

Proposal for Review

Project Title: Tunisia: Enabling Activity (Emissions Inventory of Greenhouse Gases: National Strategy and Action Plans for Emissions Reduction and Fulfilment of National Communications under the UNFCCC)

GEF Focal Area: Climate Change

Country Eligibility: Convention Ratified July 15, 1993

Total Costs: \$ 940,400

GEF Funding: \$ 565,400

Tunisian contribution in US \$: \$ 100,000 (cost-sharing)

Tunisian contribution in kind: 270,000 TD (=US\$ 275,000)

Implementing Agency: UNDP

Executing Agency: Government of Tunisia
Ministry of Environment and Land Management/ Energy
Conservation Agency

Estimated Approval Date: July 1995

Project Duration: 30 months

GEF Preparation Costs: None (preparation funded by Govt. of Tunisia)

TUNISIA: ENABLING ACTIVITY
(EMISSIONS INVENTORY OF GREENHOUSE GASES:
NATIONAL STRATEGY AND ACTION PLANS FOR EMISSIONS REDUCTION
AND FULFILMENT OF NATIONAL COMMUNICATIONS UNDER THE UNFCCC)

COUNTRY AND SECTOR BACKGROUND AND CONTEXT

1. Tunisia has made sustainable development one of its central national objectives, and it has continued to hold that environment protection cannot be addressed separately from development. The creation of the National Commission for Sustainable Development in 1993 is evidence of the sincerity with which Tunisia undertook its commitments at the Earth Summit in 1992.
2. The Eighth Economic and Social Development Plan for 1992-1996 has given further emphasis to the importance of environment protection in Tunisia. This is also clearly demonstrated by the considerably higher level of funding that has been allocated to environmental matters (600 million TD (US\$612 m) vs 260 million TD (US\$ 265 m) for the 7th Plan) under the new Plan. On the institutional and legislative level, an appropriate institutional framework has been established through the establishment of the National Climate Change Committee and further through the regionally recognized work of the Tunisian Energy Conservation Agency. Actions promoting renewable technologies and intended to reduce energy consumption and atmospheric pollution are greatly encouraged by the Government and regulations and tax incentives have been set for this purpose.
3. In 1992, Tunisia established a National Climate Change Committee to follow up on the UNFCCC and to develop a common Tunisian position on the matter. Membership in the Committee includes the Ministry of Environment and Land Management, Ministry of National Economy, Energy Conservation Agency, Ministry of Transport and the National Meteorological Institute.
4. Due to its limited energy resources (5.8 million tons of oil and 26 million m³ of natural gas in 1990), Tunisia is facing a deficit in its energy balance: oil production stagnation (4,745 Ktoe for oil and 178 Ktoe for natural gas) against increasing energy consumption (5,016 Ktoe in 1993). The structure of the energy consumption shows a great dependency on oil products which represent 77% of the global consumption versus 10% for natural gas, 11% for electricity and 2% for the coke. On the sectoral level, industry comes first with 37% of the final consumption, against 31% for transportation, 16% residential, 9% tertiary and 7% agriculture.
5. With a decreasing production and an ever growing consumption, the deficit in Tunisia's energy balance is increasing rapidly. Energy efficiency is therefore an imperative, as is the further development and employment of renewable energy.

PROJECT OBJECTIVES

Global Environmental Benefits and Objectives

6. The proposed project has significant global environmental benefit in that it targets the identification, formulation and implementation of GHG emission reduction strategies which will ultimately lead to lowering of the rate of accumulation in the atmosphere of the primary GHGs: carbon dioxide; methane; and nitrogen oxides. It will thus be beneficial both for the global environment as well as for the long-term sustainable development of the region. Lessons learnt through this project will have considerable potential for transfer to other regions, and will leverage further global benefits.

7. This project will utilize the established IPCC guidelines in order to conduct a national inventory of GHG sources and sinks. As per IPCC methodology a base year of 1990 will be used. This project is consistent with the enabling activity and capacity building objectives listed in the INC Document (A/AC.237/90/Add.3--GEF/C.3/Inf.2), prepared jointly by the interim secretariat of the UNFCCC and the GEF Secretariat in order to facilitate coordinated and timely assistance to countries for the implementation of the Convention. This project responds to such objectives by implementing an activity needed to enable this country to fulfil its commitments to implement the Convention.

8. The project seeks to establish links with projects being carried out by other GEF implementing agencies and by other multi and bilateral organizations. It will do so practically through mechanisms established under the GEF regional Maghreb project. In particular it will benefit from the Project Advisory Network established under the regional Maghreb project, which includes the following international members: UNDP; UNEP; The World Bank; UNEP Riso; The US EPA and the Dept. of Energy; The Stockholm Environment Institute; GTZ; the Climate Change Convention Secretariat; Climate Network Africa; START Network; the IPCC; and ACTS (SED).

9. This project will likewise contribute globally through its participation in the informal consultative mechanism being set up by the UNFCCC Secretariat to ensure that results and outputs of this project will be shared among all actors in climate change activities in order to enable such actors to mutually benefit from one another's activities for the present and in the future.

10. In line with the priorities identified by the Tunisian Government, and further in line with the recent recommendations of INC XI (A/AC.237/WG.II), the present project will also address "Stage I" - (Planning) regarding adaptation to and impacts of climate change.

Specific Project Objectives

- The intent of this project is to allow Tunisia to respond to its obligations as a UNFCCC party, through elaboration of a national inventory of emissions sources and removals of GHG, and the establishment of a strategy to limit the emissions and protect and enhance the sinks of these gases.
- Strengthen national capacities in GHG emissions control

- Scientific evaluation of impacts of sea level rise upon terrestrial and marine ecosystems and their respective habitats and an elaboration of a response and adaptation strategy

PROJECT AND RELATED PROGRAMME CONTEXT

11. A GEF project was approved for the Arab States under the Fifth Work Programme of the Pilot Phase (May 1993). This project is entitled "Capacity Building in the Maghreb to respond to the Challenges and Opportunities created by National Response to the UNFCCC", and covers three countries: Algeria, Morocco and Tunisia. Libya has also indicated its willingness to fund its own participation in the project.

12. The Maghreb project was designed on the assumption that planned national inventory, data gathering and planning activities would be carried out under funding from other donors. At the time of submission of the Maghreb project, Tunisia was expecting to receive funding from GTZ for these activities. This funding did, however, not materialize, and Tunisia is therefore requesting funding from the GEF in order that it can conduct the required national inventory and planning activities as per the UNFCCC obligations. More information on the Maghreb project, and on other relevant activities undertaken by the Tunisian Government is provided in Annex 2.

PROJECT DESCRIPTION

Location and Extent

13. The present project will cover the whole national territory. The emissions inventories will be elaborated according to appropriate geographical zonings to facilitate the development of a national strategy and action plans based on the regional specificities.

Immediate Objectives, Outputs and Activities

Immediate Objective 1

14. Allow Tunisia to fulfil national communications obligations under the UNFCCC, which it ratified in 1993, through the elaboration of a national inventory of sources and sinks of all anthropogenic emissions of GHGs not regulated by the Montreal Protocol.

Output 1.1

15. National inventory of anthropogenic emissions; their sources and sinks with possible evolution scenarios, in fulfilment of communications obligations under the UNFCCC.

Activities for output 1.1

16. Priorities by gas and source/sink category. It is recommended that the 6 categories defined in the IPCC guidelines be adopted, namely: (1) Energy, (2) Industrial processes; (3) Solvent use, (4) Agriculture, (5) Land-use change and forestry, (6) Waste management.
17. Determine the fuel categories according to the IPCC classification:

(1) liquid, (2) solid, (3) gas, (4) others, (5) biomass.
18. Divide the country into homogeneous regions as pertinently as could be.
19. Assess the quantities on the basis of the best scientific knowledge available and the most up to date technologies, and according to the IPCC guidelines.
20. Carry out uncertainty verification and assessment based on the IPCC guidelines.
21. Present results according to the IPCC guidelines. Results of geographical regions will be included in the report for national use.
22. Emissions estimation for years 2000 - 2010 - 2020 based on the prediction of the several intervening parties' activities and considering 3 hypotheses: pessimistic, probable and optimistic.

Output 1.2

23. An inventory updating tool.

Activity for output 1.2

24. Provide a precise methodology to update the inventory describing the assessment methods and providing necessary data, and the ratios used for every activity.

Output 1.3

25. A trained staff capable of establishing and updating the inventory.

Activities for output 1.3

26. Identify in coordination with the Ministry of Environment and Land Management the target institutions and the group to be trained in establishing and updating the inventory.
27. Establish and execute an inventory elaboration training program.
28. Establish and executive a training program for the staff charged to update the inventory.

Immediate Objective 2

29. Evaluate and diagnose the current context and inventory ongoing national activities related to GHG emissions mitigation

Output 2.1

30. An initial framework and reliable data to establish a national strategy.

Activities for output 2.1

31. Describe the existing institutional framework identifying the different parties with each one's current role and responsibility in emission, reduction, absorption of GHGs. Proceed to identify institutional overlaps and duplication.
32. Describe the regulatory and legislative framework, listing all relevant regulatory texts and standards. Analyze and identify possible regulatory and legislative shortcomings.
33. Describe the tariff and fiscal policies applied in the relevant sectors, especially the energy sector, as well as various tax incentives and stimuli and identify others which could be provided.
33. Inventory of on-going programs, actions, initiatives and projects, with the adequate description: type of intervention, expected impacts, objectives, cost, financing, and implementation status.
34. Assessment of the implementation of each intervention provision of recommendations for efficiency improvements and strengthened coordination.

Immediate Objective 3

35. Establishment of a consistent national strategy to mitigate, and facilitate adaptation to climate change taking into consideration sustainable development priorities.

Output 3.1

36. Emissions thresholds and plans compatible with Tunisia's sustainable development plans.

Activities for output 3.1

37. Determine realistic sectoral and global objectives to limit emissions from various GHGs in the light of development priorities for each sector and in light of Tunisia's sustainable development plans and in accordance with international commitments.

38. Determine a realistic schedule to limit the emissions of various GHGs in light of development priorities for each sector and in light of Tunisia's sustainable development plans and in accordance with international commitments.

39. These objectives will depend on the definition of allowable thresholds and levels of GHG emissions to determine the extent to which Tunisia's socio-economic development may rely on fossil fuel use. The established threshold will enable Tunisia to comply with international standards for atmosphere protection.

Output 3.2

40. Inventory of appropriate measures and technologies feasible within each sector.

Activity for output 3.2

41. For each sector:

- (a) Assessment and evaluation of possible measures and technologies based on energy economies.
- (b) Assessment and evaluation of possible measures and technologies based on the use of energy sources with low carbon emissions.
- (c) Assessment and evaluation of possible measures and technologies based on emissions reduction using renewable energy options.
- (d) Assessment and evaluation of possible measures to combat deforestation.

42. All technologies will be assessed based on their availability at national and international levels.

Output 3.3

43. An institutional, regulatory and financially consistent framework to contribute to GHG emissions reduction.

Activities for output 3.3

44. Identify parties and institutions, and determine the role of these in the implementation of the strategy.

45. Definition of accompanying measures for institutional strengthening of relevant institutions.

46. Identify and recommend the appropriate regulatory measures contributing to GHG mitigation.

47. Identify and recommend the most relevant and feasible national financial measures. These recommendations will specifically focus on: tariff policy, and tax incentive measures.

48. Identify appropriate international cooperation, required levels of financing and technology, which could contribute to the national strategy.

Output 3.4

49. An established monitoring and evaluation mechanism for the strategic plan.

Activities for output 3.4

50. Determine the frequency with which the inventory should be updated.
51. Determine the institutional set-up responsible for updating the inventory.
52. Promote and facilitate the dissemination and the exchange of information between all parties.
53. Determine the methods to adjust the strategy.

Immediate Objective 4

54. Plan for reduction of GHG emissions and protection and enhancement of sinks in different sectors

Output 4.1

55. Sectoral action plans for the following sectors: energy, transportation, industry and tertiary, agriculture and waste management.

Activities for output 4.1

56. The activities listed below will be conducted for each action plan.
57. Assess ongoing actions with proposals of reinforcement and coordination.
58. Identify actions and measures to ensure least-cost emissions reduction.
Rank these actions according to criteria such as: efficiency, cost eligibility to national and international funding, implementing agencies, existing capacity, quantitative impacts, etc.
59. Determine the necessary funds outlining a financing scheme and a schedule of financial needs (funds, governmental subsidies, national loans, international loans or grants).
60. Identify the most appropriate institutional framework for the implementation of the plan.
61. Determine follow-up and assessment procedures.

62. Taking into consideration the context and constraints of each sector, definition of and agreement on the most realistic implementation plan.

Output 4.2

63. A staff trained in new technologies identified as most adequate to local conditions and needs.

Activities for output 4.2

64. Identify new technologies that could be adapted to the local context.
65. Organize international training course (3 person/months).
66. Identify the target groups to be trained in new technologies in the energy field.
67. Determine and implement local training programs intended for the target groups.

Immediate Objective 5

68. Scientific evaluation of impacts of sea level rise upon terrestrial and marine eco-systems and their respective habitats and an elaboration of a response and adaptation strategy
69. Tunisia with a 1,300 km coastline and low elevation, is particularly vulnerable to the effects of sea-level rise. The risk incurred by Tunisia is the inundation of the lower coastal zones. A strategy for response and adaptation aimed at countering the tendencies and to neutralize the impacts and potential risks of climate change must therefore be put in place.

Output 5.1

70. A vulnerability assessment and evaluation study of the impacts of sea level rise

Activities for output 5.1

71. Building on already on-going work in this field and utilizing existing methodologies and tools (e.g. IPCC Common Methodology on Sea Level Rise, methodologies emanating from the recently approved GEF projects: UNEP "Country Case Studies on Climate Change Impacts and Adaptation Assessments" and the recently approved UNDP Maldives project), developing a vulnerability assessment of the impact of sea level rise
72. Identification of options for implementing adaptation provisions
73. Elaboration of a response and adaptation strategy

74. Through the implementation of the three activities listed above, transfer knowledge and know-how on climate change impacts and adaptation matters to national cadres

RATIONALE FOR GEF FINANCING

75. This project is consistent with the enabling activity and capacity building objectives listed in INC Document (A/AC.237/90/Add.3), prepared jointly by the interim secretariat of the UNFCCC and the GEF Secretariat in order to facilitate coordinated and timely assistance to countries for the implementation of the Convention. This project will respond to such objectives by implementing an activity needed to enable Tunisia to fulfil its commitments under the Convention, in accordance with programming guidance issued by the INC at its 11th session and the COP in Berlin, March 1995.

76. This project seeks to establish links with other projects being carried out by other GEF implementing agencies or by other multilateral and bilateral organizations. It will do so practically by establishing links with the outputs of other on-going initiatives and projects, including the regional GEF projects in the Maghreb and in Africa, CC:TRAIN and CC:COPE. The project will also participate in the informal consultative mechanism being set up by the UNFCCC secretariat, to ensure that results and outputs of this project are shared among all actors involved in climate change activities in order to enable such actors to mutually benefit from one another's activities for the present and for the future.

77. As a project intended to respond to the UNFCCC, the inventory will contribute to the transfer of technologies and to national capacity building especially with respect to energy issues and global environmental protection. With the implementation of the national strategy, it is hoped that appreciable energy economies and efficiency will be realized and by year 2010 an emissions reduction of about 30 millions of tons of CO₂ will be reached.

SUSTAINABILITY AND PARTICIPATION

78. The project's sustainability beyond the GEF term of support will be ensured through transfer of technology, training, capacity building and institutional development coupled with the establishment of a functioning and active national network. The project will furthermore result in the establishment of important policy and institutional mechanisms that will also be vital for the success and sustainability of the GEF Regional Maghreb project. The strengthening of national capacity within the project context will ensure regular updating of the Tunisian inventories and will further contribute to similar exercises in the sub-regional and regional levels.

79. The project's emphasis on cost-effective GHG emission reduction strategies with long-term economic benefits will help stimulate long-term national support for the services and activities instituted by the project. The project will actively promote the marketing of its services and capabilities to both the public and private sectors of the region.

Consultative Process

80. This proposal has been prepared entirely by Tunisian experts without funding from either the GEF or UNDP. Based on lengthy in-country consultations with all relevant partners, the Energy Conservation Agency has prepared the present project proposal.

81. The proposal will enable Tunisia to fulfil its reporting obligations under the UNFCCC and will further enable Tunisia to fully benefit from the already approved (May 1993) Maghreb GHG project (covering Algeria, Morocco and Tunisia) entitled "Building Capacity in the Maghreb to respond to the Challenges and Opportunities Created by National Response to the UNFCCC" (RAB/94/G31).

82. Tunisia submitted the proposal to UNDP in late January 1995 in the hope that it could be included in the first work programme approved by the GEF Council in February 1995. However, in view of the fact that the GEFOP for Climate Change was held in December 1994, submission was delayed for the second work programme to be approved by the GEF Council in May 1995.

LESSONS LEARNT FROM TECHNICAL REVIEWS

83. Previous technical reviews of "enabling projects" for the UNFCCC have emphasized the importance of utilizing national expertise. This project thus places emphasis on the utilization of existing expertise, and on training and "twinning" where expertise might not be available. It has also been pointed out that a 2 year duration may not be sufficient; this project thus covers a 30 month period.

84. Finally, previous reviews have indicated that fulfilment of communications obligations under the convention could usefully be combined with adaptation/impact studies, where this also is a priority for the country concerned. The present project thus also includes a component for the study of sea level rise issues in the Tunisian context.

85. The present proposal was submitted to STAP experts for independent technical review. The review is attached along with UNDP's response. In addition, in accordance with recommendations of GEFOP the following changes were made to the proposal: further information on GEF Pilot Phase Regional Maghreb project is included in text and in Annex 2; public awareness component of project has been deleted and project costs have been reduced accordingly; it has been further emphasized that project outputs will be used for national communications under the Convention.

PROJECT FINANCING AND BUDGET

86. The total cost of the project is \$940,400. The GEF contribution to the project amounts to \$565,400. A break-down of project costs by component is provided below.

87. Tunisian Government will make an in-kind contribution totalling TD 270,000 (\$275,000) which will cover the cost of a National Project Director (30 person months), a National Project Coordinator (30 person months), four expert staff (total 40 person months) as well as office space. Tunisia will also make a hard currency contribution, payable to UNDP in accordance with standard arrangements of a total of US\$100,000.

Project Components	Component costs US \$
Personnel: Inventory & Strategy	353,000
Personnel: Impact & Adaptation	174,000
Training	60,000
Equipment	50,000
Miscellaneous	9,000
Project Total	646,000
Support costs (3%)	19,400
Grand Total	665,400

INCREMENTAL COSTS

88. Preparation of national communications by developing countries is to be fully financed by the GEF as financial mechanism for the UNFCCC. An incremental cost assessment is therefore not required. As a demonstration of its commitment to the obligations of the UNFCCC, the Tunisian Government has proposed to undertake national cost-sharing to finance a considerable portion of the project expenses. The Government of Tunisia has therefore committed US\$ 100,000 in cash and TD 270,000 (=US\$ 275,000) in kind contribution towards this project.

ISSUES, ACTIONS AND RISKS

89. The project represents an approach to the building of institutional and technical capacities within the country, adapted to its particular context and technical skills. It would thus result in enhanced an knowledge and capacity related to implementation of UNFCCC obligations, as well as national policy mechanisms to address GHG reduction and mitigation of climate change impacts over the long term.

90. As this not a complex project, the risks associated with its implementation are minor and mostly centre on matters of institutional framework and backing. The Government of Tunisia recognizes that this project will need to involve a great number of national actors, and is cognisant

of the fact that the success of this project depends on the successful involvement of all relevant partners.

INSTITUTIONAL FRAMEWORK AND PROJECT IMPLEMENTATION

91. The Ministry of Environment and Land Management will hold overall responsibility for project implementation, with coordination through the already established Climate Change Committee (membership: Ministry of Environment and Land Management, Ministry of National Economy, Energy Conservation Agency, Ministry of Transport and the National Meteorological Institute).

92. A Project Coordinating Unit will be established which will be responsible for the implementation of the project and for liaising with the Climate Change Committee. Other ministries and institutions also associated in the implementation of the project will include:

- Ministère de l'Agriculture (MA)
- Ministère des Finances (MF)
- Ministère des Equipements et Habitats
- Agence National de Protection de l'Environnement (ANPE)
- Société Tunisienne d'Electricité et de Gaz (STEG) will contribute in the determination and implementation of electricity production measures.
- Entreprise Tunisienne des Activités Pétrolières (ETAP)
- Radio Télévision Tunisienne (RTT) will contribute to the execution of awareness programs.
- The municipalities will intervene in establishing more appropriate traffic plans.
- Oil companies
- Industrial sector (public and private)
- NGOs will contribute to the implementation of the public awareness program.
- Academic Institutions and Universities

Project Reviews, Monitoring and Evaluation

Project progress reports and monitoring

- Brief quarterly reports will be published outlining major achievements of the past quarter.
- A full listing of all technical reports will be published prior to the end of the project.
- A detailed annual project performance report will be submitted to the UNDP/GEF at least one month before the annual project review.
- Annual project reviews will be conducted in accordance with established UNDP procedures.
- On-going monitoring of project progress for the GEF by the UNDP Country Office.

Project technical reports

- A report for mainly national use including: recapitulative inventory tables, presentation of results based on Tunisian regions, the possible evolution scenarios of emissions and sinks, a description of the current context and situation assessment
- A report for mainly international use intended for the COP and the IPCC and including a detailed presentation of the results as recommended in the IPCC guidelines.
- A third report will be devoted to the global strategy.
- A synthesis report and a report per sector will include the details of sectoral actions plans.

UNDP RESPONSE TO COMMENTS OF EXTERNAL TECHNICAL REVIEWER

Project: Tunisia - Emissions Inventory of Greenhouse Gases: National Strategy and Action Plans for Emissions Reduction and Fulfilment of National Communications under the UNFCCC

Comment: The Project Profile was revised and modified in accordance with the suggestions of the External Technical Reviewer. The following comments should be noted:

1. As per IPCC methodology, the base year of 1990 will be used for inventory activity undertaken in this project.
2. The reviewer's suggestion that the project be divided into two phases has been noted, however in view of the importance of coastal zone management and the marine ecosystems, the study of impacts of sea-level rise is a priority for the Government of Tunisia and therefore should be addressed within the present project. Moreover, the project will be especially beneficial as a capacity building effort if it can reinforce national expertise in dealing with various climate change issues including inventory activity, mitigation analysis and impacts assessment.
3. In accordance with the reviewer's recommendation, the participation of academic institutions, particularly relevant university departments will be ensured in project implementation.
4. With regard to the reviewer's comment on the level of funding for this project, it may be noted that in the present version of the project the level of funding has been considerably reduced from the original budget proposed by the Government of Tunisia, while still taking into account the cost of undertaking the project activities in Tunisia. All efforts have been made to ensure that the project funds are used as cost-effectively as possible. The addition of the climate change impacts and adaptation component has increased the budget by an additional amount of US \$ 175,000.
5. With regard to the questions and clarifications posed by the reviewer, it should be noted that local experts will be attached to the project on either a full-time or part-time basis as necessary, in accordance with a detailed workplan to be prepared under a full project document by the Government of Tunisia upon approval of the present proposal. The project document will include a time-table for project activities and a detailed budget as per UNDP requirements, which will budget for the necessary expenses to be covered by the project's funds towards convening of National Climate Change Committee meetings and towards the travel costs necessitated by study tours and international conferences.

TECHNICAL REVIEW

TUNISIA: ENABLING ACTIVITY (EMISSIONS INVENTORY OF GREENHOUSE GASES: NATIONAL STRATEGY AND ACTION PLANS FOR EMISSIONS REDUCTION AND FULFILMENT OF NATIONAL COMMUNICATIONS UNDER THE UNFCCC)

OVERALL IMPRESSIONS

1. The project idea supports, among other issues:
 - The requirements for countries to develop their capability to fulfil their commitments to the UNFCCC.
 - The global effort of testing the IPCC methodology for making inventory of sources and sinks of GHGs as supported by other funding agencies.
 - The global effort of providing capacity building in developing countries on issues related to climate change.
2. I fully endorse the project proposal with amendments as suggested in the following paragraphs.

APPROPRIATENESS OF PROJECT APPROACH

3. The general approach for the project appears to be appropriate because:
 - proper methodologies will be applied in the study.
 - it involves a number of different institutions (government and non-governmental) thus integrating information from different sectors of national and socio-economic development.

OBJECTIVES OF THE PROJECT

4. All the five objectives are valid and appropriately focused. Since they want to use the IPCC methodology on GHGs, then it would have been better if they could use a base year defined by IPCC for their estimations.
5. The activities outlined for each objective if implemented well will certainly result in achieving the proposed objectives.

ACTIVITIES

6. The activities stated under each objective are fairly exhaustive and ambitious that I doubt if all will be achieved successfully as planned. However it would have been better if the project could be divided into two distinct phases. Phase one would deal with estimates of GHG emissions inventory only while phase two could deal with impact assessments.

OMISSIONS IN BACKGROUND DISCUSSION

7. The background information is fairly exhaustive and satisfies the necessity to request for funds to carry out the study.

INSTITUTIONAL ARRANGEMENTS

8. The institutional arrangement for the project is clearly outlined. However, the participation of institutions of higher learning, such as the university should not be overlooked.

FUNDING

9. Going through the objectives and their activities, I do get the impressions that the funds requested are slightly higher when compared to what other countries have been getting for similar Studies. It may be necessary to review the number required of both external and internal experts for the Inventory and Strategy portions of the project. This could reduce some expenses. Considering that the study will involve conducting the inventory and the planning stages of mitigation and adaptation analyses, the sum of between \$400,000 and \$450,000 might be realistic.

INNOVATIVE FEATURES

10. The proposed project can be modified to suit studies in other countries especially developing countries with economies depending mostly on industry and energy consumptions from oil products, such as other Maghreb states and Nigeria. However, some portions of the proposal could be replicated in other African countries.

DEVELOPMENT DIMENSIONS AND RATIONALE FOR GEF

11. The development dimensions of proposals and the rationale for GEF involvement into this project:

- Tunisia is a signatory and has ratified the UNFCCC

- Tunisia is already participating in other projects supported by the GEF as stated under the related ongoing activities paragraph of the proposal.
- GEF is the main funding mechanism on issues related to Climate Change.

QUESTIONS AND CLARIFICATIONS

- Are the local experts going to be full time or part time on the project?
- How often will the National Climate Change Committee meet to review the progress of the activities of the project? Is this included in the budget?
- Have you made a provision in your budget for your experts to attend relevant international workshops/conferences during the project period?

ADDITIONAL COMMENTS

12. Basically the proposal is good for consideration by GEF for funding. It is in line with activities supported by other donor agencies such as the GTZ and the U.S. - Country Studies Programme on Climate Change. However, I would like to suggest the following:

- a spreadsheet with bars be prepared for each activity or task to show how activities will be implemented in months. These activities would include preparatory stage, data collection, analysis and etc.
- much effort should be made to ensure local experts are trained in different aspects of the study.
- Identification of a national research institution which could ensure continuity of these studies after the completion of the project is very important.
- Establish an infrastructure of a databank on GHG emissions inventory information.

ANNEX A: OVERVIEW OF STAFF REQUIREMENTS

	Unit	International Experts	National Experts
Project manager	p/m	10	
Expert/Energy efficiency	p/m	4.5	
Expert/Atmospheric pollution	p/m	4	
Expert/Energy production	p/m		7
Expert/transportation	p/m		7
Expert/Renewable energy	p/m		5.5
Expert/forestation	p/m		2
Fiscal Expert	p/m		2.5
Jurist	p/m		2.5
Advisor/Sea level rise	p/m	2	
Expert/Coastal zones	p/m		10
Marine ecologist	p/m		10
Land use planner	p/m		5
TOTAL		16.5	51.5

p/m = person months

ANNEX B: RELATED ON-GOING ACTIVITIES

A number of activities relevant to the project have been undertaken by the Tunisian Government.

- (a) "Capacity Building in the Maghreb to Respond to the Challenges and Opportunities created by National Response to the Framework Convention on Climate Change" (RAB/94/G31) (See also above). Cost: \$ US2,500,000. GEF project approved in May 1993.

Close links of cooperation will be established between the regional Maghreb project and the present proposal. Indeed, the inventories and action plans, outlined in the present proposal were a pre-requisite in the Maghreb proposal and it was anticipated at the time of formulation of the Maghreb proposal that funding would materialize from elsewhere for the national inventory and planning activities. The Maghreb proposal was thus designed on the assumption that inventories and action plans would be available prior to project start-up. However, in view of the fact that the anticipated donor funding did not materialize, Tunisia is now in need of GEF funding to enable it to become a full participant in the Maghreb proposal and further to fulfil its obligations under the UNFCCC.

The Tunisian component of the Maghreb project is implemented by the same unit within the Environment Ministry as the present proposal with the latter having been designed specifically to supplement the GEF Maghreb project.

- (b) "Vulnerability and Impact Assessment Adaptation Study and Mitigation Study" in Tunisia's Bizerte Lakes region: UNEP. This study has been recently completed by UNEP as part of the Mediterranean Action Plan. The present GEF proposal will utilize the data gathered under this Bizerte Lakes study and will build further upon this.
- (c) Solar water heating systems. GEF/World Bank. This project will promote the commercialization of solar water heating technology in the residential and tertiary sectors by conditioning the market for sustained penetration of the technology as a least cost alternative under competitive market conditions. As such this project will greatly contribute to Tunisia's aim of striving for alternative and renewable energy resources. Cost: \$ US 7,3 million
- (d) Action Plan for energy savings by the year 2010. This is a Government initiated plan which aims at ensuring energy savings throughout the economy by the year 2010.
- (e) Assessment of CO₂ emissions in Tunisia starting from 1990, and estimations of these emissions up to 2020 (both actions were elaborated by the Agence pour la Maîtrise de l'Énergie).

- (f) Purchase of mobile laboratories to measure atmospheric and water pollution all over Tunisia (this stands within the framework of pollution control reinforcement programs).
- (g) Study on atmospheric pollution and ambient air quality in Tunisia. Cost: 50,000 TD allocated on the State budget.
- (h) Study of a pilot project on the valorization of organic residues in rural areas (biogas production). Cost: 40,000 TD allocated on the State budget.
- (i) The Government is also initiating a project of inspections, checks on engines, tuning and maintenance installations to reduce fuel consumption in the transportation sector.
- (j) Special Energy Program. A GTZ funded project implemented through the Energy Conservation Agency with the objective of developing a rural energy supply system by promoting utilization of renewable energy sources for basic energy needs and developing fuel wood energy saving techniques and equipment.
- (k) Energy conservation and demonstration projects in industry and transport. An IBRD loan based project. The project includes energy audits, elaboration of energy savings action plans, training and capacity building and photovoltaic lighting system dissemination in rural areas.
- (l) Establishment of energy efficiency standards for building design in Algeria, Morocco and Tunisia. This EU financed project is on-going and is coordinated by the Tunisian Energy Conservation Agency.