

UNITED NATIONS ENVIRONMENT PROGRAMME

REPORT

**FOR THE EVALUATION OF THE UNEP/GEF PROJECT
“TURKMENISTAN: ENABLING ACTIVITIES FOR THE PREPARATION OF INITIAL NATIONAL
COMMUNICATION TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE
CHANGE (GF/2200-97-41)”**

EXECUTIVE SUMMARY

Introduction

1. A review of Turkmenistan's climate change enabling activity project to prepare its Initial National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) was undertaken by the consultant on a contract with the Evaluation and Oversight Unit of the United Nations Environment Programme (UNEP). The consultant, Mr. Mirzakhan Mansimov, visited Ashgabat from 23-28 September 2001 to meet the project stakeholders. The present report is based on the following information sources: (a) project proposal, tripartite review reports, annual progress reports, budget revision provided by UNEP; (b) documentation, including the draft Initial National Communication to the UNFCCC and other correspondence in the project files; (c) interviews with the project management and the project participants.

The Climate Change Enabling Activity Project

2. Turkmenistan ratified the United Nations Framework Convention on Climate Change in June 1995. In September 1998, Turkmenistan signed the Kyoto Protocol, and in December 1998 the Parliament adopted a resolution ratifying the Protocol.

3. The Turkmenistan State Commission on Climate Change was established in April 1997. In May 1999, the State Commission of Turkmenistan for Ensuring Compliance with Commitments under United Nations Conventions and Programmes on Environmental Protection was established. In September 2001, changes were made in the structure of the State Commission, profiling the Ministry of Environmental Protection as responsible for the Convention on Climate Change and the Minister as the National Focal Point of the Convention on Climate Change. The Centre for Ecological Monitoring acted as executing agency for the preparation of the Initial National Communication to the UNFCCC.

4. Turkmenistan received \$350,000 in support from the Global Environment Facility (GEF) through UNEP, to prepare its Initial National Communication to the Conference of the Parties of the Convention on Climate Change. Project implementation was planned for the period 1997-1999. The project activities included: national greenhouse gas (GHG) inventory for the base year 1994; elaboration of recommendations and measures on reduction of GHG; measures to assess vulnerability and adaptation of natural ecosystems and social and economic sectors to climate change; national strategy on the reduction of GHGs and adaptation; public awareness and information on climate change.

Project Implementation

5. The project was planned to begin in July 1997, but activities did not begin until November 1997, when the working groups were formed and the first workshop on project implementation was held. The work plan of the working groups, methodological approaches and experiences of other countries were then discussed.

6. The preparation of the national inventory and the assessment of vulnerability were completed by the end of 1998. Analysis of economic development problems, of GHG emissions forecast and reduction, and of adaptation measures was completed in 1999.

7. The national inventory was prepared identifying the following sources -- energy; industrial processing; agriculture; land use and forestry; and waste. The existing methodology of the Intergovernmental Panel on Climate Change (IPCC) was used for the preparation of the GHG inventory. The recommended coefficient of IPCC was not usable for the calculations of GHG emissions. Instead, experts calculated the local peculiarities and used the local coefficients for the category "energy". Assessment of the preparation of the national inventory for the "energy" category and for "industrial processes" was assessed as very good, but for "agriculture", "land use changes and forestry", and "waste" the assessment was only satisfactory.

8. The assessment of vulnerability and the elaboration of measures on adaptation to climate changes were carried out for water resources and agriculture. Assessments of contemporary and expected climate changes were also prepared. The level of implementation of these activities can be assessed as satisfactory.
9. A GHG emission forecast, policy and measures for GHG emission regulations were prepared for energy, agriculture, forestry, and waste, as well as estimates for the use of renewable energy sources.
10. During project implementation, six workshops on essential trends of national report preparation were conducted. Two of the workshops were conducted in the Mari and Turkmenabad regions of the country. More than 20 articles were published in newspapers and magazines, speeches were broadcast on television and radio, booklets were printed on climate change problems, and workshops were conducted at universities and in schools. Materials such as the Climate Change Information Exchange Programme (CC: INFO) and the Climate Change Training Programme (CC:TRAIN) were used for informing and teaching.
11. The National Communication was finalized in 2000 and the report was submitted to the secretariat of the UNFCCC in February 2001.
12. The project was financed by GEF through UNEP (with UNEP rendering technical support and consultative assistance). Advance payments from UNEP went by the United Nations Development Programme (UNDP) office in Ashgabat, which transferred these to the project executing agency – the Centre for Ecological Monitoring. The executing agency submitted financial reports quarterly to UNEP and the Ashgabat office on the UNDP standard form. Semi-annual progress reports were sent to UNEP and GEF. UNEP and the UNDP offices in Ashgabat approved these financial reports.
13. Planned budget capacity was not fully used during project implementation. This financial congestion was caused by the delayed advance payments from UNEP, which had a great impact on project implementation. So some problems raised by the project were not solved. The rest of the budget, amounting to \$89,388, has not yet been used.
14. The following outputs resulted from the implementation of the project “Turkmenistan: Preparing Initial National Communication to the UNFCCC”:
 - (a) A national GHG inventory was prepared for 1994;
 - (b) Estimates of climate change impact, of the vulnerability of the main economy sectors and ecosystem to expected climate changes, and of adaptation measures were carried out;
 - (c) Main trends of GHG emission limitation and a recommendation for adoption of a national strategy were assessed;
 - (d) The Initial National Communication was prepared and submitted to the Convention on Climate Change secretariat, and this document was widely distributed among national organizations;
 - (e) The project facilitated a basic level of understanding of climate change issues in government ministries and agencies;
 - (f) The project’s executing agency-- the Centre for Ecological Monitoring of the Ministry of Environmental Protection -- trained a group of highly skilled specialists. These specialists gained a good understanding of climate change problems and the required analytical tools.

Review Conclusions

15. Support from the highest levels of government: By presidential decree, the Ministry of Environmental Protection was given responsibility for coordinating the Climate Change Convention-related activities and the Centre for Ecological Monitoring was designated as executing agency.
16. Project management team is highly skilled: This team includes many experienced engineers, scientists and professors from different state organizations and non-governmental organizations. They are familiar with the activities of GEF, UNEP, IPCC, UNDP, the Climate Change Convention secretariat and other organizations related to the tasks of implementing the UNFCCC. National experts also participated in different international and regional meetings.
17. UNEP, as an implementing agency of GEF, provided technical and consultative support during project implementation. From the beginning of 1997, UNEP provided consultative assistance to the project and in its budget preparation.
18. The UNDP office in Ashgabat provided consultative support on financial matters, assisted in organizing workshops and provided technical assistance.
19. The Initial National Communication on Climate Change of Turkmenistan is of satisfactory quality. All national institutions and organizations agreed overall with the results of the work implemented under the project and the national report. The national report was discussed by all participating organizations and by the State Commission of Turkmenistan for Ensuring Compliance with Commitments under United Nations Conventions and Programmes on Environmental Protection and then sent to the UNFCCC secretariat.

Project Constraints

20. The Ministries of Economy, Health, Transport and Agriculture, the oil output organizations, forestry and the municipalities of big cities were not strongly represented in the institutional framework of the project.
21. Data collection and database management were not conducted, and the capacity programmes of IPCC were not used enough. A national website on climate change was not created during project implementation.
22. The disparity within the project: The following planned project activities were not reflected in the Initial National Communication to the Convention on Climate Change of Turkmenistan:
 - (a) Assessment of climate change impact and adaptation measures for land ecosystems (oases), coastal zones of the Caspian Sea, public health, the processes of desertification and, accordingly, frameworks for strategic actions on these issues;
 - (b) Quantitative analysis of the macroeconomic situation in the country and different scenarios of macroeconomic development were not considered. Accordingly, GHG emission forecast scenarios were not prepared for all sectors of the economy (except oil and gas output and electricity), including the assessment of limitation measures and the potential for GHG emission reduction.

Recommendations

23. To strengthen the institutional framework and to preserve the experience acquired, the Ministry of Environmental Protection of Turkmenistan needs to enhance the capacities of the implementing agency – the Centre for Ecological Monitoring -- by establishing an independent department in the Ministry (centre or other subdivision). This independent department will ensure proper processing of scientific and technical and methodological information, interaction with state organizations, non-governmental organizations and the

private sector, dissemination of the news on climate change among national organizations and the population, and will prepare papers for leading bodies. A proper department is necessary in order to attract leading experts with experience in using the technical and analytical tools of the project.

24. Incomplete tasks should be finalized utilizing the remaining finances amounting to \$89,388. It is also necessary to undertake the Phase II implementation of the National Communication “ Capacity-building activities on climate change in priority sectors of the economy of Turkmenistan” (technology needs assessment, participation in the systematic observation network, assessment of vulnerability and adaptation capacity of some resources to climate changes).

25. The implementing agency should attract experts from other state ministries, organizations and non-governmental organizations for the coming activities and implement programmes and projects on climate change (i.e. ministries of energy, economic, transport, agriculture, health and other organizations). It is necessary to enhance collaboration with other information agencies, television and radio, and to attract journalists to disseminate and make available to the public the information on climate change.

26. The executing agency has to intensify the collaboration and exchange with international organizations and programmes -- UNEP, GEF, IPCC, UNDP, the National Communications Support Programme (NCSP), the Convention on Climate Change secretariat – and to communicate information received from these organizations and their websites.

27. UNEP should advance urgent payment of the rest of the budget of the project for the National Communication of Turkmenistan and for Part II. The problems related to financing require operativeness and constructiveness. A means of ensuring greater and more regular interaction with the UNDP office in Ashgabat, when relevant, should also be developed.

28. The UNDP office in Ashgabat should further enhance its consultative assistance to the implementation of the project on climate change and continue to help solve technical and financial problems.

REPORT

FOR THE EVALUATION OF THE UNEP/ GEF PROJECT “TURKMENISTAN: PREPARING INITIAL NATIONAL COMMUNICATION TO THE UNFCCC”(GF/ 2200-97-41)

Introduction

1. The report on climate change activity was undertaken with the support of the United Nations Environment Programme (UNEP). The evaluation report has been prepared by the consultant, Mr. Mirzakhan Mansimov.
2. During the period 23-28 September 2001, the consultant held interviews with Mr. M. Rajabov, Minister of Environmental Protection and National Focal Point for the Convention on Climate Change; Mr. M. Akmuratov; Deputy Minister Mr. A. Durdiyev, Coordinator of the Climate Change Enabling Activity Project and Head of the Centre for Ecological Monitoring; Ms. I. Atamuradova, assistant to the Climate Change Enabling Activity Project; and project participants. The consultant also went on a field trip and visited the UNDP office in Ashgabat and met with Mr. Mukunda R. Shrestha, Deputy UNDP Permanent Representative in Turkmenistan, with Mr. Batyr Khadjicev, National Consultant of GEF and with representatives of non-governmental organizations.
3. According to its commitments, Turkmenistan, as a non-Annex 1 country, has developed and provided the Conferences of Parties of the Convention on Climate Change with its Initial National Communication, mainly focusing on¹: (a) preparation of GHG inventories and other climate change-related information; (b) general description of steps taken or planned to implement the Convention; (c) any other information on the achievement of the objectives of the Convention.
4. The Climate Change Enabling Activity Project of Turkmenistan was part of the GEF Operational Strategy² that aims to support non-Annex 1 Parties in fulfilling their commitment under the UNFCCC for full cost funding. According to the GEF Operational Strategy, enabling activities “include (GHG) inventories, compilation of information, policy analysis, and strategies and action plans. They either are a means to fulfill essential communication requirements to the Convention, provide a basic and essential level of information to enable policy and strategic decisions to be made, or assist planning that identifies priority activities within a country”. Funding was provided by GEF, and UNEP acted as implementing agency and managed the project implementation.

The Climate Change Enabling Activity Project

5. High priority was given to the implementation of the Convention on Climate Change in Turkmenistan. In May 1995, Turkmenistan signed the Convention by resolution of the President of Turkmenistan. In June 1995, the national Parliament adopted the Convention. In September 1998, Turkmenistan signed the Kyoto Protocol, and in December 1998, Parliament adopted a resolution to ratify the Protocol.
6. In April 1997, the State Commission on Climate Change of Turkmenistan was established under the leadership of the Vice Prime Minister; executives of different ministries and organizations became the members of this Commission. In May 1999 the State Commission of Turkmenistan for Ensuring Compliance with the Commitments under United Nations Conventions and Programmes on Environmental Protection was established. In September 2001, there were some changes in the structure of the State Commission. According to the papers,

¹ UNFCCC, Article 12.

² Operational Strategy. Global Environment Facility, February, 1996.

the Ministry of Environmental Protection was made responsible for the implementation of the UNFCCC and the Minister was appointed as the National Focal Point (Annex III).

7. Turkmenistan received \$350,000 in support from GEF, through UNEP, to prepare its Initial National Communication to the Conference of the Parties of the Convention on Climate Change. Project implementation was planned for the period 1997-1999. The project had the following components:

- (a) Prepare a national inventory of antropogenic emissions by sources, and of removals by sinks, of GHGs not controlled by the Montreal Protocol for the base year 1994;
- (b) Provide recommendations and measures for the reduction of GHGs;
- (c) Assess vulnerability of natural ecosystems and social and economic branches to climate changes and assess adaptation measures;
- (d) Develop a national strategy on reduction of GHG emissions and adaptation;
- (e) Enhance public awareness and involve public opinion concerning the problems of climate change;
- (f) Prepare the Initial National Communication of Turkmenistan to the UNFCCC.

According to the project document GF/2200-97-41, it was originally planned to allot the budget in the following way:

- (i) 1997 -- \$91,390
- (ii) 1998 -- \$170,630
- (iii) 1999 -- \$51,980.

8. The Centre for Ecological Monitoring of the Ministry of Environmental Protection was responsible for preparation of the “Initial National Communication on Climate Change” and other papers. The members of the Working Group on the Convention of Climate Change were included in the State Commission (Annex III).

9. Up to September 2000, Mr. Y. Fedorov was Coordinator of the project “Turkmenistan: Preparing of the Initial National Communication to the UNFCCC”. In 2000 he left the project. Recently Mr. A. Durdiyev has been appointed to this post.

Project implementation

10. In 1997, expert groups comprising highly trained specialists from 16 organizations were created for project components. These working groups included: Group on Inventory of GHG; Group on Mitigation Options; Group on Vulnerability and Adaptation; Group on Education, Training and Public Awareness. A work plan was compiled for each group. The international consultant from the Russian Federation visited the executing agency twice (Annex IV).

11. The project was planned to begin in July 1997, but project activities did not start until November 1997, i.e. the working groups were formed and the first organized workshop on project implementation was held. The work plan of the working groups, methodological approaches and other countries’ experiences were then discussed. During this period, data collection on natural resources and social and economic sectors was prepared: at the initial stage, the organizational tasks were conducted very well. However, experts from the

transport, agricultural, oil and forestry sectors, as well as the Ministry of Economy, had very little involvement in project activities.

12. In 1998, a number of climate change assessments were carried out and expected climate changes were estimated by means of models recommended by IPCC. The degree of vulnerability of water resources and agriculture to climate change was determined. The national workshop for the estimation of forthcoming results was held on 19-20 March 1998. The assessment of the adaptation and vulnerability of natural resources and social and economic sectors was carried out at the beginning of 1999. These in-depth assessments were carried out only for water resources and agriculture.

13. However, these assessments for water resources and agriculture were not prepared specifically in the context of climate change (but there is a close interrelation). Planned assessments, such as the estimation of adaptation and vulnerability of land (oases) resources, coastal zones of the Caspian Sea, forest resources, the processes of desertification and public health (diseases and stresses) to climate change, were not carried out. The leaders of the working groups explained the non-fulfillment of these activities by pointing out that the problems of coastal zones had already been sufficiently researched by the Caspian Environment Programme (CEP TACIS/ UNDP), and the process of desertification had already been assessed within the framework of the project "Preparation of the National Action Plan on Desertification" (UNEP). Other reasons given were the lack of time and financial means. The final results of assessments and analysis were discussed in workshops held from 22-24 in July 1999, and from 14-16 June 2001. The estimation of climate change and water resources vulnerability was carried out at a high level. The problems of assessment of vulnerability and adaptation are not completely reflected and incorporated in the national report and do not meet the requirements of Turkmenistan. So the level of these activities can only be assessed as satisfactory (Annex V).

14. The preparation of the National Inventory for 1994 was completed in 1998, and the workshop on preparing a national GHG Inventory was held on 22-23 July 1998. The National Inventory was conducted for energy, industrial processes, agriculture, land use change and forestry and waste:

(a) The GHG Inventory was prepared, based on standard IPCC methodology. The recommended coefficient of the IPCC was not used for the calculation of GHG emissions. Instead, experts took into account local peculiarities and used local coefficients for the category "energy". During data collection national experts came across great difficulties, and these difficulties are characteristic for all countries of the former Commonwealth of Independent States (CIS). These difficulties are the following:

- The lack of reliable official statistics in some sectors of the economy (agriculture, forestry, land use and waste). Therefore, data collection was carried out from "bottom to top", i. e. first it was carried out at each separate enterprise, and then generalized into categories of sources;
- The existing quantitative statistics do not meet the requirements of IPCC methodology and the experts therefore used the rated methods for emission estimation. Therefore, in some categories the uncertainty was as much as 50-200 per cent;
- The lack of GHG emission coefficients at the regional level made it difficult to calculate and many countries have used local coefficients instead. It has been necessary to elaborate the coefficients based on standard IPCC methodology. To help meet these shortages, the National Communications Support Programme (UNDP/GEF), together with countries of Eastern Europe and Central Asia, will implement a regional project on "Capacity building for Improving the Quality of Greenhouse Gas Inventories (Europe/CIS region) during the period of 2002-2004;

(b) According to the project, 1994 became a base year for the GHG inventory preparation and a national inventory was prepared only for this year. The national inventory for the "energy" category and for "industrial processes" was assessed as very good, but for "agriculture", "land use changes and forestry",

“waste” was prepared only as satisfactory. GHG emissions calculations did not include all sources in the sectors of “land use changes and forestry” and “wastes”. This problem was connected with lack of initial data;

(c) One of the shortcomings of the inventory working groups was the lack of sufficient computer techniques, making it impossible to create a Managed Database System;

(d) There exist methodological difficulties which are characteristic for all countries of Eastern Europe and Central Asia. In the next three years it is expected that these problems will be addressed within the framework of the UNDP and GEF regional project “Capacity-building for Improving the Quality of Greenhouse gas Inventories (Europe/CIS region).”

On the whole, the GHG inventory was assessed as good and meets the requirements of Turkmenistan (Annex V).

15. Analyses of economic development problems, GHG emissions forecasts and reduction were prepared in 1999. These issues were discussed in workshops held from 22-24 July 1999, and from 16-18 May 2001. A timeframe leading up to 2010 was used for the macroeconomic analysis. With regard to this section the following activities have been carried out:

(a) A GHG emissions forecast was prepared only for the fuel and power sectors of the “energy” category. This is due to the fact that more than half of the GHG emissions belong to this subcategory.

(b) Policies and measures on GHG emissions regulations were assessed for electricity, agriculture, forestry and waste, including estimated capacities from the use of renewable energy sources;

(c) These forecasts and analyses do not meet the requirements of the project document and do not reflect the needs of Turkmenistan. This is due to the following:

- An analysis of the present economic situation, investment policy, GDP development structure, macroeconomic analysis and of economic development prospects was not carried out and state and sector programmes were included superficially. The report therefore contains no macroeconomic forecasts on categories in the report and scenarios of different economic development outlooks, i.e. pessimistic, optimistic, have not been developed;
- The analysis also did not use the capacities of the United States Country Studies Programme (USCSP), the “UNEP/GEF Economies of GHG Limitation Project” and appropriate literature³. Therefore, any methodological approach is out of the question. Other countries’ experiences were not greatly used;
- GHG emission forecasts were not prepared for the categories “industrial processes”, “agriculture”, “land-use change and forestry”, “waste” and others. Only one scenario was planned in the CO₂ and CH₄ emission forecast;

³Nordhouse W. D. Managing the Global Commons: The economies of Climate Change. MIT Press, Cambridge. 1994. Halsnaes K., Callaway J. M., Meyer H. J. Economics of Greenhouse Gas Limitations. Main Reports. Meteorological Guidelines. Information Service Department, Riso. 1999.

Promotion Development while limiting Greenhouse Gas. Trends and Baselines. UNDP, 1999 and other literature sources.

- Quantitative indices were not calculated and determined for GHG emissions.

The measures are far from concrete definitions, and the GHG limitation potential in Turkmenistan is not known, as there are no economic estimates for this. The effect of the measures taken by the Turkmenistan Government to reduce GHG emissions during the last 8-10 years was also not estimated.

16. One of the most important problems raised by the project concerns public awareness and public opinion involving the problems of climate change. The working group on information and public awareness worked well enough, and used all available capacities of non-governmental organizations. During the project implementation period, more than 20 articles were published in newspapers and magazines, programmes were broadcast on television and radio, a booklet on climate change was released, and workshops were held at universities and in schools. Materials such as CC: INFO and CC: TRAIN were used for information and teaching. It is remarkable that two workshops on climate change were held in regional centres -- Mari and Turkmenabad. On the whole, the work in these areas can be assessed as good (Annex V).

17. The National Communication was finalized in 2000. The Communication was first made available in Russian, and then in English. The Russian version was issued in the first half of 2000, and the English version towards the end of 2000. The National Communication publication is a high-quality product and is well designed. The report was submitted to the secretariat in February 2000 and distributed among national organizations, and the Convention on Climate Change Parties. Now the report is being prepared for publication in Turkmen. The Communication is of satisfactory quality, but the prepared national report does not completely meet the requirements of Turkmenistan. In 2001, Turkmenistan therefore applied to GEF and UNEP for financial assistance amounting to \$100,000 for capacity-building of technological needs, assessment of systematic observation requirements, and estimation of the vulnerability to climate change and adaptation of some ecosystems.

18. In 1996, Turkmenistan applied to GEF for financial support for the preparation of the National Communication and on 7 June 1997 the GEF Chief Executive Officer approved the project. On 8 August 1997, UNEP signed the terms of financing and on 19 September 1997 the first payment the project was received. The project was financed by GEF through UNEP. UNEP provided technical support and consultative assistance. After receiving the advance payment from UNEP, the UNDP office in Ashgabat transferred the funds to the project executing agency -- the Centre for Ecological Monitoring of the Ministry of Environmental Protection of Turkmenistan. The project had a total budget of \$350,000, of which \$36,000 was UNEP expenses. The remaining \$314,000 were allotted to the Project executing agency. The executing agency submitted quarterly financial reports to UNEP and the Ashgabat office on the UNDP standard form. Semi-annual progress reports were sent to UNEP and GEF. UNEP and the UNDP office in Ashgabat approved the financial reports.

19. The planned budget was not used. This was due to the delay in providing advance payments to the executing agency. This was also noted by Y. Fedorov, Project Coordinator, in the semi-annual progress report submitted to UNEP and GEF from 18 January 2000. Judging by the documents, the executing agency received the payments as follows:

- 1997 -- \$25,641 (\$91,390 was planned)
- 1998 -- \$123,822 (\$170,630 was planned)
- 1999 -- \$53,401 (\$51,980 was planned)
- 2000 -- no receipt
- 2001 -- \$21,748 (\$111,136 total unused balance in the beginning of the year).

20. The delayed advance payments have had a great impact on project implementation and volume, and have contributed to the fact that some of the problems raised by the project were not solved.

21. The reasons for not using all of the budget are: (a) the coordinator of the project did not insist on applying to UNEP; (b) the payments were not sent on time from UNEP; (c) the State Commission insisted on hastening the submission of the National Communication to the Convention on Climate Change secretariat in order to meet the planned submission date. Instead, the implementing agency should have applied to UNEP and GEF in time and requested a postponement of the submission of the National Communication (as was done by many other countries).
22. In 2001, \$21,748 were allotted to hold two workshops and to acquire equipment. The rest of the budget, amounting to \$89,388 has not yet been used (Annex VI).
23. Several results emerge from the implementation of the project on Preparing the Initial National Communication to the Convention on Climate Change of Turkmenistan:
- (a) A national GHG inventory was prepared for 1994;
 - (b) Estimates of the impact of climate change, the vulnerability of main economy sectors and ecosystems to expected climate changes, and adaptation measures were calculated;
 - (c) The main trends on GHG emission limitation were assessed, together with a recommendation for adoption of a national strategy;
 - (d) The Initial National Communication was prepared and submitted to the UNFCCC secretariat, and this document was widely distributed among national organizations;
 - (e) The project has initiated an understanding of climate change issues in government ministries and agencies;
 - (f) The project executing agency -- the Centre for Ecological Monitoring of the Ministry of Environmental Protection -- helped to bring together highly skilled specialists who, in return, gained a good understanding of climate change problems.

Project Conclusions

24. The evaluation report is based on a variety of information sources: (a) project proposal, tripartite review reports, annual progress reports budget revision reports, provided by UNEP, Nairobi, Kenya; (b) documentation including the draft Initial National Communication, and other correspondence in the project files; (c) discussions with the project management and the project participants. Taking into account the conditions in Turkmenistan, a great effort was made on behalf of Turkmenistan to implement the Climate Change Enabling Activity Project in a satisfactory manner and prepare the Initial National Communications.
25. Support was given from the highest levels of government. By presidential decree, the Ministry of Environmental Protection was made responsible for coordinating the Convention on Climate Change-related activities and the Centre for Ecological Monitoring was assigned as executing agency. "The Working Group on the Convention on Climate Change" is included in the State Committee on Conventions, led by the Deputy Prime Minister, and it holds conferences quarterly. The State Committee holds meetings twice a year. The Minister of Environmental Protection is Vice-Chairman of the State Commission and National Focal Point to the Convention on Climate Change.
26. The project implementation activity can be assessed as good. The project management team comprised the Ministry of Environmental Protection and the Centre for Ecological Monitoring. The understanding of the climate change problems connected with the Convention on Climate Change is excellent in the Ministry of

Environmental Protection and the establishment of a specialized Centre on Climate Change is planned for the immediate future.

27. The project management team is highly skilled, and includes many experienced engineers, scientists and professors from different state organizations and non-governmental organizations. They are familiar with GEF, UNEP, IPCC, UNFCCC secretariat activities and other organizations connected with implementation of climate change-related activities. The experts have a clear view of the international programmes and methodological literature used during project implementation -- such as CC: TRAIN, CC: INFO, the United States Country Studies Programme, the UNEP Handbook on methods for Climate Change Impact Assessment and Adaptation Strategies (version 1 and 2), and IPCC guidelines for GHG inventory, statements on mitigation, vulnerability and adaptation, and leading principles of subsidiary bodies of the Convention on Climate Change. The national experts took an active part in different international and regional meetings. Workshops held by the National Communication Support Programme UNDP/GEF were very valuable for the experts.

28. Implementation was supported by UNEP which, as an implementing agency of GEF, provided technical and consultative support during project implementation. UNEP provided consultative assistance and assisted in budget preparation from the beginning of 1997. For this purpose, a UNEP official visited the country. UNEP carried out budget revisions, provided project financing and was consulted on management problems and project implementation.

29. Implementation support by UNDP-Ashgabat: The UNDP office in Ashgabat provided consultative support on finance problems, organized workshops, and provided technical assistance for computer and equipment acquisition for the executing agencies.

30. The Initial National Communication on Climate Change of Turkmenistan is of satisfactory quality. It has been published in Russian and English, and it is also planned for publication in Turkmen. The report includes the national conditions of Turkmenistan, impacts, GHG inventory, policy and measures on GHG emission regulation and adaptation to climate change. The inventory and possible climate change chapters are of good quality, but the quality of the vulnerability assessment of natural resources and the economy to expected climate change can only be assessed as satisfactory.

31. All national institutions and organizations agreed overall with the results of the analysis and assessments and the contents of the Initial National Communication to the UNFCCC of Turkmenistan report. The leaders of the organizations involved approved the report at their meetings. Simultaneously, they expressed their opinions about the necessity of additional activities related to climate change problems. The National Report was discussed by all participating organizations and the State Commission on United Nations Conventions and then sent to the Convention on Climate Change secretariat.

Project constraints

32. The Ministries of Economy, Health, Transport and Agriculture, the Oil output organizations, forestry as well as the private sector and the municipalities of big cities were not strongly represented in the institutional framework of the project.

33. The data collection system and database management were not carried out, and the capacity programmes of IPCC were not used enough. A national website on climate change was not created during project implementation.

34. During the period of project implementation the executive agency had some financial difficulties; i.e. advance payments were delayed, and this had a great influence on the implementation of the project and the quality of the activities: \$89,388 of the planned project budget remain unused.

35. The disparity within the project. The following planned activities of the project were not reflected in the Initial National Communication to the UNFCCC of Turkmenistan:

(a) In preparing the GHG Inventory for 1994, the emissions were not completely accounted for the category “waste”; emissions were only accounted for Ashgabat city. Sewage emissions were also not accounted for;

(b) Assessment of climate change impact and adaptation measures for land ecosystems (oases), coastal zones of the Caspian Sea, public health, the processes of desertification and, accordingly, frameworks for strategic actions on these questions;

(c) Quantitative analysis of the macroeconomic situation in the country and different scenarios of macroeconomic development were not considered. Accordingly, GHG emission forecast scenarios were not prepared for all branches of the economy (except oil and gas output and electricity), including the assessment of limitation measures and the potential for GHG emission reduction. There is a lack of concrete projects on priority trends of the economy where urgent measures are required to address the negative consequences of climate change;

(d) The software models suggested by IPCC were not used enough in project implementation due to non-relevance to the country’s circumstances. For example, the research data of the National Communication of Uzbekistan and materials of the World Bank on the Aral Sea Project could have been used to estimate the vulnerability of water resources of the Amudarya River. Also, the research data within the framework of the Caspian Environmental Programme (CEP TACIS/ UNDP) were not used for the assessment and adaptation analysis. Research data and results from the Institute of Desert, Flora and Fauna were scarcely used in the report.

36. Project activities targeting public awareness and public opinion on climate change problems are not sufficient for Turkmenistan’s conditions. This is due to the general lack of visual materials (especially in Turkmen). The limited number of non-governmental organizations in this country also makes it more difficult to involve large numbers of people in climate change problems. However, the project coordinators and team efforts in this direction can be considered successful.

Recommendations

37. Proposals for national activity: After the project on enabling activities for the preparation of the Initial National Communication related to the United Nations Framework Convention on Climate Change had been completed, there were some changes in the team staff, due to financial difficulties and the fact that some experts had left the country. By decision of the Turkmenistan Government, Dr. A. Durdiyev was appointed Head of the Centre for Ecological Monitoring. At present he is actively working to strengthen the institutional framework. It is recommended that the Ministry of Environmental Protection and the Centre for Ecological Monitoring take the following urgent measures:

(a) To create an independent department (centre or other subdivision) to be engaged in the daily dissemination of international, scientific and technical, methodological information, mutual cooperation with other state organizations, academic institutions, climate change news dissemination among national organizations, and preparation of appropriate documents for leading bodies. This department should employ leading experts who have experience in preparing initial national communications and who have acquired technical skills from the implementation of the project;

(b) To meet the present shortages and fulfill the uncompleted tasks in the Initial National Communication report, the executing agency (or national focal point) needs to apply to UNEP and GEF for the

outstanding funds (\$89,388), and request changes in the budget items of the project. It is very important to finalize the following incomplete project activities :

- To establish a national database and create a database management system, in accordance with the methodology used by IPCC;
- To collect data and calculate the GHG inventory for the categories “land use change and forestry” and “waste” (such as industrial and domestic waste, sewage, etc.);
- To estimate vulnerability and adaptation measures for the Caspian Sea coastal zones, land resources, desertification and public health;
- To develop scenarios for macroeconomic development for all categories of the economy, in accordance with state programmes;⁴
- To develop GHG emissions forecasts for all sectors of the economy;
- To apply concrete measures on GHG reduction for all sectors of the economy and single out the priorities among them, and estimate the potential for GHG emissions reduction;
- To prepare a national strategy for GHG reduction and adaptation;

(c) These activities require urgent attention and should be implemented in parallel with the phase II implementation of the National Communication “Capacity-building activities on climate change in the priority sectors of the economy of Turkmenistan” (technology needs assessment, participation in the systematic observation network, assessment of vulnerability and adaptation of some resources to climate change)⁵;

(d) The executing agency needs to involve experts from other state ministries, organizations and non-governmental organizations in future climate change-related projects. It is necessary to pay special attention to energy, economy, transport, agriculture, health ministries and other organizations, as well as the municipalities of big cities and private companies;

(e) To intensify the collaboration and information exchange with international organizations and programmes -- UNEP, GEF, IPCC, UNDP, CCC secretariat and subsidiary bodies, National Communications Support Programme UNDP-GEF -- and to communicate information received from these organizations and their websites.

38. UNEP activity:

(a) To promote the expedited financing of the rest of the budget: (i) to eliminate present shortcomings in the Initial National Communication to the UNFCCC of Turkmenistan, and (ii) to begin the project “Capacity-building activities on climate change in the priority sectors of the economy of Turkmenistan”. These financial problems require both operativeness and constructiveness;

⁴ National Programme of the President of Turkmenistan “Social and Economic Reforms Strategy in Turkmenistan for the period till 2010”. Ashgabat, 1999.

⁵ Operational Guidelines for Expedited Financing of Climate Change Enabling Activities-Part II: Expedited Financing for (Interim) Measures for Capacity-Building in Priority Areas. GEF, October 1999.

(b) To strengthen the technical support and consultative assistance from UNEP for project implementation on different aspects on climate change. To complete the assessment and analysis activities of part I. For the implementation of part II of the project, UNEP needs to send an international consultant and a UNEP official to Turkmenistan. A means of ensuring greater and more regular interaction with the UNDP offices in Ashgabat, when relevant, should also be developed.

39. The UNDP office in Ashgabat played the role of banker to the greatest extent in the period of project implementation. In the future, it will also be necessary to charge the UNDP local office with providing consultative support for preparation and implementation of the project on climate change, and assist in finding operative solutions to technical and financial problems, project monitoring and assessment.

Annex I

Climate Change Enabling Activity Project of Turkmenistan

List of Persons interviewed by the consultant in meetings in Ashgabat, Turkmenistan 24-28 September 2001

- Mr. Matkarim Rajabov, Minister of Environmental Protection of Turkmenistan, National Focal Point on Climate Change, Vice Chairman of the State Commission on United Nations Conventions and Programmes of Turkmenistan.
- Mr. Magtimgulu Akmuradov, Deputy Minister of Environmental Protection of Turkmenistan
- Dr. Amanmurad Durdıyev, Head of the Centre for Ecological Monitoring of the Ministry of Environmental Protection of Turkmenistan, National Project Coordinator
- Ms. Irina Atamuradova - Assistant of Project Coordinator
- Dr. Paltamed Esenov, Director of the National Institute of Deserts, Flora and Fauna
- Mr. Suhanberdi Bayramov, Chairman, National Committee on Hydrometeorology
- Mr. Mukunda R. Shretha, Deputy Resident Representative, UNDP, Ashgabat
- Mr. Batyr Khadjiyev, National Consultant on GEF, UNDP, Ashgabat
- Mr. Agatjan Babayev, Academician, National Institute of Deserts, Flora and Fauna
- Non-governmental organizations:
 - Amannuriyeva Maral - NGO “Ecolog”
 - Berkeliyeva Leyla - NGO “Djan”
 - Khanmedova Nartach - NGO “Katena”
- Project Implementation Team (listed in annex II)

Annex II

Climate Change Enabling Activity Project in Turkmenistan

I. Working Group on Inventory of GHG

1. Prof. Aman Akgayev - Leader of group, Turkmen Polytechnic Institute
2. Elena Verveda -NGO “Katena”
3. Victoria Elfimiovna - Centre for Ecological Monitoring
4. Grigory Ennik - Centre for Ecological Monitoring
5. Ovezmurad Durdiyev - Research Institute of Oil and Gas
6. Irina Petrikova - National Corporation “Oilgasconstruction”
7. Nartar Khanmedova - NGO “Ecoforest”
8. Timur Aliyev - Institute of Physics
9. Svetlana Talibova - Ministry of Education
10. Elena Allaberdiyeva - Ministry of Energy
11. Gurbangeldi Allaberdiyev - National Committee on Hydrometeorology
12. Tachdurdi Gedemov - National Institute of Deserts, Flora and Fauna
13. Yazbibibi Karabayeva - Turkmen Polytechnic Institute
14. Vladimir Verveda - Department of Management of Extreme Situation

II. Working Group on Mitigation Options

1. Vladimir Glazovski - Leader of group, Ministry of Environmental Protection
2. Amanguli Magtimov - Turkmen State University
3. Aman Djumashov - Turkmen State University
4. Meret Khudayarov - Ministry of Energy
5. Elmar Bekniyazov - Ministry of Energy
6. Azad Chariyev - Institute of Energy
7. Nazar Korpeev - Turkmen Polytechnical Institute
8. Larisa Ribakova - Turkmen State University
9. Pirli Shirmuradov - Ministry of Energy

III. Working Group on Vulnerability and Adaptation

1. Amangeldi Yakubov - Leader of group, National Committee on Hydrometeorology
2. Altin Khanmedova - National Committee on Hydrometeorology
3. Vera Asanova - National Committee on Hydrometeorology
4. Muhammadgulu Nurverdiyev - National Institute of Deserts, Flora and Fauna
5. Tofik Iskenderov - Institute of Physics
6. Valery Kurpovski - National Committee on Hydrometeorology
7. Dr. Vladimir Golubchenko - Ministry AmelARATION and Water Supply
8. Stanislav Aganov - Ministry AmelARATION and Water Supply
9. Irina Atayeva - National Committee on Hydrometeorology
10. Mychamat Nazarov - National Committee on Hydrometeorology

IV. Working Group Education, Training and Public Awareness

1. Dr. Oraz Saparov - Leader of group, Turkmen State University
2. Maral Annanurova - NGO “Ecolog”
3. Leyla Berkeliyeva - NGO “Djan”

V. Working Group on Preparation of National Communication

1. Yuri Fedorov
2. Amanmurad Durdiyev
3. Irina Amanmradova

VI. Local consultants

1. Azat Chariyev - Institute of Energy
2. Tachdurdi Gedemov - Institute of Deserts, Flora and Fauna
3. Nazar Korpeev - Turkmen Polytechnic Institute
4. Vladimir Golubchenko - Institute "Turkmen Water Management"

Annex III

Climate Change Enabling Activity in Turkmenistan

List of State Commission of Turkmenistan for Ensuring Compliance with Commitments under United Nations Conventions and Programmes on Environmental Protection (21 September 2001):

1. R. Saparov - Chairman of Commission, Vice Prime Minister of Turkmenistan
2. M. Rajapov - Vice Chairman of State Commission, Minister of Environmental Protection of Turkmenistan, National Focal Point on Climate Change

Members of the State Commission are leaders of Ministries and other organizations.

Working Group of the State Commission of the United Nations Framework Convention on Climate Change.

1. A. Durdiyev - Head of Centre for Ecological Monitoring, Executive coordinator on climate change
2. C. Bayramov - Chairman of Turkmenhydromet
3. A. Akgatev - Dean of Turkmen Polytechnic Institute
4. O. Saparov - Head of Department of Turkmen State University
5. I. Atamuradova – Assistant of Project on Climate Change
6. G. Yennik - Chief of Department of Centre for Ecological Monitoring.
7. B. Djumarov – Head of Department of State Company on Mineral Fertilization Production
8. Kh. Rakhimov – Lead Engineer of National Committee on Hydrometeorology
9. T. Tedjenov – Chief of Service of Ministry of Energy
10. T. Khoshanov – Head of Management of State Trade Corporation “Turkmenoilgas”
11. M. Yagdiyev – Lead Engineer of Turkmenairlines

Annex IV

Climate Change Enabling Activity in Turkmenistan

Involvement of the External Consultant in Implementation of Climate Change Enabling Activity in Turkmenistan

1. First Visit of International Short Term Consultant -- Dr. Aleksey Kokorin, Russian Federation.
Duration: 22-27 July 1998. Activities:
 - Participation in Workshop, 22-23 July 2001
 - Consultation and explanation of the IPCC Methodology for development of the Turkmenistan Inventory Emissions
 - Technical assistance for the development of the GHG Inventory in the energy non-energy sectors

2. Second Visit of International short-term Consultant -- Dr. Aleksey Kokorin, Russian Federation.
Duration: 19-27 July 1999. Activities:
 - Participation in Workshop on Vulnerability and Adaptation and Mitigation, 22-24 July 1999
 - Sum up project implementation
 - Recommendations and possible further actions.

Annex V

Evaluation of the UNEP/ GEF Project “Turkmenistan: Enabling Activities for the Preparation of Initial National Communication related to the UNFCCC”(GF/ 2200-97-41)

Planned action on the project	Degree of achievement, in %	Assessment of completed actions
1. Establishment of the Project Management and National Study Teams.	80-90	2
2. GHG Inventories 2.1 All Energy Sources 2.2 Industrial Process 2.3 Agricultural Process 2.4 Land use Change and Forestry 2.5 Waste.	66-75 80-90 75-80 75-80 60-75 40-50	3 2 2 2 3 4
3. Programmes to address climate change and its adverse impacts, including. 3.1 Assessment of potential factors of GHG emission reduction. 3.2 Forecast of GHG emission. 3.3 Measures and recommendations on GHG reduction. 3.4 National strategy on GHG reduction	50-60 50-60 50-60 50-60 50-60	4 4 4 4 4
4. Policy options for monitoring systems and response strategies for impacts. 4.1 Collection and systematization of initial information on climate change. 4.2 Assessment of vulnerability of natural ecosystems and social and economical activity. 4.3 Assessment of impacts on economy and ecosystems.	53-65 60-75 50-60 50-60	4 3 4 4
5. Policy frameworks for implementing adaptation measures and response strategies 5.1 Identification and assessment of adaptation factors. 5.2 Preparation of national strategy on adaptation.	50-60 50-60 50-60	4 4 4
6. Capacity-building to integrate climate change concerns into planning.	50-60	4
7. Programmes related to sustainable development, research, public awareness, etc. 7.1 Preparation of visual information materials (publications, video, etc.). 7.2 Involvement of public opinion.	60-75 60-75 60-75	3 3 3
8. Provision of other information.	50-60	4
9. Preparation of national communication.	60-75	3

- Notes
- 1 - Excellent (90-100 % achievement)
 - 2 - Very good (75-89 % achievement)
 - 3 - Good (60 to 74 % achievement)
 - 4 - Satisfactory (50 to 59 % achievement)
 - 5 - Unsatisfactory (40 % and below)

Annex VI

Unspent budget or the project (copy)

FORMAT OF QUARTERLY PROJECT EXPENDITURE REPORTS FOR SUPPORTING ORGANIZATION

Quarterly project statement of allocation (budget), expenditure and balance covering the period from

01 January 2001 to 30 April 2001

Project №:	GF/2200-97-41
Implementing Organization:	Research and Production Centre of Ecological Monitoring
Project title:	Turkmenistan: Enabling Activities for Preparation of Initial National Communication related to the UN Framework Convention on Climate Change
Project period:	01 October 1997 - 30 April 2001

Expenditure by object of expenditure in accordance with the project budget:	Project budget allocation year: 2001		Expenditure incurred				Unspent balance of allocation for year 2001	
			for the half-year I		Cumulative this year			
	m/m	Amount	m/m	Amount	m/m	Amount	m/m	Amount
1100 Project Personnel		\$7 500		\$2 600		\$2 600		\$4 900
1200 Consultants		\$25 000		\$8 000		\$8 000		\$17 000
1300 Administrative support		\$3 600						\$3 600
1400 Volunteers								
1600 Travel		\$6 400		\$131		\$131		\$6 269
2100 Sub-contracts		\$41 000						\$41 000
2200 Sub-contracts								
2300 Sub-contracts								
3100 Fellowships								
3200 Group training		\$6 200		\$4 757		\$4 757		\$1 443
3300 Fellowships								
4100 Expendable equipment		\$1 912						\$1 912
4200 Non-expendable equipment		\$10 000		\$5 500		\$5 500		\$4 500
4300 Premises								
5100 Operation		\$1 000		\$78		\$78		\$922
5200 Reporting costs		\$5 524		\$415		\$415		\$5 109
5300 Sundry		\$3 000		\$267		\$267		\$2 733
5400 Hospitality								
GRAND TOTAL		\$111 136		\$21 748		\$21 748		\$89 388

A copy of the table was presented to Mr. A. Durdiyev, Coordinator of the project, and Ms. I. Atamuradova, Assistant of the project.
