

**Country:** Islamic Republic of Mauritania

**Project Title:** *Mauritania: Enabling Activity for the Preparation of Initial National Communication to the UN Framework Convention on Climate Change.*

**GEF Focal Area:** Climate Change

**Country Eligibility:** Ratified UNFCCC on 20 January 1994

**GEF Financing:** US\$350,000

**Government Counterpart Financing:** US\$ 80,000

**GEF Implementation Agency:** UNEP

**Executing Agency:** Direction de l'Environnement et de l'Aménagement Rural (DEAR)

**Local Counterpart Agency:** Faculté des Sciences, Université de Nouakchott.  
Centré National de Recherche Agronomique et du Développement de l'Agriculture (CNRADA).  
Ministère du Développement Rural et de l'Environnement (MDRE).

**Estimated Starting Date:** July 1997.

**Project Duration:** 24 months

## BACKGROUND

1. The Islamic Republic of Mauritania is a West African country with an approximate area of 1.03 million km<sup>2</sup>. It is bordered by Senegal, Mali, Algeria and the Territory of Western Sahara in the south, east and north, and by the Atlantic Ocean (over a 750 km coastline) in the west. The country has about 2.3 million inhabitants. The mean annual population growth rate is about 3%.

2. Mauritania's climate is typically hot and dry. Most of the country lies north of the intercontinental discontinuity (ITD) almost all year round. The territory is thus influenced by dust laden NE trade winds from the Sahara desert most of the year. Many parts of the country do not have rain for most times of the year, and sometimes for a few years. Also, only about 10% of the country has annual rainfall in the range 250-400 mm. As a result of these, long periods of severe droughts are common. Such droughts have continued in Mauritania since the early 1970s, when most of the Sahel savanna zone of Africa started experiencing severe droughts.

3. Climate data indicate that Mauritania is among the zones with highest severity of dryland soil degradation worldwide. Data for the periods 1930 to 1959 and 1960 to 1989, show that the area has witnessed a gross temperature rise of about 0.5 °C, a 10-30% decrease in gross precipitation, and general decrease in moisture availability.

4. Approximately 60% of Mauritania's total land area is pure desert. Most of the rest fall within the semi arid and arid zones, predominated by the Sahel savanna. However, near the coast and in the Senegal River valley is an area of over 450 kha of fertile alluvial plains. This arises from annual flooding in the region and provides water for flood recession agriculture.

5. The coastal zone covers about 2 to 3% of the country's land area but supports about 0.5 million inhabitants (22% of the total population). It is known for high fish productivity.

## SOCIO-ECONOMIC DEVELOPMENT

6. Mauritania is now classified as a low-income developing country. Approximately 80% of the population live "absolute poverty", by UN standards. It was formerly rated as a middle income developing country. This may be due to factors such as long periods of droughts and drop in its commodity prices, which led to deficit budgeting and substantial external debt load in the past few years. Only 35% of adults over 15 years of age are literate. Mortality rate for children under 5 years of age is approximately 202 per 1000.

7. The Mauritanian economy is heavily dependent on its natural resource base. Pastoralism is still the dominant rural activity. In 1991, this accounted for about 85% of the country's rural sector GDP and 19% of the total GDP. The majority (47% of a total labour force of 0.7 million) of the population are employed in the agricultural sector. The remaining labour force are distributed as follows: services (29%), industry/commerce (14%) and government (10%).

8. The major sectors contributing to Mauritania's GDP are: agriculture & fisheries (25%), industries (30%), Services (42%) and other (3%). The country's GNP in 1993 was US\$ 1,087 million or a GNP of US\$ 510 per person.

## **AGRICULTURE, LAND USE AND FORESTRY**

9. Mauritania is not self sufficient in food production. Less than 1% of the total land area receive sufficient rainfall to sustain crops. The main crops include dates, millet, maize, rice, wheat, sorghum and various root crops. Investments in irrigated agriculture through bilateral and multilateral funds have been used to improve crop production in the country. National statistics show that livestock populations in Mauritania have been on the decline for some years now. During the 1991 to 1993 period, the annual rate of decline was highest for cattle (9.5%/year) and least for camel (1.4%/year). Fish and fish products (which contributed 50% of the total export earnings in 1993) is very important to the country's economy.

10. Land use issues in the Mauritania have been closely related to the socio-economic changes in the country. The last 30 years has witnessed increased southward movement of pastoralist and farmers. Rapid urbanization, drought, wood products extraction, and agricultural activities have led to increased competition for land. They form the major activities leading to land use change in the country.

## **MINING AND INDUSTRY**

11. Mauritania has large deposits of several key minerals including iron ore, gypsum, copper, and phosphate. The exploitation of these have increased since commercial mining began in the 1960s. Reserves of gold, sulphur, and peat are also considered exploitable. Butane gas deposits are available and are exploited. As many as 80 small/medium scale industries also exist. A petroleum refinery located in Nouakchott has an annual output of 800 kt of petroleum products. About two-thirds of these are for exports.

## **ENERGY SUPPLY AND DEMAND**

12. Commercial electricity generation increased nearly 4-fold since the 1960s. From 38.4 million kWh generated in 1967, the capacity rose to 146 million kWh in 1992, but slightly declined to 135 million kWh in 1993. This has been largely thermal. However, Mauritania also benefits 15% of the 800 million kWh hydroelectric scheme of the Manantali Dam inaugurated in 1992 on the Senegal River. The facility is shared by Senegal, Mali and Mauritania under the Organization for the Development of the Senegal River (OMVS).

13. About 39 PJ of commercial energy was consumed in 1993, representing more than 500% increase over consumption estimates for 1973. Petroleum products are primarily consumed in the transport, industries, commercial sectors and residential areas. A large portion of the population still depend on traditional biomass sources for domestic energy requirements. The consumption traditional biomass fuels constitute about 86% of total energy consumption.

## **NATIONAL INSTITUTIONAL FRAMEWORK**

14. The Ministry of Rural Development and Environment (MDRE) has the overall responsibility for implementing national policies related to environmental protection.

15. Under the MDRE, the Direction de l'Environnement et de l'Aménagement Rural (*DEAR*) has been identified as the institutional focal point for the implementation of the UN Framework Convention on Climate Change (UNFCCC).

16. To ensure coordination with other national institutions whose activities focus on such environmental issues as desertification control, a National Council for Environment and Development (CNED) was created. It is chaired by the Minister of Rural Development and Environment in collaboration with the Minister of Fishing and Maritime Economic Affairs. The CNED brings together several government departments, in the environment/development sector. CNED also has representation from regions where regional level environmental councils (CRED) have been established. An inter-ministerial technical committee for environment/development (CTED) has also been created as a subsidiary body to advise the CNED on the implementation of national environmental policy. CTED is chaired by the Secretary Général, Ministry of Rural Development and Environment.

17. The CTED has also been identified as the appropriate institution for the coordinating climate change related activities in Mauritania as it represents various ministries, educational institutions, the private sector, and national environmental NGOs. The Permanent Secretariat of both CNED and CTED is chaired by DEAR.

### **ENVIRONMENTAL LEGISLATION**

18. Although Mauritania is yet to enact any comprehensive environmental legislation, regulations related to the water resources, pasture, land, and public health exist. Two laws have recently been approved by the Parliament that regulate the exploitation of forest reserves and hunting.

19. UNEP's Environmental Law Unit is collaborating with UNDP to assist Mauritania in developing additional environmental legislation as part of the *"Project for Capacity Building Support for the National Agenda 21 of Mauritania"*. This project is in the earliest stages and is expected to be implemented during 1997 and 1998.

### **PAST AND ON-GOING PROJECTS RELATED TO CLIMATE CHANGE**

20. Through the Groupe de Recherche et d'Echanges Technologiques, the Government of Mauritania is implementing the UNDP/GEF project *"Decentralized Wind Electric Power for Social and Economic Development"*. This demonstration project is examining the potential of wind energy to support off-grid delivery of electricity to rural areas.

21. The DEAR is also implementing a rural development project promoting the use of improved wood stoves to increase the efficiency in the use of biomass fuels for cooking.

22. The European Community (EC) through the National Cell for Energy Alternatives (CNEA) is funding project on fuel switching from fuelwood/charcoal to butane gas in urban areas. The EC is also funding small scale projects on limited use of photovoltaic and wind-driven water pumps.

### **MEASURES TO FULFILL COMMITMENTS UNDER THE UNFCCC**

23. The Government of Mauritania ratified the UNFCCC on 20 January 1994. Mauritania has not undertaken any studies required to complete its initial national communication. The country has also ratified/acceded to the following international environmental conventions:

- (a) Convention on Biological Diversity (Ratified on 16 August 1996).

- (b) Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Acceded to on 16 August 1996).
- (c) United Nations Convention to Combat Desertification (Ratified on 7 August 1996).
- (d) Vienna Convention for Protection of the Ozone Layer (Acceded to on 26 May 1994).
- (e) Montreal Protocol on Substances that Deplete Ozone Layer (Acceded: 26 May 1994).
- (f) United Nations Framework Convention on Climate Change (Ratified: 20 Jan. 1994).
- (g) Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Acceded to on 22 February 1982).
- (h) Convention on the Conservation and Protection of Migratory Species (Acceded).

### PROJECT OBJECTIVES

24. The immediate objective of this project is to facilitate the preparation of the initial national communication for the Islamic Republic of Mauritania to the Conference of the Parties (CoP) in accordance with articles 12.1 of the UNFCCC. The broad objective is to enable Mauritania identify the principal anthropogenic activities contributing to climate change; evaluate potential effects of these on climate, resources, ecosystem and associated species. Finally, to identify the most cost-effective mitigation options to contain the potential climate change and its impacts in the long term.

### PROJECT DESCRIPTION

25. In line with the "*GEF Operational Guidelines for Expedited Financing of Initial Communication from Non-Annex 1 Parties (February 1997)*", this project will support the implementation of the following activities:

#### Activity 1: Establishment of Project Management and National Study Teams

26. On approval of the project, the Project Management Team (PMT) and the National Study Team (NST) will be established under the auspices of DEAR, in consultation with relevant agencies. The DEAR will maximize the use of available national expertise and institutions in the formation of PMT and NST.

27. The NST will comprise four core groups: GHG inventory, Mitigation Options, Impact/Vulnerability Assessment and Adaptations, and National Communication. Each core group will comprise national experts from public/private sector institutions, and NGOs.

28. A Project Coordinator will be appointed by DEAR to coordinate all project day-to-day activities and to act as liaison between the Government of Mauritania and UNEP through DEAR. The Director of DEAR, the Project Coordinator, and the team leader of each NST will form the core of the PMT, and will be supported by a secretary and telecommunication facilities, including the internet. The *CTED* will oversee the activities of the project and advise the DEAR on project implementation.

## Activity 2: GHG Inventory

29. This activity will be carried out by the GHG Inventory Sub-Group of the NST. The group will undertake national inventories for CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O in accordance with the new "GEF Operational Guidelines for Expedited Financing of Initial Communication from Non-Annex 1 Parties (February 1997)". If possible, inventories may be provided for other GHGs.

30. The GHG inventory for 1994 will be undertaken based on the latest version of the "IPCC Guidelines for National Greenhouse Gas Inventories". The following sectors will be covered in the inventory: (a) all energy sectors; (b) industrial processes; (c) agricultural processes; (d) land use change and forestry activities; and (e) any other sector(s).

31. A data collection/management system will be set up to enable regular and efficient update of the GHG inventory. Data will be collected, sorted/stored in formats consistent with inventory requirement. Gaps in national database will be identified for updates.

32. For most Non-Annex 1 Parties, national GHG emissions data is known to be weak. The use of generalized "IPCC Guidelines for National GHG Inventories" default emission factors for most emission relevant activities has been a major source of uncertainties in GHG inventories for these countries. During this project, estimates of Mauritanian specific emission factors in the land use, biomass energy use, agriculture, waste management will be undertaken, where possible.

33. This activity will be coordinated with the regional efforts, such as CC: TRAIN (Phase II) and UNDP's "Building Capacity in Sub-Saharan Africa to Respond to the UNFCCC". A few technical personnel from the Mauritania may work with a country in the region, with experience in the IPCC methodology, and the techniques of emission factor estimates, data collection/analysis and schemes for fair estimates of unavailable national data.

34. A workshop to enable experts review and to present results to policy makers and national planners will be held at the end of the study.

### Major Outputs

35. The major outputs will be:

- (a) database management system.
- (c) recommendations on areas of targeted research to improve future inventories.
- (d) a program for regular updating of the inventory.
- (e) national inventory emissions database for 1994 and a workshop report.

## Activity 3: Programs to address Climate Change Adverse Impacts Including Abatement and Sink Enhancement.

36. This activity will be carried out by the Mitigation Analysis Sub-Group of the NST. The group's membership will be drawn from relevant public/private sector agencies and NGOs. The group's ability to carry out the tasks will be adequately strengthened.

37. Based on the 1994 GHG inventory, a range of potential mitigation options for various sectors will be identified. Mitigation scenarios will be based on a number of socio-economic and technology options for minimizing GHG emissions in the long term. The sectors where GHG mitigation will be undertaken in Mauritania include: energy, land use change, agriculture, industries, and waste management.

38. Mitigation analysis will be carried out using the best available models, with adequate transparency. Models must however be those that best fit Mauritania's state of economic development, especially with regard to industrial and energy sector development. Mitigation analysis may not be carried out for all sectors initially. Scale analysis be used to identify sectors associated with highest GHG emissions in the country for initial mitigation analysis.

39. A workshop will be organized to present the results to selected experts, national/private sector institutions and NGOs. The workshop will also educate policy makers and planners on the significance of these results to national planning.

### **Major Outputs**

40. The major outputs will be:

- (a) mitigation analysis database.
- (b) the mitigation options and the extent of mitigation possible.
- (c) policy tools needed to implement each mitigation option.
- (d) the first national mitigation strategy, and a workshop report.

### **Activity 4: Policy Options for Monitoring Systems/Response Strategies for Impacts**

41. This activity will be undertaken by the Impacts, Vulnerability and Adaptation Assessment Sub-Group of the NST. The group's ability to carry out these tasks will be adequately strengthened.

42. A comprehensive assessment of the potential impacts of climate change will be undertaken in the following sectors: forest/land use, coastal ecosystems, water resources, energy, agriculture, human health, and aquatic life. In particular, the implication of future climate change in enhancing the desertification problem in Mauritania will be assessed.

43. The assessment of impacts will include the development of scenarios for future climate change using baseline national climate, GHG emissions and other relevant data as input into the general circulation models (GCMs). The scenarios will include the possible doubling of CO<sub>2</sub> concentrations. The output of the GCMs will provide the database for expected climate change. From these, the vulnerability of specific ecosystems and associated species will be evaluated based on climate-ecosystem response models. Vulnerability of resources (especially due to sea level rise in the coastal region) to climate change will also be analyzed. Possible changes in air quality, water quality, atmospheric deposition, etc and the potential impacts on health will also be obtained.

44. A workshop will be held to enable experts review the results. This workshop will also publicize the results and educate policy makers and planners on how to make good use of

these results in national planning for sustainable development.

### **Major Outputs**

45. The major outputs of the proposed activity will include:

- (a) baseline data for assessing future climate change.
- (b) climate-ecosystem response models adaptable to the Mauritania.
- (c) extent of vulnerability of resources, ecosystems and species.
- (d) required response option(s).
- (e) Workshop report.

### **Activity 5: Policy Options for Implementing Adaptations Measures and Response Strategies.**

46. This activity will be carried out by the Impacts, Vulnerability and Adaptation Sub-Group of the NST. The capacity of the group to undertake the tasks will be strengthened, where necessary.

47. From the results of the impacts and vulnerability assessment (Activity 4), the group will identify, analyze and assess a range of potential adaptation (stage 1) options. Based on these studies, the extent of response required, the cost scenarios, and policy option(s) to meet these will be identified and presented for each response strategy identified. From these, national policy framework for response will be formulated for implementation. This policies will adequately address integrated coastal zone management, preparedness plans for timely response to natural disasters such as drought and floods, and plans for reducing desertification.

48. A workshop will be conducted to enable experts review the results of the adaptations and measures studied. Policy makers and planners will be educated on these adaptation options, response strategies and policy framework for containing the identified impacts.

### **Main Outputs**

49. The major outputs of the activity will be as follows:

- (a) The identification of adaptation (stage 1) options.
- (b) Policy frameworks for implementing adaptation measures and response strategies.
- (c) Plan for effective and timely response to natural disasters.
- (d) Production of workshop report.

**Activity 6: Building Capacity to Integrate Climate Change Concerns into Planning**

50. The strengthening of national capacity to integrate climate change concerns into national planning in the short, medium and long term will be undertaken. This will involve the education and training of policy makers/planners on how common national socio-economic issues influence climate change and sustainable development.

51. At the inception and completion phases of the project, the DEAR will organize an initial and final national workshops to: (a) introduce the plans and aims of the project, as well as the potential benefits of the project to the Mauritanian economy if successfully implemented, and (b) present the results and recommendations of the various studies to national policy makers, national institutions, and NGOs. Both workshops will have the widest possible participation.

52. A Policy makers's summary of the results of the different activities will be produced at the end of the studies. This will provide policy issues relevant to each aspect of the project results in a simplified manner, as well as act as easy reference material to policy makers and planners.

**Major output**

53. The major outputs will be:

- (a) strengthening of the capacity of planners and policy makers.
- (b) workshop reports.

**Activity 7: Programs Related to Sustainable Development, Research, Public Awareness, etc**

54. Use will be made of independent and government owned media to report and inform the public on activities/issues related to climate change periodically. The initiation of youth clubs whose activities center on environment and development at high schools and tertiary institutions may also be encouraged.

55. The activity will assess the current and future national development pathway, and identify programs/policy frameworks required to enable the country to evolve with the concept of sustainable development, for every project or national program initiated.

56. The activity will also evaluate how some traditional practices, socio-economic circumstances, and the general level of educational awareness affect climate change and sustainable development conception. In this regard, the assessment of the optimal level growth in the educational sector will be carried out, if possible. If undertaken, scenario analysis with minimum socio-economic data will be used to illustrate the possible options for funding education to attain the desired capacity for the public to understand and contribute positively to sustainable development in the country and climate change mitigation in the country. Such contributions may be passive, but largely based on their ability to make the most judicious decisions in their various work places, by observing the principles and practice of conservation. The associated costs for each of these scenarios will be evaluated so that the least cost options could be identified for long term implementation.

57. Climate change friendly pilot projects which will require private sector and community participation will be introduced and launched in selected communities. Such project schemes will be geared towards ensuring community participation to create the required public awareness. The support of private sector agencies and NGOs will be solicited to fund such pilot projects.

### **Major Outputs**

58. The major outputs of the activity are:

- (a) general training needs to support sustainable development
- (b) community based projects.
- (e) Information packages, video/audio aids, and relevant publications.

### **Activity 8: Provision of Other information**

59. The activity will provide other relevant information required to achieve the broad objective of the UNFCCC under Article 4. These will include:

- (a) relevant materials/data for GHG emission trends analysis;
- (b) the financial/technological resource needs and constraints for containing future climate change.
- (c) needs and constraints required to reduce uncertainty margins in future national communications.
- (d) research needs for assessing of the interaction of desertification in Mauritania with the climate system may be carried out, where possible.

### **Major Outputs**

60. The major output of the activity will include:

- (a) GHG emission trend analysis data.
- (b) research, technological and financial needs/constraints for providing data to manage the Mauritanian climate system/reducing uncertainty margins future communications.

### **Activity 9: National communication**

61. Based on the outputs of this and other on-going projects, the first national communication of Mauritania to the CoP will be prepared in line with Article 12 of the UNFCCC. The draft version will be reviewed by consultant or a competent institution. A meeting to enable experts and policy makers review the draft national communication and ensure that the document meets the desired scope and quality and reflects the national policies on sustainable management of climate change in the long term, will be organized. Based on these, the revised final draft will be presented to the government, through the MDRE and CTED for approval. The approved first national communication for Mauritania will then be submitted

to the COP of the UNFCCC.

62. The structure and content of initial national communications will conform with the new "GEF Operational Guidelines for Expedited Financing of Initial Communications from Non-Annex 1 Parties (February 1997)".

### **PROPOSED WORK SCHEDULE**

63. The timetable for commencement and completion of all activities described above is given in Table 1. Detailed work plan for each activity will be developed by the PMT with the assistance of UNEP. UNEP will be consulted throughout the duration of the project through regular progress, administrative, and financial reports.

### **ACTIVITY MATRIX**

64. The national activities (Table 2) supported by this project are intended to complement climate related projects in Mauritania that are either ongoing, proposed or completed. There will be no duplication between the proposed activities and on-going or future activities.

### **PROJECT FINANCING AND BUDGET**

65. As the proposed activities are standard enabling activities as defined by the GEF Operational Criteria, the incremental cost for undertaking these activities are full cost. The total funding requested is US\$350,000 as shown in Table 3. In financial terms, the Government of Mauritania is contributing the equivalent of \$80,000 as an in-kind contribution covering office costs and project personnel costs.

### **APPROPRIATE SEQUENCING**

66. The above project activities will be undertaken in appropriate sequence based on best practice including the use of established guidelines/methodologies. The experience gained from the implementation of other country study projects will be incorporated into this national project. UNEP will assist the national team in securing project reports, guidelines, and other technical information resulting from relevant national studies or enabling activities.

67. The sequence of activities will ensure that each component builds on the results of prior activities. For instance, the mitigation analysis will build on the results of the GHG inventory, and the national mitigation plan will be based on the mitigation analysis.

### **TRAINING**

68. A portion of the project will focus on developing the capacity of national institutions to complete the various components of the project and ensure that national expertise is developed that will enable Mauritania to complete future National Communications. The project will maximize the use of national expertise and institutions for training and will use appropriate external technical assistance only when it becomes absolutely necessary.

69. To compliment the training during workshops, very short specialized training for very few scientists/researchers may be undertaken if necessary (preferably) at an institution within the region where training facilities/research capability is known to be available.

70. UNEP, with its extensive experience in supporting training activities, will assist the project management in the design and implementation of any training programmes. In addition, the training activities associated with this project will be coordinated with training and capacity building activities in neighboring countries with other regional and global scale climate change projects. UNEP will also assist the project manager to identify any external expertise that may be required. Where appropriate, UNEP and the NST will collaborate in training activities with the CC:TRAIN project being implemented by UNITAR and the UNFCCC Secretariat.

### **INSTITUTIONAL FRAMEWORK AND PROJECT IMPLEMENTATION**

71. The DEAR will oversee the implementation of this project and the CTED will serve as the project steering committee.

72. A Project Manager will be appointed to coordinate the day-to-day activities of the project, oversee the activities of the national study teams, and serve as the liaison between the participating national institutions and the UNEP.

73. As one of the objectives of this project is to enhance national capacity, the project will prioritize the use of national consultants and institutions: Faculté des Sciences, Université de Nouakchott; Cellule Nationale des Energies Alternatives (CNEA), Ministry of Hydraulic and Energy; Agence de Sécurité pour la Navigation Aérienne (ASECNA); Direction du Développement des Ressources Agro-Pastorales du Ministère du Développement Rural et de l'Environnement (DRAP/MDRE) - Agromet Unit; and NGOs; in the formation of the national study team. Where necessary, international consultants will be used to support training activities and to provide direct technical assistance. The following national institutions (Faculté des Sciences, Université de Nouakchott, CNEA, ASECNA, DRAP/MDRE, and NGOs) will be co-opted as counterpart agencies in the areas of GHG inventories, mitigation analysis, and adaptation studies. They may then benefit from the institutional strengthening/capacity building during the project while the DEAR will remain the executing agency and the overall supervisor.

74. The UNEP Atmosphere Unit in consultation with the GEF/UNEP Coordination Office will collaborate with the UNEP Regional Office for Africa and UNEP Collaborating Center on Energy and Environment (UCCEE) in providing administrative and operational support for the project. As with all UNEP's national level projects, UNEP will work with the national UNDP office to provide administrative and financial back-stopping for the project.

75. The present proposal has been thoroughly reviewed, revised and finalized by the and endorsed by the designated GEF Operational Focal Point in Mauritania. A letter of support for the project is attached. On the successful completion of this project, the CTED and the DEAR will continue to deal with UNFCCC matters on a permanent basis.

### **SUSTAINABILITY AND PARTICIPATION**

76. The government of Mauritania has shown full commitment to the issue of global environmental management for sustainable development. The government is therefore absolutely interested in the success of this project for the benefits derivable to the country, in ensuring that climate change mitigation strategies are in place and used for national plans of action for reducing potential impacts. The high and diverse level of representation of the

government in the CNED, CTED, DEAR and PMT is to ensure sustainability. In addition, research/training institutions, capable of continuing these studies at their institutions have also been co-opted.

## **ISSUES AND RISKS**

### **(a) Issues**

77. In order to successfully implement the project, the following issues will be addressed:

- (a) Good coordination between PMT and NST are essential to ensure success. the project. DEAR may also work closely with relevant stakeholders in public/private sector.
- (b) There is a need for the government to initiate and commit itself to implement policies and procedures on the UNFCCC.
- (c) There is a need to raise public awareness on the various aspects of the climate change issues through the established mechanisms for such activities.

### **(b) Risks**

78. The potential risks which may effect the objectives and goals of the project are:

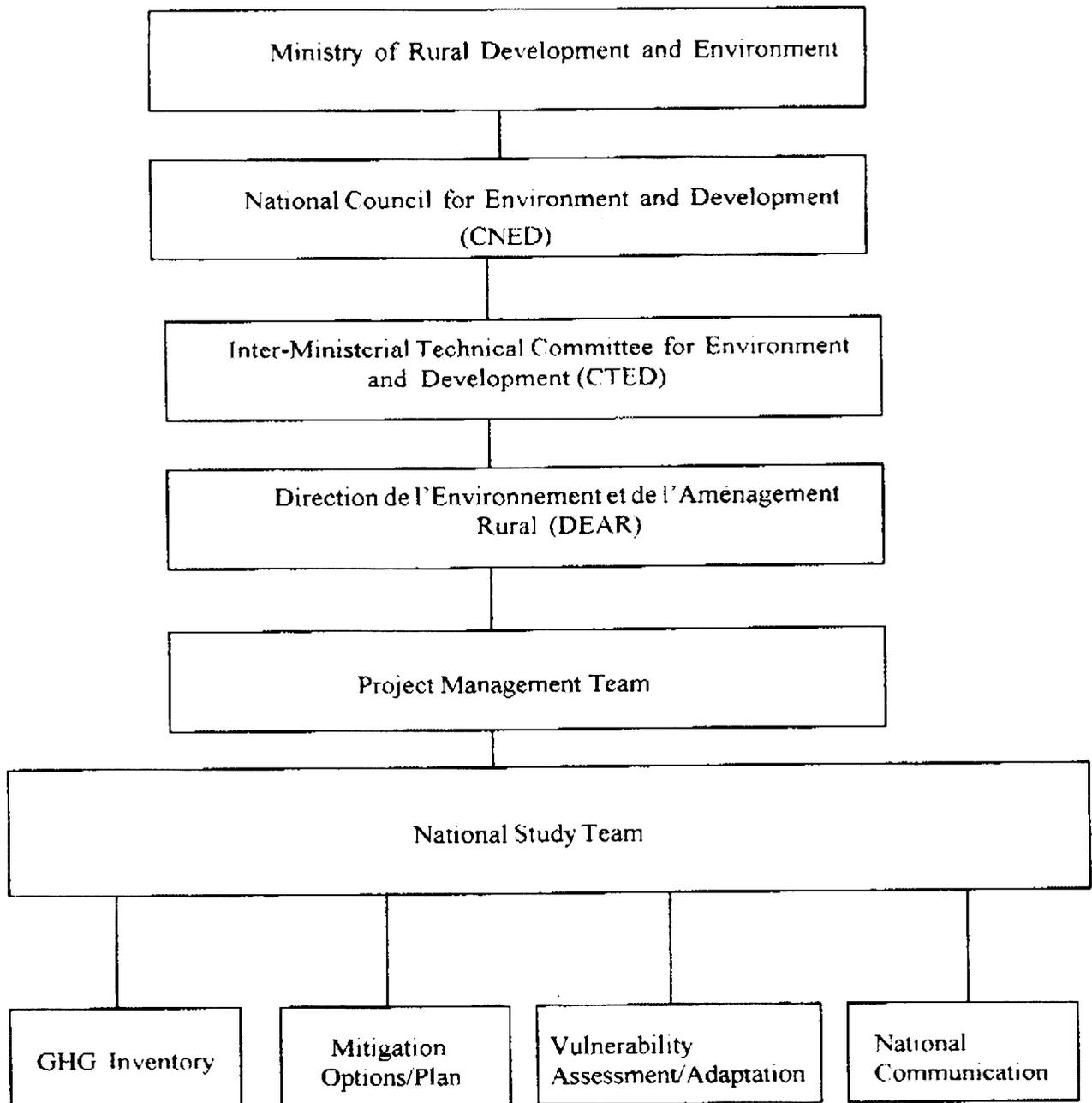
- (a) Inadequate coverage of proposed activities and inadequate consultations among potential stakeholder institutions.
- (b) Lack of involvement of policy/decision makers in the formulation of final strategy.
- (c) The national project coordinator will be able to secure the cooperation of government agencies, educational institutions and environmental NGOs.

## **Monitoring and evaluation**

79. Each of the NSTs will provide monthly progress reports to the PMT, DEAR and UNEP. This is to enable the DEAR to evaluate progress, identify difficulties and provide remedies at an early stage during project implementation.

80. The PMT and NST leaders will meet quarterly to review project progress and provide scientific, technical, policy and strategic guidance. The minutes of these meetings will be shared with all participating institutions and UNEP. The DEAR will provide UNEP quarterly progress and financial reports based on UNEP and GEF recommended formats.

81. UNEP will also complete an independent evaluation of the project based on standard GEF terms of reference at project midterm and at the end of the project.



**Figure 1: Project Management Structure**

TABLE 1. PROPOSED WORK SCHEDULE

ACTIVITY	1	2	3	4	5	6	7	8	9	PM	M&E	
T I M E I N M O N T H S	1	■										
	2	■										
	3		■				■	■	■		■	■
	4		■				■	■	■		■	
	5		■				■	■	■		■	
	6		■				■	■	■		■	■
	7		■	■	■		■	■	■		■	
	8		■	■	■		■	■	■		■	
	9		■	■	■		■	■	■		■	■
	10		■	■	■		■	■	■		■	
	11		■	■	■		■	■	■		■	
	12		■	■	■		■	■	■		■	■
	13			■	■		■	■	■		■	
	14			■	■	■	■	■	■		■	
	15			■	■	■	■	■	■		■	■
	16			■	■	■	■	■	■		■	
	17			■	■	■	■	■	■		■	
	18				■	■	■	■	■		■	■
	19				■	■	■	■	■	■	■	
	20							■		■	■	
	21							■		■	■	■
	22							■		■	■	
	23							■		■	■	
	24							■		■	■	■

NB: Some activities are expected to run concurrently as indicated.

\* PM ≡ Project Management.

\* M&E ≡ Evaluation and Monitoring.

Table 2: Standard Activity Matrix for Climate Change Enabling Activities in Mauritania

ENABLING ACTIVITY COMMITMENT	TYPE OF ACTIVITY			
	Planning /Execution	Capacity Building		
		Data Gathering & Research	Institutional Strengthening	Training & Education
1. National Circumstances	X	NA	NA	NA
2. Greenhouse Gas Inventories				
* All Energy Sources	X	X	X	X
* Industrial Processes	X	X	X	X
* Agricultural Processes	X	X	X	X
* Land Use Change & Forestry	X	X	X	X
* Other(s)	X	X	X	X
3. General Description of Steps	X	X	X	X
(a) Sustainable Dev., Research & Public awareness, etc.	X	X	X	X
(b) Assessment of Impacts				
* Coastal Processes	X	X	X	X
* Agriculture	X	X	X	X
* Fisheries	X	X	X	X
* Forestry	X	X	X	X
* Natural Ecosystems	X	X	X	X
* Other Impacts	X	X	X	X
(c) Stage 1 Adaptation Options	X	X	X	X
(d) Integration of Climate Change Concerns into Planning	X	NA	X	X
(e) Identification of Abatement Programs				
* Energy Related	X	X	X	X
* Industry	X	X	X	X
* Agriculture	X	X	X	X
* Land Use Change & Forestry	X	X	X	X
* Other(s)	X	X	X	X
4. Other Information				
(a) Global Emission Trends	X	X	X	X
(b) Financial, Technological	X	X	X	X
(c) Needs and Constraints				
* Projects for financing	X	X	X	X
* National Communication	X	X	X	X
* Vulnerability Assessment	X	X	X	X
* Adaptation	X	X	X	X

Table 3: Budget for the Enabling Activities Project for Mauritania

Enabling Activity: Commitment	Planning and execution (US\$)	Data Gathering and Research (US\$)	Capacity Building				Total Cost (US\$)
			Instructional Strengthening (US\$)	Training and Education (US\$)	Technical & Admin. Support (US\$)		
<b>2. Greenhouse Gas Inventories</b>							
<b>3. General Description of Steps</b>							
(a) Programs related to sustainable development, research, public awareness, etc.	40,000	3,600	20,000	30,000	5,000	95,000	
(b) Policy Options for Monitoring Systems and Response Strategies for Impacts	55,400	21,000	37,000	36,600	8,000	135,000	
(c) Policy Frameworks for Implementing Adaptation Measures and Response Strategies		13,000		14,000	2,000	10,000	
(d) Building Capacity to integrate Climate concerns into Planning		1,800		9,000	2,500	45,000	
(e) Programs to address climate change, adverse impacts, including abatement, sink enhancement		10,000		1,200	500	35,000	
<b>4. Other Information</b>							
(a) Material relevant for Global Emission Trends	4,600	2,300	2,000	2,800	600	10,000	
(b) Financial, Technological Needs and Constraints		2,300	1,000	1,400	300	5,000	
<b>5. Completion and Production of Initial National Communication</b>							
<b>Project Management</b>							
<b>Monitoring/Evaluation</b>							
<b>Total</b>		105,000.00	66,000.00	75,400.00	15,600.00	324,000	
% of Total		32	20	23	5		
<b>UNEP Coordination (8%)</b>						26,000	
						<b>Grand Total</b>	<b>350,000</b>

FAX 1

بسم الله الرحمن الرحيم



الجمهورية الإسلامية الموريتانية  
البعثة الدائمة لدى هيئة الأمم المتحدة  
نairobi

REPUBLIQUE ISLAMIQUE MAURITANIE  
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97/1764

Mr. Ahmed Djoghiaf  
GEF Executive Coordinator  
UNEP - Nairobi, Kenya

Fax: 254 2 52 08 25

New York, June 4 1997

Dear Mr. Djoghiaf,

It gives me great pleasure to inform, in my capacity as the official GEF focal point for Mauritania, that I fully endorse the Proposal on Climate Change enabling activities for my Country.

Please accept, Sir, the assurances of my highest consideration

Sincerely yours

Mohamed Mahmoud Guld El Ghaouth

RECEIVED

ACTION	REQUIRED
NO <input type="checkbox"/>	YES <input type="checkbox"/>
05 JUN 1997	
WHAT	.....
WHO	Abich
WHEN COMPLETED	.....
CIRCULATE	NO <input type="checkbox"/> YES <input type="checkbox"/>
FILE IN	<input type="text"/>