ecosystems	January 2010	-
		Project no 3: Strengthening the adaptive capacity and resilience of rural communities using micro watershed approaches to climate change and variability to attain sustainable food security	August 2011	
Cape Verde*	December 2007	Project no. 1: Building adaptive capacity and resilience to climate change in the water sector in Cape Verde	December 2009	September 2009
Central African Republic	June 2008	Project no. 1: Integrated adaptation programme to combat the effects of climate change on agricultural production and food security	September 2010	-
Chad	February 2010	Project no. 1: Enhance the adaptive capacities of national institutions and rural communities in addressing climate change impacts on the agricultural and water sectors in the Republic of Chad	December 2010 <i>Project being revised to align it with the Great Green Wall initiatives</i>	-
Comoros	November 2006	Project no. 1: Adapting water resource management in Comoros to increase capacity to cope with climate change	December 2008	August 2010
Democratic Republic of the Congo	September 2006	Project no. 1: Building the capacity of the agriculture sector in the Democratic Republic of the Congo to plan for and respond to the additional threats posed by climate change on food production and security	July 2008	January 2010
Djibouti	October 2006	Project no. 1: Implementing NAPA priority interventions to build resilience in the most vulnerable coastal zones in Djibouti	June 2007	May 2010
		Project no 2: Implementing adaptation technologies in fragile ecosystems of Djibouti's central plains	May 2012	-
Eritrea	May 2007	Project no. 1: Integrating climate change risks into community-based livestock management in the Northwestern Lowlands of Eritrea	May 2007	Endorsed in August 2009 but cancelled in June 2010
Ethiopia	June 2008	Project no. 1: Promoting autonomous adaptation at the community level in Ethiopia	February 2010	December 2011
Gambia	January 2008	Project no. 1: Vulnerability strengthening of the Gambia climate change early warning systems	July 2008	March 2011
		Project no. 2 : Strengthening climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change 2 <sup>nd</sup> phase of the GOTG/GEF/UNEP/ LDCF NAPA early warning project	August 2012	-
Guinea	July 2007	Project no. 1: Increased resilience and adaptation to adverse impacts of climate change in Guinea's vulnerable coastal zones	June 2008	October 2010
		Project no. 2: Strengthening farmers communities livelihoods resilience against climate changes in the Guinean prefectures of Gaoual, Koundara and Mali	December 2011	-
Guinea-Bissau	February 2008	Project no. 1: Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian water sectors	June 2009	December 2010



Country	NAPA submission	Status of projects submitted to the LDCF		
		Project title	PIF first submission	CEO endorsement
Haiti	December 2006	Project no. 1: Strengthening adaptive capacities to address climate change threats on sustainable development strategies for coastal communities in Haiti	August 2008	December 2010
		Project no. 2: Strengthening climate resilience and reducing disaster risk in agriculture to improve food security in Haiti post-earthquake	February 2010	March 2012
Kiribati	January 2007	Project no. 1: Increasing resilience to climate variability and hazards	August 2009	August 2011
Lao People's Democratic Republic	May 2009	Project no. 1: Improving the resilience of the agricultural sector in Lao PDR to climate change impacts	August 2009	November 2010
		Project no. 2: Effective governance for small scale rural infrastructure and disaster preparedness in a changing climate	July 2011	-
Lesotho	June 2007	Project no. 1: Improvement of early warning system to reduce impacts of climate change and capacity-building to integrate climate change into development	November 2008	June 2011
		Project no. 2: Adaptation of small scale agriculture production	October 2011	-
Liberia	July 2007	Project no. 1: Enhancing resilience of vulnerable coastal areas to climate change risks in Liberia	February 2009	June 2010
		Project no. 2: Enhancing resilience to climate change by mainstreaming adaptation concern into agricultural sector development in Liberia	June 2010	October 2011-
		Project no. 3: Strengthening Liberia's capability to provide climate information and services to enhance climate resilient development and adaptation to climate change	-	-
Madagascar	December 2006	Project no. 1: Adaptation coastal zone management to climate change in Madagascar considering ecosystem and livelihood improvement	-	-
Malawi	March 2006	Project no. 1: Climate adaptation for rural livelihoods and agriculture (CARLA)	April 2007	October 2010
		Project no. 2: Climate proofing local development gains in rural and urban areas of Machinga and Mangochi districts	February 2012	
Maldives	March 2008	Project no. 1: Integration of climate change risks into the Maldives safer island development programme	November 2008	November 2009
Mali	December 2007	Project no. 1: Enhancing adaptive capacity and resilience in the agricultural sector in Mali	September 2008	March 2010
		Project no. 2: Integrating climate resilience into agricultural production for food security in rural areas of Mali	April 2009	April 2011
		Project no. 3: Strengthening the resilience to climate change through integrated agricultural and pastoral management in the Sahelian zone in the framework of the sustainable land management approach	November 2012	-
		Project no. 4: Strengthening the resilience of women producer group's and vulnerable communities	November 2012	-

Country	NAPA submission	Status of projects submitted to the LDCF		
		Project title	PIF first submission	CEO endorsement
Mauritania	November 2004	Project no. 1: Support to the adaptation of vulnerable agricultural production systems in Mauritania	February 2009	June 2011
		Project no.2: Improving climate resilience of water sector investments with appropriate climate adaptive activities for pastoral and forestry resources in southern Mauritania	October 2012	-
Mozambique	July 2008	Project no 1: Adaptation in the coastal zone of Mozambique	-	December 2011
Myanmar	Not yet submitted	-	-	-
Nepal	November 2010	Project no 1: Community Based Flood and Glacial Lake Outburst Risk Reduction	July 2011	-
Niger	July 2006	Project no. 1: Implementing NAPA priority interventions to build resilience and adaptive capacity of the agricultural sector to climate change in Niger	September 2007	August 2009
		Project no 2: Scaling up community-based adaptation in Niger	March 2012	-
		Project no 3: Integrating climate resilience into agricultural and pastoral production for food security in vulnerable rural areas through the farmers field school approach	June 2012	-
Rwanda	May 2007	Project no. 1: Reducing vulnerability to climate change by establishing early warning and disaster preparedness systems and support for integrated watershed management in flood prone areas	October 2008	March 2010
Samoa	December 2005	Project no. 1: Integrated climate change adaptation in Samoa (ICCAS)	April 2007	February 2009
		Project no. 2: Integration of climate change risk and resilience into forestry management (ICCRIFS)	December 2009	March 2011
		Project no 3: Enhancing the resilience of tourism-reliant communities to climate change risks	December 2011	-
Sao Tome and Principe	November 2007	Project no. 1: Sao Tome and Principe: adaptation to climate change	May 2009	May 2011
		Project no. 2: Strengthening the adaptive capacity of most vulnerable Sao Tomean's livestock-keeping households	June 2010	-
		Project no 3: Strengthening climate information and early warning systems in Western and Central Africa for climate resilient development and adaptation to climate change	May 2012	-
Senegal	November 2006	Project no. 1: Climate change adaptation project in the areas of watershed management and water retention	Not available	January 2012
Sierra Leone	June 2008	Project no. 1: Integrating adaptation to climate change into agricultural production and food security in Sierra Leone	July 2008	December 2010
		Project no 2: Building adaptive capacity to catalyze active public and private sector participation to manage exposure and sensitivity of water supply services to climate change	December 2011	-
Solomon Islands	December 2008	-	-	-

Country	NAPA submission	Status of projects submitted to the LDCF		
		Project title	PIF first submission	CEO endorsement
Sudan	June 2007	Project no. 1: Implementing NAPA priority interventions to build resilience in the agricultural and water sectors to the adverse impacts of climate change	August 2007	September 2009
		Project no 2: Climate risk finance for sustainable and climate resilient rain fed farming and pastoral systems	April 2012	-
United Republic of Tanzania	September 2007	Project no. 1: Developing core capacity to address adaptation to climate change in Tanzania in productive coastal zones	September 2009	December 2011
Timor-Leste	September 2011	Project no 1: Strengthening the resilience of small scale rural infrastructure and local government systems to climatic variability and risk	September 2011	-
Togo	September 2009	Project no. 1: Strengthening the adaptive capacities of the agricultural sector to climate change in Togo	May 2010 <i>Project has been withdrawn</i>	-
		Project no 1(bis): Adapting Agriculture Production in Togo (ADAPT)	August 2011	-
Tuvalu	May 2007	Project no. 1: Increasing resilience of coastal areas and community settlements to climate change	May 2008	November 2009
Uganda	December 2007	Project no 1: Strengthening climate information and early warning systems in Easter and Southern Africa for climate resilient development and adaptation to climate change	May 2012	-
Vanuatu	December 2007	Project no. 1: Increasing resilience to climate change and natural hazards	September 2008	September 2012
		Project no. 2: Adaptation to climate change in the coastal zone in Vanuatu	July 2012	
Yemen	April 2009	Project no. 1: Integrated coastal zone management in Yemen	April 2009	-
Zambia	October 2007	Project no. 1: Adaptation to the effects of droughts and climate change in agro-ecological zone 1 and 2 in Zambia	June 2008	December 2009
		Project no 2: Strengthening climate information and early warning systems in Eastern and Southern Africa for climate resilient development and adaptation to climate change	May 2012	-

Abbreviations: NAPAs = national adaptation programmes of action; LDCF = Least Developed Countries Fund; PIF = Project Identification Form; CEO = Chief Executive Office (of the GEF)

Source: UNFCCC LDC Portal <<http://www.unfccc.int/ldc>>.

## 4.2. FUNDED PROJECTS OF LEAST DEVELOPED COUNTRIES UNDER THE ADAPTATION FUND

**Table 3. Funded projects of LDCs under the Adaptation Fund as of 30 September 2012**

Country	Project title	Approved amount (Million USD)	Implementing entity	Approval date
Cambodia	Enhancing climate resilience of rural communities living in protected areas of Cambodia	4.954	UNEP	June 2012
Djibouti	Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities in Djibouti	4.659	UNDP	June 2012
Mauritania	Enhancing resilience of communities to the adverse effects of climate change on food security in Mauritania	7.803	WFP	June 2012
Tanzania	Implementation of concrete adaptation measures to reduce vulnerability of livelihood and economy of coastal communities in Tanzania	5.008	UNEP	December 2011
Samoa	Enhancing resilience of Samoa's coastal communities to climate change	8.732	UNDP	December 2011
Madagascar	Promoting climate resilience in the rice sector	5.105	UNEP	December 2011
Eritrea	Climate change adaptation programme in water and agriculture in Anseba region	6.521	UNDP	March 2011
Solomon Islands	Enhancing resilience of communities in Solomon Islands to the adverse effects of climate change in agriculture and food security	5.534	UNDP	March 2011
Senegal	Adaptation to coastal erosion in vulnerable areas	8.619	National implementing entity: Centre de Suivi Ecologique	September 2010

Abbreviations: UNDP = United Nations Development Programme; UNEP = United Nations Environment Programme; WFP = World Food Programme.

Source: Adaptation Fund <[https://www.adaptation-fund.org/funded\\_projects](https://www.adaptation-fund.org/funded_projects)>.

#### 4.3. STATUS OF IMPLEMENTATION OF NATIONAL ADAPTATION PROGRAMMES OF ACTION AND INVOLVEMENT OF THE LEAST DEVELOPED COUNTRIES IN THE PILOT PROGRAM FOR CLIMATE RESILIENCE AND THE AFRICA ADAPTATION PROGRAMME

**Table 4. Status of implementation of NAPAs and involvement of LDCs in PPC and AAP, as of 31 December 2012**

Country	NAPA implementation		Involved in PPCR	Involved in AAP
	Project proposal submitted	Full project document submitted		
Afghanistan	✓✓			
Angola				
Bangladesh	✓	✓	✓	
Benin	✓✓	✓		
Bhutan	✓✓	✓		
Burkina Faso	✓✓✓✓	✓		✓
Burundi	✓✓			
Cambodia	✓✓		✓✓	
Central African Republic	✓	✓		
Chad	✓			
Comoros	✓	✓		
Democratic Republic of the Congo	✓	✓		
Djibouti	✓✓	✓✓		
Eritrea	✓	✓		
Ethiopia	✓			✓
Gambia	✓✓	✓		
Guinea	✓	✓		
Guinea-Bissau	✓	✓		
Haiti	✓✓	✓		
Kiribati	✓	✓		
Lao People's Democratic Republic	✓✓	✓✓		
Lesotho	✓	✓		✓
Liberia	✓✓	✓		
Madagascar	✓			
Malawi	✓✓	✓		✓
Mali	✓✓✓✓	✓✓		
Mauritania	✓✓	✓		
Mozambique	✓		✓	✓
Myanmar				

Country	NAPA implementation		Involved in PPCR	Involved in AAP
	Project proposal submitted	Full project document submitted		
Nepal	✓✓		✓	
Niger	✓✓✓	✓	✓	✓
Rwanda	✓	✓		✓
Samoa	✓✓	✓✓		
Sao Tome and Principe	✓✓✓	✓		✓
Senegal	✓	✓		✓
Sierra Leone	✓	✓		
Solomon Islands				
Sudan	✓✓	✓		
Timor-Leste	✓			
Togo	✓			
Tuvalu	✓	✓		
Uganda	✓✓			
United Republic of Tanzania	✓			✓
Vanuatu	✓✓	✓		
Yemen	✓		✓	
Zambia	✓✓	✓	✓	

Note: Under NAPA implementation, each tick mark represents one Project Identification Form (PIF) or project proposal submitted. When the project has advanced to the full project document stage, a tick mark has also been added under full project document submitted. For example, a country can have two PIFs, thus two tick marks under project proposal submitted. If only one of the two PIFs has moved to the full project document stage, then there will be one tick under full project document submitted.

Abbreviations: AAP = Africa Adaptation Programme, NAPA = national adaptation programme of action, PPCR = Pilot Program for Climate Resilience.




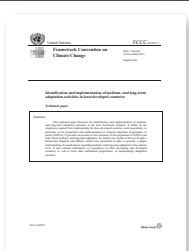
Source: Climate investment Funds <<https://www.climateinvestmentfunds.org/cif/ppcr>>.

UNDP-AAP <<http://www.undp-aap.org/>>.

UNFCCC LDC Portal <<http://www.unfccc.int/lcd>>.

#### 4.4. SELECTED PUBLICATIONS ON ADAPTATION BY THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Table 5. Selected UNFCCC publications on adaptation in 2011-2012

Cover page	Title and web link	Brief annotation
	National adaptation plans – technical guidelines	These guidelines are issued by the LEG. Their purpose is to provide countries, as well as organizations assisting countries in addressing adaptation, with technical guidance for the development of national adaptation plans.
	The national adaptation plan process – a brief overview	This publication was developed by the LEG as an easy-to-read information note on the national adaptation plan (NAP) process.
	Best practices and lessons learned in addressing adaptation in the least developed countries through the national adaptation programme of action process, volume 1 < <a href="http://unfccc.int/essential_background/library/items/3599">http://unfccc.int/essential_background/library/items/3599</a> >.	This publication provides the LEG with an initial opportunity to share LDCs' experiences in addressing adaptation with the wider international community, in the hope that they will provide an incentive for learning as well as for replication, including on a large scale.
	Technical paper 2011: Identification and implementation of medium- and long-term adaptation activities in least developed countries. Technical paper. < <a href="http://unfccc.int/resource/docs/2011/tp/07.pdf">http://unfccc.int/resource/docs/2011/tp/07.pdf</a> >.	This technical paper builds on the experiences gained from implementing the LDC work programme, in particular on the preparation and implementation of NAPAs. It provides an account of how elements of the preparation of NAPAs can help inform medium- and long-term adaptation.
	Reducing vulnerability to climate change, climate variability and extremes, land degradation and loss of biodiversity: Environmental and developmental challenges and opportunities. < <a href="http://unfccc.int/resource/docs/publications/ldc_reducingvulnerability.pdf">http://unfccc.int/resource/docs/publications/ldc_reducingvulnerability.pdf</a> >.	This publication was produced as part of the preparations for the Fourth United Nations Conference on the LDCs to provide inputs on the support provided to the LDCs and the progress made by the LDCs in reducing vulnerability to climate change, climate variability and extremes, land degradation and loss of biodiversity during the period 2001-2010, and future opportunities.

Cover page	Title and web link	Brief annotation
	Nairobi work programme on impacts vulnerability and adaptation to climate change: Assessing the costs and benefits of adaptation options an overview of approaches <a href="http://unfccc.int/files/adaptation/nairobi_work_programme/knowledge_resources_and_publications/application/pdf/2011_nwp_costs_benefits_adaptation.pdf">http://unfccc.int/files/adaptation/nairobi_work_programme/knowledge_resources_and_publications/application/pdf/2011_nwp_costs_benefits_adaptation.pdf</a> .	This publication was prepared by the secretariat of the United Nations Framework Convention on Climate Change. It builds upon a 2009 technical paper and a 2010 workshop on costs and benefits of adaptation options. The publication aims to provide support to help choose between numerous possible approaches.
	Highlights of the contribution of the Nairobi work programme: Making informed adaptation decisions <a href="http://unfccc.int/files/adaptation/application/pdf/11unf051_nwp-was-web[1].pdf">http://unfccc.int/files/adaptation/application/pdf/11unf051_nwp-was-web[1].pdf</a> .	This publication highlights the important contribution that the Nairobi work programme has made to advancing adaptation, including the activities that have been catalysed under the Nairobi work programme.
	Nairobi work programme on impacts vulnerability and adaptation to climate change: Climate change and fresh water resources – a synthesis of adaptation actions undertaken by Nairobi work programme partner organizations <a href="http://unfccc.int/files/adaptation/nairobi_work_programme/knowledge_resources_and_publications/application/pdf/2011_nwp_costs_benefits_adaptation.pdf">http://unfccc.int/files/adaptation/nairobi_work_programme/knowledge_resources_and_publications/application/pdf/2011_nwp_costs_benefits_adaptation.pdf</a> .	This publication is a synthesis of the voluntary contributions of 21 Nairobi work programme partners on issues related to freshwater and climate change adaptation.

Abbreviations: NAPA = national adaptation programme of action; LDC= least developed countries; LEG= least developed countries expert group; GEF= Global Environment Facility; LDCF = Least Developed Countries Fund; PIF = Project Identification Form; CEO = Chief Executive Office (of the GEF); UNFCCC= United Nations Framework Convention on Climate Change; AWG-LCA = Ad hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA); UNDP = United Nations Development Programme; UNEP = United Nations Environment Programme;

Other UNFCCC publications on adaptation are available at <http://unfccc.int/6110.php> and <http://unfccc.int/5136.php>.

#### 4.5. KEY DOCUMENTS OF THE LEAST DEVELOPED COUNTRIES FUND AND PUBLICATIONS BY THE GLOBAL ENVIRONMENT FACILITY

Table 6. Key LDCF documents and publications by the GEF

Title	Web Link
<i>Operational Guidelines for Expedited Funding for the Preparation of National Adaptation Programmes of Action by Least Developed Countries.</i> April 2002	<a href="http://unfccc.int/files/cooperation_and_support/capacity_building/application/pdf/gefsecnapaguideeng.pdf">http://unfccc.int/files/cooperation_and_support/capacity_building/application/pdf/gefsecnapaguideeng.pdf</a> .
<i>Programming Paper for Funding the Implementation of NAPAs under the LDC Trust Fund.</i> May 2006	<a href="http://www.thegef.org/gef/sites/thegef.org/files/documents/GEF.C.28.18.pdf">http://www.thegef.org/gef/sites/thegef.org/files/documents/GEF.C.28.18.pdf</a> .
<i>Comparative Advantages of the GEF Agencies.</i> June 2007 (GEF/C.31/5 rev.1)	<a href="http://www.thegef.org/gef/sites/thegef.org/files/documents/C.31.5%20Comparative%20advantages.pdf">http://www.thegef.org/gef/sites/thegef.org/files/documents/C.31.5%20Comparative%20advantages.pdf</a> .



<i>Results-Based Management Framework for Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF). May 2009 (GEF/LDCF.SCCF.6/4)</i>	< <a href="http://www.thegef.org/gef/sites/thegef.org/files/documents/LDCF.SCCF_.6.4.Results_based_Management.pdf">http://www.thegef.org/gef/sites/thegef.org/files/documents/LDCF.SCCF_.6.4.Results_based_Management.pdf</a> >.
<i>Implementation of Results-Based Management under the Least Developed Countries Fund and the Special Climate Change Fund. October 2009 (GEF/LDCF.SCCF.7/4)</i>	< <a href="http://www.thegef.org/gef/sites/thegef.org/files/documents/LDCF.SCCF_.7.4_RBM%20implementation%20paper_v.7.pdf">http://www.thegef.org/gef/sites/thegef.org/files/documents/LDCF.SCCF_.7.4_RBM%20implementation%20paper_v.7.pdf</a> >.
<i>Accessing Resources under the Least Developed Countries Fund. May 2010 (GEF/LDCF.SCCF.8/3)</i>	< <a href="http://www.thegef.org/gef/sites/thegef.org/files/documents/Accessing%20Resources..pdf">http://www.thegef.org/gef/sites/thegef.org/files/documents/Accessing%20Resources..pdf</a> >.
<i>Accessing Resources under the Least Developed Countries Fund. July 2011</i>	< <a href="http://www.thegef.org/gef/sites/thegef.org/files/publication/23469_LDCF.pdf">http://www.thegef.org/gef/sites/thegef.org/files/publication/23469_LDCF.pdf</a> >.
<i>Updated Operational Guidelines for the Least Developed Countries Fund (GEF/LDCF.SCCF.13/04)</i>	< <a href="http://www.thegef.org/gef/council_document/updated-operational-guidelines-least-developed-countries-fund">http://www.thegef.org/gef/council_document/updated-operational-guidelines-least-developed-countries-fund</a> >.
<i>Support for national adaptation plans (GEF/LDC.SCCF.13/Inf.07/Rev.02)</i>	< <a href="http://www.thegef.org/gef/council_document/support-national-adaptation-plans-0">http://www.thegef.org/gef/council_document/support-national-adaptation-plans-0</a> >.

*Abbreviations:* NAPAs = national adaptation programmes of action; LDC= least developed countries; GEF= Global Environment Facility.

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For further information contact

**United Nations Climate Change Secretariat**  
**Martin-Luther-King-Strasse 8**  
**53175 Bonn, Germany**  
**Telephone +49. 228. 815 10 00**  
**Telefax +49. 228. 815 19 99**

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