SIMULATED NAPAS

LESSONS LEARNED

Two desk-based case studies of simulated National Adaptation Programmes for Action (S-NAPAs) were carried out by independent consultants with LEG support in June-July 2002. They were carried out to test the existing NAPA guidelines outlined by the UNFCCC Conference of the Parties (COP).

Lessons from the experience of the S-NAPAs fall into three areas:

- Lessons for the process of preparing a NAPA;
- Lessons for NAPA structure; and
- Lessons for the NAPA guidelines.

Simulated NAPAs

Different countries were selected for each case study, and the consultants were provided with the NAPA guidelines and additional instructions within brief terms of reference.

The consultants were asked to conduct the **data collection step** required in formulating a NAPA, using a range of data and material summarised in Box 1. With this data, the consultants were asked to provide brief overviews on a range of issues and for the data to be gathered for specific sectors (Box 2). As part of this data collection process the consultants were requested to organise the facts and details according to the steps laid out in the guidelines for the preparation of a NAPA (Box 4).[1]

Box 1 Scope of the data collection in the simulated NAPA studies

- Existing sectoral, national and/or regional projects plans and programmes;
- Empirical and historical information as well as traditional knowledge;
- GIS data for the country including administrative boundaries, rivers, roads, digital elevation data, population, land use/land cover maps; and
- Statistical information from national statistical offices.

(1) The consultants were NOT asked to produce full simulations of NAPA papers

Box 2 Issues and sectors addressed in the simulated NAPAs

Issues

- Climatic situation for the country highlighting main trends and average conditions
- Associated actual and potential adverse effects of climate change and variability (Box 3)
- Past and current practices and coping mechanisms for adaptation to climate change and climate variability in the country, together with their estimates of costs of these measures
- Action-oriented adaptation measures related to climate highlighted in a national communication, if one exists, and in other action plans for the country
- The extent to which existing measures and options are integrated into sectoral policies and project-level activities, and the status of relevant programmes, and possible synergies with these programmes.

Sectors

- Poverty reduction resulting from adaptation and enhancing capacity to adapt
- Loss of life and livelihood
- Human health
- Food security and agriculture
- Water availability, quality and accessibility
- Essential infrastructure
- Cultural heritage
- Biological diversity
- Land-use management and forestry
- Other environmental amenities
- Coastal zones, and associated loss of land
- Any other effects that appear relevant

Results of the S-NAPAs

The simulated NAPAs resulted in two documents for two separate countries (referred to here as Report 1 and Report 2) of 40 and 60 pages respectively. Both of the simulated NAPAs summarised the background of the country and included assessments of the likely impacts of climate change and variability on some of the sectors in Box 2.

Box 3 Key information in the S-NAPAs for each issue in the terms of reference		
Issue	**Report 1**	**Report 2**
Climatic situation for the country highlighting main trends and average conditions	High temperature, heavy rainfall, excessive humidity, marked seasonality. Historical data show warming trends in summer, and a trend towards a decreasing daily temperature range in winter. Models predict warming temperatures, increasing summer rainfall and decreasing winter rainfall.	Baseline conditions are not provided. *El Nino* has affected the pattern of drought and wet years in all parts of the country with increasing frequency of droughts. Modest warming of the cool season, and considerable warming in the hot season. Changing rainfall patterns across the country.
Associated actual and potential adverse effects of climate change and variability	Drainage congestion, reduced freshwater availability, disturbance of riverine and coastal morphological processes, and increased intensity of disasters (particularly in the coastal zone).	Significant change in distribution of vegetation types, lower wood resources, declining maize yields, increases in sorghum yields, possible declining cattle and poultry populations, and adverse effects on wildlife and fisheries.
Past and current practices and coping mechanisms for adaptation to climate change and climate variability in the country, together with their estimates of costs of these measures	There is no climate change policy, but there numerous initiatives in disaster management with several structures such as Ministry of Disaster Management and Relief, a cyclone warning system, fllod forecasting and warning systems, locally-focused disaster action plans, and awareness-raising.	Formal coping measures include a Disaster Management and Mitigation Unit and associated committees and a Policy for Disaster Management
Action-oriented adaptation measures related to climate highlighted in a national communication, if one exists, and in other action plans for the country	The country's first national communication is currently under preparation.	The country has prepared a national communication on climate change, citing technology improvements in agriculture and energy supply, lowered dependency on biomass fuel, promotion of reforestation and afforestation, conducive environmental policies.
The extent to which existing measures and options are integrated into sectoral policies and project-level activities, and the status of relevant programmes, and possible synergies with these programmes.	Water policy and a coastal zone project recognise climate change.	The country has several plans that can contribute to adaptation (NEAP, NBAP, Agriculture Policy Framework) though none have yet explicitly taken it into account.

Box 4 Guidelines for NAPA structure

Section 1: Introduction and Setting
Including background information on current characteristics of the country, key environmental stresses and current adverse impacts of climate change and climate variability on key sectors.

Section 2: Framework for adaptation programme

- An overview of climate variability, observed and projected climate change, and associated adverse impacts of climate change
- Overview of the goals, objectives, and strategies of the NAPA, and the relationship between proposed adaptation framework and the country's development goals and multilateral environmental agreements.
- Description of potential barriers to implementation of the NAPA.

Section 3: Identification of key adaptation needs

- An overview of past and current practices for adaptation to climate change and climate variability, and how adaptation activities may address specific vulnerabilities.
- Identification of potential adaptation options.

Section 4: Criteria for selecting priority activities
Details of locally-driven criteria for prioritising the adaptation activities for each sector including:

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

However, the two S-NAPAs followed slightly different structures, as summarised in the annex. The emphasis in Report 1 was on data collection, and closely followed the structure of the scope of data collection. An overview of the country was given, climate change projections and impacts were discussed, past and present coping mechanisms described, and action orientated measures identified. Report 1 provides a rich analysis of climate change impacts, particularly disasters and flooding, on each sector. In addition Report 1 gave details on background material, existing studies and the availability of spatial and non-spatial databases.

Report 2 gave an overview of the situation within a selection of sectors before discussing the predicted climate changes and implications. Issues surrounding adaptation options were covered by looking at current policies that may complement climate change adaptation, and by considering additional adaptation projects.

In summary, Report 1 worked within the terms of reference. Report 2 did not stick as closely to the terms of reference, but reached beyond to consider barriers to NAPA formulation, and to suggest criteria for selection of adaptation measures. These are summarised in Box 5. Report 2 is more typical of least developed countries, in which there is very little previous analysis to draw from.

Box 5: Gaps and barriers cited in Report 1

No detailed studies

- To date only preliminary assessments of climate change impact had been undertaken.
- In some areas, analysis has to rely on correlations / empirical approaches based on historical trends, and no projections have been made for the future.

No integrated climate change policy

- The country is rightly preoccupied in addressing developmental needs focusing on poverty alleviation
- Attempts are being made to implement plans for environmental resources
- But there is no integrated development policy

No bankable proposals for implementation

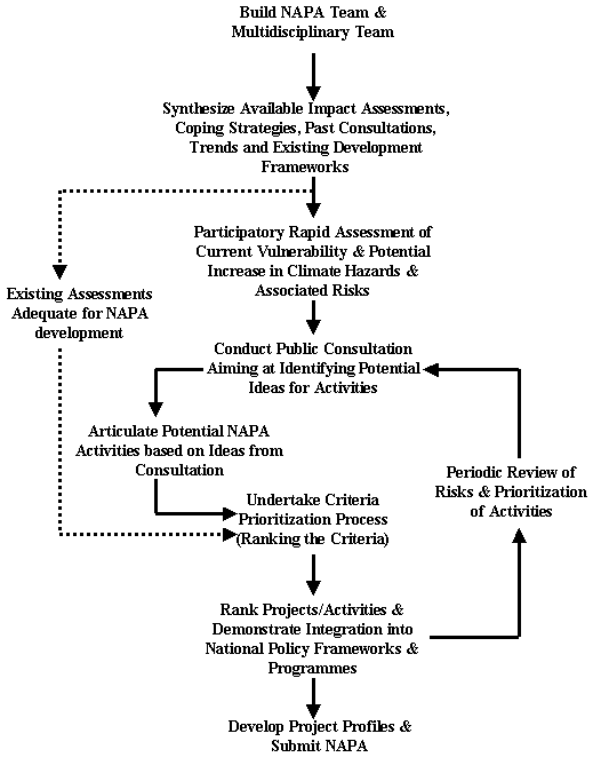
- All proposed projects/programmes have not been subject to detailed feasibility studies, to develop them into bankable proposals

No finance

- This is a barrier to impact and adaptation assessments, and formulation of bankable adaptation proposals

Lessons for the process of NAPA preparation

The diagram opposite illustrates the main steps in the NAPA process. The reports simulated the second step, '*Synthesise available impact assessments, coping strategies, past consultations, trends and existing development frameworks.*' Although the simulated NAPA did not follow the entire process of the NAPA, they give an indication of further key information that could smooth the transition to the next phase of the NAPA process.



Key information for next phases:

- Is further analysis required, or can it be gathered? Where from?
- How can the available GIS facilities be used in the NAPA?
- Are there key stakeholders or organisations that can assist the NAPA or even lead it?
- Who should be consulted?
- How can the NAPA team receive updated information on predicted impacts of climate change?
- How can public consultations be carried out?

Lessons on NAPA report structure

The terms of reference gave more details on information requirements than the NAPA guidelines. However, as with the guidelines they did not give an indication on how this information should be structured in the NAPA report. This was illustrated in Report 1 of the simulated studies where the order of the terms of reference were closely followed and resulted in an analysis of the potential adaptation options before an in-depth analysis of impacts on climate change on each sector.

More detailed guidance on report structure may be required in order to prompt a more detailed *synthesis* in the data collection phase. This synthesis would offer stakeholders and decision-makers in subsequent phases of the NAPA with more stark choices:

- A deeper understanding of the issues surrounding poverty when collecting the baseline information;
- More emphasis on the predicted climate changes and impacts on the different sectors;
- Taking the analysis further to look at the implications for poverty and development or for other issues that were highlighted as the key objectives for the NAPA.

Further ideas are cited in Box 7.

Lessons for the Guidance

The experience of the simulated NAPAs offers an opportunity to develop and clarify the NAPA guidelines further. Some areas in which the guidelines could be elaborated are setting objectives, information needs, analysing climate change impacts, selecting and prioritising adaptation options.

Setting Objectives

The guidelines currently describe the objective of the NAPA as a vehicle to help 'build capacity for addressing urgent and immediate adaptation needs'. But the guidelines do not at present prompt the NAPA to identify precise climate change impacts, and therefore *why* adaptation is required, and what adaptation takes priority.

For example, is the main objective of the NAPA to protect resources that are essential to economic growth, or is it to protect the most vulnerable? In addition, is the priority to protect environmental assets of local, national or international importance? The guidance could be developed to stimulate the collection of information that will allow informed decision-making of issues of this kind.

In relation to this, although the S-NAPAs presented analysis of climate change impacts, the balance between background information and the key predicted impacts was skewed. A policy-making official reading the documents would have difficulty sifting out policy-relevant conclusions.

Box 6: Ideas for the content of NAPA data collection reports

- Vulnerability assessments
- The relation of each sector to poverty reduction and development
- Linkages with environmental factors including climate or climatic variability
- Current coping strategies amongst urban and rural poor communities
- Levels of uncertainty in climate change predictions
- Implications for poverty and development
- Current government policies in relation to climate change
- Current adaptation plans, adaptive capacity, and national coping strategies
- Suggested criteria for selecting adaptation options
- Potential barriers to implementation of adaptation options.

Information needs

The guidelines for NAPA preparations do not give detailed guidance on what types of information are required.

Details on information requirements were given in the studies' terms of reference, citing specific issues and sectors that should be covered. This sort of breakdown could also be included in the NAPA guidelines.

The use of GIS was limited in the S-NAPAs. This may be because GIS data was not available, or not available within the timeframe of the studies.

Analysing climate change impacts

Both S-NAPAs implied a high level of uncertainty concerning climate change impacts. At present the guidelines state that a NAPA should include 'An overview of climate variability, observed and projected climate change, and associated adverse impacts of climate change'. Following this guidance the S-NAPAs included some evidence for climate change impacts that may be circumstantial or speculative. This poses a risk, since adaptation based on weak analysis will be ineffective or counterproductive

Assessing climate change impacts is therefore an area that needs careful guidance and possibly capacity building. As in the terms of reference, the guidelines could indicate which sectors should be considered for climate change impacts.

Secondly, guidance on methods and techniques for how climate change impact studies can be critically examined would be of value to NAPA teams. Currently available guidance such as the 'IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations' could be used. There may be a case for developing a poverty-focused version of these technical guidelines.

Selecting Adaptation Options

Three features of the guidelines could be developed to assist the selection of adaptation options:

- The guidelines as they stand do not prompt the NAPA teams to consider the interaction between climate change trends and poverty reduction strategies.

- The guidelines do not specify whether the NAPAs should recommend specific adaptation measures or whether they should identify the general area of adaptation.

- NAPAs concern 'immediate adaptation efforts' and the guidelines could emphasise how the NAPA process can stay focused on the focus on immediate and urgent needs. Much of the information in the S-NAPAs concerns long-term climate change impact.

Assessing the priority for adaptation options

There is further potential for the guidance to give details on how to design criteria in order to assess the priorities for adaptation options. Recommendations could be included within the guidance according to a type of 'risk and uncertainty framework'.[1] A risk and uncertainty framework weighs up the certainty of the impact occurring with the risk that the adaptation option will not be effective.

(2) A risk and uncertainty framework has been developed and is under use in the UK by the UK Government

Annex: Contents of the S-NAPAs

Report 1

1. Background

2. Objective

3. Background materials
3.1. Existing and ongoing studies
3.2. Spatial and non-spatial data bases

4. Overview of country
4.1. Geography
4.2. Climatic situation
4.3. Climate Change projections
4.4. Actual and potential adverse impacts
4.5. Past and present practices and coping mechanisms
4.6. Action-oriented measures
4.7. Integration into sectoral planning

5. Sectoral Analysis
5.1. Poverty alleviation
5.2. Human health
5.3. Infrastructure
5.4. Food security and crop agriculture
5.5. Water resources
5.6. Coastal zone
5.7. Forestry and biodiversity
5.8. Fisheries

6. Potential barriers and opportunities

7. References

Report 2

1. Background and Methodology

2. Introduction and Setting

2.1 Introduction
2.2. Geography and Climate
2.3 Social – economic Profile
2.4 Natural Resource Profile

3. Predicted climate change and impacts:
3.1 Climate change variability and climate change scenarios
3.2 Climate Change Scenarios for the following sectors:
3.2.1 Forest
3.2.2 Agriculture
3.2.3 Wildlife
3.2.4 Fisheries
3.2.5 Health

4. Identification of adaptation projects/programmes arising from national communication reporting and other related studies.

5. Adaptation options
5.1 Current Policies and Measures with Relevance to adaptation options
5.2 Potential Adaptation Programmes/Projects

6. Coping measures and strategies

7. Gaps and barriers

8. Suggested criteria for prioritisation of adaptation options.

9. Conclusions