

**Netherlands Climate Change Studies Assistance Programme  
Workplan Yemen  
-edited summary-**

**January 2004**

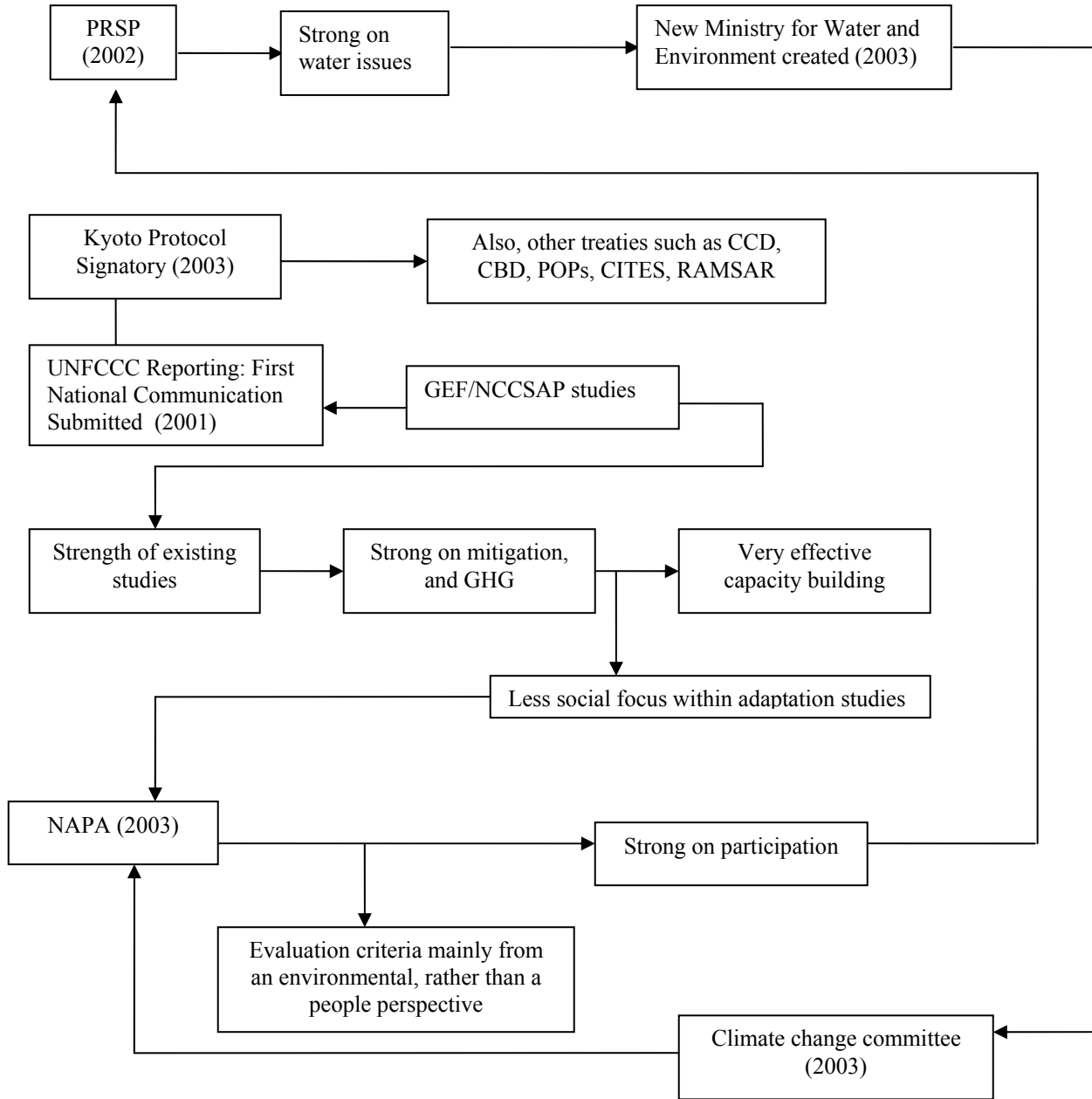
1. The NAPA document sets out both the policy framework for climate change action in Yemen, and provides the models of consultation and community participation (see Annex 1). This will be the framework adopted by the second phase of NCCSAP. However, most of the evaluative criteria of the NAPA are focused upon physical events, and therefore the focus of NCCSAP will be upon social based adaptation to climate change (see Problem Tree Analysis, p4). Both programmes are located within the Climate Change Unit of the EPA, which operates under the newly created Ministry for Water and Environment reflecting the fact that water is a critical priority in Yemen. The EPA have a strong scientific reputation, and a gender focus. Water adaptation to climate change is to be the focus of the first tranche of monies, with a gender focus. This is complemented by the expertise of the Royal Netherlands Embassy in Yemen, and there is to be strong inter-institutional collaboration (see Structure of Stakeholders)
2. A huge constraint in Yemen is the inability to retain qualified staff within national institutional structures, mainly due to the fact that the wages offered by international institutions and programme are considerably higher. A budget line for operational costs, including salary support for mid-level national employees will contribute not only to the study of adaptation to climate change, but will retain national expertise within the programme. The idea of supporting operational costs was proposed by the Royal Netherlands Embassy.
3. While the PRSP of Yemen addresses environment and poverty linkages, there is no reflection upon the potential impacts of climate change variation – particularly rising temperature, and reduced rainfall – on vulnerable communities. Interestingly, it is likely to be the middle-income populations who become more vulnerable to changes in climate change in Yemen – coastal settlements, and agricultural communities in the sense that they have the most to lose. A paper linking climate change adaptation and poverty, including the gendered impacts of environmental change, will address this gap in the PRSP document.
4. The EPA were responsible for the implementation of phase one of NCCSAP. Combined with GEF monies, this contributed to the First National Communication to UNFCCC. Because Yemen is a leader within the non-Annex 1 constituency with regard to UNFCCC reportage, the EPA want to submit a Second National Communication, using the products of the NCCSAP studies to update the communication. An update of the GHG inventory is crucial to the formulation of a second national communication, and will be carried out in conjunction with one Yemeni university, and also one international consultant.

5. Water adaptation to climate change studies form the main segment of the budget and will focus in three specific areas.
  - a. Most water planning in Yemen is focused upon supply side management. Therefore, a survey of end water use in an urban area will be used to illustrate options for a more demand side led focus upon urban water management. This will include access to water, and sanitation issues, particularly with regard to households or communities below the poverty line.
  - b. The technology ranking segment of the studies will focus upon small scale, traditional or indigenous technologies and techniques, for example dew harvesting, in both agriculture and urban households (agriculture accounts for 90% of water use in Yemen). The studies will be located within communities, based upon practical work with farmers, or householders, relying upon existing knowledge to rank the most appropriate technologies within a given area or sector. This can build upon existing work in the area of watershed management and agriculture, redefining traditional community water rights, currently being implemented with the Tihama Development Authority and the World Bank in Zabheet and Wadi Tooban. It will coordinate with the National Programme on Sustainable Water Resources Management, Yemen, to ensure that the study adds value rather than duplicates this National Programme. It is likely that this added value will address socially based opportunities and constraints for localised water management to determine what tangible, as opposed to theoretical, water management strategies are most feasible with regard adaptation to climate change. The Women and Environment unit are particularly valuable in this study, as rural women are often highly dependant upon agricultural livelihoods. In this respect, the Women and Environment Unit will be able to collaborate with the Ministry of Agriculture (Women in Agriculture). The small-scale technology ranking will also form levels of content to the climate change awareness raising activities, particularly among non-literate rural communities.
  - c. The demand side management focus of the water adaptation studies will build upon the end user survey studies. Working with national, and other water institutions, to negotiate feasible strategies available at implementing institutional level, and how best to approach demand side led sustainable water and sanitation provision.
6. With regard to climate change, it would be useful to review the EIA process at a district level and provide the Ministry of Local Administration, Ministry of Local Administration, Ministry of Agriculture and the various extension institutions with a short toolkit manual (around 10 pages) in Arabic, which can be utilised to take into account the predicted variations in water availability at a district level. Additional to this, a short toolkit manual (around 10 pages) in Arabic, for SEA at river basin level would complement activities within the National Programme on Integrated Water Resource

Management. EPA will liaise closely with UNDP to ensure coordination between the initiatives.

7. The Women and Environment Unit will undertake a study on the perceptions of risk to climate change, specifically focused upon rural women. This study will be socially based, and will identify threats to existing livelihood strategies, but also recommend feasible adaptation options which could enhance the existing coping strategies of rural women. To this end, there will be a research training course run by the Women and Environment Unit, based within the EPA to ensure that the researchers have the capacity to follow up to date gender focused research.
8. Because Yemen is a regional leader in climate change activities, and is collaborating with UNEP to establish a Climate Change Centre of Excellence in Sana'a, there is a good potential to build regional collaboration. This would be initially between the Eastern Arab region (Syria, Jordan, Lebanon, and Egypt), and then also between the Western Arab region (Morocco, Tunisia, Sudan, Algeria). This collaboration will aim to form the basis of a regional input to UNFCCC, and also to exchange best practise on climate change activities, for example, small scale renewable technologies, awareness raising, and research methods. This includes familiarity with relevant computer modelling technologies. There will be a strategy upon how engage the private sector into the climate change constituency within this regional context.
9. The awareness raising segment of the budget is to be divided between a number of strategies. Due to the socio-economic constraints upon the majority of the Yemeni population, awareness raising will focus upon tangible actions which can be utilised in regard to adaptation and mitigation of climate change impact, such as raising awareness of water impacts, and small scale indigenous technologies, for example solar water heating. A proportion of the money will be used to build upon educational literature, while some will be utilised in addressing non-literate communities. Although the reportage of the awareness raising strategies will form a report in month 15 (see Timeframe, p8), this constitutes a continuous process throughout the 18 months.

**Netherlands Climate Change Studies Assistance Programme Phase 2:  
Problem Tree Analysis for Yemen Country Study**



## Technical Assistance

International technical assistance is requested for a number of activities in support of the studies. The EPA want technical assistance to increase the knowledge of the CDM mechanism, and how to build private sector partnerships, this will feed directly into the regional collaboration workshops. Because the levels of climate change relevant documentation in Yemen are held in a relatively fragmented way, it would be efficient if there was a centralised database within the climate change unit at the EPA. Technical assistance will scope out soft- and hardware requirements both in terms of modelling and GIS upgrading, and centralised network capacity. The actual GIS upgrading and training will be allocated to Yemeni technical assistance, as there is a strong domestic capacity in this area. The upgrading of GIS, modelling and network capacities will form a continuous process throughout the 18 month timeframe. In terms of the GHG inventory, an international technical assistant from phase 1 of NCCSAP will assist in the compilation and analysis of relevant emission data in order to submit a second national communication to UNFCCC. The guidelines for the climate change relevant EIA and SEA manuals will be prepared with consultation with EPA externally from Yemen, and then be conferred to the EPA for conclusion and translation. The initial process will be undertaken in consultation with DFID in Sana'a, as it can build upon the recently published Environmental Screening Guide.

While the Women and Environment Unit in the EPA are well acquainted with gendered social science research methodologies, there is a need to expand these methods to other researchers who will be part of the whole effort. This will be undertaken 'in-house' within the EPA. Additionally, while the Women and Environment Unit are very strong scientists, formal English language training, particularly within the context of environmental or agricultural subject areas, is required to enable a higher level of engagement with donors.

**Netherlands Climate Change Studies Assistance Programme Phase 2:  
Yemen Country Studies Output:**

<b>Output</b>	<b>Description</b>
<b>1</b>	Paper linking PRSP with climate change including adaptation options for the vulnerable
<b>2</b>	Updated GHG Inventory
<b>3</b>	End-user water analysis paper
<b>4</b>	Ranked household small scale technologies for water adaptation to climate change based upon practical experience
<b>5</b>	Ranked agricultural small scale technologies for water adaptation to climate change based upon practical experience
<b>6</b>	Strategy on engaging the private sector
<b>7</b>	Report upon demand-side management negotiations
<b>8</b>	Activities contributing to updating Second National Communication to UNFCCC
<b>9</b>	SEA toolkit manual for water basin level
<b>10</b>	EIA toolkit manual for district level
<b>11</b>	EPA attendance of training on computer modelling techniques for climate change
<b>12</b>	Perceptions of vulnerability to climate change from rural women, including analysis of adaptation options
<b>13</b>	Report upon climate change dialogue between Eastern Arab Region
<b>14</b>	Report upon climate change dialogue between Western Arab Region
<b>15</b>	Awareness raising promotional literature
<b>16</b>	Reportage (report, audio, or video) upon awareness raising strategies for non-literate communities
<b>17</b>	Adaptation paper for COP

Outputs 2 to 5, and also 9 will be incorporated into the Second National Communication to UNFCCC. The outputs have been delineated for the purpose of the proposal, in reality there is likely to be a great deal of synergy between methodologies, and outputs. Awareness raising is going to be Yemen context specific, for example, awareness of small scale renewable energy technologies for rural electrification and water heating. The budget, but also the socio-economic position of many Yemeni people constrains the level of awareness raising to appropriate action e.g. water conservation, and small scale renewable technology at household or community level which will minimise contribution to climate change, but which can, even more importantly raise the standard of living for many people. The awareness raising aspect will also disseminate the results of many of the studies, for example the perceptions of vulnerability of rural women, the ranked technologies, the SEA and EIA manuals, regional dialogues, and the Second National Communication to UNFCCC.

## Netherlands Climate Change Studies Assistance Programme Phase 2: Yemen Country Study Timeframe

Activities	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6				Month 7				Month 8				Month 9							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Establish NCCSAP Office																																								
TA CDM																																								
TA private sector engagement																																								
Private sector engagement strategy																																								
TA GIS, modelling scoping																																								
EPA training on computer modelling																																								
TA reporting, accountancy																																								
PRSP climate change link																																								
TA Research Methods																																								
End user survey																																								
Eastern Arab Region Workshop																																								
English Language Training																																								
Update GHG inventory																																								
Demand side management																																								
Western Arab Region Workshop																																								
TA training GIS, modelling																																								
Activities	Month 10				Month 11				Month 12				Month 13				Month 14				Month 15				Month 16				Month 17				Month 18							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Perceptions of CC – rural women																																								
TA training GIS, modelling																																								
Ranked household technologies																																								
Ranked agricultural technologies																																								
Second National Communication																																								
Awareness Raising Reportage																																								
SEA toolkit manual																																								
EIA toolkit manual																																								
Adaptation paper for COP11																																								

**Netherlands Climate Change Studies Assistance Programme Phase 2:  
Yemen Country Study Structure of Stakeholders:**

