

COUNTRY: Mongolia

PROJECT TITLE: *Mongolia: Preparation of initial national communication in response to the UN Framework Convention on Climate Change (UNFCCC)*

GEF Focal Area: Climate Change

Country Eligibility: Ratified UNFCCC on 30 September 1993

GEF Financing: US\$239,500

Government Counterpart Funding: US\$50,000

GEF Implementing Agency: UNEP

Executing agency: National Institute of Meteorology and Hydrology (NIMH)

Collaboration Agencies: National Agency for Meteorology, Hydrology and Environment Monitoring (NAMHEM)
Ministry of Nature and the Environment

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Estimated Starting Date: November 1998

Project Duration: 2 years

Background

Geographic

1. Mongolia is situated in Central Asia and occupies an area of 1,566.5 million km². Its average altitude is 1,580 m above sea level. The highest point is Khuiten Uul (Mongolian Altai Range, 4374 m) and the lowest point is Khoekh Nuur (Mongolian Eastern Steppe, 560 m). The northwest and central parts are high mountainous regions, while the eastern part is a vast steppe region. The southern part of the country is covered with semi-desert and desert area (the Mongolian Gobi). Forests cover 8.1% of the country and mainly consist of larch and pine. Certain areas in the Gobi are occupied by saxaul forests. There are four natural zones in the country: forest steppe, steppe, semi desert and desert.

Climate

2. The climate is harsh continental with sharply defined seasons, high annual and diurnal temperature fluctuations and low rainfall. Because of the high altitude, Mongolia's climate is generally colder than other countries of the same latitude. Average annual temperatures are around 8.5°C in the Gobi and -7.8°C in the high mountainous areas. The extreme minimum temperature is -31.1°C to -52.9°C in January and the extreme maximum temperature is +28.5°C to +42.2°C in July. The annual precipitation amount is averaging 200-220 mm and ranging from 38.4 mm per year in the extreme south (Gobi desert region) to 389 mm per year in limited areas in the north. Most precipitation occurs in June, July and August; the driest months are from November to March. Droughts in the spring and summer periods occur about every five years in the Gobi region, and one in every ten years over most other parts of the country. Mongolia has on an average 3,000 hours of sunshine annually, which is well above the amount received by other countries of the same latitude.

3. Meteorological data, analyzed for the period 1940-1990, suggest that the Mongolian climate is gradually becoming drier. Indeed, during the last 50 years the average temperature has increased by about 0.7°C. These temperature increases are stronger in winter months and in the mountain areas of western and northern Mongolia than in the Gobi and steppe areas. The maximum temperature increases of nearly 3° C were observed in the winter season, but temperatures in the summer months is projected to decrease, in contrast to the global and regional averages. The annual precipitation has decreased since the 1940s to about the mid-1980s, but it has since exhibited an increasing tendency in most areas, except the Gobi desert area. The severity and frequency of agricultural drought in the Gobi desert area, and also floods due to rain in the central and northern parts of the country may increase with climate change.

Land use patterns

4. In general, land cover in Mongolia can be broken down as follows: 76.5% used for agriculture land (of which approximately 0.8% is cultivated, 1.6% is used for hay making, and 97.6% is pasture land); 0.3% is occupied by cities and settlements; 10.4% for state special needs (which includes land allocated for the state security and defence purposes, special protected areas, roads, and communication network of national importance); 9.7% is forest and shrubland; 1.1% is covered by water, and 1.7% is unused or not suitable for usage.

5. The Land Use Law enacted by the Parliament in 1994 (which is effective from April 1995) will change legislative rights to land use. Under the new law, entities such as political, state, non-governmental and religious organizations, and citizens may possess and use land. The

Constitution declares that private land shall be owned by the citizens of the country. Land is classified by the basic purpose and type, and the responsibility for land management lies with the central or local government.

6. Soil erosion, desertification and other forms of land degradation are considered high priority issues, in view of the strong dependence of Mongolia's economy and food supply on agriculture, and the reliance of other sectors, including mining, on land resources. The degraded area is growing annually. The development of strip mines and the deposition of overburden, spills and tailings all degrade land resources. Domestic and industrial construction and other forms of waste are currently deposited on the soil surface in overly-large, designated dumping sites on the outskirts of cities and towns.

7. Most of the country is rangeland, which has been degraded primarily through overgrazing. In the World Conference on Natural Disaster Reduction in 1994, the Government of Mongolia estimated that 76% of the nation's rangelands were subject to slight desertification, 20% to moderate desertification, and 4% to severe or very severe desertification.

8. Until about 1960, the area under cultivation remained a very small proportion of the country's land area. However, since that time an aggressive agricultural programme, including a "virgin lands" programme to spread primarily wheat farming to vast areas of steppe land, was undertaken. The area under crops tripled in 30 years, and the total land under cultivation at the present time is around 1.3 million ha. Dry land farming is the prevailing practice. A considerable area is taken up by livestock feeds and fodder crops.

9. In 1994, the Mongolian National Plan of Action to Combat Desertification estimated that over 93% of the sown area is prone to wind erosion. Estimates vary, but between half and two thirds of the lands opened in the "virgin lands" programme have been abandoned and are continuing to erode.

Social

10. In 1995, the population of the country was about 2.32 million. The average population density is 1.5 persons per km². Although the population has doubled since 1960, the average population density remains the lowest in Asia. Approximately 50% of the population live in urban areas, with half of the urban population in Ulaanbaatar.

11. Mongolia's population growth rate was one of the highest in Asia: 2.1-2.5% per year before the 1990s. However, it is decreasing during the last few years. There is a strong trend toward urbanisation of the population, and the country has undergone rapid economic development and industrialisation in the past three decades. The accelerating growth in population, therefore, has been matched by an increase in the per-capita rate of natural resource consumption. The sustainable rates of use or loss of renewable natural resources, including surface water, ground water, forest, soil, fishery and rangeland resources, have already been exceeded in some areas; this situation is likely to become more widespread if current trends continue, and measures to conserve and manage natural resources are not instituted and implemented.

Economic

12. Economic development faces serious challenges. Currently, Mongolia has to navigate the difficult transition from a centrally planned to a market oriented economy, and overcome considerable geographical obstacles to development, including being super-landlocked with an extreme continental climate. Under these tough circumstances, the Government has committed itself to market reform through an active privatization programme, trade and investment liberalization and the unification of exchange rates. These policies have born fruit to a certain extent: declining growth rate of 1990 to 1993 has been reserved since 1994.

13. Exports are concentrated in mineral-based commodities, accounting for 61% of total exports in 1996. Exports related livestock industries are 20%, down from 27% in 1992. Real GDP contrasted by only 1.3% in 1993, and on the basis of available data, it is projected to have grown at the rate of over 2% in 1994. The annual rate of inflation peaked in January 1993 (420%) and has generally declined since then (in August, 1994 it was about 68%). The GDP per capita in 1995 was US\$ 370.

Energy

14. Mongolia's power supply is separated into two parts. First, the major part of the country, in terms of population, is supplied by the interconnected grid operated by the Central Energy System (CES). Second, in the more remote areas of the country, non-interconnected power stations - mainly diesel powered, are installed. Total energy production of Mongolia was 2,122.7 million kilowatt-hours in 1994. The primary energy resource is coal. Mongolia has abundant resources of coal, which are estimated to be around 50 billion tons. Proven coal reserves are estimated to be about 15 billion tons. The largest users of coal are the thermal power stations and the boiler plants. Mongolia does not produce natural gas and oil and therefore, all requirements for petroleum products are met entirely by imports, primarily from Russia. Hydropower and renewable energy resources are not exploited significantly.

Industry

15. Industry was developed after 1921 when the independence of Mongolia was declared. Traditionally, the economy has been based on agricultural production, namely livestock husbandry. Over the last few decades, heavy industries such as power, mining, fuel and others have been established and developed. About 60% of the national export income is supplied by copper and molybdenum concentrate. Since livestock husbandry plays an important role in the economy, industries that process agricultural raw materials (e.g., leather and skin processing, wool preparation and fabrics manufacture, biochemical industry, etc.) have been developed to a certain extent.

Agriculture

16. Livestock husbandry is the base for the economy. The livestock population has increased from 28 million head in 1995 to 30.4 million head in 1998. Due to the privatization of the domestic livestock industry, the number of livestock has increased in the last few years. Most of this growth has been the increase in goats, as the demand for cashmere wool has increased significantly. However, most Mongolian livestock is an indigenous breed of animals, grazing all year on natural pastures, with very low productivity and they are small compared to other breeds of animals in the world. Intensive livestock activities, such as pig production, poultry, and dairy do not play an important role in the livestock sector.

17. Traditionally, crop production has not been a major agricultural activity in Mongolia. Intensive land cultivation only began in 1958. The area of arable lands was increasing up to the 1990s when about 1.3 million ha was under cultivation every year. However, since 1991 the area has been decreasing due to the economic crisis, as marginal croplands that had been growing wheat have been taken out of production. The main crops are wheat, potatoes and other vegetables.

Environmental

18. As mentioned above, prior to 1990 the centrally-planned development led to very substantial resource and environmental degradation. Since that time the critical economic conditions have resulted in very limited funding for infrastructure, institution and programme development in the area of natural resource management and environmental protection, thereby reducing the capability of the new government to rectify the environment and resource problems it had inherited. At the same time, faced with overwhelming economic problems, the government has not perceived the environment as a high priority.

19. In common with most other centrally planned, command-driven economies, particularly those of the former Soviet Union, environmental and resource management considerations played virtually no effective role. Inadequate attention was given to planning natural resource utilisation, to the development of sustainable natural resource use policies, to resource restoration and protection, and to resource quality protection. This led not only to the loss and depletion of natural resources, but also to the degradation of environmental quality. Industries and population centres were developed without environmental safeguards. Atmospheric, surface water and soil contamination, concentrated primarily around urban centres, has significantly affected the local environment, and often exceeding health-based criteria.

National environmental policy

20. The Mongolian government perceives that any negative effects which may be experienced from potential climate change could be equivalent to a national disaster. Extreme climatic events with or without a superimposed change in climate could have tremendous adverse effects on Mongolian economy and social welfare. Several steps have been taken to deal with the environmental and natural resource issues.

21. The new Constitution, which was adopted in 1992, included provisions that established new institutions such as the Ministry of Nature and Environment (MNE), developed new environmental legislation, and has sought natural resource assistance from donors. However, extreme financial constraints limit the possibilities for implementation of these laws and regulations.

22. The Government of Mongolia has developed several instruments to address environmental and conservation issues. In 1993, the Mongolian Environmental Action Plan (MEAP) was prepared and approved by the Government. The MEAP outlines the country's principle priorities for environment and resource management. The National Ecological Concept, a framework document on national policy for the protection of the nature and environment of the country within the context of socio-economic development, was ratified by the Great Khural (Parliament) in 1997. In cooperation with the United Nations Development Programme (UNDP), a proposal for a National Action Plan to Combat Desertification and a National Biodiversity Action Plan was developed.

23. A proposal for the formation of the National Climate Committee (NCC) was prepared and submitted to the Government in 1997. The NCC, which is expected to be established by the end of this year, will provide guidance to all climate change activities and it will evaluate projects related to climate change.

24. In 1994 the Great Khural formed the National Committee of International Geosphere - Biosphere Programme (IGBP) of Mongolia by joint resolution of the Ministries of Nature and Environment, and Science and Education. The purpose of this Committee is to encourage Mongolian research institutions to participate in the IGBP core projects, which deal with global change, including climate change issues.

25. The government has identified a critical need to strengthen the institutional environmental framework, and to build the needed staff capacity which is necessary to achieve effective action on environmental and climate change issues. Steps are being taken to complete and implement the Capacity 21 Programme with assistance from UNDP.

Past and ongoing activities on climate change

26. There are two climate change related projects in Mongolia:

(a) *US Country Study Program (USCSP)* - This was the first climate change study in Mongolia which was implemented from 1994 to 1996. Its objectives were to enhance the capabilities of the country to conduct GHG inventory, assess its vulnerabilities to climate change, and evaluate the options available to it to mitigate and adapt to climate change. The final report for this project was submitted to the Country Studies Management Team in June of 1996. The main results of this project were:

* GHG Inventory for the year 1990, using the old version of the IPCC Guidelines. **However, it must be noted that one of the main problems of this study was the lack of appropriate emission factor data necessary for emissions calculations. Therefore, default IPCC values were used in the forestry, grassland conversion, agriculture, and waste estimates. Further work is needed in this area to provide more realistic estimates for sources and sinks of GHG, and this will be addressed in this project.**

* A preliminary vulnerability and impact assessments, which covered spring wheat, water resources, and grassland/livestock sectors. **However, local scientists are concerned that the General Circulation Models (GCMs) used to predict climate change did not accurately reflect the baseline conditions in Mongolia. Moreover, only one crop (spring wheat) was examined and very few sites were studied. Therefore, the results of this study are considered only as preliminary and not sufficient for policy development. Further work is needed to make appropriate adjustment to climate predictions so that more realistic vulnerability and adaptation assessments can be conducted, and this will be addressed in this project. Moreover, limited resources under the USCSP have prevented the completion of the vulnerability assessments for the grassland and livestock sector, and this gap will be filled by this project**

(b) *"Asia Least-Cost Greenhouse Gas Abatement Strategy" (ALGAS) Project* -- Mongolia is one of the 12 participating countries in this UNDP/GEF/ADB project, which started in 1995. The overall objective of the ALGAS Project is to improve the understanding and estimates of sources and sinks of GHG emissions, more effectively assess, based on common and verifiable methodologies, the options for reducing sources and enhancing sinks of GHG, to identify and

implement cost-effective opportunities for limiting its GHG emissions, increasing GHG sinks and mitigate potential adverse impacts of climate change. ALGAS is a regional project which is focusing, in particular, on the energy sector of Mongolia. It was completed by the end 1997, and the final draft reports are being reviewed. The main results of this project are: (i) Updated GHG Inventory for 1990-1995 based on the old version of the IPCC Guidelines; and (ii) Least-cost mitigation strategies for energy and forestry sectors. **This project will fill in the gaps by focusing on mitigation options analysis on agriculture and other sectors.**

(c) The Government of the Netherlands is providing limited financial support Mongolia for a project for an overall climate change impact assessment of agricultural sector and for the preparation of a National Climate Change Action Plan. However, in accordance with COP2 Guidance, National Climate Change Action Plan is not required for the initial National Communication, though it is useful to have such a plan. The project has just started in September 1998 and it is expected to be completed in September 1999.

27. This project will build on the results of the above studies.

Project objectives

28. Article 12.5 of the UNFCCC requires non-Annex 1 Parties (except those least-developed countries) to make their initial national communications "*within three years of the entry into force of the Convention for that Party, or of the availability of financial resources...*". The Government of Mongolia is fully committed to the implementation of the UNFCCC, and hence, it intends to prepare and submit its initial national communication 2 years after the approval of the requested funding for this project. This national communication will highlight priority areas for sustainable development.

29. As Mongolia has already undertaken some enabling activities relevant to the implementation of the UNFCCC (see para. 26), hence the main objective of this proposal is to enable the country to update the previous results, fill in gaps, and further enhance and strengthened its scientific and technical capacity, so that the country can fulfil its commitments and obligations as required by Articles 4.1 and 12.1 of the UNFCCC, especially the preparation and the reporting of its initial national communication as required by Article 12.1 (a), (b) and (c) of the Convention based on the recommended COP2 guidelines and format for non-Annex 1 Parties.

Project description

30. This proposal follows the "*GEF Operational Guidelines for Expedited Financing of Initial Communication from Non-Annex 1 Parties (February 1997)*". It consists of nine clearly defined activities, each of which is briefly described as follows:

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

31. Based on the existing scientific and technical expertise from the past and ongoing projects, a Project Management Team (PMT) and a Technical Expert Team (TET) will be established under the auspices of the National Institute of Meteorology and Hydrology (NIMH) in consultation with other governmental departments, as well as NGOs. A National Climate Committee (NCC) will be formed to provide guidance to the PMT (see para. 80(b)).

32. The TET will comprise four technical working groups: GHG Inventory, Mitigation Options, Vulnerability/Impacts Assessment and Adaptation, and National Communication. Each group

will include a number of experts from key relevant sectors including government agencies, academic institutions, NGOs, and private sector as needed.

33. The TET will be coordinated by a National Project Coordinator (NPC), who will be designated by the NIMH to coordinate the day-to-day project activities. The NPC will coordinate the project execution among the different branches of government and NGOs. The NPC and the leader of each working group, will form the PMT, which will be supported by a secretary. The PMT will have adequate and appropriate computer and telecommunication facilities, including Internet.

34. A total of **US\$60,000** is requested for the Project Management, which will include the 2-year salary for the NPC and a secretary, as well as expenses for computer, fax machine, and communications as necessary.

Major output:

35. The major output of this proposed activity will be the designation of NPC and the establishment of the PMT and TET, which will be fully committed to the successful implementation of the project.

Activity 2: GHG inventory

36. Following the COP2 guidelines, the GHG inventory will mainly focus on CO₂, CH₄, and N₂O in (a) all energy sources; (b) industrial processes; (c) agricultural processes; (d) land use change and forestry; and (e) other sources, while data for other GHG may be collected where available.

37. This activity will build on the results of the USCSP and ALGAS. In particular, it will focus on the following:

(a) An improved GHG inventory for the sources and sinks for the year 1994 based on the latest version of IPCC Guidelines.

(b) An effective computerized database system will be established so that data can be stored and updated regularly and efficiently. Training for maintaining this database system will be provided.

(c) Improvement of local emission factors -- Earlier studies show that one of the main problems was the lack of appropriate emission factors, and hence default IPCC values were used in the forestry, land use change (grassland conversion), agriculture, and waste estimates. Further work is needed in this area to provide more realistic estimates for sources and sinks of GHG. This is in line with Decision 10/CP2 of COP2 with regard to the appropriate use of emission factors. Future GHG emissions will be projected based on emission trends.

(d) Capacity building, which include training, education and institutional strengthening in GHG Inventory, is still needed. Thus, any training opportunities offered by the *UNDP/UNEP National Communication Support Programme* and other agencies will be fully utilized.

(e) End of activity review workshop -- At the end of the GHG inventory, a workshop will be held to review and present the results to national policy and decision makers.

38. A total of US\$25,000 is requested to cover the above activities.

39. This component will be undertaken by the GHG Inventory Group, which will draw from the available expertise especially from the previous and ongoing studies.

40. This activity will be coordinated with the regional efforts whenever and wherever possible, such as CC:TRAIN and *UNDP-UNEP National Communications Support Programme*.

Major outputs:

41. The major outputs of this proposed activity will be:

- (a) A critically reviewed and comprehensive GHG inventory based on the 1994 data, so that it can be used as a basis for the selection of mitigation options.
- (b) Identification of shortcomings and gaps of the IPCC Guidelines in relation to the local conditions.
- (c) Measurement and development of new emission factors for specific activities.
- (d) Recommendations on areas of targeted research to improve future inventories and to suggest revisions to the existing IPCC GHG inventory methodology.
- (e) A computerized database system for regular and efficient updating and management of the inventory.
- (f) Strengthening of the inventory study team, drawing from the past and existing expertise.
- (g) Workshop report, which will include major papers presented at the workshop.

Activity 3: Programs to address climate change and its adverse impacts, including abatement and sink enhancement

42. Based on the results of the updated GHG inventory, this project will identify, analyze, assess and update a range of potential mitigation options so that a national strategy and plan for viable measures to abate the increase in GHG emissions and to enhance removals by sinks can be developed and formulated.

43. As mentioned in para. 26(b), earlier studies by ALGAS were focusing on energy and forestry sectors, while other sectors such as **agriculture and land use changes** have been neglected. This activity will fill this gap by analyzing the least-cost mitigation options for these sectors and their impacts on national sustainable development. The GHG mitigation strategies in different economic sectors will be integrated into national sustainable development strategy and plan.

44. The proposed activity will be undertaken by the Mitigation Options Group, drawing from available expertise especially from the previous and ongoing studies. The capacity for this group to undertake the task will be strengthened and enhanced. Useful lessons will be learned from ALGAS study and UNEP/UCCEE's "*Economics of GHG Limitations - Phase I: Methodological Framework for Climate Change Mitigation Assessment*".

45. A workshop will be conducted for key stakeholders and policy and decision makers to review the options and strategies at the end of the study.

46. A total of **US\$20,000** is requested to cover the above activities.

Major outputs:

47. The major outputs of the proposed activity will be:

- (a) Identification and assessment of least-cost mitigation options.
- (b) Recommendations on reducing the number and intensity of emissions from various sources and the enhancement of sinks.
- (c) Preparation of the first national mitigation strategy for the national communication.
- (d) Workshop report, which will include major papers presented at the workshop.

Activity 4: Policy options for monitoring systems and response strategies for impacts

48. This project will identify and develop policy options for adequate monitoring systems and response strategies for climate change impacts assessment. However, these policy options will be based on comprehensive analysis of vulnerability and impacts assessment, using the *UNEP Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies*, which is based on *IPCC Technical Guidelines*. Existing monitoring systems will be strengthened where necessary. Thus, a comprehensive vulnerability and impacts assessment will be undertaken on terrestrial ecosystems (these will include agriculture, forestry and land-use change, water resources, human health, permafrost and snow cover, pests and disease, other aspects such as socio-economics and infrastructure) using the 1994 data.

49. This activity will build on the results of the USCSP, which had only partially examined agriculture (spring wheat), water resources (three river basins, namely Bogd, Bulgan and Khalkh gol) and forestry due to limited resources and time. This activity will first develop appropriate adjustments to climate change scenarios, vulnerability and impact assessment methodologies based on previous work, and then focus on the following areas:

- * **Orkhon, Selenge and Onon Kherulen river basins, which are the largest river basins in Mongolia where the main agricultural regions are located.**
- * **Human health**
- * **Permafrost and snow cover**
- * **Pests and disease**
- * **Linkages between land degradation, forestry and steppe fires and climate change.**
- * **Socio-economic impact assessment**

50. A total of **US\$30,000** is requested to cover the above activities.

51. A workshop will be held for various stakeholders as well as policy and decision makers to review and publicize the results at the end of the study.

52. A Vulnerability/Impacts Assessment and Adaptation Group, drawing from the existing expertise, will be formed within the TET to undertake this task. The capacity for this group to undertake the task will be strengthened and enhanced. In addition, institutions which will undertake this activity will be strengthened where necessary.

53. Lessons will be learned from the methodology as developed by UNEP's "*Country Case Studies on Climate Change Impacts and Adaptation Assessments (Phase I)*".

54. Based on this study, policy options will be identified and developed for the response strategies. **This will include policies on land degradation and control that are relevant to climate change, including grazing management, agricultural practices and priorities, forestry initiatives, conservation biology, water resource priorities, and other relevant natural resource management issues.**

Major outputs:

55. The major outputs of the proposed activity will be:

- (a) Important baseline data required for the assessment of climate change vulnerability/impacts and adaptation options.
- (b) A comprehensive vulnerability/assessment for various sectors based on established procedures.
- (c) Policy options for adequate monitoring systems and response strategies for climate change impacts on terrestrial ecosystems and socio-economic components.
- (d) Workshop report, which will include major papers presented at the workshop.

Activity 5: Policy frameworks for implementing adaptation measures and response strategies

56. The reliable identification of adaptation measures must be based on a prior analysis of vulnerability to potential impacts. Thus, based on the results of the vulnerability and impacts assessment for various sectors in Activity 4, this project will identify, analyze, assess and evaluate a range of potential adaptation (stage 1) options so that a national strategy for the viable measures can be developed, formulated and implemented in order to minimize the impacts of climate change on the economy. **So far very limited assessment and analysis of adaptation options has been undertaken in Mongolia.** Thus, this activity will be one of the major focuses of this project.

57. Based on this study, policy frameworks will be developed for implementing adaptation measures and response strategies in the context of disaster preparedness, agriculture, water resources, and forestry, with a view to integrating climate change impact information, as appropriate, into planning and decision-making processes.

58. This activity will also be undertaken by the Vulnerability Assessment and Adaptation Group, the capacity of which to undertake this task will be strengthened and enhanced where

necessary.

59. A workshop will be conducted for key stakeholders and policy-makers to review the adaptation options and strategies and the policy frameworks for their implementation at the end of the study. This workshop will be held back to back with that in Activity 4.

60. A total of **US\$20,000** is requested to cover the above activities.

Major outputs:

61. The major outputs of the proposed activity will be:

- (a) Identification and assessment of adaptation (stage 1) options.
- (b) Policy frameworks for implementing adaptation measures and response strategies.
- (c) Workshop report, which will include major papers presented at the workshop.

Activity 6. Building capacity to integrate climate change concerns into planning

62. In the context of undertaking national communication, there is a need to build or strengthen the national capacity to integrate climate change concerns into medium and long-term planning. This may include education and training on climate change for national development planners, as well as for policy and decision-makers from all relevant ministries and government agencies. For example, appropriate techniques such as integrated assessment may be introduced to these people so that it can be learned and used as a useful tool for proper policy and decision making in the planning process. This activity will be planned by the PMT.

63. A total of **US\$10,000** is requested to cover the above activities.

Major output:

64. Enhanced capacity of the national development planners and policy and decision-makers to integrate climate change concerns into planning.

Activity 7: Programs related to sustainable development, research, public awareness, etc

65. This project will identify and develop programmes in climate change which are related to sustainable development, research and systematic observation, education and public awareness, training, etc.

66. For example, Activities 2 to 6 will contain elements in research and systematic observation, education and training. In addition, the successful implementation of the UNFCCC in Vietnam relies also on wide public participation. Thus, it is proposed to **develop a cost-effective public awareness programme** so that campaigns can be undertaken throughout the project cycle when and where possible and that these campaigns can reach all levels in all villages/districts of the country. This is by no means an easy task in view of the fact that 50% of the population is sparsely distributed in rural areas. However, this must be achieved if national consensus is to be built on climate change mitigation and response strategies. Thus, both public and private media (television radio and newspapers) will be used to assist in creating public awareness. In addition, the results of Activities 2 to 6 will be disseminated to all policy and decision makers,

planners, the general public, NGOs, educational organizations, and other stakeholder groups. Public access to information on climate change and its effects will be promoted.

67. CC:INFO/Web will also be used as a tool to enhance national and international information flow. A CC Web site will be established in coordination with the CC:INFO/Web initiative. Materials produced by the IUC/UNEP and UNITAR CC:TRAIN will be used where appropriate. However, there is a need to translate these materials into Vietnamese in order for wider dissemination of information.

68. A total of US\$15,000 is requested to cover the above activities.

69. Indeed, the Government of Mongolia regards the implementation of Article 6 of the UNFCCC (*EDUCATION, TRAINING AND PUBLIC AWARENESS*) to be one of the top priority areas in fulfilling the objectives of the UNFCCC. Thus, vigorous effort will be made to undertake this activity during the project cycle and beyond.

Major outputs

70. The major outputs of this proposed activity will include:

- (a) Information packages, video aids, relevant publications and demonstrable community driven project.
- (b) Enhanced public awareness at all levels and in all villages/districts of the country.

Activity 8: Provision of other information

71. In accordance with the COP2 Guidelines, this project will also provide any other information relevant to the achievement of the objective of the UNFCCC.

72. For example, it will provide information on its specific needs and concerns arising from the adverse effects of climate change and/or the impact of the implementation of response measures, including the information on national technological needs related to measures to facilitate adequate adaptation to climate change, as well as the information on relevant financial and technological needs relating to the assessment of national, regional and/or sub-regional vulnerability to climate change. This may include, where appropriate, information related to data-gathering systems to measure climate change effects in the country or to strengthen such systems, and identification of a near-term research and development agenda to understand sensitivity to climate change.

73. It will also identify and describe the special technical and financial needs associated with proposed projects and response measures under Article 4, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, for the projects.

74. If feasible, it will also provide material or data, relevant for calculation of global GHG emission trend. In addition, it may describe the financial and technological needs and constraints associated with the communication of information. In particular, and following the evolving recommendations of the Conference of the Parties through its subsidiary bodies, the description may cover needs and constraints associated with the further improvement of national communications, including reduction of the margin of uncertainty in emission and removal

variables through appropriate institutional and capacity-building.

75. A total of US\$10,000 is requested to cover the above activities.

Activity 9: Preparation of national communication

76. Based on the outputs of Activities 2 to 8 as described above, the initial national communication will be compiled, edited and prepared. This task will be coordinated by the National Communication Group. It will involve all members of the PMT and NST, each of which will prepare the relevant sections/chapters for the initial national communication.

77. The draft national communication will be reviewed by NCC. Based on this review, a revised version will be produced. A workshop, with the participation of NCC, PMT, TET, key stakeholders and policy and decision makers, private sector and NGOs, will then be organized to review this revised draft national communication before it is finalized and submitted to the UNFCCC Secretariat. Translation of the national communication into English will be needed.

78. A total of US\$20,000 is requested to cover the above activities, but this amount, which is restricted by the recommended "cost norm" formulated in early 1997, is likely to be inadequate in view of the translation and printing cost.

Major output:

79. The major output of this proposed activity will be a comprehensive initial National Communication to be submitted to the UNFCCC Secretariat.

Institutional framework, project implementation and coordination

80. The project will be executed and implemented using two key national institutions:

(a) National Agency for Meteorology, Hydrology and Environment Monitoring (NAMHEM) and National Institute of Meteorology and Hydrology -- The Agency and Institute have been designated by the government as the lead agencies for climate change issues in the country. There these two agencies will be responsible for execution and implementation of the project.

(b) National Climate Committee (NCC) -- The NCC will be a policy making body that will be charged with oversight and advising project execution. Membership of the committee will be drawn from the following governmental, non-governmental, and academic organizations: the Ministry of Nature and the Environment (MNE), National Agency for Meteorology, Hydrology and Environment Monitoring (NAMHEM), the Institute of Meteorology and hydrology (IMH), the Ministry of Agriculture and Industry (MAI), the Ministry of Enlightenment (ME), the Ministry of Infrastructure and Development (MID), Institute of Geo-ecology (IGE), the Institute of Biology (IB), the University of Agriculture (UA), and the Mongolian Association for the Conservation of Nature and Environment (MACNE).

81. The National Project Coordinator (NPC) will coordinate the day-to-day project execution activities (see para. 33). The NPC will be supported by the TET, which will include experts from key relevant sectors including government agencies, academic institutions, NGOs, and private sector as needed. The TET will enable project management to maintain contact with relevant constituencies and be a technical advisory body to the NPC.

Proposed work schedule

82. The proposed timetable for commencement and completion of all activities described above is given in Table 1. The detailed work plans for each activity will be developed by the Project Coordinator in full consultation with the NIMH and NCC soon after the approval of the project, with the guidance and assistance of UNEP, which will be consulted throughout the period of the project implementation.

Appropriate sequencing

83. The above project activities will be undertaken in appropriate sequence based on good practice. Established guidelines will be followed, while established tools and methodologies will be used.

Activity matrix

84. The activity matrix which indicates the areas needed to be covered by this proposal are shown in Table 2. **The proposed activities have been thoroughly discussed with UNEP after all past and ongoing activities related to climate change have been critically reviewed and assessed by UNEP. It has been ensured that there will be no duplication of effort for this project with the past and on-going activities.**

Training

85. Some training for the PMT and TET in various aspects of Activities 2 to 9 are still necessary, as there will be new members joining the teams under the guidance of the existing experts. In addition, training for planners, policy and decision-makers in Activity 6 (see para. 62) will also be required.

86. All training activities, including national workshops and participation of regional and international workshops organized or to be organized by UNEP, UNDP or other international agencies for their ongoing enabling activities programmes, will be coordinated by the NIMH. In particular, the country will participate in the regional workshops organized by the *UNDP-UNEP National Communications Support Programme* and other agencies.

87. Training materials from the past and on-going activities may be obtained from various regional and international sources, such as IPCC, UNITAR (CC:TRAIN), etc. Lessons can also be learned from other on-going enabling activities programmes in the region implemented by UNEP and UNDP.

88. UNEP, with its extensive experience in training in enabling activities, will be consulted on all aspects of training, such as the workshop agenda, the trainers, etc. Technical assistance will be provided where necessary.

National level support

89. This project enjoys a very high level and a wide range of national support. It will be executed by National Institute of Meteorology and Hydrology (NIMH) in collaboration with National Agency for Meteorology, Hydrology and Environment Monitoring (NAMHEM) under the guidance of the NCC, which will have broad representation from the relevant ministries and government agencies and NGOs (see para. 80(b)). This proposal is fully endorsed by the GEF

Operational Focal Point (see attached letter).

90. The UNDP office in Ulaanbaatar will be fully informed of all activities. It has an important role to play during the implementation of the project. It may provide any support for the project as appropriate. This may include any possible logistic support. In addition, it will be invited to actively participate in all technical and policy workshops related to the project, so that it can provide useful inputs and contributions within the context of sustainable development.

Project financing and budget

91. As the proposed activities are standard enabling activities as defined by the *GEF Operational Guidelines*, so the incremental cost for undertaking these activities are also full cost. The requested GEF funding of US\$239,500 (this includes US\$17,500 for UNEP Coordination cost) reflects the current real needs and concerns of the country in order to fulfilling its commitments for the preparation of its initial national communication. Despite some past and ongoing activities, further training and capacity building for the project team members are still needed so that they can carry out the task in a sustainable manner (see Table 3).

92. This budget has been realistically estimated by the NIMH, the designated executing agency of the project, with the guidance of UNEP, and thoroughly reviewed by other relevant ministries of the Government before it is fully endorsed by the national GEF Operational Focal Point.

93. As a country "*with arid and semi-arid areas, and areas liable to forest decay*" (Article 4.8 (c), "*with areas prone to natural disasters*" (Article 4.8 (d), "*with areas liable to drought and desertification*" (Article 4.8 (e), "*with areas with fragile ecosystems, including mountainous ecosystems*" (Article 4.8 (g), "*whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy products.*" (Article 4.8 h), Mongolia deserves special consideration under Article 4, paragraph 8 of the Convention, including necessary actions related to funding, insurance and the transfer of technology, to meet its specific needs and concerns arising from the adverse effects of climate change and/or the impact of the implementation of response measures.

94. The contribution of the Government of Mongolia, which will amount to US\$50,000 over the period of the project, will include salaries for technical experts, technicians and other supporting staff, vehicles for field trips and their maintenance, basic communication and office facilities, library and information facilities, insurance, and others.

Rationale for GEF support

95. This is a standard enabling activities proposal which will assist Mongolia to fulfil its reporting requirements under the UNFCCC. As GEF is the international entity entrusted to operate the financial mechanism for the UNFCCC on an interim basis, the proposed activities are eligible for GEF funding.

Sustainability and participation

96. The Government of Mongolia is fully committed to the implementation of the UNFCCC, and hence the goals and objectives of this project. The strengthening of scientific, technical and institutional capacities of Mongolia in various aspects of the proposed activities, as well as the leading role taken by the NIMH to execute the project would enable the country to fulfil its obligations and commitments to the UNFCCC on a sustainable basis. Indeed, the whole project

management structure is designed in such a way that full participation by local experts in all aspects of activities are ensured, so that further activities in the future are sustainable.

97. On the completion of this project, Mongolia will have a considerably improved capacity through which to fulfil its commitments under the UNFCCC, and to respond to the challenges and opportunities presented by fulfilling its commitments under the UNFCCC.

Issues and risks.

98. **Issues:** In order to successfully implement the project, close coordination and consultation between the NIMH, NAMHEM, the NCC, the PMT and NST is essential. The NIMH and NCC will consult all relevant stakeholders, including NGOs and research organizations through appropriate venues (e.g. meetings and workshops).

99. **Risks:** The potential risks which may mask the objectives and goals of the project are:

- (a) Longer time period than expected for the collection and analysis of the data and the preparation of the national communication.
- (b) Inadequate consultations among various stakeholders.
- (c) Lack of involvement of major policy and decision makers in the formulation of final strategy.

100. Necessary action will be undertaken to avoid all the risks mentioned above.

Monitoring and evaluation

101. The Project Coordinator will provide a monthly progress report to the NIMH, which will share it with NAMHEM, NCC and UNEP. If possible, these reports may be compiled into an electronic newsletters that will be distributed to all participating institutions. These reports will enable the IMH and its supporting institutions to evaluate the implementation of the project on an ongoing basis and identify difficulties and shortcomings at an early stage. They will be reviewed by the NCC for their quality and standard, comprehensiveness, and conformity to the proposed terms of reference and dates of completion.

102. The NCC will meet on a quarterly basis to review project implementation and provide scientific, technical, policy and strategic guidance. The minutes of these meetings will be shared with all participating institutions. The NCC will guide the NIMH on reports and make recommendation to the NIMH, which, in turn, will provide quarterly progress reports and quarterly financial reports to UNEP based on UNEP's standard format.

103. UNEP will provide its established monitoring and evaluation guidelines and assessment procedures, which will be applied to evaluate the progress of the project during mid-term and after its completion.

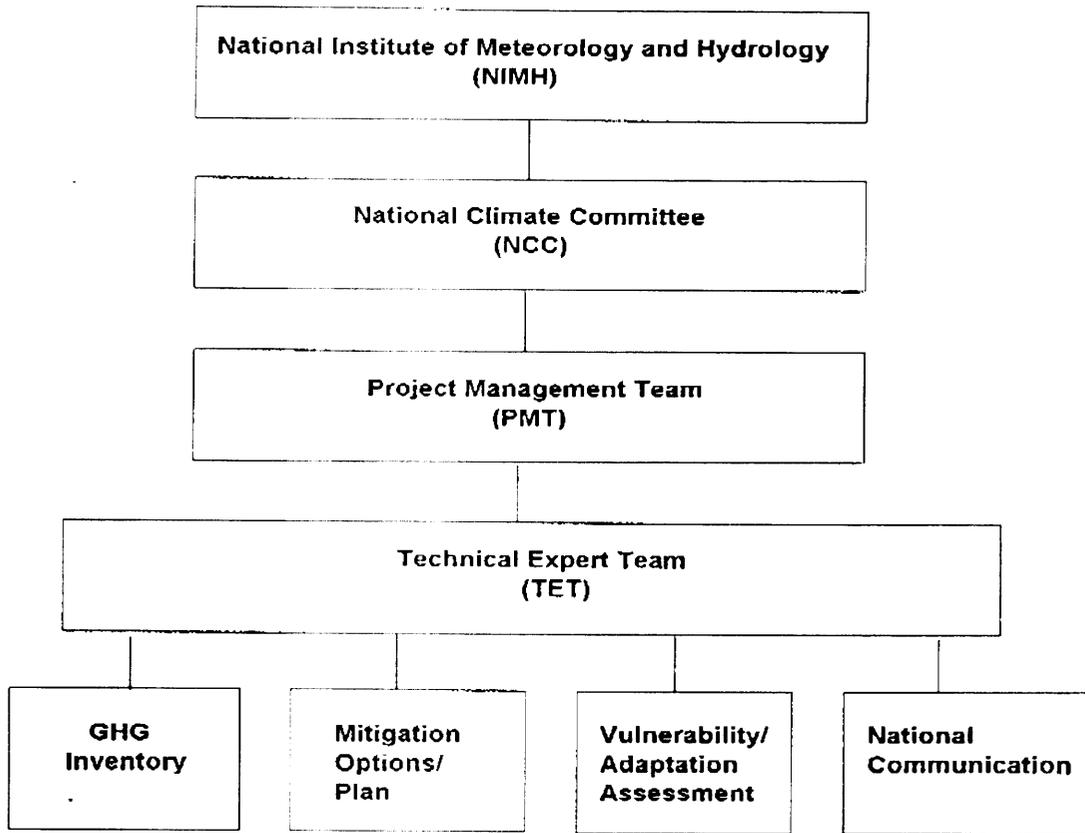


Figure 1: Project management structure

TABLE 1. PROPOSED WORK SCHEDULE

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

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

PM is Project Management.

M&E Evaluation and Monitoring

Table 2: Enabling Activities required for Initial National Communication (Mongolia)

Enabling Activity Commitment	Planning and Execution	Capacity Building		
		Data Gathering and Research*	Institutional Strengthening	Training & Education
<u>1. National Circumstances</u>	x	x	N/A	N/A
<u>2. Greenhouse Gas Inventory</u>	USCSP/ALGAS (x)	USCSP/ALGAS (x)	(x)	USCSP (x)
1. -All Energy Sources	" (x)	" (x)	(x)	(x)
2. -Industrial Processes	" (x)	" (x)	(x)	(x)
3. -Agricultural Processes	" (x)	" (x)	(x)	(x)
4. -Land use Change & Forestry	" (x)	" (x)	(x)	(x)
5. -Other Sources				
<u>3. General Description of Steps taken or envisaged to implement the Convention</u>				
(a) Program related to sustainable development, research, public awareness, etc	x	x	x	x
(b) Policy options for monitoring systems and response strategies for impacts	USCSP (x) Dutch	USCSP (x) Dutch	x	x
(c) Policy frameworks for implementing adaptation measures and response strategies	x	x	x	x
(d) Building capacity to integrate climate change concerns into planning	x	x	x	x
(e) Programs to address climate change and its adverse impacts, including abatement and sink enhancement	ALGAS (x)	ALGAS (x)	ALGAS (x)	ALGAS (x)
<u>4. Other Information</u>				
(a) Material relevant for global emission trends	x	x	x	x
(b) Financial and technological needs and constraints for				
- Projects for Financing	x	x	x	x
- National Communications	x	x	x	x
- Vulnerability Assessment and Adaptation	x	x	x	x
<u>5. Compilation and Production of the Initial National Communication</u>	x	x	x	x

* In the context of communication-related enabling activities

Table 3: Budget for Mongolia - Climate Change Enabling Activities

Enabling Activity Commitment	Capacity Building					Total Cost (US\$)
	Planning and execution (US\$)	Data Gathering and Research (US\$)	Institutional Strengthening (US\$)	Training and Education (US\$)	Technical & Admin. Support (US\$)	
2. Greenhouse Gas Inventory (plus one workshop)	10,000	5,000	8,000	2,000	25,000	
3. General Description of Steps	36,000	21,600	29,900	7,500	95,000	
(a) Programs related to sustainable development, research, public awareness, etc.	6,000	3,600	4,200	1,200	15,000	
(b) Policy options for monitoring systems and response strategies for impacts (plus one workshop)	8,000	7,000	8,500	2,500	30,000	
(c) Policy frameworks for implementing adaptation measures and response strategies (plus one workshop)	12,000	4,000	6,500	1,500	20,000	
(d) Building capacity to integrate climate concerns into planning	2,000	2,500	4,700	800	10,000	
(e) Programs to address climate change, adverse impacts, including abatement, sink enhancement (plus one workshop)	8,000	4,500	6,000	1,500	20,000	
4. Other Information	4,000	2,400	2,800	800	10,000	
(a) Material relevant for global emission trends	2,000	1,200	1,400	400	5,000	
(b) Financial, technological needs and constraints	2,000	1,200	1,400	400	5,000	
5. Completion and Production of Initial National Communication (plus one workshop)					20,000	
Project Management (for 2 years)					60,000	
Monitoring/Evaluation					12,000	
Total					222,000	
% of Total	38%	23%	31%	8%		
UNEP Coordination (3%)					17,500	
					TOTAL	
					239,500	



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23 September 1998

Dr. Pak Sum Low
Senior Programme Officer
GEF Coordinating Office
UNEP
Fax: 2542 623162

Dear Dr. Pak Sum,

My colleagues from the National Institute of Meteorology and Hydrology, the National Agency for Meteorology, Hydrology and Monitoring and the Ministry of Nature and the Environment and myself have carefully read through the project proposal on "Mongolia: Preparation of Initial National Communication in Response to the UN Framework Convention on Climate Change", which was prepared with substantial inputs from my colleagues and with your assistance.

As the national GEF Operational Focal Point, I hereby fully endorse the project proposal and the proposed budget of US\$239,500 for the GEF funding. I note that US\$17,500 of this budget will be used for UNEP Coordination.

As you may recall, Mongolia signed the UNFCCC on 12 June 1992 and subsequently ratified the Convention on 30 September 1993. Article 12.5 of the UNFCCC requires non-Annex 1 Parties (except those least-developed countries) to make their initial national communications "*within three years of the entry into force of the Convention for that Party, or of the availability of financial resources...*". The Government of Mongolia is fully committed to the implementation of the UNFCCC.

Despite some previous studies such as USCSP and ALGAS, the needs and concerns of Mongolia in climate change enabling activities are enormous in view of its transitional and weak economy. The GEF funding requested will enable Mongolia to improve and update its earlier studies, fill in important gaps (as described in the proposal), further build up its scientific and technical capacity, and to prepare a comprehensive national communication which can really be used as a valuable document for planning in sustainable development. I hope that the proposed budget can be approved without any difficulty. Otherwise, it will be very difficult for us to implement the project and prepare a comprehensive initial national communication.

As a country "*with arid and semi-arid areas, and areas liable to forest decay*" (Article 4.8 (c), "*with areas prone to natural disasters*" (Article 4.8 (d), "*with areas liable to drought and desertification*" (Article 4.8 (e), "*with areas with fragile ecosystems, including mountainous ecosystems*" (Article 4.8 (g), "*whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy products.*" (Article 4.8 (h), Mongolia deserves special consideration under Article 4, paragraph 8 of the Convention, including necessary actions related to funding, insurance and the transfer of technology, to meet its specific needs and concerns arising from the adverse effects of climate change and/or the impact of the implementation of response measures.

Taking this opportunity, on behalf of the Government of Mongolia I would like express the assurances of our highest consideration to the GEF Secretariat and UNEP for their cooperation and assistance



Ts. Adyasuren
Adviser to the Minister for Nature and the
Environment of Mongolia
National GEF Operational Focal Point