

ecbi policy analysis report

Lessons Learned in Preparing National Adaptation Programmes of Action in Eastern and Southern Africa

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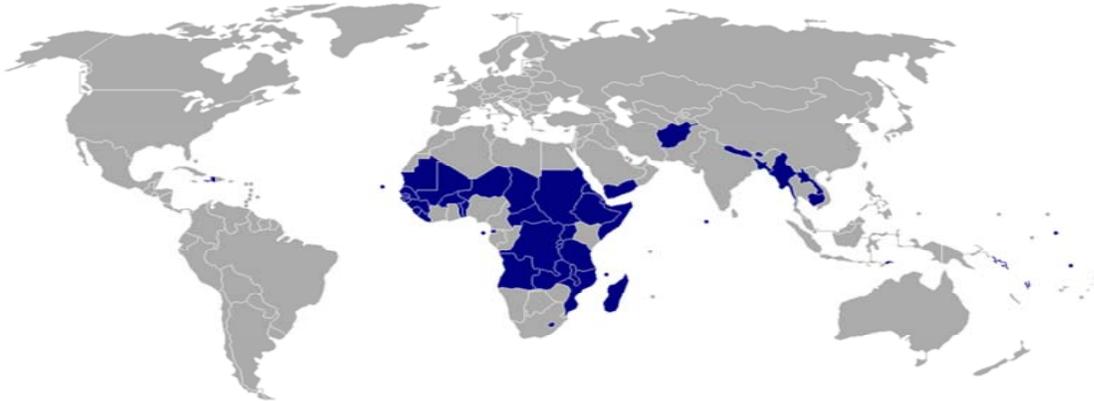
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Introduction

Figure 1: Least Developed Countries



Source: http://en.wikipedia.org/wiki/Least_Developed_Countries

National Adaptation Programmes of Action (NAPAs) were mandated in the Marrakech Accords of the 2001 Conference of Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC). By late 2006, many had been submitted to the UNFCCC secretariat, and most were nearing completion (**Table 1**). Subsequently, a few of the proposed NAPA projects are being prepared for GEF and other donor funding. However, substantial funding of the NAPA projects has yet to be secured. What have we learned from this international effort to identify urgent needs and begin implementing priority climate adaptation projects?

This report documents lessons learned by the NAPA teams in Eastern and Southern Africa. The synthesis is a contribution to

several efforts on reviewing experience in climate adaptation, commissioned specifically by the European Capacity Building Initiative (ecbi) with funding from GTZ (and other donors, see the acknowledgements on the inside cover page). The aim of the document, and of the ECBI Policy Analysis Programme, is to build analytical capacity through collaboration between developing country professionals and European experts.

This review is intended to initiate a learning process and extract lessons from the NAPA teams. A questionnaire and open dialogues with African NAPA teams, stakeholders and other experts were supplemented by a summary of the NAPA projects. The objective of the review is to assemble

information and knowledge about the NAPA process in Eastern and Southern Africa.

The report is structured as follows:

- Section II provides an overview of the NAPA process, the history of the initiative and rationale, including key definitions.
- This is followed by a discussion of the NAPA projects in the reports submitted to the UNFCCC website. This is not a critique of the projects themselves, but a synthesis of the types of projects given priority by the NAPA teams, including Asia, Latin America and small island states.
- Sections IV-VIII present the results of questionnaires and interviews for Eastern and Southern Africa.
- In Section IX, the report authors suggest key conclusions.

This report is intended as the first in a series. We are in the process of extending

the survey to West Africa (with the leadership of Isabelle Nyong Diop from ENDA), Asia (with Kai Kim Chang) and small island states (with Graham Sem). The outcome will be a comprehensive database of NAPA projects and analysis of lessons learned from the NAPA teams. The intended audience is professionals concerned with NAPA implementation. However, the experience bears wider reporting on how country-driven priorities can be managed alongside global change needs and concerns.

It is important to emphasise that the results from the interviews reflect what the NAPA teams have learned, rather than the personal views of the authors on NAPA as a process or specific achievements. Similarly, the analysis of the submitted NAPA projects focuses on a tabulation of the projects rather than an independent analysis of the viability or efficacy of any one project or the relative merits of an individual country's programme of action.

Table 1: LDCs that have submitted their NAPAs to the UNFCCC

Country	Date of submission of NAPA
Bangladesh	November 2005
Bhutan	May 2006
Burundi	February 2007
Cambodia	March 2007
Comoros	November 2006
Djibouti	October 2006
Haiti	December 2006
Kiribati	January 2007
Madagascar	December 2006
Malawi	March 2006
Mauritania	November 2004
Niger	July 2006
Samoa	December 2005
Senegal	November 2006

Source: UNFCCC website accessed 5 April 2007

The NAPA process: history and rationale

What is the NAPA? Simply, the NAPA is an adaptation initiative that aims at building the adaptive capacity of the most vulnerable communities in the most vulnerable countries (identified as the Least Developed Countries or LDCs), through the identification and development of specific measures aiming at reducing vulnerabilities to climate change of the different groups and sectors. Based on this, the main objective of the NAPA is to serve as a simplified and direct channel of communication for information related to the urgent and immediate adaptation needs of the LDCs.

The LDCs are a group of 49 of the world's poorest countries. Out of 49 LDCs (**Figure 1**), 32 are in Africa (around 65%), including: Angola, Benin, Burkina-Faso, Burundi, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Somalia, Sudan, Togo, Uganda, United Republic of Tanzania and Zambia. LDCs generally contribute least to greenhouse gas emissions but are most vulnerable to the effects of climate change and have the least capacity to adapt to these changes.

According to the 2005 Environmental Sustainability Index Report ¹, the LDCs are characterised by having very weak

institutional capacity, and are particularly vulnerable to natural disasters, undernourishment, and lack sanitation and safe water supply. The criteria underlying the current list of LDCs are:

- low income, as measured by a three-year average estimate of the gross domestic product (GDP) per capita;
- weak human resources, as measured by a composite index (Augmented Physical Quality of Life Index) based on indicators of life expectancy at birth, per capita calorie intake, combined primary and secondary school enrolment, and adult literacy; and
- low level of economic diversification, as measured by a composite index (Economic Diversification Index) based on the share of manufacturing in GDP, the share of the labour force in industry, annual per capita commercial energy consumption, and UNCTAD's merchandise export concentration index.

The designation of LDC is voluntary, representing an official classification in the United Nations system (see the UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States (UN-OHRLS), www.un.org/ohrls/).

NAPAs provide a process for LDCs to identify priority activities that respond to their urgent and immediate needs with regard to adaptation to climate change. The rationale for NAPAs lies in the fact that LDCs have very limited capacity to adapt and need specific support that will allow them to deal with the adverse effects of climate variability and change.

An innovative bottom-up approach to identify practical solutions for improving the overall adaptive capacity of LDCs to climate variability and change was put in place through the NAPAs. This approach takes into account existing local coping strategies, builds upon them and identifies priority interventions. It is meant to replace the more conventional scenario-driven approach of assessing future vulnerability and impacts of climate change.

Article 4.9 of the UNFCCC recognises the specific needs and special situations of the LDCs. The seventh Conference of Parties (COP7) adopted Decision 5/CP.7 which acknowledged that LDCs do not have the capacities and means to deal with problems associated with adaptation to climate change, and established an LDC work programme that includes NAPAs as well as other supporting activities.

Decision 28/CP.7 set the guidelines for NAPAs. Also related to the NAPA process, Decision 29/CP.7 set up an LDC Expert Group (LEG) to provide guidance and advice on the preparation and implementation

strategy for NAPAs. The most urgent activities identified during the NAPA process will be submitted to the Global Environment Facility (GEF) (cf. Paragraph 6, Decisions 7/CP.7 and 5/CP.7) and other funding sources, with the aim of obtaining financial resources for implementation.

Each NAPA team received on the order of US\$ 200,000 for the preparation of the NAPA reports. Funding decisions regarding implementation of priority NAPA projects had not been taken at the outset of the process. Some progress was achieved in Nairobi at COP12, including principles for administering funds for climate adaptation in LDCs. Assessment of the costs of climate adaptation and effective funding mechanisms are required, but beyond the scope of this report.

The LDCs have followed the “Annotated Guidelines for the Preparation of National Adaptation Programmes of Action” prepared by the LEG, along with additional support material provided through UNITAR and the GEF implementing agencies (UNDP, UNEP and World Bank)². The process is summarised in **Table 2** (further comments on the organisation of the NAPA teams in Eastern and Southern Africa is provided below). The preparation of NAPAs is guided by a participatory process, led by a coordinating unit and involving stakeholders at different levels, particularly local

Table 2: Overview of the NAPA process

The NAPA process is coordinated by a national team, with support from a steering and/or technical committee, working parties and in some cases sub-national units. The various tasks are located at different levels of organisation, but led and coordinated by the national team. See the LEG Annotated Guidelines and supporting material from the regional workshops organised by UNITAR (with UNDP and UNEP) for additional flow charts of the recommended NAPA process (see www.unfccc.int, www.unitar.org/ccp/napaworkshops.htm, www.unfccc.int/national_reports/napa/)

Establish the NAPA organisations



Compile baseline vulnerability

Synthesise available impact assessments, coping strategies & past and existing national development plans

Prepare synthesis reports, guidelines, training material

Consult stakeholders; identify projects

Organise and conduct public consultation (national and local-level workshops)

Based on articulated ideas, identify interventions and project ideas

Prepare profiles for priority projects

Prioritise the project ideas based on specific criteria

Develop project profiles, demonstrate integration into national development plans

Submit the NAPA Document

communities. The process employs multidisciplinary teams consisting of representatives from different livelihood sectors (such as agriculture, water, energy, forestry, health and tourism).

The steps for the preparation of the NAPAs include the formation of the NAPA teams, synthesis of available information, participatory assessment of vulnerability to current climate variability and extreme

events, identification of areas of extreme sensitivity and where risks would increase due to climate change, identification of key adaptation interventions as well as the criteria for prioritising them, screening and ranking of the interventions to come out with a prioritised short list, and finally, the development of project profiles and/or activities intended to address urgent and immediate adaptation needs.

The guiding principles adopted by the different NAPA teams encompassed most of the following:

- A bottom-up approach that involves a broad range of stakeholder groups, focusing on local communities, considering their current vulnerability and urgent adaptation needs.
- A participatory process that involves a multistakeholder consultation, and two-way discussions and feedback.
- A multidisciplinary approach, through the involvement of a multidisciplinary group of experts.
- A comprehensive/integrated assessment type of approach, looking across different ecological regions and sectors as well as the interactions/linkages between them.
- Synergies with activities implemented under other multilateral environmental agreements (for instance, desertification and biodiversity) as well as development activities aiming at poverty reduction and sustainable development.
- A country-driven approach, expected to result in country, region or sector-specific project proposals.
- Sound environmental management and cost effectiveness.
- A simple document that reflects the most urgent and highly ranked adaptation measures.

III. NAPA projects submitted to the UNFCCC

Before presenting the results of interviews with the NAPA teams, we discuss the range of NAPA projects submitted to the UNFCCC based on a project database created by the authors. The data base, which is updated as additional NAPAs are reported and is available from the authors (in Excel), includes common fields such as objectives, funding requested, and unedited versions of the project descriptions. The projects are classified according to the type of intervention and priority sector, region or economic activity.

Some nine countries had submitted their NAPA reports to the UNFCCC website as of September 2006 (**Table 3**), proposing a total of 101 projects. These projects were categorised according to the following types and scale:

Type of project

- Awareness: designed to raise general awareness of climate change, often working with stakeholders.
- Information and research: going beyond awareness to develop the research base for taking action, including monitoring systems, working with climate scenarios and baseline vulnerability assessments.
- Capacity building and early warning systems: a more organised approach to information, linking specifically to end users and specific actions.

Table 3: NAPA reports included in the project data base (compiled in September 2006)

Country	Number of projects
Bangladesh	15
Bhutan	9
Burkina Faso	12
Liberia	3
Malawi	5
Mauritania	25
Niger	14
Samoa	9
Uganda	9
Total	101

- Mainstreaming and planning: working with specific planning processes, such as five-year development plans, to include climate risk management.
- Investment: direct actions involving changing resource management in specific households or regions.
- Institutional reform and regulation: changing policies, resource management institutions and barriers to wider action on climate adaptation, often promoting more efficient use of resources.
- Financial and insurance: approaches involving spreading the risk through financial mechanisms or insurance.
- Scale of project
- Targeting specific vulnerable groups, for example poor farmers in semi-arid regions.

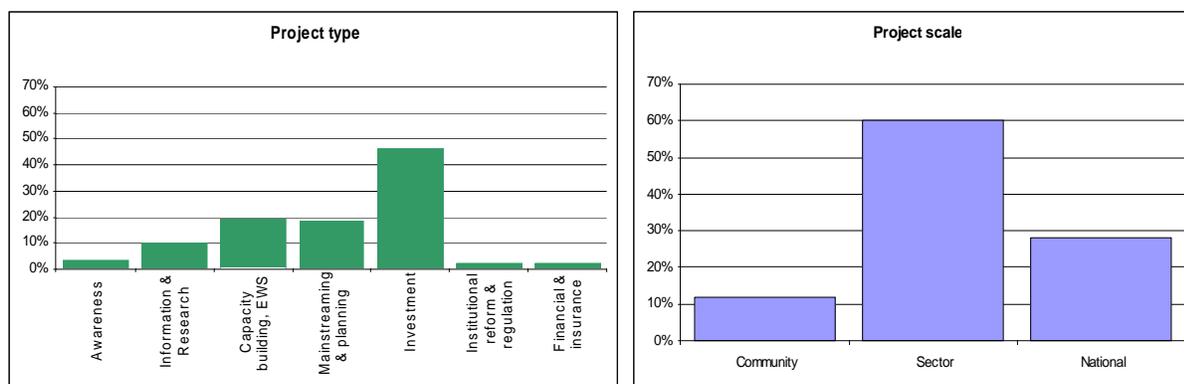
- Community-based adaptation, working with a broad spectrum of households at the community level, whether identified through livelihoods (e.g., smallholder farmers) or specific regions.
- Sector-wide developments, often housed in the relevant ministry (e.g., Ministry of Agriculture) and working across levels from livelihoods to sectoral infrastructure and development planning.
- Regional projects cover more than one sector, often based on community development approaches but including some regional planning and infrastructure.
- National level, often associated with projects oriented toward policy and planning across a number of sectors.

The classification of projects into categories was done based on the NAPA reports and not further information or interviews with the NAPA teams. Obviously, some projects have more than one type of activity and work at various scales, particularly for larger projects. In such cases, the tendency was to rate the project in the 'higher' relevant

category. For instance a project with direct investment actions would be rated as investment, even if it included substantial awareness and research components (as would be likely). This categorisation is intended only as a first-cut at the kinds of projects proposed in the LDC portfolio and not an evaluation of each project per se.

As would be anticipated, the majority of projects are direct investment in adaptive actions (**Figure 2**). Most countries would include at least a few projects of this sort, perhaps considered as demonstration projects to test different approaches. Relatively few of the projects are concerned primarily with awareness, information or research - but only one or two of such projects would be expected in each country. Still, this indicates that most countries have moved from 'what is the issue?' to seeking solutions to growing climatic risks. In addition to direct investment, building capacity and mainstreaming in planning are considered high priority. Again, each country would not be expected to have more than a few such projects. Apparently lacking from the portfolio are projects focussing on institutional reform or financial mechanisms.

Figure 2: Project scale and type, for projects submitted by September 2006



This may reflect the NAPA guidelines, with a focus on urgent action rather than strategic development planning. This is an area that warrants further attention.

As reflected in the type of project, most of the actions are planned at the sectoral scale. The relative lack of community-based adaptation plans may be inherent in the development agenda of line ministries who often lead NAPA projects, although implementation of sectoral projects may well involve local NGOs in community based actions. Quite a few projects are national in scope, perhaps reflecting the wide involvement of stakeholders in proposing and reviewing projects.

The data base of projects includes the estimate of the project costs provided in the

NAPA reports. These are only a first indication of the scale of effort envisioned. At present, the NAPA teams are working to develop a few of their highest priority projects into proposals for funding. Many are targeting the medium scale funding available in the GEF, on the order of US\$1-3 million per project. Smaller projects may be aggregated to form larger projects, or what was viewed as a pilot effort might be scaled up to cover more regions or include more components. It is unlikely that the cost of adaptation will be reduced as teams look more closely over a longer planning cycle as to how to achieve their objectives.

Nevertheless, the projects submitted by the nine countries total US\$ 178 million, with the costs for individual projects ranging from US \$0.1 to 23 million.

IV. Methods used to assess experiences of the NAPA teams

This review of the development of the NAPAs focuses mainly on strengths, weaknesses and constraints to the achievement of the NAPA objectives, as well as identifying the current opportunities and future prospects for implementing the NAPA recommendations.

The review draws upon discussions with NAPA experts and teams. For example, a dialogue was held during the IPCC Lead Authors meeting for Working Group II in Cape Town in September 2006 with participants from Botswana, United Kingdom, Germany, Kenya, Mexico, the Netherlands, South Africa and Sudan. Balgis Osman Elasha met most of the NAPA coordinators and a representative of the GEF Secretariat at the UNFCCC African Regional Workshop on Adaptation in Accra, Ghana, from 21-23 September 2006. Moreover, the authors met representatives from the NAPA teams during a workshop organised by the ECBI in Naivasha Kenya in September 2006.

The principal method has been to develop and apply a questionnaire, with interviews conducted in person and by post (see **Annex 2**). The interviews were conducted in an informal manner, involving NAPA coordinating teams, members of national

working groups and technical committees in LDCs, as well as people from other non-LDC countries in Africa. The interviews covered issues related to:

- Status of the NAPA;
- Objectives and guiding principles followed by the NAPA teams in each country;
- Approaches and methods adopted for developing the NAPA;
- Focus of the assessment (sectors or regions);
- Ranking process (criteria development for ranking and prioritisation of projects, and project formulation);
- Lessons learned during the process of NAPA development (what worked well, where are the gaps and constraints, etc.);
- Strengths, weaknesses and constraints encountered during and after the NAPA preparations;
- Current opportunities opened up through the NAPAs and positive outcomes;
- The way forward (implementation of the identified adaptation projects); and
- Any other issues and comments.

The meetings and interviews have been supplemented and documented with the use

of video, although the video material has not been compiled or edited for public distribution.

This report represents the outcomes (analysed results of the interviews and the questionnaires in addition to the synthesis of the lessons learned) for Burundi, Eritrea, Ethiopia, Malawi, Sudan, Uganda and Zambia, in addition to Mauritania (West Africa).

Note that the process has focused on lessons learned and not a formal evaluation of the content of the NAPA projects. For

instance, we do not analyse whether the projects are justified, either in the economic appraisal or as additional and adequate to address future climatic risks. Nor did we attempt to verify methods used in stakeholder participation, devising criteria for projects or ranking priority projects. The views presented are those of the authors. The notes from the interviews do not necessarily represent the official views of the respondents; they were asked to respond in their personal capacity about what they have learned.

V. The organisational structure of the NAPAs

The organisational structure of the NAPA has been developed to be consistent with the guiding principles mentioned above. Consequently, all of the assessed African LDC countries have more or less similar structures for the NAPAs, as shown in **Table 2**. In the Table, the width of the activity is intended to give a rough indication of the extent to which each coordinating unit would be involved. A brief description of the expected role by each unit in the structure is given below.

The NAPA coordination teams are mainly hosted within the NAPA implementing agencies, which are found either under the umbrella of environment or the meteorology departments and mostly represent the UNFCCC Focal Points. The coordinating team usually consists of one or two national coordinators. Their main job is to manage and supervise the whole process at the national and state levels and coordinate all of the NAPA activities in cooperation with the hosting agency and other relevant institutions and stakeholders (ministries, universities, research centers, NGOs and CBOs). Some members of the NAPA team are always involved in the negotiation and on-going debates on issues related to LDCs-concerns and interests, as well as participating in all NAPA relevant events (conferences, workshops, and meetings) at the regional and international levels. All of the countries covered in this report have Steering Committees. Usually they consist of high-level policy makers and

government officials, including representatives of stakeholders from all relevant sectors including government institutions (water, health, agriculture, planning and finance etc), research and academic, non-governmental organisations.

The Steering Committee members are requested to provide strategic oversight and to establish and prioritise overall policy directions and guidance to the NAPA teams. The Technical Committees (TCs) have a technical and consultative role and are expected to provide technical advice to the teams and help maintain communication and dialogue processes among relevant institutions. Moreover, at a later stage, the TC members are expected to use their technical background and knowledge to contribute to the assessment of options for executing the consultative process and for the identification of priority projects.

In most of the countries considered the TC also constitutes other Consultative Assessment Task Forces or working groups. For instance, the Synergy Assessment Task Force/Working group assesses synergies between strategies, projects, and policies for adaptation to climate change, and national sustainable development initiatives, multilateral environmental agreements or other initiatives. The TC may also include working groups on specific issues such as water, agriculture, poverty, coastal zones, etc.

Regional coordination consists mainly of state-level experts and technical staff from the relevant sectors. They are mainly responsible for carrying out all the activities under the NAPA at the state or locality levels. Moreover, they are expected to assist the National Project Coordination Team in coordinating the comprehensive stakeholder consultative process and report back to them. In most of the countries assessed, a multidisciplinary team representing the different vulnerable sectors was formed to ensure that the process is conducted in an integrated and balanced manner. Not all countries had formal sub-national coordinating units.

The organisational chart of Ethiopia in **Figure 3** presents an example of the NAPA structure adopted by most of the countries.

All the LDCs covered by this study followed the same steps for the formulation of NAPA. Generally the process starts by synthesis of available information, followed by a participatory assessment of vulnerability to current climate variability, and the identification of key adaptation measures, then the identification of suitable criteria for prioritising activities followed by the selection of a prioritised short list of activities. The development of project profiles/concepts and/or activities intended to address urgent and immediate adaptation needs constitutes the final step. It is worth mentioning that the NAPA process does not involve new research studies, as the countries are expected to make use of

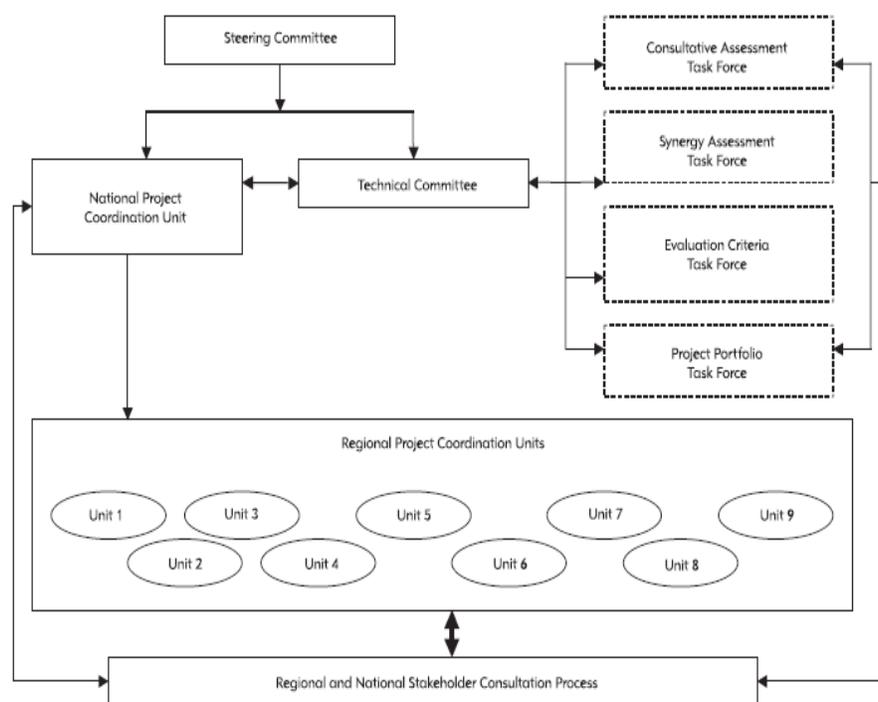
existing information and to rely on existing expertise and local knowledge.

There was a general agreement among the teams that the NAPA document should not be very long as it mainly targets policy makers. It should be simple and clear, concise and comprehensive, action-oriented, country-driven, and highlight specific priorities for urgent and immediate adaptation activities that have been identified and agreed upon by the different stakeholders in each country.

During the development of the NAPA, and throughout the consultation process, special consideration is given to ensure that the identified adaptation measures take into account national planning and developmental initiatives, as well as all multilateral environmental agreements. This was expected to be achieved through the involvement of key members representing the agencies responsible for development and planning as well as through the review and synthesis of existing strategies and development plans for different sectors (such as water, agriculture, health, biodiversity, desertification, poverty reduction strategies etc.).

The teams agreed that a key factor to the success of the NAPA is the identification (screening and ranking) and final selection of priority projects that could have a real and immediate impact on the vulnerable communities of Africa, highlighting the fact that any further delays in implementing

Figure 3: Organisational chart of the NAPA process in Ethiopia



Source: UNDP/GEF project document, 2003

urgent adaptation measures could increase their current vulnerability, or result in increasing the costs for implementation.

Most of the NAPA team members interviewed mentioned that during the consultative process, they cautioned the stakeholders on the importance of setting realistic goals and objectives, taking into account the many constraints that could hamper the implementation of proposed adaptation strategies. Moreover, they underlined the importance of adopting a balanced approach when assessing location/region-specific threats and weaknesses, as well as strengths and

opportunities. This proved effective in raising the awareness of stakeholders on potential constraints and barriers, and helped them in the prioritisation process, aimed at the selection of a few realistic and achievable adaptation measures, instead of a long wish list.

The NAPA teams expressed deep concerns regarding the funding of adaptation projects. They found all available funding opportunities either insufficient or difficult to access due to procedural constraints and complicated criteria set by the funding agencies.

VI. Priorities and approaches

VI.1. Overview of the NAPAs

Generally the role of UNDP and UNEP, the two implementing agencies in Africa, has been the provision of on-going technical, organisational, and financial support throughout the NAPA process, including backstopping and linkages to other GEF activities. UNDP is the coordinating agency in six out of the seven countries considered, while UNEP is the coordinating agency for one country only (Uganda). Moreover, the responsibility of implementing the NAPA is shared between the meteorological departments and the environmental authorities.

Tabulation of the responses from the seven countries is provided in the panels of figures below. The priority sectors covered by the assessments, and consequently the sectors for proposed NAPA projects, are: health, agriculture, water resources and forests. So far, none of the assessed countries have considered coastal zone/marine resources (**Figure 4**). The lack of priority to coastal zone issues reflects the geography of Eastern and Southern Africa, although coastal tourism in East Africa and the Red Sea is of economic importance.

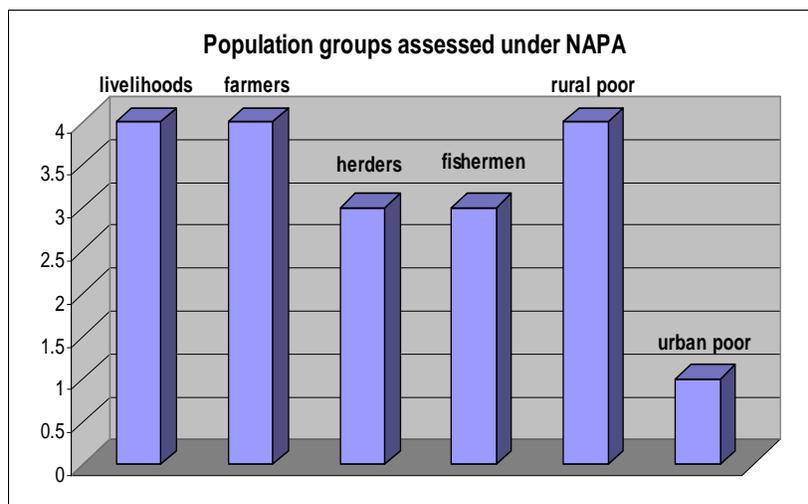
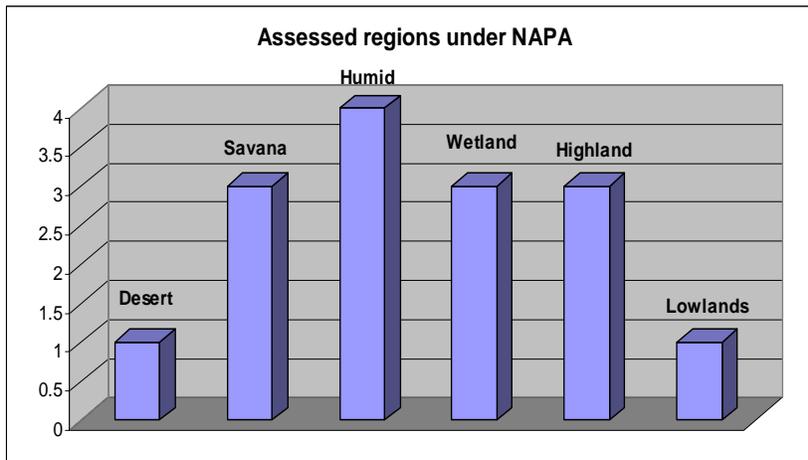
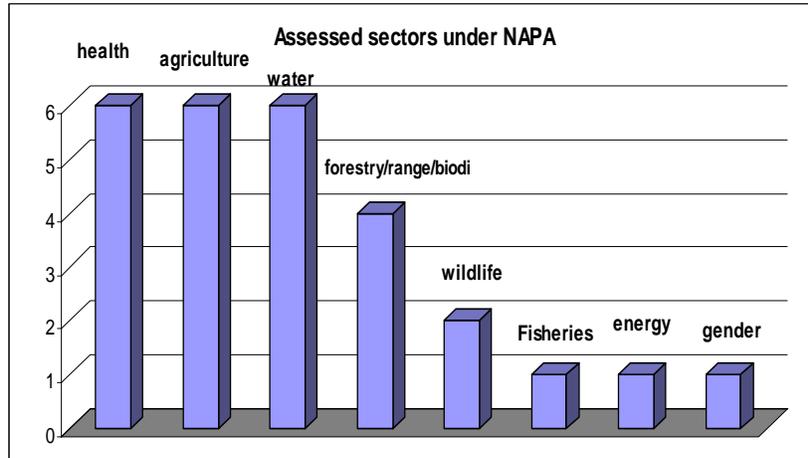
The above sectors have been assessed across different zones or ecological regions in Africa. The priority regions for the NAPA are mainly the humid, savannah and semi arid, wetland and highland zones, followed by lowlands and the desert regions.

The assessment involves different population groups (these are overlapping categories in **Figure 4**). Most emphasise the rural poor, which constitute a large group, encompassing a broad range of stakeholders and a wide range of livelihood activities. Specific stakeholder groups have also been targeted such as the farmers, herders, fishermen and to a lesser extent the urban poor. However none of the assessments target specific vulnerable social groups, for example women, refugees or Internally Displaced Persons (IDPs).

VI.2. Methodologies for developing adaptation projects

As mentioned above, most of the NAPA assessments follow similar methods and approaches (**Figure 5**). Special consideration was given to the selection of the teams where specific terms of reference have been developed by each country for this purpose. An important criterion for the selection of the team was to engage multidisciplinary members who are also representatives for the most vulnerable sectors. A team of technical experts was formed to undertake the exercise of synthesising existing information on vulnerability analysis, coping strategies, trends of existing development frameworks and national policies. This exercise was supplemented by means of Rapid

Figure 4: Sectors, regions and population groups covered in African NAPAs
 (Note that the population groups are overlapping)



Participatory Assessment (RPA) of the current vulnerability and the potential increase in climate hazards and associated risks. Most of the teams employed RPA techniques for assessing vulnerability to climate variability and/or hazards as well as for identifying key coping strategies and measures.

The NAPA process has also involved awareness raising and capacity building through information and knowledge sharing. Public consultation has been a continuous exercise throughout the process of NAPA development performed at different levels (local, state and national). This helped in the identification of good ideas and plans and in building consensus among various stakeholders. Eventually this was expected to lead to the articulation of potentially viable, community-driven NAPA activities. The use of national workshops was found to be key in ensuring the involvement of a wide range of stakeholders across the country

particularly policy makers, funding agencies and international organisations as indicated by the majority of the respondents. Second to the national workshops was the use of local-level workshops, used as platforms for discussion and exchange of ideas among local stakeholders. They have usually been organised at the state or locality levels with the involvement of local stakeholder groups.

These local-level workshops have been considered by most as an effective means for communication and knowledge transfer. They also raised awareness among the local communities on the potential impacts of climate change and the need for adaptation. Thirdly came the use of individual and group interviews with selected key stakeholders, usually the most influential and knowledgeable people at the community levels (for instance, local leaders, teachers, midwives, and extension officers).

VII. Screening, ranking and project profiles

VII.1. Criteria for screening NAPA activities

An important step in NAPA development is the first-order screening of potential adaptation activities. This has been undertaken to ensure that the measures/activities identified through the consultation process are consistent with country-specific strategies and plans for risk reduction, and address the most urgent vulnerability (exposure to specific climate variability and change), and that they are appropriate for implementation through the NAPA (Figure 5). Specific criteria for addressing adaptive capacity have been selected to facilitate the ranking process. In most of the cases this step was taken in a participatory manner, which typically involved discussions and negotiations. Contradictory views may sometimes appear - this is mainly due to the fact that different stakeholders could have different criteria for the selection of options, depending on their personal perceptions about vulnerability and adaptation.

VII.2. Ranking of NAPA activities

After potential adaptation options have been identified, they are ranked - a critical step since only top priority options are developed into full projects. Ideally, the ranking of

measures should be done in accordance with the degree to which each measure is able to fulfil the identified criteria. Depending mostly on the weight assigned to the criteria by different stakeholders, this step could be very subjective. However, in order to facilitate the analysis process and avoid biases and subjective decisions, most of the coordinators supported their assessment with the use of a simple multi-criteria approach in the form of computer software (such as NAPASSESS and HiView) (Figure 5)³.

The NAPA projects adopted a more or less similar approach to develop a number of criteria in consultation with stakeholders. The criteria have mostly been selected in such a way that they address the five livelihood capitals, particularly the social (quality of life, number of beneficiaries, etc.), natural (reducing degradation) and economic (contribution to sustainable development). The different criteria were then weighted, mainly based on local priorities. In most cases, weightings are determined through a consensus process among the different stakeholders where priority is generally given to the activities that reduce major sector/region-specific vulnerability. A broad range of common ranking criteria have been developed to cover related issues across the identified measures/activities - for instance, technical feasibility of each measure, economic costs

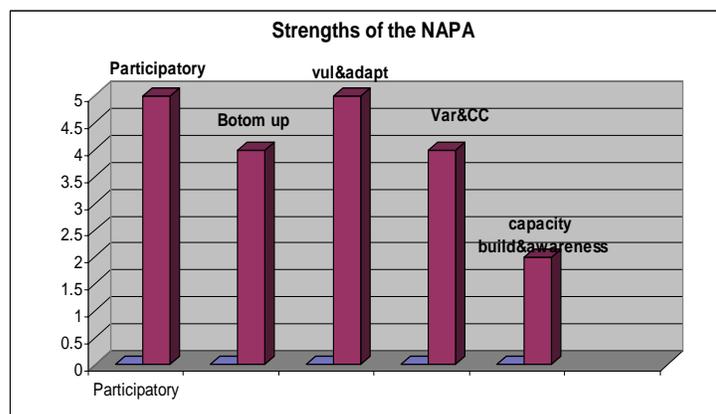
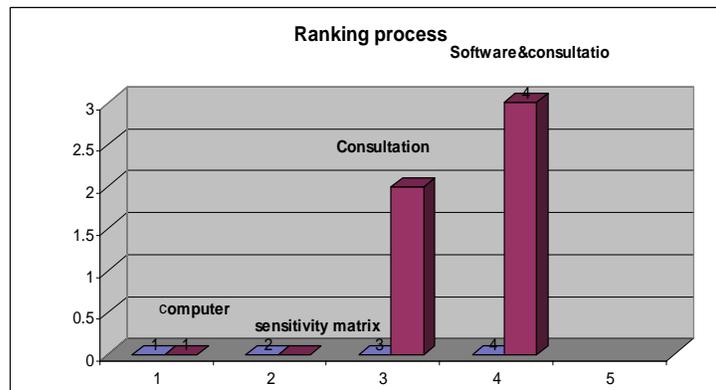
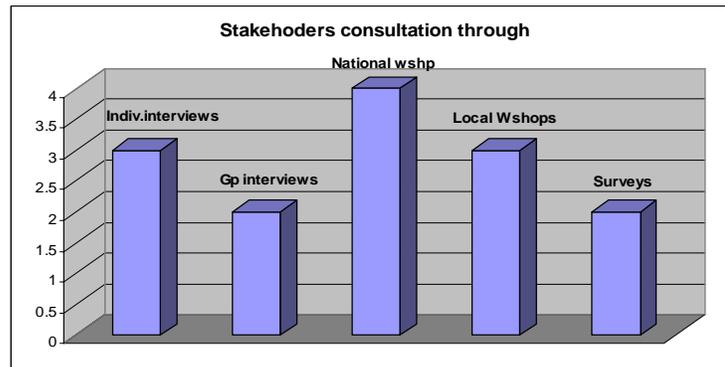
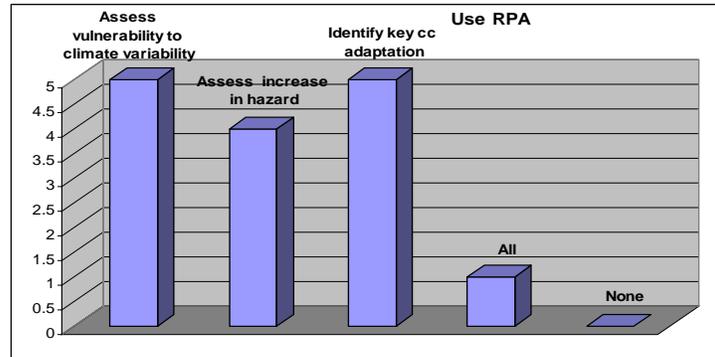
and benefits, level of stakeholder involvement, losses avoided, sustainability of livelihoods, crosscutting issues and synergies, and magnitude of impacts.

VII.3. Formulation of project profiles

As the next step, the selected measures/activities are developed into

project concepts /profiles. Most of the teams stressed the need for more technical as well as financial assistance to undertake the task of preparing sound project profiles (**Figure 5**). The completed NAPA documents were then submitted to the UNFCCC. As of the late 2006, only a few African NAPAs had been submitted, while most of the others were expected to submit theirs by early 2007.

Figure 5: Methods employed in the NAPA process in Africa



VIII. Lessons learned by the NAPA teams

Responding to the questions on the main strengths of the NAPA (Figure 6), there was general agreement on the important role played by the NAPA in creating a wide awareness and a sense of ownership among the different stakeholder groups at different levels, starting from policy makers down to the general public at the village level. This was largely attributed to the following NAPA characteristics put in the order identified by the teams:

- Emphasis on participatory processes;
- Consideration of both vulnerability and adaptation to climate change;
- Investigation of climate variability as well as climate change;
- the bottom-up approach; and
- capacity building and awareness raising.

The teams agreed that the steps leading to the formulation of the NAPA have worked well, particularly stakeholder identification, focusing on the most vulnerable groups in different sectors/ regions, involvement of planners and policy makers and the provision of platforms for discussion and consultation between them. The data collection process has also been viewed as successful.

The employment of a variety of methods to formulate the NAPAs, including literature surveys of previous studies and assessment, direct interviews and meetings, and the use of GIS and remote sensing

technology and other formal data analyses, was identified as a key success factor.

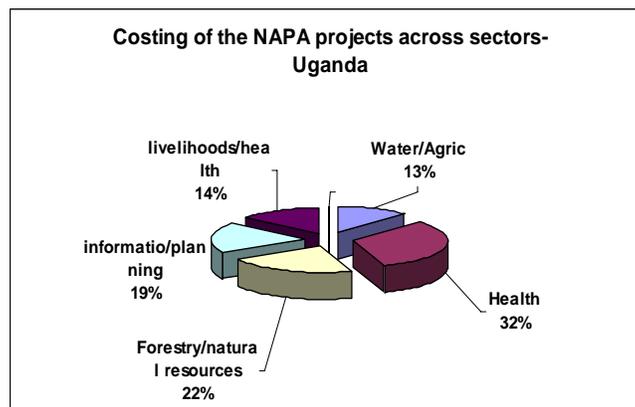
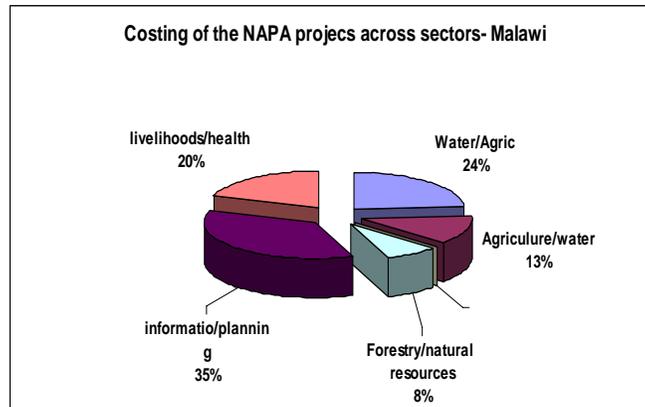
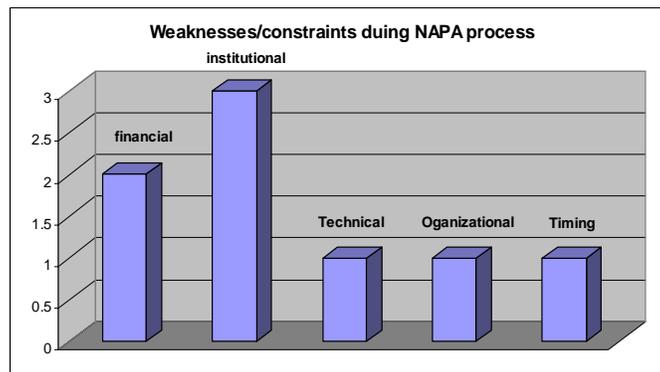
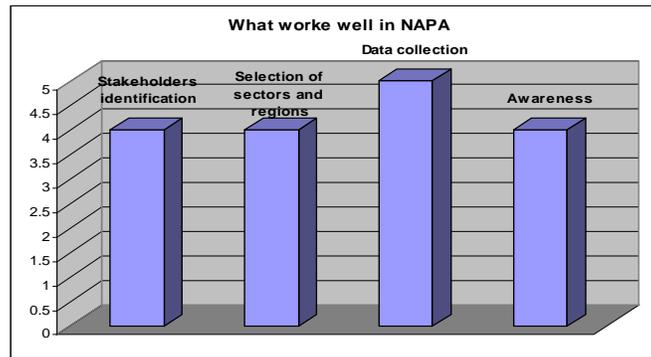
Institutional barriers were listed as a key constraint in the NAPA process, delaying execution of some of the activities. For instance, bureaucratic structures in some partner institutions hindered the free exchange of information among the different team members. Other constraints include:

- Communication problems between the central offices and states;
- Lack of sufficient technical capacities needed at local levels to play an active role in the assessment process; and
- Insufficient financial resources and time, especially for large countries like Sudan and Ethiopia.

There is a general agreement among the teams on the need to keep the momentum created by the NAPA process. Time is an important factor in adaptation activities. The main concern stressed by all the NAPA teams was the need to shed light on the vital urgency for securing necessary funding for the implementation phase.

One potential constraint is the need for additional technical and financial assistance by most countries to develop the concept notes and project profiles into full projects. Another concern highlighted by the teams is related to the means and ways by which to ensure the mainstreaming of NAPA projects

Figure 6: Lessons learned and relative costs for NAPA projects in Africa



in national development plans and strategies.

The NAPA guidelines highlighted the need for selected projects to support target groups, particularly those vulnerable from a socioeconomic and climatic perspective, and to respond to their urgent and immediate needs, applying an 'endogenous, dynamic' approach. The guidelines also emphasise the need for projects to be additional activities addressing newly recognised climate risks, and to be integrated or mainstreamed into the overall development programmes of the country.

In general terms, the projects identified by the NAPA teams or through the available NAPA documents could be divided into two types:

- **sector-specific** projects, which represent the vast majority of projects and focus on a specific development intervention. However, variations exist among them as more focus is given to specific sector projects, e.g. water, agriculture and health sectors compared to other sectors such as energy, tourism and urban livelihoods.
- **non-sector specific** projects, which generally focus on broad cross cutting themes, for instance, information development. Such projects are comparatively fewer than the sector-specific ones.

Moreover, it has been observed that none of the projects target specific vulnerable social group or pool efforts across countries.

Tables 4 and 5 give a summary of the two types of the project profiles.

Most of the countries presented specific project-based approaches to address the identified adaptation measures, which go down to the level of sub-sectors and regions. For instance, the Mauritania NAPA included a project on education in the use of 50 electric motor pumps in the Valley. A few countries followed a more broad-based programme approach - for instance, Uganda proposed a programme on climate change and development planning (**Figure 6**).

Generally the estimated costs for the proposed NAPA projects range from between US\$ 300,000 to US\$ 8,000,000 with the total number of projects ranging between five (Malawi) to 25 (Mauritania). The total cost required for funding these projects varies between countries, but generally ranges between US\$ 21-40 million.

Out of the seven African LDCs assessed in this report only Malawi, Mauritania and Uganda had produced complete NAPA documents and only Mauritania and Uganda had submitted their NAPAs. Both the latter countries have identified a set of project concepts for adaptation, including activities to promote information and early warning, increase agricultural production, water harvesting and improve natural resources

and livelihoods. In Malawi, the largest piece of the requested funds for adaptation (35%) is to address the gaps in meteorological

information to assist the planning process, while in Uganda, 32% of the requested funds are for improvement of health services.

Table 4: Examples of typical non-sector specific project profiles

Non-sector specific project profiles	Comments
Generally, most of the project profiles focus on specific sectors and look as if they have been developed using sector-specific lenses both in the analysis of vulnerability and the potential for adaptation to climate change. Very few project profiles aim at addressing vulnerability through the use of an integrated approach, e.g. taking the food systems as a whole or addressing food security	
Awareness raising and knowledge dissemination	A number of projects profiles aim at raising awareness across different scales from community to policy makers
Promotion of research on CC	A gap is observed here - may be because NAPA is perceived as action-oriented research is disregarded
Education and curriculum development	So far none of the NAPA teams interviewed indicated that the NAPA will consider a project profile that focuses mainly on the inclusion of climate change issues in the curriculum at different educational levels
Enhancing resilience of urban infrastructure and industries to the impacts of climate change	Very few - there is more focus on rural livelihoods
Exploring options for insurance cope with enhanced climatic disasters.	Only two profiles explored insurance related issues
Disaster management strategies	Not specifically mentioned, however, most of the sector-specific projects ideas are based on community's experiences in disaster and risk management.
Climate Forecasting and early warning	Wide range profiles are found to address this issues
Capacity building (human and institutional)	Many profiles address it. In addition to its being a cross cutting issue that cuts across most of the sector-specific project profiles
Policy reforms and institutional restructuring	Relatively few propose reforming institutions and regulation
Removing barriers for technology transfer and adoption in the different sectors	Use of modern technology is mentioned only in relation to the development of climate information and early warning but not in combination with sector specific adaptation measure e.g. farming systems, health, etc.
Mainstreaming adaptation to climate change into policies and programmes in different sectors,	Although, one of the guiding principles has been the mainstreaming in the national development plans- but few project from Africa aimed at addressing this issue
Promotion of indigenous knowledge	Although the process of NAPA development has followed a bottom-up approach and is built on consultation with local communities, but very few profiles aimed at promoting the indigenous knowledge (skills, methodology or technology) as a basis for adaptation project.

Table 5: Examples of sector-specific project profiles

Sector specific project profiles	Comments
Water management and harvesting (quantity)	Wide range of projects
Improving water quality and sanitation	Less focus on water quality
Promotion of drought-resistant crop varieties and farming practices	Wide range of projects
Sustainable rural livelihoods	A number of projects - relatively more than profiles addressing urban livelihoods
Forest conservation and management	Wide range of projects
Rangeland rehabilitation and management, development of fodder crops	Wide range
Poultry farming	Few
Fisheries	Few
Irrigation systems	Few
Vectors, pests and disease control	Wide range
Energy conservation and promotion of renewable energies	Very few
Biodiversity conservation	Very few
Strengthening malaria surveillance programmes	Wide range
Promotion of tourism industry	Very few
Fire management and prevention	Few

IX. Conclusions

Our conclusions are derived from the interviews and discussions with the NAPA teams and related entities; in some respects they go beyond the individual responses.

Our most important conclusion is that the NAPAs, as a process, should not be viewed solely as end products in themselves. In many countries (but perhaps not all as yet), the NAPAs have been effective to raise awareness at least among national stakeholders, and to put climate change adaptation on the development agenda.

The NAPAs should be seen as an essential step in the development of adaptation capacity of LDCs. Moreover, NAPAs have provided the means and tools essential for the LDCs to present and negotiate a country-driven action programme. We believe there is ample justification for continuing NAPA processes in LDCs, as ongoing exercises to develop climate adaptation actions, strategies and policies. (However, the form and administration of NAPA may warrant adjustments, an issue we have not reviewed in this report.)

Funding agencies and national teams have emphasised the need to perceive NAPAs as entirely country-driven and country-specific initiatives. Often, the criteria suggested by the NAPA guidelines and applied by the country teams led to projects that are primarily focused on reducing current

climatic risks through projects that are fairly typical of a development portfolio (for example, promoting drought-tolerant crops, enhancing efficiency of water use, or diversifying livelihood incomes). While these projects may be seen as paying relatively less attention to long-term climate change, they are consistent with the NAPA instructions and truly reflect the country-driven priorities of reducing baseline exposure to current risks⁴.

Consultation and continuous dialogue between scientist and stakeholders is seen as an efficient way for raising awareness and capacity building across a wide range of stakeholders. Actions for adaptation need to be taken at all levels (vertically and horizontally) and should provide room for the involvement of all relevant stakeholders. Africa possesses a wealth of local knowledge relevant to adaptation that could largely contribute to reducing vulnerability if properly utilised. Planning adaptation must be firmly rooted in this knowledge of development – what works, where, when.

Thinking of climate change adaptation as a discrete planning process, and easily segmented into additional activities, is likely to be less effective than building a broad understanding and multi-stakeholder action agenda. Learning by doing, social learning, community-based adaptation and participatory assessment are relevant frameworks to take forward.

The cost of adaptation could be very high, to the extent that it could not be met by a single source of funding. Hence there is a real need to tap all potential funding sources and present solid and convincing proposals for funding. The collection of adaptation projects from the LDCs supports the notion that funding for managing climatic risks will need to go beyond the existing adaptation funds (perhaps through a tax on aviation, for example) and beyond international climate change regimes to bilateral action (already in progress), and even from public sector to private action (a domain that is not adequately explored as yet, for example in the role of micro-finance).

The next development of the NAPAs is to prepare specific projects for funding through the GEF. Some countries have done this, although few proposals have been approved. The conversion of a concept note or profile to a full project proposal requires additional planning and technical analysis. The NAPA process could be a good learning experience on how to create synergies among the different sectors and development plans as well as the Multilateral Environmental Agreements (MEAs). However, synergies between adaptation and other multilateral environmental agreements as well as between mitigation and adaptation, are poorly developed in practice. The NAPAs should supplement development of the National Communications, now getting started in most countries. This will be a

good indication of the extent of stakeholder participation and awareness.

The rationale for NAPA projects reflects a concern that future climate change will further exacerbate current climatic risks. Conceptually, this is an 'overlay' (to use an analogy from Geographic Information Systems) of future climate change (e.g., the likelihood of reduced precipitation) onto the present vulnerability (e.g., livelihoods adversely affected by recent droughts). Needless to say, there are many pathways that will link our present vulnerability with future climatic resources. The development status could change dramatically: for example development of a large reservoir and commercial agriculture would transform semi-subsistence economies, or HIV/AIDS could further weaken the labour force.

Scenarios of future climate change (such as the risk of drought in the 2050s) are not predictions: a wide range of outcomes may be plausible given our current understanding of the global and regional climate system and actual impacts are impossible to predict with certainty at the local scale. This is a gap in our understanding of climate change, but one that is not likely to be significantly reduced in the near future. Rather, we argue the conceptual basis for planning adaptation should be drawn from concepts of robust decision making and social learning. The practical objective should be to reduce the uncertainty in making a robust decision rather than accounting for all uncertainties in future vulnerability and risks.

The practical means of integrating climate change into sectoral and structural planning decisions are largely lacking (or at least sufficient experience of what works has not been accumulated as yet)⁵.

The NAPA priorities reflect country-driven criteria and existing national planning frameworks, as well as the primary focus on climatic risks. Some issues and projects are not reported. Adaptation as a right based on equitable sharing of the global climate change burden, or the notion of a deficit in adaptation are not prominent in the NAPA proposals. The broader framing of sustainable development is implicit in some respects (e.g., focus on poverty reduction and stakeholder engagement). Actions for reducing conflict, institutional and structural reforms, and empowerment of disadvantaged communities are not widely reflected in the NAPAs.

The NAPA experiences could assist other developing countries (in Africa and elsewhere) to develop similar sets of priority adaptation options. In countries with greater financial and human resources, planning should take into account a wider focus. Critical issues in expanding the NAPA process would include:

- What is the policy aim? Many of the NAPA projects are oriented toward reducing current climate risks (the urgent development needs), whereas it is an open question whether climate proofing the economy against all potential future climate change is realistic. Climate resilience would

be a less rigorous aim, while in many sectors ensure relevant decisions take into account climate change would be sufficient. That is, climate adaptation may be viewed as a process of understanding present and future risks rather than necessarily as a reduction in future vulnerability.

- What types of projects are suitable for different contexts (people, resources and economies at-risk, stakeholder decision frameworks, external drivers, etc.)? Building adaptive capacity to evaluate the many resource decisions that might be subject to changes in climatic risks would be urgent. A portfolio oriented toward financial and institutional risk management might make sense particularly in countries with greater economic and institutional resources.

- What is the project baseline? As countries plan for longer term development, the question of what the development status will be in 10 to 50 years into the future is paramount. This may shift the set of adaptation actions from individual projects to programmes and portfolios, and shift decision making from seeking to climate proof development for specific scenarios of the future to adopting policies that are robust across a wide range of potential futures.

- What are the appropriate funding mechanisms? Wealthier countries are likely to rely more on inward and private investment than GEF, bilateral or other official development assistance, particularly regarding climate adaptation. Part of the portfolio of responses might be to establish funds for pilot actions.

Annex 1: Costs of proposed NAPA projects for selected African LDCs

Country	Proposed project	Key sector	Cost (US\$)	Period in Years
Malawi	Improving community resilience to climate change through the development of sustainable rural livelihoods	Rural Livelihoods	4,500,000	3
	Restoring forests in the Shire River Basin to reduce siltation and the associated water flow problems	Forestry and water resources	2,000,000	3
	Improving agricultural production under erratic rains and changing climatic conditions	Agriculture and water resources	3,000,000	3
	Improving Malawi's preparedness to cope with droughts and floods	Early warning /information	8,000,000	3
	Improving climate monitoring to enhance Malawi's early warning capability and decision making and sustainable utilization of Lake Malawi and lakeshore areas resources	Water and natural resources	5,430,000	3
TOTAL			22,930,000	
Mauritania	Development of fodder crops	Livestock farming sector	600,000	2
	Promotion and development of domestic Poultry farming	Livestock	300,000	2
	Promotion of livestock mobility Dissemination of the pastoral code and support measures	Livestock	300,000	1.5
	Introduction of new fodder species on the natural grazing routes	Agriculture/ rangeland	600,000	2
	Genetic improvement of the local bovine breeds	Agriculture	500,000	3
	Treatment of unrefined fodder and manufacture and use of multi-nutritional blocks	Livestock farming	300,000	1.5

Annex 1 Contd.

Country	Proposed project	Key sector	Cost (US\$)	Period in Years
Mauritania	Substitution of ligneous fuel	Forestry	700,000	2
	Institutional reinforcement of the structure responsible for nature conservation	Forestry	400,000	2
	Improvement of knowledge of the resource and its sustainable management.	Forestry	300,000	5
	Improvement of cultivation methods in pluvial zones and introduction of new varieties of drought-resistant high-yield cereal	Agriculture	1,270,000	3
	Promotion of water-saving irrigation methods in oasis zones (drip method pilot schemes)	Rural development	1,200,000	3
	Training and informing of producers, their SPOs and CPs	Agriculture	1,180,000	3
	Contribution to a better knowledge of the surface water regimes in twenty (20) catchment areas	Water	423,990	3
	Support to the dissemination of the drip technique in the river valley and the oasis zones for the development of 300 hectares	Water	433,990	3
	Contribution to increased value of surface water by construction of twelve (12) Flooding deceleration gates:	Water	604,170	4
Education in the use of fifty (50) electric motor pumps in the valley	Water	1,050,630	3	

Annex I Contd.

Country	Proposed project	Key sector	Cost in US\$	Period in Years
Mauritania	Contribution to increased value of surface water by construction of twelve (12) Flooding deceleration gates:	Water	604,170	4
	Education in the use of fifty (50) electric motor pumps in the valley	Water	1,050,630	3
	Improvement of management of underground water resources in the Aftout zone	Water	250,000	3
	Support for improved monitoring of the piezometric networks of the water tables of Aïoun sandstones and of the Hodhs pelites.	Water	800,000	2
	Support for the experimental use dissemination of the drip method in the oasis zones	Water	400,000	2
	The study and monitoring of water quality in Magta Lahjar, Tintane and Wompou.	Underground water	1,000,000	3
	Fixation of shifting dunes threatening the national socioeconomic infrastructure	Forestry	1,500,000	3
	Participatory reforestation for energy and Agro-forestry in the agricultural zones	Agro-forestry	1,500,000	5
	The reorganization of populations adversely affected by climate change, taking into consideration the options they have already adopted	Rural livelihoods	600,000	2
	The implementation of a safeguard plan for the town of Nouakchott and its infrastructures.	Coastal ecosystem	2,091,000	5
	Protection of the diversity of the fish population and prevention of over-fishing with a view to sustainable development	Coastal ecosystem	1,337,000	3
	The protection and reinforcement of the dune bar along the coastline in Nouakchott	Coastal ecosystem	1,018,000	5
TOTAL			20,506,780	

Annex I Contd.

Country	Proposed Adaptation project	Key sector	Cost in US\$	Period in Years
	Community Tree Growing	Rural vulnerable Livelihoods	5,500,000	3-5
	Land Degradation Management	Land and natural resources	4,700,000	3-5
	Strengthening Meteorological Service	Early warning and information communication	6,500,000	3-5
	Community Water and Sanitation Project	Health improvement	4,700,000	3-5
Uganda	Drought Adaptation Project	Natural resources	3,000,000	3-5
	Water for Production	Water resources	5,000,000	3-5
	Indigenous Knowledge (IK) and Natural Resources Management	Natural resources	1,200,000	3-5
	Vectors, Pests and Disease Control Project	Health	8,000,000	3-5
	Climate Change and Development Planning	National planning	1,200,000	3-5
TOTAL			39,800,000	

Annex 2: Sample of questionnaire for NAPA Teams

I. General information

Country:

Name of focal point:

Name of NAPA Coordinator:

Number of staff involved:

Coordinating Agency, tick box:

- UNDP
- UNEP
- World Bank

II. Status of your NAPA

a. What is the status of your NAPA? Please enter the dates (month/year) for each stage, including plans for future stages (e.g., submission to UNFCCC) and any specific follow up that is planned (e.g., workshops and reviews).

Initiated	Funding available	Draft for review	NAPA completed	Submitted to UNFCCC	Follow up (specify):	Follow up (specify):

b. The assessment is based on:

Please tick boxes for applicable sectors and regions, if sector and region are linked please draw a line to connect them. For example Health and Coast for Fishing would connect these boxes.

Sectors	Ecological regions	Population
Health	Desert & arid	Livelihoods
Agriculture	Savannah & semi-arid	Poor
Water	Humid & sub-humid	Agricultural
Forestry	Wetlands	Pastoral
Other	Highlands	Fishing
All	Coastal	Rural
		Urban

III. Methodological issues:

Kindly indicate (by ticking) the steps which have been taken in developing the NAPA:

- Synthesis of available vulnerability assessments:
- Review of existing or past vulnerability studies such as national communications or past consultations under other national planning processes
- Review of current coping strategies
- Review and assessment of existing development frameworks such as national strategies for sustainable development, PRSPs, Programme of Action for the LDCs etc.
- All of the above

Comments: _____

2. Use of the rapid participatory approaches for:

- Assessing of current vulnerability to climate variability and extreme weather events
- Assessing the potential increase in climate hazards and associated risks due to climate change
- Identification of key climate change adaptation measures
- None of the above
- All of the above

Comments: _____

3. Stakeholders consultation through:

- Individual interviews
- Group interviews
- National workshops
- Local-level (state) workshops
- Surveys
- None of the above
- All of the above
- Other (Please specify)

Comments: _____

4. Development of criteria and indicators for ranking, including the process of ranking of priority needs was based on:

- Using a computer software (e.g. Definite, HiView, NAPASSESS)
- Targeting specific groups (e.g., livelihood-sensitivity matrix)
- Using participatory stakeholder consultation process
- A combination of the above two

- None of the above
- Others

Criteria used in the NAPA:

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

Comments: _____

Annex 3

Decision 28/CP.7 Annex, Guidelines for the preparation of national adaptation programmes of action

FCCC/CP/2001/13/Add.4
English
ANNEX

Guidelines for the preparation of national adaptation programmes of action

A. Introduction

1. National adaptation programmes of action (NAPAs) will communicate priority activities addressing the urgent and immediate needs and concerns of the least developed countries (LDCs), relating to adaptation to the adverse effects of climate change.

2. The rationale for developing NAPAs rests on the low adaptive capacity of LDCs, which renders them in need of immediate and urgent support to start adapting to current and projected adverse effects of climate change. Activities proposed through NAPAs would be those whose further delay could increase vulnerability, or lead to increased costs at a later stage.

3. The NAPA will be presented in the form of a document specifying a list of priority activities, with a concise justification based on a tight set of criteria.

4. The NAPA document will not be an end in itself, but rather a means for the dissemination, by an LDC Party, of its proposed programme of action to address its urgent needs for adaptation. The priority activities identified through the NAPA process will be made available to the entity that will operate the LDC fund referred to in decision 7/CP.7, paragraph 6, and other sources of funding, for the provision of financial resources to implement these activities.

B. Objective of NAPAs

5. National adaptation programmes of action will serve as simplified and direct channels of communication for information relating to the urgent and immediate adaptation needs of the LDCs.

C. Characteristics of NAPAs

6. National adaptation programmes of action should:

- (a) Be easy to understand;
- (b) Be action-oriented and country-driven;
- (c) Set clear priorities for urgent and immediate adaptation activities as identified by the countries.

D. Guiding elements

7. The preparation of NAPAs will be guided by the following:

- (a) A participatory process involving stakeholders, particularly local communities;
- (b) A multidisciplinary approach;
- (c) A complementary approach, building upon existing plans and programmes, including national action plans under the United Nations Convention to Combat Desertification, national biodiversity strategies and action plans under the Convention on Biological Diversity, and national sectoral policies;
- (d) Sustainable development;
- (e) Gender equality;
- (f) A country-driven approach;
- (g) Sound environmental management;
- (h) Cost-effectiveness;
- (i) Simplicity;
- (j) Flexibility of procedures based on individual country circumstances.

E. Process

8. The preparation of the NAPA may proceed as follows:

- (a) The setting up of a national NAPA team: the national climate change focal point will set up a NAPA team composed of a lead agency and representatives of stakeholders including government agencies and civil society. This group would be constituted using an open and flexible process that will be inclusive and transparent. The NAPA team will be responsible for preparing the NAPA and coordinating the implementation of NAPA activities;
- (b) The NAPA team will assemble a multidisciplinary team:
 - (i) To synthesize available information on adverse effects of climate change and coping strategies, which would be collated

and reviewed, including the national strategies for sustainable development, the Programme of Action for the Least Developed Countries, the United Nations development assistance frameworks, and poverty reduction strategy papers, if available in the countries;

(ii) To conduct a participatory assessment of vulnerability to current climate variability and extreme weather events, and to assess where climate change is causing increases in associated risks;

(iii) To identify key climate-change adaptation measures, based, to the extent possible, on vulnerability and adaptation assessment; such measures would also be responsive to needs identified under other relevant processes, such as the preparation of national action plans under the United Nations Convention to Combat Desertification and national biodiversity strategies and action plans under the Convention on Biological Diversity;

(iv) To identify and prioritize country-driven criteria for selecting priority activities to address needs arising from the adverse effects of climate change, drawing on the criteria referred to in section F.4 below.

(c) Development of proposals for priority activities to address needs arising from the adverse effects of climate change: the national team will:

(i) Organize a national and/or subnational consultative process to solicit inputs and proposal ideas in order to help develop a short list of potential NAPA activities. The national team would facilitate this consultative process, and would help in translating ideas into activities. This process will allow adequate dialogue between the national team and the public, with time allowed for public comment and revisions;

(ii) Identify potential activities, which may include capacity building and policy reform, and which may be integrated into sectoral and other policies;

(iii) Select and identify priority activities, based on the agreed criteria;

(iv) Propose profiles of priority activities using the following format:

- Title
- Rationale/justification in relation to climate change, including sectors concerned
- Description
 - Objectives and activities
 - Inputs
 - Short-term outputs

- Potential long-term outcomes

•Implementation

- Institutional arrangement

- Risks and barriers

- Evaluation and monitoring

- Financial resources

(d) The development of the NAPA document: the document will be prepared following the structure set out in section F below;

(e) Public review and revision: the NAPA document will undergo public review and be revised accordingly;

(f) The final review process: the NAPA document, including the profiles, will be reviewed by a team of government and civil society representatives, including the private sector, who may take into consideration any advice solicited from the Least Developed Countries Expert Group;

(g) National government endorsement of the NAPA: after the NAPA has been prepared, it will be submitted to the national government for endorsement.

(h) Public dissemination: the endorsed NAPA document will be made available to the public and to the UNFCCC secretariat.

F. Structure of NAPA document

1. Introduction and setting

9. This introductory section will include background information about the country that is relevant to the NAPA process. It will cover current characteristics, key environmental stresses, and how climate change and climate variability adversely affect biophysical processes and key sectors.

2. Framework for adaptation programme

10. This section will also provide an overview of climate variability and observed and projected climate change and associated actual and potential adverse effects of climate change. This overview will be based on existing and ongoing studies and research, and/or empirical and historical information as well as traditional knowledge.

11. This section will describe the NAPA framework and its relationship to the country's development goals, as described in subparagraph 8(b)(i) above, to make the framework consistent with socio-economic and development needs. In addition, it would

also describe the goals, objectives and strategies of the NAPA, taking into account other plans and multilateral environmental agreements.

12. Where possible, a description of the potential barriers to implementation should also be included.

3. Identification of key adaptation needs

13. Based on this overview and framework, past and current practices for adaptation to climate change and climate variability will be identified as related to existing information regarding the country's vulnerability to the adverse effects of climate change, climate variability and extreme weather events, as well as long-term climate change. This section will explain how and to what extent activities may address specific vulnerabilities.

14. Given the actual and potential adverse effects of climate change described in section F.2 above, this section will identify relevant adaptation options including capacity building, policy reform, integration into sectoral policies and project-level activities.

4. Criteria for selecting priority activities

15. A set of locally-driven criteria will be used to select priority adaptation activities. These criteria should include, inter alia:

- (a) Level or degree of adverse effects of climate change;
- (b) Poverty reduction to enhance adaptive capacity;
- (c) Synergy with other multilateral environmental agreements;
- (d) Cost-effectiveness.

16. These criteria for prioritization will be applied to, inter alia:

- (a) Loss of life and livelihood;
- (b) Human health;
- (c) Food security and agriculture;
- (d) Water availability, quality and accessibility;
- (e) Essential infrastructure;
- (f) Cultural heritage;
- (g) Biological diversity;
- (h) Land-use management and forestry;
- (i) Other environmental amenities;
- (j) Coastal zones, and associated loss of land.

5. List of priority activities

17. This section will list priority climate-change adaptation activities that have been selected based on the criteria listed in section F.4 above.

18. For each of the selected priority activities a set of profiles will be developed for inclusion in the NAPA document. This could follow the format set out in subparagraph 8(c)(iv) above.

6. NAPA preparation process

19. This section will describe the NAPA development process, including the process of consultation, the methods for evaluation and monitoring, the institutional arrangements, and the mechanism of endorsement by the national government.

Notes

1. Yale Center for Environmental Law and Policy. 2005: Environmental Sustainability Index: Benchmarking National Environmental Stewardship. (2006) New Haven: Yale Center for Environmental Law and Policy, Yale University, Center for International Earth Science Information Network, Columbia University, In collaboration with the World Economic Forum, Geneva and Joint Research Centre, European Commission, Ispra. www.yale.edu/esi.

2. LEG (2002). Annotated Guidelines for the Preparation of National Adaptation Programmes of Action. Least Developed Countries Expert Group. Bonn: UNFCCC. http://unfccc.int/files/not_assigned/b/~application/pdf/annguide.pdf.

3. The guidelines indicated a preference for MCA and all teams followed this approach. However, there are many ranking procedures, and many variants of multi-criteria assessment that could be explored in setting priorities.

4. Some analysts have called attention to the 'adaptation deficit', the lack of effective adaptation to current climatic constraints and hazards, or the inability to take advantage of climatic opportunities. Overcoming this deficit is seen as a priority and prerequisite to tackling longer run climate change.

5. The work of Lambert et al. is instrumental in making this point, see Lempert, R.J. and M.E. Schlesinger, 2000: Robust strategies for abating climate change. *Climatic Change*, 45 (3/4), 387-401.; Lempert, R.J., M.E. Schlesinger, S.C. Bankes and N.G. Andronova, 2000: The impacts of climate variability on near term policy choices and the value of information. *Climatic Change*, 45 (1), 129-161. Following concepts of social learning, risk management and robust decision making, the SEI and its partners are developing the Climate Envelope/Adaptation Risk Screening Platform, a set of modules to assist planning in making robust decisions regarding climate adaptation.