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29 January 2006

Excellency,

Subject: Enabling Activities for the Preparation of Jordan's Second National Communication to the UNFCCC- 00044370

I have the honor to write in reference to your letter dated 24 January 2006 and to return herewith, for your records, two signed copies of the above-mentioned Project Document.

I would greatly appreciate your assistance in forwarding one original copy of the Project Document to the Ministry of Environment in order to commence the implementation of this important project.

Accept, Your Excellency, the assurance of my highest consideration.


Mona K. Hider
Resident Representative, a.i.

H.E. Ms. Suhair Al-Ali
Minister of Planning and International Cooperation
Ministry of Planning and International Cooperation
Amman, Jordan

Attachments



Government of the Hashemite Kingdom of Jordan

**United Nations Development Programme
Ministry of Environment**

**ENABLING ACTIVITIES FOR THE PREPARATION OF Jordan's
SECOND NATIONAL COMMUNICATION TO THE UNFCCC**

44370

Brief description

This project aims at assisting Jordan with the enabling activities necessary to undertake the Second National Greenhouse Gas Inventory and to prepare and report the Second National Communication to the Conference of Parties in accordance with guidance of the UN Framework Convention on Climate Change (UNFCCC). In addition, this project will help strengthen Jordan's capacity to fulfill its commitments to the UNFCCC on a continuing basis. The structure of this project is based on the country's previous experience and studies already identified under a stocktaking exercise. The main components of the project are: (a) an inventory of greenhouse gases for the year 2000 and time series 1994-2000; (b) an analysis of potential measures to mitigate the increase in greenhouse gas emissions in Jordan; (c) an assessment of potential impacts of climate change in Jordan and adaptation measures; (d) preparation of the Second National Communication of Jordan and submission to the COP. In addition, public awareness activities and stakeholder consultations will be cross-cutting along the overall course of this project. Therefore, the preparation of the Second National

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List of Acronyms/Abbreviations

APF	Adaptation Policy Framework
APR	Annual Progress Report
CCT	Climate Change Team
CCU	Climate Change Unit
CDM	Clean Development Mechanism
CGF	Consultative Group of Experts
CO ₂	Carbon Dioxide
COP	Conference of Parties
DNA	Designated National Authority
EF	Emission Factor
GEF	Global Environment Facility
GHG	Greenhouse Gas
GHGNI	Greenhouse Gas National Inventory
HFCs	Hydro-fluorocarbons
INC	Initial National Communication
IPCC	Intergovernmental Panel on Climate Change
LUCF	Land Use Change and Forestry
M&R	Monitoring and Reporting
MLF	Multilateral Fund
MOE	Ministry of Environment
NCSA	National Capacity Self Assessment
NGO	Non-governmental Organizations
NPC	National Project Coordinator
PCC	Project Coordinating Committee
PFCs	Per-fluorocarbons
PIR	Project Inception Report
QPR	Quarterly Progress Report
SBAA	Standard Basic Assistance Agreement
SF ₆	Sulphur Hexafluoride
SNC	Second National Communication
TNA	Technology Needs Assessment
TOR	Terms of References
TT	Technology Transfer
UN	United Nations
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention for Climate Change
V&A	Vulnerability and Adaptation

Part 1. Elaboration of Narrative

1.1 Situation Analysis

1. The Hashemite Kingdom of Jordan is a constitutional monarchy, which gained independence in 1946. The Kingdom is located at the center of a complex and dynamic political, social and economic sub-system between Iraq, Saudi Arabia, Syria, Palestine and Israel. Regional tensions have continuously impinged upon the country decision-making processes.
2. Jordan covers an area of 92,300 km², stretching an average distance of 562 km from northeast to southwest, and 349 km from southeast to northwest. Jordan had a population of 5.35 millions in 2004 mostly living in an area representing only 20% of the total Jordanian territory. The population of Jordan is highly urban. By 2002, 78.7% of Jordan's population lived in urban areas reflecting massive internal rural-to-urban migration combined with the influx of returnees from the Gulf States and refugees and migrants mainly from Palestine and Iraq. The urban population within Amman, Irbid and Zarqa governorates now account for 3.378 millions of people, representing 63% of the total population of Jordan. The Kingdom can be divided into three climatic regions comprising the whole ecosystem of Jordan: i) the Ghor Region (low lands), ii) the highlands and marginal steeps region, and iii) the Badia and desert region.
3. Jordan's recent economic performance has exceeded expectations, notwithstanding the negative impact of the ongoing Palestinian-Israeli conflict, the aftermath of September 11, 2001, the global war on terrorism, and ongoing conflict in Iraq. Real GDP growth has increased from 3.2% in 2003 to 3.8% in 2004. The GDP composition by sector is as follows: agriculture (3.7%), industry (17.9%), and services (78.4%).

In 1995, a comprehensive environmental law was enacted by the Government to regulate various activities in the country in an environmentally safe way. The law has continued until 2003 when the Ministry of Environment (MOE) was established by the Environmental Protection Law #1. The Government of Jordan considers environmental sustainability to be an integral component of all sectoral policies and programs, and is working to achieve an integrated economic development, whereby, the protection and improvement of use of natural resources are priority.

4. Jordan has ratified the UN Framework Convention on Climate Change (UNFCCC) in 1994 and the MOE became the national focal point for climate change issues. Jordan started its efforts within the framework of the UNFCCC in 1996 with a program supported by the Global Environment Facility (GEF) and UNDP for national capacity building in documenting national emissions of greenhouse gases and preparing Jordan's national communication to the UNFCCC. The initial national communication (INC) was submitted in 1998 and so was the first national communication to be prepared by a developing country party to UNFCCC.
5. Jordan ratified the Kyoto protocol in 2003 to become the third Arab country party to the protocol. A national committee was formed to develop project proposals and initiatives for the Clean Development mechanism (CDM) of the Kyoto protocol.

6. In a recent study conducted by the World Bank in 2004, the cost of environmental degradation in Jordan was estimated to be 3.1% of GDP annually with a total of 205 million JDs estimated for five environmental sectors. The most significant negative impacts on health and quality of life were caused by water pollution at an estimated cost of 0.71-1.24 % of GDP. Diarrhea and mortality whose damage cost is estimated at JD 31 million per year, are caused by a lack of access to safe potable water and sanitation, and inadequate domestic, personal and food hygiene.
7. The damage cost of air pollution associated with mortality and morbidity is estimated at around 0.69% of GDP, while the cost of land degradation comes predominantly from rangeland degradation (0.46% of GDP) and soil salinity (0.14% of GDP). Finally, the damage cost from inadequate waste collection and coastal degradation in Aqaba are assessed at around 0.11% and 0.09% of GDP respectively.
8. UNDP is assisting Jordan in achieving its national development goals targets and indicators. UNDP's soft assistance interventions with the MOE have played a significant role in terms of increasing national capacities for integrating environmental conventions into national planning and policies. An important project is related to CH₄ emissions reduction at the Russeifa solid waste disposal site located near Amman. This GEF supported project has facilitated the construction of a pilot biogas project, which is the first of its kind in the Middle East. Other projects were mainly carried out to increase energy efficiency and reduce losses, and thus contributed to greenhouse gas (GHG) emissions reduction.
9. UNDP's support to Jordan in terms of sustainable environmental development has aimed at (a) promoting environmental governance in mainstreaming sustainable development and implementing relevant policy, legal and regulatory measures, and (b) capacity development to implement global environmental conventions primarily through UNDP-GEF portfolio for Climate Change (e.g. Jordan's INC to the UNFCCC, 1998, vulnerability assessment, 1999, impacts of climate change on water resources, 1999, reduction of Methane gas (Biogas facility), 1996, capacity building phase II, 2004, and Top-up Enabling Activity, 2004). A detailed list of already accomplished and ongoing projects related to climate change is given in Appendix C.

1.2 Strategy

10. This project aims at strengthening the MOE to assist the Government of Jordan in achieving its global environment concerns and commitments to international conventions, and to integrate the environmental dimension in national development planning and policy.
11. This project seeks funds for Jordan to undertake enabling activities to prepare the country's Second National Communication (SNC) to the UNFCCC. As defined by the COP2, enabling activities are those measures that facilitate the implementation of response measures in accordance with the FCCC (Decision 11/CP.2) to prepare the SNC of Jordan to the Conference of the Parties, in accordance with Article 12 of the UNFCCC, and to continue to build capacity to fulfill its commitments to the Convention.
12. The SNC project will develop and enhance national capacities to fulfill Jordan's commitments to the Convention on a continuing basis; enhance general awareness and knowledge of government planners on issues related to climate change and reduction of GHG emissions, thus enabling them to take such issues into account in the national development agenda; and mobilize additional resources for projects

related to climate change and mitigation of GHG; projects which may be eligible also for further funding or co-funding by GEF or other multilateral or bilateral organizations.

1.3 Management Arrangements

13. The project will be nationally executed (NEX) in accordance with the established UNDP procedures, and the executing agency is the Ministry of Environment as a Governmental body. The Climate Change Unit (CCU), the Climate Change Team (CCT), which was established in the course of Jordan's INC preparation, the Project Coordinator (NPC) together with the focal point at the MOE would serve as the implementation body of this project after being complemented by new experts in the related fields. The Project Coordinating Committee (PCC) will provide guidance and support to the project. It is hoped that such cooperation will lead to the strengthening of the role of the CCU, which will continue to be responsible for future climate change and related activities in the country. A project Management Committee will be established consisting of the Ministry of Planning and International Cooperation, UNDP, and the Ministry of Environment in order to monitor the management and implementation of the project.
14. In accordance with the new UNDP cost recovery policy, UNDP will charge Implementation Support Service (ISS) fees to the project according to the nature of services offered as requested by the Executing Agency or the Project Management. These fees will be charged based on the latest update of the UNDP Universal Price List.
15. The purchase of non-expendable equipment and services will be done by the Executing Agency in accordance with the Government of Jordan rules and regulations for procurement, which are in conformity with UNDP rules and procedures. If UNDP's assistance is requested for the purchase of equipment, an Implementation Support Service (ISS) fee will be charged to the project according to the nature of services offered as requested by the Project Management.

1.4 Monitoring and Evaluation

16. The project executing partner (Ministry of Environment) and the government counterpart (Ministry of Planning and International Cooperation) will remain responsible for delivering the outputs of the project, the actual implementation, input management, and sound administrative management.
17. Monitoring responsibilities and events: A detailed schedule of the project review meetings will be developed by the project management in consultation with project implementation partners and stakeholder representatives, and will be incorporated in the Project Inception Report (PIR). Such a schedule will include: (i) tentative time frames for PCC meetings, (or relevant advisory and/or coordination mechanism) and (ii) project related Monitoring and Evaluation activities.
18. Day to day monitoring of implementation progress will be the responsibility of the NPC, based on the project's Annual Work-plan and its indicators. The project team will inform the UNDP and MOE of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

19. Periodic monitoring of implementation progress will be undertaken by the UNDP through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.
20. Project Monitoring/Reporting. The Project Coordinator in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process.

1.4.1 Project Inception Report

21. A Project Inception Report (PIR) will be prepared immediately following the Inception Workshop. It will include a detailed First Year Work Plan divided in quarterly timeframes detailing the activities and progress indicators that will guide implementation during the first year of the project. The Report will also include the detailed project budget for the first year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame.
22. The PIR will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation.
23. When finalized the report will be circulated to project counterparts who will be given a period of one calendar month to respond with comments or queries. Prior to this circulation of the PIR, the UNDP Country Office and UNDP-GEF's Regional Coordinating Unit will review the document.

1.4.2 Quarterly Progress Reports (QPRs)

24. Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF regional office by the project team.
25. Technical reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the PIR, the project team will prepare a draft reports list detailing the technical reports that are expected to be prepared on key areas of activity during the course of the project, and tentative due dates. Where necessary this reports list will be revised and updated, and included in subsequent Annual Progress Reports (APRs). Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

1.5 Legal Context

26. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement (SBAA) between the Government of Jordan and the UNDP, signed by the parties on 12 January 1976. The Government Implementing Agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the Government Cooperating Agency described in the aforementioned agreement.
27. UNDP acts in this Project as Implementing Agency of GEF, and all rights and privileges pertaining to UNDP as per the terms of the SBAA.
28. The UNDP Resident Representative is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:
- Revision of, or addition to, any of the annexes to the Project Document;
 - Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to, or by cost increases due to inflation;
 - Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
 - Inclusion of additional annexes and attachments only as set out here in this Project Document.

Part 2. Budget

The project budget is estimated at US \$405,000 with additional contribution from the Government of Jordan (in kind) of US \$50,000. The details of the budget covering the Government of Jordan's contribution and the UNDP-GEF contribution are given in tables 1 and 2.

Table 1. Project Budget- Government of Jordan's Contribution

Description of Inputs	Total US\$
Administration and support staff	15,000
Office and related operations	5,000
Stationery and other office supplies	5,000
Furniture and office equipment	10,000
Utilities and maintenance	5,000
Media activities: leaflets, press calls, workshops	10,000
Grand total	50,000

Table 2. Project Budget-GEF Contribution

Award ID:	00039524						
Award Title:	PIMS 3436 CC EA: Second National Communication of Jordan						
Project ID	00044370						
Project Title:	PIMS 3436 CC EA: Second National Communication of Jordan						
Executing Agency:	Ministry of Environment						
GEF Outcomes/ Atlas activities			PLANNED BUDGET				
Outcome 1: National Circumstances	Responsible Party	Source of Funds	Budget Code	Budget Description	Year 2006 (USD)	Year 2007 (USD)	Total Budget (USD)
Outcome 2: National Inventory	MOE	62000	71300	Local Consultant	5,000	5,000	10,000
	MOE	62000	71300	Local consultants	59,000	5,000	100,000
Outcome 3: Programmes containing measures to facilitate adequate adaptation to climate change	MOE	62000	71600	Travel	3,000	0	
		62000	72100	Contractual services	10,000	2,000	
		62000	72200	Equipment & furniture	7,000	0	
		62000	72400	Communication and audiovisual equipment	2,000	0	
		62000	74200	Printing/ publication cost	6,000	0	
		62000	72500	Supply	2,000	0	
		62000	74000	Miscellaneous operating expenses	2,000	2,000	
		62000	71200	International consultants	0	14,000	
		62000	71300	Local consultants	5,000	40,000	
		62000	71600	Travel	0	2,000	
62000	72200	Equipment & furniture	0	3,000			
62000	72400	Communication and audiovisual equipment	0	2,000			
62000	74200	Printing/ publication cost	0	5,000			
62000	72500	Supply	0	2,000			
62000	74000	Miscellaneous operating expenses	0	2,000			
75,000							

GEF Outcomes/ Atlas activities	Responsible Party	PLANNED BUDGET						Total Budget (USD)	
		Source of Funds	Budget Code	Budget Description	Year 2006 (USD)	Year 2007 (USD)	Year 2008 (USD)		
Outcome 4: Programmes containing measures to mitigate climate changes	MOE	62000	71200	International consultants	0	14,000		75,000	
		62000	71300	Local consultants	5,000	40,000			
		62000	71600	Travel	0	2,000			
		62000	72200	Equipment & furniture	0	3,000			
		62000	72400	Communication and audiovisual equipment	0	2,000			
		62000	74200	Printing/ publication cost	0	5,000			
		62000	72500	Supply	0	2,000			
		62000	74000	Miscellaneous operating expenses	0	2,000			
		62000	71400	Local Consultants	8,000	10,000			20,000
		62000	74000	Miscellaneous / operating expenses	0	2,000			
Outcome 5: Other relevant Information	MOE	62000	71400	Local Consultants	4,000	4,000		10,000	
		62000	74000	Miscellaneous/ operating expenses	0	2,000			
Outcome 6: Constraints & Gaps; Related Financial, Technical, & Capacity Needs	MOE	62000	71200	International consultants	6,000	4,000		10,000	
		62000	71400	Local Consultants	0	10,000			
Outcome 7: technical Assistance	MOE	62000	74200	Printing and Publications	0	5,000		15,000	
		62000	71400	Contractual services/individuals	3,5000	3,5000			
Outcome 8: Compilation, including Executive summary, Production & Dissemination	MOE	62000	74000	Miscellaneous Operating expenses	2,500	2,500		75,000	
		62000	74100	Professional services	7,000	8,000			
Outcome 9: Project Management	MOE								
Outcome 10: Monitoring & Reporting	MOE								
Grand total								405,000	

Note: Team leaders and local consultants should be hired on part-time basis

Part 3. Appendices

Appendix A: Summary Report of the Self- Assessment Exercise

I. Introduction

29. The self-assessment exercise is performed in accordance with GEF Operational Procedures for the Expedited Financing of National Communications from Non-Annex 1 Parties (GEF/C.22/Inf.16). The main objective is to undertake a highly consultative and participatory process of needs assessment, to identify and validate the critical priorities for UNFCCC implementation in Jordan in general, and SNC project proposal in particular.
30. The self-assessment exercise is performed in accordance with GEF Operational Procedures for the Expedited Financing of National Communications from Non-Annex 1 Parties (GEF/C.22/Inf.16). The main objective is to undertake a highly consultative and participatory process of needs assessment, to identify and validate the critical priorities for UNFCCC implementation in Jordan in general, and SNC project proposal in particular.
31. Consultation of concerned stakeholders is important for the preparation of the project proposal of the SNC since it ensures its national ownership. The identification of stakeholders has been based on the following criteria.
 - Concerned experts in various ministries who have or will be contributing to the execution of the SNC.
 - Experts from regional and international organizations.
 - Experts from academic institutions and research centers who have participated in the preparation of the INC.
 - Experts from academic institutions and research centers that work in fields related to climate change issues.
 - Experts from on going climate change- related projects.
 - Representatives from professional associations.
 - Representatives from the private sector
 - Representatives from relevant NGOs.
32. The outputs of the stocktaking process involved conducting a stakeholder consultation and analysis, during which concerned stakeholders have been identified and initial contacts with them established. Another step in the stocktaking activity was to conduct consultation with these stakeholders aimed at validating the methodology of selection of priority issues and new areas of action. The stakeholder consultation process was concluded by a stocktaking workshop to finalize the feedback from concerned stakeholders, and to have it considered in preparing the project proposal for the SNC.
33. The main objectives of the stakeholder consultation process, as defined in the TOR, were to validate the stocktaking exercise, to address the national priorities in the SNC, to agree on the institutional arrangements proposed for the SNC, to clarify the roles and responsibilities of concerned stakeholders, and to engage all concerned stakeholders and ensure adequate consultation mechanism for the SNC.
34. A synthesis report has been produced as the main output used as a baseline document for the SNC proposal, as well as an input to identify and validate priorities for further

in-depth studies and new areas of work to be carried out in preparing the SNC. In addition, it has provided an assessment of gaps, uncertainties, barriers and lessons learnt from previous and ongoing activities.

II. The Stocktaking Analysis Tools

35. The following main tools have been used for the stocktaking process:
- i. review of relevant documents
 - ii. stakeholders identification
 - iii. discussions among stakeholders
 - iv. interviews with stakeholders
 - v. questionnaires
 - vi. stocktaking workshop.
36. The stocktaking exercise took about 10 weeks and brought together around 50 stakeholders from different ministries, public and academic, institutions, international organizations based in Amman, private sector and NGOs.

III. The Stocktaking Workshop

37. In accordance with the stocktaking process, a workshop was carried out with one main objective of gauging input from national experts on key issues related to Jordan's SNC. The meeting was conducted on November 8, 2005 and was attended by 27 participants (See Table 3) focusing on the objectives and approaches to be adopted for a successful implementation of the SNC.

The outcomes of the national assessment are presented below.

III-1. Assessment of Previous Work

38. This assessment was to ensure that the SNC would be conducted taking into consideration the good practice and lessons learnt from the INC and other climate-change related projects. Of particular interest are the GHG inventory, vulnerability assessment, and mitigation options.
39. The National Circumstances section contained extensive data regarding the energy sector and the macro-economic and financial status of Jordan, while other sectors were described briefly with minimum illustrative data.
40. The review of the INC identified the need for a more detailed climate description. Jordan, being one of the poorest countries in water resources in the world, and given the urgency of current and future shortages in water supply, a comprehensive review of the water sector, and as a result of the agriculture sector should be introduced in the SNC.
41. The information on institutional and regulatory arrangements relevant to the implementation of the UNFCCC and preparation of NC are now outdated and should be revisited to reflect the radical progress and changes that took place after the submission of the INC. Of importance are the status of Jordan with regard to the UNFCCC and Kyoto Protocol, the state of implementation of the UNFCCC and Kyoto Protocol and the distribution of responsibilities among national institutions.

Table 3. Workshop participants

No.	Name	Organization
1	Jamal Othman	Hashemite University
2	Radi Al- Rashedi	Hashemite University
3	Muhieddin Tawalbeh	National Energy Research Center
4	Lina Al-Mobaydeen	Ministry of Energy & Mineral Resources
5	Muna Al-Habahbeh	Ministry of Industry & Trade
6	Rafat Assi	The Royal Scientific Society
7	Rami Dabbas	Public Security Directorate
8	Mohammed Bani Domi	Yarmouk University
9	Hamid Al-Khateeb	Hashemite University
10	Sona Abu Zahra	Department of Statistics
11	Mowafq Frewan	Meteorological Department
12	Helena Naber	UNDP
13	Amal Dababseh	UNDP
14	Mohammed Feisal	Ministry of Energy & Mineral Resources
15	Sleman At-Tarawneh	Mu'tah University
16	Rana Kelani	Jordan Institution for Standard & Metrology
17	Raba'ah Al-Ajarmeh	Jordan Institution for Standard & Metrology
18	Sleman Al-Abadi	Ministry of Agriculture
19	Mahmoud Smerat	Jordan Petroleum Refinery
20	Mohanad Harara	Al-Hussein Bin Talal University
21	Moaweih Samara	Ministry of Water & Irrigation
22	Awad Al-Harahsheh	Ministry of Planning & International Cooperation
23	Mohammad Al- Alem	Ministry of Environment
24	Hussein Badarin	Ministry of Environment
25	Magboleh Abu Hazeem	Ministry of Environment
26	Farag Altalib	Ministry of Environment
27	Wafa Duabes	Ministry of Environment

42. Review and update of information are needed for both economic sector activities and infrastructure as this type of information was missing in Jordan's INC.

43. The INC included a preliminary evaluation of some mitigation measures. Due to the fact that analysis was based on international literature and did not take into account local conditions and obstacles, it is necessary to carry out detailed analysis for most promising and appropriate GHG emissions reduction measures that will suit local conditions and environment in order to be promoted at the national planning level. The study should not be limited only to the techno-economic analysis of available options; rather it is worth looking at the prevailing barriers that may hinder the successful implementation of these measures in the future.

III-2. Lessons and Good Practice Learned from INC, to be Adopted in the SNC

44. The experience and good practice from the work conducted under the INC and its top-up enabling activities will provide a solid background for initiating and preparing the SNC. Such a good practice is not limited to technical issues but also covers other managerial aspects and processes. The lessons and good practices, as extracted from the stocktaking process, are:
- The preparation of the NC was a learning-by-doing exercise that served for building and developing national capacities to compile NC to the CoP of the UNFCCC.
 - The upholding of the expert teams involved in NC is critical for the success of this process. The extension of the expert teams' capabilities and skills through training the trainers programs is a step towards sustainability of the process.
 - Starting with inventory and then undertaking GHG abatement analysis by engagement of the same team of experts in both activities is a good lesson learnt from the INC.
 - Technical support provided by UNDP-GEF, NCSA through thematic workshop, help desk, newsletters and peer review of all components of the NC was critical for the quality improvement of the *Partnership* with UNDP and other national public institutions to engage climate change issues into development agendas.
 - In the frame of the Millennium Development Goals (MDGs) process and mainstreaming, the climate change program should be managed to naturally link up climate change issues with national energy planning. The national energy strategy has already integrated many findings and outputs from the Climate Change project, which is a significant indicator of raised awareness of policy makers in climate change issues.
 - Working in synergy with other GEF climate change or non-climate change projects was an efficient way of getting good and desired results.
 - Extensive support from the MOE, and in a lesser extent from other Ministries is crucial to the success of the project.
 - In order for Jordan to fulfill its obligations under the UNFCCC, financial and technological support (on grant basis) is necessary to ensure technology transfer; building institutional capacity, establishing/ strengthening research centers and funding demonstration projects that mitigate climate changes.

III-3. Identification of Difficulties/Barriers of INC

45. Being the first of its kind in the country, the team that prepared the INC faced many difficulties, some of which can be listed as follows:
- Lack of awareness and insufficient technical know how at the government level as well as other involved private stakeholders regarding climate change impacts, vulnerability and mitigation.
 - Methodological constraints related to the lack of explicit guidelines for the development and reporting of the abatement analysis.
 - Limited expertise and lack of appropriate funding for conducting quantitative analysis.
 - Inappropriate monetary compensation of team members.
 - Lack of awareness of critical issues at all levels.

III-4. Identification of Gaps and Uncertainties

46. In addition to the difficulties faced in preparing the INC, the stocktaking process identified the following gaps, which may be avoided while preparing the SNC. These gaps/uncertainties include:
- Lack of a much-needed, accurate and scientific full-fledged database for the preparation and updating of national GHG inventories. For example, the only industry considered during the INC inventory was the cement industry. Similarly, in the land use change and forestry sector, the availability and accuracy of activity data and emission data were serious impediments in the face of GHG inventory in this sector. Moreover, data obtained from many sources were not consistent.
 - Improving the quality of future communication reports: The understanding of full implications of the GHG emissions of an energy system using the IPCC bottom-up methodology requires examination of every phase of the whole energy chain, from the supply side of the energy system to the demand side. During the preparation of the 1994 GHG inventory, the IPCC default emission factors were utilized, and when not available, the generic facility database of IMPACT module was used.
 - Lack of funding sources and even mechanisms for supporting the private or the academic sectors to undertake pilot projects and research activities to better understand and assess the extent and implications of climate change, vulnerability, and the potential relevant mitigation measures.
 - Adaptation to climate change especially in the most sensitive areas did not receive special attention and follow-up from concerned government bodies.

III-5 New Studies and Areas of Work.

47. Geography and topography have great role and influence upon the climate of Jordan. Therefore, Jordan can be divided into three climatic regions: The Ghor Region (low lands), the Highlands and Marginal Steeps Region and the Badia and Desert Region. These Climatic regions comprise the whole Ecosystems of Jordan and consequently the land use and vegetation cover in Jordan. Therefore, the Climatic Regions as well as the individual ecosystems in Jordan should be taken into consideration in the future studies related to compacting desertification, water harvesting and Vulnerability and Adaptation to Climate Change.

48. The INC report included a preliminary evaluation of some mitigation measures, and thus has been considered as incomplete. This is due to the fact that the analysis was based on international literature and did not take into account local conditions and obstacles. It is wise to carry out in the SNC detailed analysis for most promising and appropriate GHG emissions reduction measures that will suit local conditions and environment. The analysis should not be limited to techno-economics of available options, rather it is worth looking at the prevailing barriers such as the legal, financial and know-how conditions that may hinder the successful implementation of these measures in the future.
49. The Geographic description should be extended and consolidated by the necessary data and illustrative maps relevant to the scope of the SNC.
50. The review of the INC identified the need for a more detailed climate description in the SNC.
51. A comprehensive water sector review should be introduced in the national circumstances section. For the same reasons, the agricultural sector also deserves more attention in the SNC.
52. The review and update of the information on economic sector profile will consist first of the update of the information regarding the newly adopted strategies for socio-economic development, taking into account changes and prevailing conditions within the region.
53. The information on institutional and regulatory arrangements relevant to the implementation of the UNFCCC and preparation of NC should be extended and updated to reflect the radical progress and change that took place after the submission of the INC.
54. Sectors/areas that were not covered (fully or partially) in the INC and need to be covered or improved in the SNC have been identified in the stocktaking process as follows:
 - Review and update information on infrastructure such as population, public health, education and environment. The analysis will consider the new trends of development for each item under this section such as trends of population growth during 1990-2000, state of public health and education, state of the environment including the state of urban air, waste management and hot spots along with institutional framework, legal framework, and public awareness.
 - Undertake mitigation analysis for most promising and appropriate GHG emissions reduction measures that suit local conditions and environment.
 - Identification, categorization and mapping of climate change sensitive areas in Jordan.
 - Health and socio-economic impacts; and vulnerability and mitigation measures as well as adaptation strategies and programs especially in climate change sensitive areas.
 - Establishment of national emissions factors, if deemed necessary. Default factors provided by IPCC 1996 Revised Guidelines were used in the INC. The team will consider the possibility to use emission factors calculated under other studies and projects. Also, regional emission factors that are or will be developed under the GEF regional project on GHG inventories will be considered if appropriate.
 - Key sources identified and updated under the GHG inventory will be considered while making the selection of technology options. The impact of specific emission reduction actions /options will be measured (quantitative at the possible extend) against the baseline scenario. The costs and benefits will be analyzed as well.

- There should be information on climate change research and systematic observation systems. Such information will cover the status of national programs for research and systematic observation, type of observation (metrological, atmospheric), level of participation in global research systems, and needs and priorities for systematic observations. Also, information on Jordan's activities on research, training, education, public awareness, capacity building and the steps that Jordan has taken to implement *Article 6* of the UNFCCC and respective part of Buenos Aires plan of action will be documented.

III-6. Measures to Ensure the Sustainability of INC Recommendations.

55. The following measures have been outlined as a mean to ensure the sustainability of the INC as well as SNC recommendations:
- Actively participate in activities pertaining to Kyoto protocol and engage in the benefits resulting from the Millennium Development Goal projects and Kyoto protocol mechanisms.
 - Sustain and enhance the role of the CCU to continuously handle climate change issues, whether on the national, regional or international levels.
 - Emphasize the economic benefits associated with some mitigation measures (win-win opportunities).
 - Increase awareness of decision makers and encourage/support research community.

III-7. Synergies

56. The feedback obtained from the stocktaking process has identified associated projects and their link to climate change. Coordination measures have been suggested. It has been noted that little effort has been done and too little knowledge and information is available on synergies. The majority of national organizations and institutions working in environmental issues have not identified synergies in their work plans and objectives. The same applies to policies and regulations, which have focused on sectoral themes and not synergies. This leaves the room open for a wide range of national efforts for promoting and implementing synergies in the future.
57. Jordan is currently undertaking the National Capacity Self Assessment for Global Environmental Project (NCSA), which is funded by GEF and administered by the UNDP country office in Jordan. The MOE is the implementing agency and is taking the leading role in cooperation with other national agencies. The NCSA aims to assess the capacity constraints and potentials for implementing the three international environmental conventions on Biodiversity, Climate change and Desertification. The NCSA process represents the only nationally focused global initiative explicitly designed to examine potential synergies between the Rio Conventions.
58. Other projects were carried out mainly to increase energy efficiency and reduce losses, but at the same time benefited GHG emissions reduction. The most important projects are as follows:
- Jordanian-German project for the promotion of energy efficiency.

- Energy efficiency manager program.
- Energy efficiency outreach program.
- Energy and urban environment in the Mediterranean countries.
- Renewable energy projects.
- Introducing natural gas to substitute for heavy fuel oil for power generation and large industries.
- Monitoring emissions along highways
- Alternative technology at Wadi Feynan.
- Recycling projects.
- Rehabilitation of the old solid waste disposal site as a green park.

IV. Recommendations for the SNC

59. The stocktaking process has come out with a set of information and suggestions to be considered in preparing the SNC. The recommendations suggested by stakeholders can be summarized as follows:

- To adopt plans and strategies for better information dissemination of the findings of the SNC. Suggested measures include awareness campaigns for the public as well as for decision makers.
- To actively coordinate the SNC activities amongst various ministries and other stakeholders through the CCU.
- To establish a full fledged database to assist in the preparation and updating of national GHG inventories on scientific basis, and to minimize uncertainties inherent in collected or measured data due to absence of the required technical and quality control systems.
- In collaboration with concerned stakeholders, secure funds for the private and/or the academic sectors to undertake pilot projects and research activities aiming at a better understanding and assessing the extent and implications of climate change, and the potential of relevant mitigation measures.
- Since a Designated National Authority for Jordan (DNA) was established since 2003 and approved by the Prime Minister, it is recommended that this authority together the CCU play the role of a joint-action mechanism amongst various national and international concerned parties for implementing the recommendation of national communications on climate change.
- Stress more on the legal and economic factors in the mitigation options to be suggested for various economic sectors. In this aspect emphasis should be put on the win-win opportunities, i.e. achieving GHG reduction jointly with some economic benefits.
- Emphasize the concept of sustainable development and the sustainability of each of the economic sectors, and come-up with suggestions to maintain the sustainability of various mitigation options.
- Emphasize recent regional developments in the energy supply and other sectors, where the regional gas networking and electricity interconnection system has been planned and partially constructed among countries in the region.
- Emphasize health and socio-economic impacts and adaptation measures.
- Stress the need to implement capacity building activities on a regular basis.

Appendix B: Technical Components of the Project Proposal

I. Background and Project Context

60. Jordan has submitted to the secretariat of the UNFCCC its INC report in 1998, through funding from GEF, management of the UNDP and execution by the MOE. The INC report established a national inventory of greenhouse gases (GHG), assessed Jordan's vulnerability to climate change (at a later stage in 1999), and made a preliminary assessment of non-sector specific mitigation measures to reduce GHG emissions in the various sectors along with some adaptation measures. In 2004, phase II of the climate change enabling activity was conducted, and national reports on technology needs assessment (TNA) and technology transfer (TT), i.e. Enabling Activity (Add on Fund) (project no. 13174) dated 15 Nov. 2005, were submitted to the UNDP Office in Amman. In order to continue to fulfill commitments to the UNFCCC in accordance with the relevant decisions of the COP using IPCC guidelines, this project intends to prepare Jordan's SNC. The base year will be the year 2000. As a result of this project, an updated GHG emission inventory will be generated to bridge the gaps and reduce the uncertainties encountered in the previous inventory.
61. In brief, the purposes of this project are to assist Jordan with the enabling activities necessary to undertake the second national inventory, and to prepare the SNC to the COP in accordance with the UNFCCC. An additional purpose of this project is to strengthen Jordan's ability to fulfill its commitments under the Convention.

II. Project Rationale

62. In accordance with the existing norms (Article 4, paragraph 1.a of UNFCCC), the greenhouse-gas national inventory (GHGNI) of Jordan needs to be updated to prepare the country's SNC. Jordan has already published the GHGNI for the base year 1994. Through the second GHGNI, Jordan will establish new and important information for the analysis and elaboration of projections regarding the behavior of the emissions and national absorption of GHG.
63. According to the norms and directives of the INC, the SNC will take into consideration the following elements:
- National circumstances;
 - GHGNI;
 - General description of steps taken to apply the convention; and,
 - Other information.
64. In the preparation of the national circumstances for the INC, Jordan had difficulties in gathering and preparing certain required information. Such information must be updated and made complete for the SNC.
65. Through the preparation of the GHGNI (base year-1994), using the IPCC methodology (1996), Jordan has acquired experience in the collection, validation and data processing for the different sectors of national activities. Default emission factors

were mainly used and local emission factors were not developed. The development of local emission factors would make an essential activity in the SNC.

III. Project Objectives

66. This project seeks funds for Jordan to undertake enabling activities to prepare the country's SNC to the UNFCCC. As defined by the COP, enabling activities are those measures that facilitate the implementation of response measures in accordance with the UNFCCC (Decision 11/CP.2) to prepare the SNC of Jordan to the COP, in accordance with Article 12 of the UNFCCC, and to continue to build capacity to fulfil its commitments to the Convention. As this project is required for Jordan to complete its SNC, the full costs represent the incremental costs of the activities.
67. In order to continue to build the institutional capacity necessary to go beyond the INC and SNC, Jordan seeks to strengthen the technical-institutional capacity existing at a national level with regard to mitigation and adaptation measures, and legal-institutional instruments for addressing Climate Change.

III.1. Development Objective

68. The development objective of this project is to develop and enhance national capacities and facilitate the process of mainstreaming climate change issues into national planning and policy, thus enabling the country to deal with climate change and consider it not only as environmental issue but as an issue of sustainable development.
69. The project will contribute to the on-going global effort to better understand the sources and sinks of greenhouse gases, potential impacts of climate change, and effective response measures to achieve the ultimate objective of the UNFCCC, which is "to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".
70. The project helps to identify and develop projects related to climate change and mitigation of greenhouse gases, which may be eligible also for further funding or co-funding by GEF or other multilateral or bilateral organizations.
71. In addition, the project will contribute to enhance general awareness and knowledge on climate change related issues in Jordan, and to strengthen the dialogue, information exchange and cooperation among all the relevant stakeholders including governmental, non-governmental, academic, and private sectors in accordance to the Article 6 of the UNFCCC and Implementation of Buenos Aires Plan of Action.

III.2. Immediate Objectives

72. The immediate objectives of the project include:
 - Developing the Second National Inventory of GHG emissions and removals;
 - Collecting and describing the national programs being designed and initiated to abate GHG emissions and to facilitate adaptation to climate change. This will involve the description of policies, programs and measures contributing (directly

or indirectly) either to the decrease in GHG emissions or to the attenuation of climate change impacts;

- Preparing and presenting the SNC to the COP to the UNFCCC; and,
- Strengthening the interest, awareness and technical capacity at a national level to respond to the UNFCCC.

73. The following results are expected to be accomplished by the project:

- a) Consolidation of the institutional capacity of the MOE to apply the UNFCCC;
- b) A set of measures oriented towards the achievement of national aims on GHG emission reduction;
- c) Consensus in favor of the measures relative to climate change which may contribute to sustainable development;
- d) The results of a new GHGNI; and
- e) The submission of the SNC of Jordan to the COP to the Convention;

IV. Project Strategy

74. The strategy of the project is to involve expert teams already established under Jordan's INC and top-up enabling activities and institutions that have already been put in a roster mainly for the purpose of facilitation of administrative arrangements. New experts and institutions should be invited to join the teams after provision of training-of-trainers on different thematic areas. This strategy will enhance the sustainability of the teams and the process of preparation of national communication. The SNC preparation will rely on existing expertise in the country. Mobilization of local experts is a strategy for sustaining the knowledge in the related areas. This will also foster internal networking of national experts. The project will hire short-term international consultants if and when necessary. Jordan's experience in institutional and technical capacity building and development regarding National Communication should be sustained and leveraged to support the preparation of the SNC project. This experience will be utilized for taking highly into consideration climate change issues into national planning and policy and for the programming purposes such as promotion of innovative financing schemes for climate friendly technology transfer and development in the country.

75. The strategy of partnership with governmental institutions, international organizations, academic establishments and NGOs, that was found to be successful from the experience of Jordan's INC and Top-up enabling activities will be utilized and improved by bringing more stakeholders on board and building an emerging partnership with the private sector that is crucial for promoting investments of cleaner technologies in the country. The constructive role of both the CCU and the PCC will be critical to the success of this strategy.

76. The initial emphasis of the project will be on GHG inventory and assessment of vulnerability and impacts for the selected areas. Building on the results of these studies, the options to mitigate climate change by addressing GHG emissions and facilitating adaptation to climate change for the selected area will be analyzed and reviewed in the light of country development context. Gaps, uncertainties and

constraints along with other information related to the UNFCCC will be addressed as indicated by 17/CP.8. Finally, the information gained during the project will be communicated to the COP in the form of the SNC of Jordan.

V. Project Activities

77. The components of the project are described below, and include:

- National Circumstances
- Updating Jordan's GHGNI;
- Description of national efforts to mitigate GHG emissions
- Description of national efforts to adapt to climate change
- Other information considered relevant
- Constraints, gaps and capacity needs.
- Preparation of Jordan's SNC.

V.1 National Circumstances

78. The information provided on National Circumstances under Jordan's INC aimed at giving a clear and full picture of geography, climate, natural resources, relevant economic sectors, resources and infrastructure. Given that the inventory base year was the year 1994, the relevant inventory sectors were analyzed around this year (1992-1996). The information provided so far on National Circumstances lags behind the development witnessed by the country since that time. Due to the fact that important changes have taken place since the submittal of the INC, there is a strong need to update the sectors profiles, especially for energy, transport, agriculture, land use change and forestry (LUCF,) industrial processes and waste for such a time frame.

Output V.1: National circumstances reviewed, updated and described.

Activities:

- a. Validate the gaps of information identified under stocktaking exercise in the light of recent /new developments, if any.
- b. Identify the respective sources of information, and collect data and information from them in the course of the project implementation.
- c. Update and add the new information in accordance with the TORs for National Circumstances section of Jordan's SNC.
- d. Draft the National Circumstances section under the SNC in compliance with the latest guidelines.
- e. Circulate the National Circumstances section for comments and incorporate them into the report.
- f. Finalize the National Circumstances section under the SNC.

V.2 GHG Inventory

79. Jordan's first GHG inventory covered all sources and sinks as well as all gases as mandated by 10/CP.2. Estimates have been made for the base year 1994. Concerning

emission factors, in most of the cases they represented default factors provided by IPCC 1996 Revised Guidelines. The major technical constraint that has faced the inventory process is related to the activity data gaps, which is believed to have brought a high uncertainty level of estimates (uncertainty analysis was not carried out in the INC). Activity data gaps have mainly been related to the data availability at disaggregate levels. In most of the cases, activity data reported were at aggregate form. The Baseline Scenario developed under the Jordan's INC will be reviewed, in accordance with the new development conditions of the country and possibilities for future socio-economic developments. A plan that can be put into place for SNC consists of the development of a methodology for filling the activity data gaps where survey methods will be used for priority categories selected from the key source analysis in order to fill the activity data gaps, which do not exist in disaggregate form. This is the case for example of fuel combustion in industry, solid wastes, etc.

80. Jordan's second national GHG inventory will cover all sources and sinks as well as all gases as mandated by 17/CP.8. Estimates of the key sources, sensitivity analysis and uncertainty level will be provided. Also, indices such as CO₂ emissions per GDP and per Capita would be estimated mainly for comparability purposes. Estimates under Jordan's second national GHG inventory shall be made for the base year 2000. The Baseline Scenario developed under the Jordan's INC will be reviewed, in accordance with the new development conditions of the country and possibilities for future socio-economic developments.

Output V.2.1: The GHG inventory team maintained and strengthened.

Activities:

- a. Identify and mobilize national experts in targeted sectors and areas of relevance.
- b. Review the existing information on the initial GHG inventory already archived and documented.
- c. Identify new sources of information for filling data gaps.

Output V.2.2: Methodologies for GHG inventory estimates analyzed, selected and validated.

Activities:

- a. Decide on the Tier level based on the decision trees as guided by IPCC.
- b. Decide and select the methodology for estimates of emissions from the new group of GHG gases such as HFCs, PFCs and SF₆.
- c. Decide on the source categories to which filling data gaps will be carried out.
- d. Examine the application of a QA/QC plan considering relevant GEF publications on the matter.

Output V.2.3: GHG inventory data collected

Activities:

- a. Identify new activity data and possible sources of data needed for estimates of GHG emissions for 1994-2000.
- b. Collect the necessary activity data from the available sources.

- c. Decide on Emission Factors (EFs) to be utilized. Analyze the suitability of those developed under the initial GHG inventory of Jordan. Identify national studies that can provide EFs.

Output V.2.4: A completed national inventory of anthropogenic GHG emissions by sources and removals by sinks for 2000 following the latest developed guidelines. Time series 1994-2000 developed.

Activities:

- a. Prepare an inventory of anthropogenic GHG emissions by sources and removals by sinks for 2000 and time series for 1994-2000 following the guidelines adopted by COP.
- b. Develop key sources analysis and sensitivity analysis (years 1994-2000) as guided by IPCC.
- c. Develop a key sources inventory for 2000.
- d. Undertake uncertainty assessment as guided by IPCC.
- e. Circulate the inventory for internal review as part of QA/QC plan.
- f. Organize a national workshop to present findings from the GHG inventory exercise and get more comments.
- g. Incorporate comments received from the review process, and finalize the inventory to be submitted as a part of the SNC of Jordan.

Output V.2.5: GHG inventory data and estimates disseminated, documented and archived

Activities:

- a. Archive activity data, EFs and estimates.
- b. Update the training manual of GHGNI.
- c. Conduct a workshop for information dissemination.

V.3. Programs Containing Measures to Mitigate Climate Change

81. The first GHG emission mitigation analysis for Jordan performed in the frame of the Jordan's INC consisted on development of GHG baseline scenarios for the time horizon 1994-2023, which were not sector-specific. The tool used for development of those baseline scenarios was the ENPEP.
82. The TNA and TT carried out under the Top-up Enabling Activity project were a continuation of the work carried out under Jordan's INC and other related activities. This assessment of technology needs and technology transfer has been made through a sector-by-sector approach. A range of technologies was selected under a multi-criteria analysis, which involved decision makers and experts.
83. In the course of the preparation of Jordan's INC, sector-specific scenarios related to national strategies were not available for the sectors that have been under the focus of the GHG mitigation analysis. There are many new strategies and action plans recently adopted by the Government of Jordan that would have their impact on GHG mitigation in Jordan, therefore both scenarios (baseline and abatement scenarios) need to be carried out and updated. The list of abatement options for each sector must be identified in the light of new developments and needs.

84. The GHG abatement analysis under the SNC will be sector specific. The Baseline scenarios developed under Jordan's INC will be subject of revision, update and adjustments in accordance with the new development conditions. The GHG inventory base year 2000 will serve as the starting point of the GHG analysis. The GHG mitigation analysis will go up to year 2033. Mitigation scenarios will be proposed for each sector in the light of new developments and needs and key source categories. The impact of specific emission reduction actions/options will be assessed against the baseline scenario. The cost and benefit will be analyzed. Criteria of prioritization will be revisited and updated as well.
85. Once mitigation scenarios have been identified and examined, there is a need to develop programs for implementation of those abatement options especially those that are win-win options. Barriers, policy needs as well as stakeholder involvement must be taking into consideration.

Output V.3.1: Necessary data and relevant information for scenario development collected analyzed and fed into the mitigation scenarios.

Activities:

- a. Consider estimates of GHG inventory for the base year 2000, which will serve as starting point for the analysis of the GHG emissions towards 2033.
- b. Develop a comparative analysis of figures /estimates obtained under the GHG Inventory for 2000 to those figures forecasted for the same year (2000) under Jordan's INC. Define the uncertainty level for such a case and take it into account in the mitigation scenarios.
- c. Collect all relevant macro-economic data and set assumptions to be made for the purpose of mitigation scenario development.

Output V.3.2: A revised GHG baseline scenario developed.

Activities:

- a. Develop a revised baseline GHG emission scenario for all sectors (except Agriculture and forestry) for 2000-2033 by using the appropriate software such as LEAP, ENPEP, STAIR or COMAP.
- b. Identify any difference/change to the GHG baseline scenario developed under Jordan's INC, if any and, explain the reasons for such differences.

Output V.3.3: The GHG mitigation measures / technology options revisited and revised.

Activities:

- a. Re-visit the list of technology options already developed under INC, and Top-Up Enabling Activity projects for each sector under analysis. Add new GHG mitigation measures/technology options as appropriate.

Output V.3.4: GHG mitigation scenarios developed

Activities:

- a. Develop GHG mitigation scenarios for energy and related sectors (e.g. electricity supply, transport, industry, waste, agriculture and building sectors) for 2000-2033 by using appropriate software such as LEAP, ENPEP, etc.

- b. Estimate the GHG reduction potential against the baseline scenario, cost of reduction and penetration rate of each measure proposed under GHG mitigation scenarios.
- c. Develop GHG mitigation scenarios for non-energy sectors. Use IPCC software or any other sector-specific software.

Output V.3.5: A GHG mitigation analysis completed for the period 2000-2033

Activities

- a. Develop the draft chapter of the GHG mitigation analysis, and circulate it for internal and external review and comments.
- b. Organize a national workshop to highlight findings from the GHG mitigation analysis and get more comments.
- c. Sort out and examine the comments received and update the document accordingly. Finalize the GHG mitigation analysis chapter to be submitted as a part of the SNC of Jordan.
- d. Archive and document all the GHG mitigation analysis related studies and estimates.
- e. Conduct a workshop for information dissemination

V.4 Programs Containing Measures to Facilitate Adaptation to Climate Change

- 86. The Project No.JOR/95/G31/1G/99 aimed at facilitating the completion of Jordan's INC to the CoP in accordance with Article 12 of the UNFCCC. The project consisted of a study entitled 'Vulnerability and Adaptation', and was carried out during the year 2000 to study the impact assessment of climate change on water resources, agriculture, socio-economics, and the Gulf of Aqaba and the marine life.
- 87. Geography and topography have great role and influence upon the climate of Jordan, which can be divided into three climatic regions: The Ghor region (low lands), the highlands and marginal steeps region and the Badia and desert region. These climatic regions comprise the whole ecosystem of the country and consequently the land use and vegetation cover in Jordan. Therefore, the climatic regions as well as the individual ecosystems in Jordan should be taken into consideration in the SNC studies related to combating desertification, water harvesting and vulnerability and adaptation to climate change.
- 88. In the course of the stocktaking, the team agreed to focus in the SNC on topics not assessed in depth in the INC such as health and socio-economic impact and to target sensitive areas in Jordan (See Appendix A). The team agreed that the assessment of vulnerability would be sector specific, and that a special attention will be given to water resources. An integrated assessment will be done at the extent possible.
- 89. Current climate vulnerability as a new area of study and future climate risk to sectors will be assessed through the use of some indicators such as temperature (seasonal), precipitation (seasonal), wind, cloudiness, sunshine duration, the average change in mean runoff for water resources, forests area and eroded land, plant production, irrigation systems, cattle breeding, etc. Coastal tourism will be assessed in terms of the impact of the sea level rise and the rise of temperature. Impact to population/settlements will be assessed in terms of frequency and scale of droughts and flooding into people's wellbeing.

90. Designing of an Adaptation Policy Paper for Jordan by using, at the extent possible, the Adaptation Policy Framework (APF) will be the main outcome of the vulnerability and adaptation exercise under the SNC. The strategy paper will outline adaptation measures and plans of implementation (*what*); the way of implementation and resources needed (*how*); time frame (*when*); responsible parties for its implementation (*who*). It will serve as the basic document that will create the momentum for a follow-up on this process, i.e. addressing climate variability and change to the national planning and policy.

Output V.4.1: Specific approaches, tools and methods to be used under APF decided.
Pertinent data and information assembled, analyzed, and synthesized.

Activities

- a. Decide on the range of the assessment: qualitative versus quantitative. Decide on the approaches, tools and methods to be used for the assessment.
- b. Identify the type and scope of data and information needed in order to use the above models and tools.
- c. Review the policy process and development context for the selected area in order to explore how adaptation measures can be introduced into decision-making agenda and what is the best way of addressing them.
- d. Collect and synthesize the necessary data and information.

Output V.4.2: Current vulnerability and adaptation of the priority selected area assessed

Activities

- a. Develop respective indicators for the purpose of the baseline development.
- b. Develop an environmental-socio-economic baseline.
- c. Assess current vulnerability of climate and sectors under the priority area, and assess any previous adaptation experience under priority area, if available.

Output V.4.3: Future climate risk and adaptation measures assessed for the priority area.

Activities

- a. Develop climate trends and risks.
- b. Develop environmental-socio-economic trends and risks (water resources, energy, agriculture, forests, tourism, population and settlements). Put special attention to water resources as a priority.
- c. Develop adaptation response measures, identify barriers and opportunities, and compile the findings in an Adaptation Policy Paper.
- d. Develop measures for capacity building and awareness.

Output V.4.4: Chapter of Vulnerability and Adaptation (V&A) completed

Activities

- a. Develop the draft chapter of the V&A, circulate it for internal and external review and comments.

- b. Organize a national workshop to highlight findings from the V&A study and get more comments.
- c. Sort out and examine the comments received and update the document accordingly and finalize the V&A chapter to be submitted as a part of the SNC of Jordan.
- d. Archive and document all the V&A related studies and estimates.
- e. Conduct a workshop for information dissemination.

V.5 Other Relevant Information to the Achievement of the Objective of the Convention

91. Jordan's INC did not contain a separate chapter regarding Public Awareness, Education and Training. Due to the importance of these issues in ensuring the sustainability of climate change activities, the SNC of Jordan will have a separate chapter on "other information". This section will also provide information on public awareness, education, and training. The section will also incorporate any steps that have been taken to mainstreaming climate change into national development agenda and activities related to technology transfer as indicated under Article 4/CP7 and, climate change research and systematic observation systems. In addition, information on all relevant ongoing projects/programs relevant to climate change will be reported.

Output V.5.1: The information considered relevant to the achievement of objective of the UNFCCC compiled and synthesized.

Activities:

- a. Collect, synthesize and provide the overall information relevant to the Article 6 activities (Public Awareness, Education and Training).
- b. Collect, synthesize and provide information on steps taken to integrate climate change into socio-economic and environmental policies of Jordan.
- c. Collect, synthesize and provide information on climate change related research and systematic observation systems.
- d. Collect, synthesize and provide information on ongoing programs and projects relevant to climate change and National Communication process.
- e. Summarize all the information collected in a draft chapter. Distribute it for review and comments (internally).
- f. Incorporate comments to the above draft chapter and finalize it as part of Jordan's SNC.

V.6 Constraints, Gaps and Related Financial, Technical and Capacity Needs

92. In the SNC of Jordan, a separate section will be devoted to the subject. New gaps and constraints identified while undertaking each section of the SNC, would be reported along with related financial, managerial and technical capacity needs. A special attention will be paid to the previously identified gaps and needs under the INC.

Output V.6.1: Constraint, gaps and related needs (financial, technical and capacity) identified and reported.

Activities

- a. Review the status of the constraints and gaps (technical, institutional, methodological, financial, capacity building) from previous studies.

- b. Identify (if any) new constraints and gaps (technical, institutional, methodological, financial, capacity building) related to each thematic area (inventory, mitigation analysis, V&A) and elaborate the needs required to overcome them.
- c. Summarize constraints, gaps and needs identified and draft a synthesis report as a separate chapter.
- d. Distribute the draft chapter for comments, collect comments and update the chapter accordingly as part of Jordan's SNC.

V.7 SNC Prepared, Submitted and Disseminated

Activities:

- a. Compile a draft of Jordan's SNC;
- b. Circulate the draft for comments and review and incorporate them;
- c. Endorse the document by the PCC;
- d. Finalize the SNC of Jordan;
- e. Publish Jordan's SNC to the COP of UNFCCC in English, and prepare an Arabic version of the executive summary of this SNC.
- f. Prepare e-copies of Jordan's SNC in CD-ROMs;
- g. Submit officially Jordan's SNC to the COP of the UNFCCC;
- h. Organize a national workshop to launch and present the findings of Jordan's SNC;
- i. Launch the report in a side event during the COP /Subsidiary Body sessions.

VI. Institutional Framework

93. Created by the MOE, the CCU and the CCT have the experience and capability necessary to enable them to address and develop new objectives on behalf of the Government, in reference to the commitments and application of the UNFCCC. The functions of the CCU are to: (1) organize, manage and execute the activities emerging from the application of the UNFCCC, (2) prepare and implement a national work plan to reduce climate change impacts on different sectors, (3) coordinate with governmental institutions, private sector, and non-governmental organizations national projects related to GHG emission reduction from different activities, (4) coordinate with government institution, private sector and NGOs the preparation of national projects to reduce GHG emissions from different activities, (5) develop national capacity to formulate and implement climate change and related studies, (6) coordinate with international organizations that deal with climate change, (7) follow up on clean development mechanism (CDM) projects locally and international, (8) identify, disseminate and promote technologies, practices and processes for the reduction and prevention of GHG emissions, and (9) promote and develop training and public awareness activities in reference to Climate Change. The CCU, therefore, has the key role in the project, as the element in charge of developing the execution activities. It is anticipated that the CCU will build upon the institutional framework established in the earlier project.
94. To facilitate the achievement of the corresponding outputs, a detailed organization has been foreseen for the tasks of planning, assessing, supporting and monitoring. Also, the development of inter-institutional mechanisms has been considered. (see Table 4

and Figure 1). Advantage will be taken of the coordination agreements developed by the CCU with public and private institutions. Special importance will be given to the participation and involvement in the project activities of the private sector, NGOs and other planning and decision-making governmental agencies.

95. For developing the tasks and activities emerging from the project execution, the support and cooperation of several national private and public institutions is expected and will be actively sought.

Table 4. Institutions Participating in the Development and Implementation of the Project

Institutions	Type of Representation	Form	Main Activities
<ul style="list-style-type: none"> • Ministries and Departments of the National Government • General Directorates in concerned Ministries • Centers of Research and Education • Non-governmental Organizations • Industrial and Commercial Organizations • Private Consultants 	High level	National Advisory Commission	<ul style="list-style-type: none"> • Establishment of planning process
	Technical	Inter-institutional Working Groups	<ul style="list-style-type: none"> • Analysis and selection of proposed measures • Identification of needs and resources • Strategies of implementation
		Sectoral and Multi-sectoral Working Groups	<ul style="list-style-type: none"> • Determination of priorities • Identification of measures • Evaluation of measures • Preparation of proposals

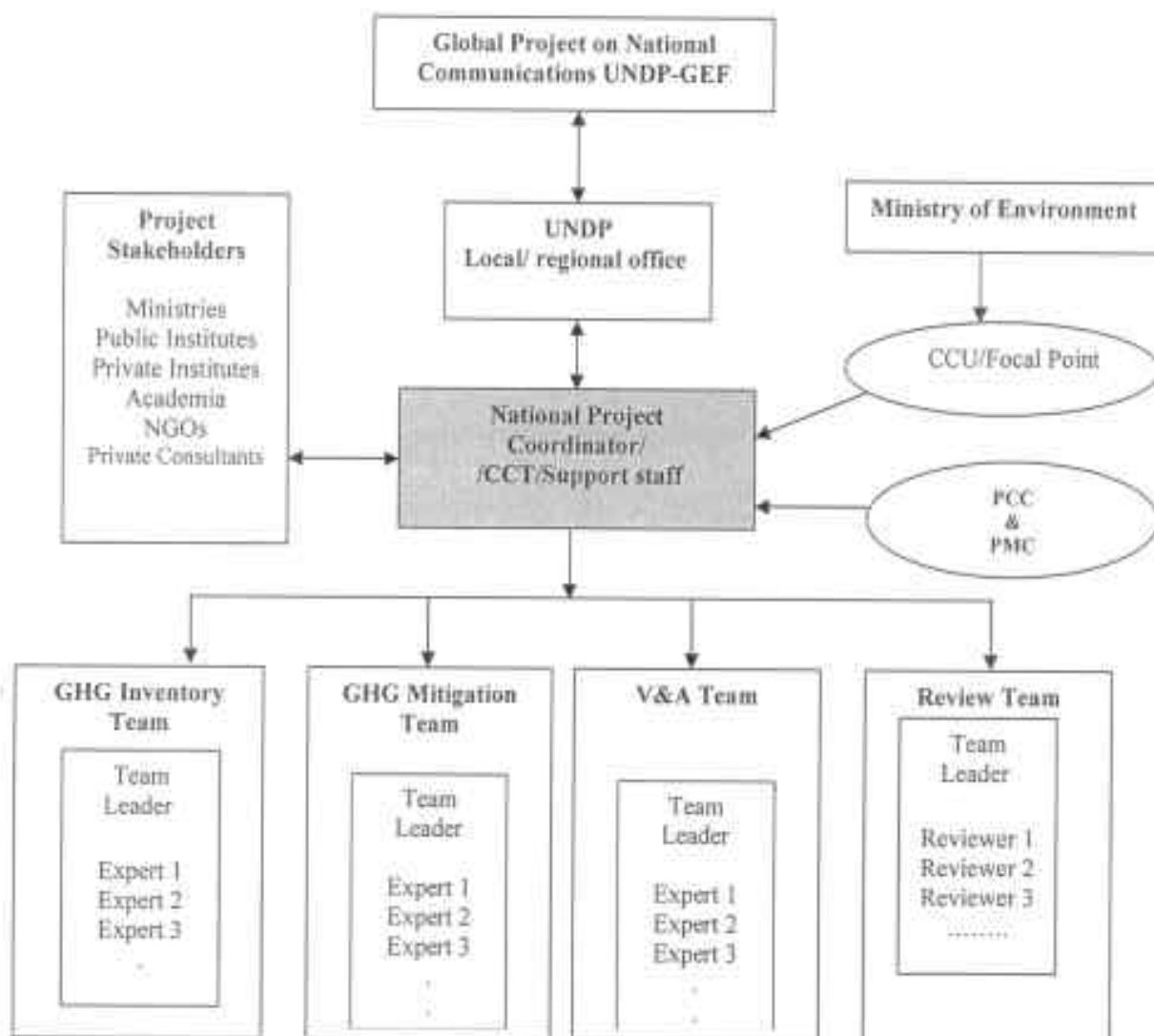


Figure 1. Institutional Framework of the SNC Project for Jordan

VII. Project Implementation

96. This project will utilize the National Execution modality with the MOE as the Executing Agency. Given that responsibility, the MOE will be responsible for the overall management of the project, primarily with regard to the achievement of the outputs (results), impact and objectives. Similarly, MOE will be accountable to UNDP for use of project resources.
97. In order to ensure the sustainability, efficient use of resources and linkages between prior and ongoing climate change enabling activities, the SNC processes will be fully executed under the same structures, already established under Jordan's INC. The Climate Change Unit at the MOE will be fully responsible not only for the planning, coordination and management of UNDP-GEF climate change portfolio but also for the overall UNFCCC implementation process.
98. A Project Coordinator (NPC), to be hired on a full-time basis (See Appendix D), will coordinate the day-to-day project execution activities and will be responsible for

meeting the objectives of the project. Administrative, finance, information and public awareness assistants will be hired occasionally as needed to assist the NPC. In addition, the NPC will supervise the work of three technical teams; namely the GHG inventory team, the GHG mitigation team and the vulnerability and adaptation team, which, will perform technical tasks and activities proposed under this project. A National Team Leader will lead each of these teams (See Appendix D). It is expected that this project will involve the majority of the experts who were previously engaged under the INC and Top-up phases. However, new comers are expected to enter the process. National experts will be coming from key relevant sectors including government agencies, academic institutions, NGOs, and private sector as necessary. National experts mentioned above will be hired on Ad-Hoc basis under Special Service Agreements. The recruitment process will be made according the UNDP rules and regulations.

99. The Climate Change Project Coordinating Committee¹ (PCC) will provide support and guidance to the implementation of this project by ensuring that the results will be disseminated to, and validated by, all the relevant stakeholders in Jordan. The composition of the PCC should be planned prior to the official launching of the project, or at the start-up phase of the project. The members of the PCC will be from, but not limited to, the relevant ministries in Jordan, UNDP- Jordan, NGOs, academic institutions, and the private sector.
100. The project will maintain links with the UNDP-GEF, which will be regularly updated for the status of activities, and will provide at the same time technical assistance as required. Technical assistance is also expected from the UNFCCC secretariat /Consultative Group of Experts (CGE), mainly through the workshops and trainings.
101. During the project inception phase, a full-time national Project Coordinator (NPC) will be contracted. Terms of Reference for the NPC are provided in Appendix D. Technical teams will be established, and short-term experts will be recruited on a part-time basis as and when needed by the project, possibly including Team Leaders for each thematic area and technical experts as member of the teams. TOR for Team Leaders are also provided in Appendix D. PCC composition will be made during the inception phase. Once the project implementation mechanisms have been in place, a project initiation workshop will be organized aiming at presenting objectives and activities of the project; clarifying the link between previous, ongoing and future climate change activities; identifying possible synergies with other projects; finalizing the project work plan and TORs. This workshop will also serve at raising awareness among the invited stakeholders about climate change issues.
102. A special meeting (scoping meeting) will also be organized for the national experts. The TORs of the SNC which detail the structure and content of each chapter of Jordan's SNC will be drafted at the start-up phase of the project and discussed during a scoping meeting with Team Leaders, Experts and PCC members.

¹ The PCC is an informal committee

103. As part of the project implementation, set-up mechanisms of communication, participation, networking and dissemination will be decided and established. An e-communication network must be maintained and upgraded for the purposes of effective communication and dissemination of relevant information received from UNFCCC, UNDP/GEF, UNIDO, IPCC and others. Moreover, links to ongoing similar project in other countries, especially from the region, will help in gaining information to support the implementation of this project and to learn from experiences of similar projects conducted elsewhere. These links will also help to identify potential international partners to cooperate with, either on this project or on the eventual follow-up projects, dealing with the implementation of the identified response measures. The project will maintain and upgrade the electronic network among national experts/institutions to ensure an effective communication and dissemination of project relevant information. The project will also maintain a national climate change web page.
104. A detailed work plan of the project distributed over the project duration of two years is shown in Table 5. The major work in the first year is devoted to project initiation and preparation of GHG inventory. The second year will be devoted to activities pertaining to mitigation and vulnerability and adaptation, and to project documentation and dissemination.

VIII. Risks

105. Difficulties in the integration and operation of the various work groups (inter-institutional, sectoral, multi-sectoral) may arise in reference to the following critical issues: (i) to gather regularly and keep a critical mass of experts interested, and (ii) to achieve an adequate degree of representation and ability. As a result of these potential difficulties, the normal operation of the group could be delayed and the institutional involvement in the activities could be hampered, thereby impacting the achievement of an acceptable level of quality in the identification, evaluation and selection of adaptation and mitigation measures. Given the importance of the outputs of the work groups in the process of developing the SNC, should any of the mentioned difficulties arises, rapid actions will be taken so that the foreseen outputs are not hampered in any of the areas or sectors affected.

Table 5. Detailed Work Plan

Outputs/Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Implementation arrangements and project inception:								
1. Contract the project office staff	X							
2. Establish technical teams	X							
3. Update the composition of the PCC	X							
4. Organize a project initiation workshop	X							
5. Organize a scoping meeting	X							
6. Maintain and upgrade the electronic network among experts/institutions	X	X	X	X	X	X	X	X
7. Update and maintain the national climate change web page	X	X	X	X	X	X	X	X
V.1: National circumstances								
1. Validate the gaps of information, identified under stocktaking	X	X						
2. Identify the respective sources of information and collect data and information from them	X	X						
3. Fill the gaps, update and add the new information		X	X					
4. Draft national circumstances sections relevant to each thematic area.			X	X				
5. Draft the National Circumstances section under the SNC				X				
6. Circulate the National Circumstances section for comment, get comments.				X				
7. Finalize the National Circumstances section under the SNC				X				
V.2: GHG inventory								
V.2.1 The GHG inventory team maintained and strengthened								
1. Identify and mobilize national experts in targeted sectors and related areas of relevance	X	X						
2. Review the existing information on the previous GHG inventory and familiarize with guidelines	X	X						
V.2.2 Methodologies for GHG inventory estimates analyzed, selected and validated.								
1. Decide on the Tier level based on the decision trees as guided by IPCC GPG	X	X						
2. Decide and select the methodology of estimates new gases: HFCs, PFCs, SF ₆		X						
3. Decide on the source categories to which surveys for filling data gaps will be carried out		X						
4. Examine the application of the QA/QC plan		X	X					
V.2.3: GHG inventory data collected								
1. Identify new activity data needed for estimates of GHG emissions for 1994-2000			X					
2. Collect the necessary activity data from the available sources		X	X					
3. Fill data gaps by undertaking surveys for needed data			X					
4. Decide on EFs to be utilized.			X					

Outputs/Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
V.2.4: A completed national inventory for 2000 along with time series 1994-2000 developed								
1. Prepare a draft inventory for 2000 and time series 1994-2000		X	X					
2. Develop key sources analysis for 2000 and sensitivity analysis (1994-2000)		X	X					
3. Develop a key sources inventory for 2000			X					
4. Undertake uncertainty assessment			X					
5. Circulate the inventory for internal review as part of QA/QC plan				X				
6. Organize a national workshop to present findings of the GHG inventory				X				
7. Incorporate comments received from the review process and finalize the inventory to be submitted as a part of the SNC of Jordan.				X				
V.2.5: GHG inventory data and estimates documented and archived								
1. Archive activity data, emission factors and estimates					X	X	X	X
2. Update the Manual of Procedures and National Inventory Report with new GHG inventory data and estimates.					X	X	X	X
V.3. Programs containing measures to mitigate climate change								
V.3.1: Necessary data and relevant information for scenario development collected, analyzed and taken into consideration for scenario development.								
1. Consider estimates of GHG inventory for the base year 2000					X			
2. Compare figures /estimates obtained under the GHG inventory for 2000 to those figures forecasted for the same year (2000) under Jordan's INC					X			
3. Collect all relevant macro-economic data and set assumptions				X	X			
4. Assess at what extent GHG abatement measures developed under INC have been undertaken into all adopted National Strategies and Action Plans.				X	X			
V.3.2 A revised GHG baseline scenario developed.								
1. Develop a revised baseline GHG emission scenario						X		
2. Identify and explain any difference / change to the GHG baseline scenario developed under Jordan's INC						X		
V.3.3: The tier of GHG abatement measures / technology options revisited and revised.								
1. Undertake GHG mitigation measures. Revisit baseline mitigation scenarios/technology options & Add new GHG mitigation measures/technology options.					X	X		
V.3.4: GHG abatement scenario developed / updated								
1. Develop / update the GHG mitigation scenario for energy and related sectors						X	X	X
2. Estimate the GHG reduction potential, cost of reduction and penetration rate of each measure proposed under GHG mitigation scenarios.						X	X	X
3. Develop / update the GHG abatement scenario for non-energy sectors						X	X	X

Outputs/Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
4. Identify any difference / change to the abatement scenario developed under INC							X	
V.3.5: A GHG mitigation analysis completed for the period 2000-2033.								
1. Develop the draft chapter of the GHG mitigation analysis and circulate it for internal and external reviews							X	
2. Organize a national workshop to present findings from the GHG abatement analysis								X
3. Sort out the findings and finalize the GHG abatement analysis chapter to be submitted as a part of the SNC								X
4. Archive and document all the GHG mitigation analysis related studies and estimates								X
V.4. Programs containing measures to facilitate adaptation to climate change								
V.4.1: Specific approaches, tools and methods to be used under APF decided. Pertinent data and information assembled, analyzed, and synthesized.								
1. Decide on the range of the assessment, approaches, tools and methods					X			
2. Identify the type and scope of data and information needed					X			
3. Review the policy process and development context for the selected area					X			
4. Collect and synthesize the necessary data and information				X	X			
V.4.2: Current vulnerability and adaptation of the priority area assessed								
1. Develop respective indicators for baseline development						X		
2. Develop an environmental-socio-economic baseline						X		
3. Assess current vulnerability of climate and sectors under the priority area and access any previous adaptation experience under priority area, if available.						X		
V.4.3: Future climate risk and adaptation measures assessed for the priority area. A policy paper for adaptation developed								
1. Develop climate trends and risks						X		
2. Develop environmental-socio-economic trends and risks						X	X	
3. Develop adaptation response measures and compile an Adaptation Policy Paper						X	X	
V.4.4: Chapter of Vulnerability and Adaptation (V&A) for the priority system completed								
1. Develop the draft chapter of the V&A and circulate it for internal and external review and comments							X	
2. Organize a national workshop to present findings from the V&A and get comments								X
3. Sort out the findings and finalize the V&A chapter to be submitted as a part of the SNC								X
4. Archive and document all the V&A related studies and estimates								X
V.5. Other relevant information to the achievement of the objective of the convention								
V.5.1: The information considered relevant to the achievement of objective of the UNFCCC compiled and synthesized								
1. Collect, synthesize and provide the overall information relevant to the Article 6					X	X		

Outputs/Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
activities								
2. Collect, synthesize and provide the information on steps taken to integrate climate change into socio-economic policies in Jordan.					X	X		
3. Collect, synthesize and provide information on the research and systematic observation systems					X	X		
4. Collect, synthesize and provide information on relevant ongoing projects					X	X		
5. Summarize all the information collected in a draft chapter. Distribute it for review and comments internally.							X	
6. Incorporate comments to the above draft chapter and finalize it as part of Jordan's SNC								X
V.6. Constraints, gaps, and related financial, technical and capacity needs								
V.6.1. Constraint, gaps and related needs identified and reported								
1. Review the status of the constraints and gaps from previous studies					X			
2. Identify new constraints and gaps for each thematic area						X		
3. Summarize constraints, gaps and needs identified and draft a synthesis report as a separate chapter						X	X	
4. Distribute the above draft chapter for comments, and update the document accordingly								X
V.7. SNC produced, translated, submitted and disseminated								
1. Compile a draft of Jordan's Second National Communication							X	
2. Circulate the draft for comments and review and incorporate them							X	
3. Endorse the document by the PCC							X	
4. Finalize the Second National Communication of Jordan								X
5. Publish Jordan's SNC to the COP of UNFCCC								X
6. Prepare e-copies of Jordan's SNC in CD-ROMs								X
7. Submit officially Jordan's SNC to the COP of the UNFCCC								X
8. Organize a national workshop to launch and present the findings of Jordan's SNC								X

APPENDIX C. Past and Ongoing Projects Related to Climate Change

Name of Project	Duration	Funding Sources	Aim
Initial National Communication	1996 - 1998	GEF, MOE	Prepare the first national communication on climate change
Top-up enabling activity	2004-2005	GEF, MOE	Develop technology needs assessment and technology transfer
Vulnerability study	1999-2001	GEF, MOE	Prepare a study on vulnerability and adaptation of selected sectors to climate change
Renewable Energy	2005/15 months	Japanese grant / World bank, MEMR	Barriers removal through resource assessment and regulation of renewable energy in Jordan.
National Capacity Self assessment	2004- 2006	GEF, MOE	Capacity needs in three areas of the conventions (Climate Change, Biodiversity and Desertification)
Energy conservation	2005 / 12 months	Japanese grant / World bank, MEMR	Study of energy audits in selected industrial and commercial enterprises in Jordan.
Geothermal energy	2005/ 8 months	Japanese grant / World bank, MEMR	Technical and economic evaluation of geothermal drilling data for energy application in Jordan
Wind energy	2003/ 9 months	Japanese grant / World bank, MEMR	Feasibility study for commercial wind energy projects in Jordan

Appendix D: Terms of Reference (TOR)s

1. TOR for National Project Coordinator

In consultation with the Project Management Committee (PMC) and the Project Coordinating Committee (PCC), the Project Coordinator (NPC) is responsible for day-to-day management, co-ordination and supervision of the implementation of the project. Specifically, his/her responsibilities are but not limited to the following:

- Supervises and ensures the timely implementation of the project relevant activities as scheduled in the work plan
- Prepares a detailed work plan for the project and drafts TORs for the subcontracts (in consultation with UNDP);
- Compiles the scope and content of the overall SNC report and relevant sections in consultation with Team Leaders;
- Develops the scope of the work and TORs and other procurement documentation required to identify and facilitate recruitment of experts and consultants;
- Identifies and hires/subcontracts the national experts and institutions (in consultation with the UNDP);
- Supervises project support staff national consultants who are recruited to provide technical assistance
- Organizes and supervises the workshops and training needed during the project;
- Liaises with the relevant ministries, national and international research institutes, NGOs, and other relevant institutions in order to involve their staff in project activities, and to gather and disseminate information relevant to the project;
- Prepares periodic progress reports of the project;
- Controls the expenditures and otherwise ensures adequate management of the resources provided for the project;
- Summarizes and synthesizes the results of the project;
- Identifies the follow up activities and mobilizes other resources at the extent possible;
- Identifies and ensures synergy of the SNC with other relevant ongoing/new projects;
- Finalizes the Second National Communication of Jordan along with the government personnel and national experts;
- Ensures that the SNC process is in the line with guidance provided by the COP of the UNFCCC and contributes to the improvement of the UNFCCC reporting process;
- Oversees the maintenance and update of Jordan's climate change web page;
- Collaborates with all relevant stakeholders and the Project Steering Committee and other partners to ensure their involvement in the SNC

Qualifications And Experience

- Master's degree in environment-related studies or other related disciplines;
- Good understanding of Jordan's environment/development issues as well as the three thematic areas under investigations;
- At least six to eight years experience in the field of desired study;
- Excellent communication (written and oral) skills in English and Arabic;
- Demonstrated experience in project management;

- Expertise in putting together results-oriented action plans;
- Demonstrated experience in working with government, donors and the United Nations system;
- Appropriate experience in working with government structures at local levels, and working with NGOs and private sector;
- Substantial knowledge in the preparation of the national GHG inventory and the Initial National Communication is mandatory
- Substantial knowledge of methodologies for inventories (*IPCC Revised 1996 Guidelines* and *Good Practice Guidance, LEAP etc*)
- Substantial experience in Government and in inter-departmental procedures preferred
- Familiarity with international negotiations and processes under the UNFCCC preferred
- Familiarity with computers and word processing
- English fluency is absolutely necessary.

2. TOR for National GHG Inventory Team Leader

The National GHG inventory Team Leader, will be hired on part-time basis and should work in consultation with and under the guidance and supervision of the National Project Coordinator. Specifically, his/her responsibilities are but not limited to the following:

- Assists the NPC in establishing the team of experts for performing the GHG inventory on the basis of the roster of experts;
- Oversees the training –of –trainers sessions on GHG inventory.
- Assists NPC to organize GHG inventory relevant training and workshops.
- Prepares a detailed work-plan for GHG inventory exercise on the basis of the overall project work plan.
- Provides periodic progress reports to the NPC on the GHG inventory thematic area;
- Develops the scope of work and respective terms of reference for the team members;
- Leads the data collection process, including surveys.
- Leads and oversees the team to conduct the GHGs national inventory;
- Ensures synergy with Regional Projects on GHG inventories;
- Ensures the timely and effective management of the activities as scheduled;
- Selects and implement, in consultation with NPC, the methodologies for the conducting of GHGs inventory;
- Identifies gaps and key sectors for GHGs inventory;
- Incorporates comments received from the review process.
- Drafts the National Inventory Report and respective chapter of Jordan's SNC along with the respective part of the executive summary.
- Leads and coordinates the updating of the Manual of Procedures in the light of the new findings under the SNC exercise.
- Archives new data and estimates of new inventory.

Qualifications and experience

- An advanced degree in energy, environmental management or other fields relevant to the project;
- A minimum of 7 years of working experience in the area relevant to the Climate Change;
- Substantial involvement in the preparation of the First National Communication is mandatory (GHG inventory and abatement analysis);
- Good understanding of GHGs inventory process and demonstrable knowledge of IPCC and GPG;
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing (EXCEL; ACCESS)
- Fluency in English;

3. TOR for GHG Abatement Analysis Team Leader

The team leader of GHG Abatement Analysis will be hired on part-time basis and should work in consultation with and under the guidance and supervision of the National Project Coordinator. Specifically, his/her responsibilities are but not limited to the following:

- Assists the NPC in establishing the team of experts for performing the GHG abatement analysis on the basis of the roster of experts;
- Prepares a detailed work-plan for GHG abatement analysis on the basis of the overall project work plan.
- Provides periodic progress reports to the NPC on the GHG abatement analysis thematic area
- Develops the scope of work and respective terms of reference for the team members;
- Leads the data and information collection process.
- Decides, in consultation with NPC, on methodologies for the elaboration of scenarios. Leads and oversees the scenario development and update
- Organizes the scheduled consultations/workshops and ensure their success;
- Ensures synergy with other relevant projects;
- Ensures the timely and effective management of the activities as scheduled;
- Incorporates comments received from the review process.
- Drafts the GHG Abatement Analysis Report and respective chapter of Jordan's SNC along with the respective part of the executive summary.
- Oversees the documentation and archiving of the studies made.

Qualifications and experience

- An advanced degree in energy and/or environmental management or other fields relevant to the project;
- A minimum of 7 years of working experience in areas relevant to the Climate Change;
- Substantial involvement in the preparation of the First National Communication is mandatory (inventory and abatement and analysis);
- Good understanding of GHGs inventory process and projection;
- Demonstrable knowledge of IPCC 1996, IPCC GPG, LEAP etc.
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English;

4. TOR for V&A Team Leader

The Vulnerability and Adaptation sector team leader, will be hired on part-time basis and should work in consultation with and under the guidance and supervision of the National Project Coordinator. Specifically, his/her responsibilities are but not limited to the following:

- Assists the NPC in establishing the team of experts for performing the V&A on the basis of the roster of experts;
- Prepares a detailed work-plan for V&A on the basis of the overall project work plan.
- Provides periodic progress report to the NPC on the V&A thematic area.
- Develops the scope of work and respective terms of reference for the team members.
- Leads the data and information collection process for performing the V&A study.
- In consultation with NPC, decides on approaches (not concluded under stocktaking phase) to be used if necessary;
- Leads and oversees the development baseline climate and socio-economic scenarios and impacts of climate change.
- Organize the scheduled consultations/workshops and ensure their success.
- Ensures synergy with other relevant projects
- Ensure the timely and effective management of the activities as scheduled.
- Incorporates comments received from the review process.
- Drafts the V&A report and respective chapter of Jordan's SNC along with the respective part of the executive summary.
- Oversees the documentation and archiving of the studies made.

Qualifications and experience

- An advanced degree in energy and/or environmental management or other fields relevant to the project;
- A minimum of 7 years of working experience in areas relevant to the Climate Change;
- Substantial involvement in the preparation of the initial National Communication is mandatory (V&A);
- Good understanding of climate change and sustainable development issues;
- Demonstrated ability of analytical and drafting work;
- Demonstrable knowledge of IPCC 1994, MAGIC / SCHENGEN etc.
- Familiarity with computers and word processing;
- Fluency in English;

5. TOR for Project Coordinating Committee

In order to ensure a successful implementation of the UNDP-GEF climate change project, the Ministry of Environment of Jordan as the Executing Agency of this project has agreed on establishment of a Project Coordinating Committee (PCC), being chaired by the National Project Coordinator (NPC) and composed of senior officials from the relevant ministries, research institutes, UNDP, NGOs and academic institutions.

Since a National Climate Change Committee (NCCC) has already been established in Jordan by the Prime Ministers' decree dated 3rd April 2001, and since NCCC works under the umbrella of the Ministry of Environment and includes representatives from all concerned institutions, it may be beneficial to assume that the NCCC will play the role of the PCC after having the composition of its members modified as appropriate.

The duties, responsibilities and operating rules of the above PCC are as follows:

- Provides assistance and political support to National Project Coordinator and national experts and counterparts during the implementation process of all project activities.
- Reviews and makes necessary comments on all draft documents prepared by the national climate change team
- Receives information on a regular basis about the status of implementation of the project activities and problems faced with. The NPC submits the status report on the implementation of project activities.

Rules under which PCC operates:

- NPC serves as Moderator of PCC meetings. NPC chairs the PCC meetings
- PCC meets not less than three times during the project lifetime. In special cases the PCC shall meet upon the initiative of the NPC.
- When the PCC does not meet, the NPC may request inputs and support from individual members of the PCC.

In principle, the PCC shall operate on the basis of consensus. If consensus cannot be reached, then the case under discussion might be put to a vote. Voting is performed through secret balloting.

6. TOR Project Management Committee (PMC)

Membership

Initial membership consists of:

- Ministry of Planning and International Cooperation
- Ministry of Environment
- UNDP

Duties

- Review, comment upon and recommend changes of quarterly work plans and budgets, project monitoring and evaluation reports, and progress reports;
- Follow up, approve and recommend administrative issues of the project such as recruitment, TOR's, etc.
- Ensure consistency with the NEX execution modality.
- Facilitate co-ordination with other government projects and programs;
- Facilitate consultation with, and participation of, a broad range of stakeholders;

At the first meeting of the PMC, the PMC members will review this TOR and the PMC membership, and adopt changes as appropriate.

PMC Procedures

Each 3 months, following the project document signature, the National Project Coordinator will distribute to the PMC a progress report describing project progress, the financial status of the project, and any other information required by the PMC.

Meetings

The PMC shall meet at least quarterly during the duration of the project. More frequent meetings are possible, if need arises. The Ministry of Environment will organize the meetings and the National Project Coordinator will act as Secretary. The NPC will prepare and distribute all concerned documents in advance of meetings, including the meeting agenda. The NPC will prepare the Minutes of Meeting of the PMC, which are to be signed by the participants and kept on file.

Appendix E: Endorsement Letter from GEF OFP and UNFCCC Focal Point

THE HASHEMITE KINGDOM
OF JORDAN

Ministry of Planning and
International Cooperation

AMMAN



المملكة الأردنية الهاشمية

وزارة التخطيط والتعاون الدولي

عمان

Ref. No.

الرقم

Date

التاريخ

الموافق 28-12-2005

H.E. Mrs. Christine McNab,
Resident Representative,
United Nations Development Programme,
Amman,
Jordan

**Subject: Project Proposal for the Preparation of Jordan's Second National
Communication to the United Nations Convention on Climate
Change (UNFCCC).**

Dear Mrs. McNab,

In reference to the above-mentioned subject concerning the GEF funding project document on Enabling Activities for the Preparation of Jordan's Second National Communication to the UNFCCC.

Kindly be informed that the objectives of the proposed project found to be consistent with national priorities in updating the Greenhouse Gas Inventory and will help Jordan to meet its obligation towards the UNFCC.

Therefore, the Ministry of Planning and International Cooperation in its capacity as Political and Operational Focal Point for the Global Environmental Facility (GEF) is pleased to support and endorse the above project proposal for GEF support and funding.

I would highly appreciate it if you could kindly take the necessary action in this regard, and communicate this endorsement letter to the GEF Secretariat.

Please accept my high esteem and consideration.

Sincerely yours

Kamal Khdir

Advisor

GEF Operational Focal Point

Ministry of Planning and

International Cooperation

Dr. Kamal M. Khdir

Advisor

cc: Ministry of Environment

هاتف : ٨٥ / ٤٦٤٤٣٨١ / ٧٠ - ٤٦٤٤٤٦٦ / ٩٦٢ - ٩٦٤٤٤٦٦ / ٧٠ - ٤٦٤٩٣٤١ - ٤٦٤٢٢٤٧ برفقياً NPC جو - ص.ب ٥٥٥ عمان ١١١١٨ الأردن

Tel.: (+962 6) 4644466 / 70 - 4644381/85 Telefax: 4649341 - 4642247 - Cable: NPC Jo - P.O.Box 555 Amman 11118 Jordan

E-mail : mop@mop.gov.jo

قرار رقم 346 / 2004



Ref. : 7.2.4839
Date : 27.12.2005

الرقم :
التاريخ :
الموافق :

To: H.E. Mrs. Christine McNab
Resident Representative
UNDP/Amman

Subject: Project Proposal for the Preparation of Jordan's Second National Communication to the United Nations Convention on Climate Change.

Excellency,

On behalf of the Government of Jordan and, in my capacity as UNFCCC Focal Point, I hereby endorse the request of funding for 405,000 USD for the above mentioned activity, to be presented through the United Nations Development Program (UNDP) to the Global Environment Facility.

In doing so, I express my agreement with the content of the project proposal and with its implementation arrangements.

I look forward to your kind consideration in this matter.

Sincerely,

Eng. Faris Al-Junaidi

UNFCCC Focal Point
Secretary General
Ministry of Environment
Jordan

Appendix F: Signature Page

Country: Jordan

UNDAF Outcome(s)/Indicator(s): Improved performance of public sector and specialized entities to meet their obligations towards global conventions and the national socio economic policy/ Honouring Commitments of the Ratification of global Environmental Conventions.

Expected Outcome(s)/Indicator (s):
(CP outcomes linked to the SRF/MYFF goal and service line) Jordan's Second National Communication (SNC) / SNC adopted by the Jordanian Government

Expected Output(s)/Indicator(s):
(CP outcomes linked to the SRF/MYFF goal and service line) Jordan's SNC finalized / publication of SNC

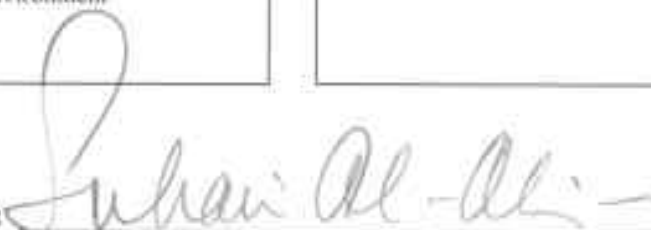
Implementing partner: Ministry of Environment

Other Partners: Ministry of Planning and International Cooperation

Programme Period: 2003 - 2007
Programme Component: MYFF S.L. 3.1- Energy and Environment for Sustainable Development
Project Title: Enabling activities for the preparation of Jordan's second national communication to the UNFCCC
Project ID: PIMS number: 3436
Project Duration: 2 years
Management Arrangement: NEX,
GEF Executing Agency: Ministry of Environment

Budget:	405,000 \$
General Management Support Fee	
Total budget:	455,000 \$
Allocated resources:	
• GEF	405,000 \$
• In kind contributions	50,000 \$

Agreed by (Government):



Ministry of Planning and International Cooperation

Agreed by (UNDP):

