COUNTRY:	Nepal
PROJECT TITLE:	*Nepal: Enabling Activities for the Preparation of Initial National Communication Related to UN Framework Convention on Climate Change (UNFCCC)*
GEF FOCAL AREA:	Climate Change
COUNTRY ELIGIBILITY:	Ratified UNFCCC on 2 May 1994
GEF FINANCING:	US$ 310,000
GOVERNMENT COUNTERPART FUNDING:	US$ 70,000
GEF IMPLEMENTING AGENCY:	UNEP
EXECUTING AGENCY:	Department of Hydrology and Meteorology, Ministry of Science and Technology
COLLABORATING AGENCY:	Environment Division, Ministry of Population and Environment (MOPE)
ESTIMATED STARTING DATE:	March 1998
PROJECT DURATION:	2 years
UNFCCC FOCAL POINT:	Ministry of Population and Environment (MOPE)
GEF NATIONAL FOCAL POINT:	Ministry of Population and Environment (MOPE)

Background

1. Nepal is located in South Asia and is bordered by the Tibetan region of China in the north and by India in the east, west and south. It is roughly rectangular in shape with a total land area of 147,188 km^2 and a population of approximately 22 million (1996).

2. The country can be divided into three distinct regions from north to south: the mountainous region, the hilly region and the flat plains, known as the "Terai". Lying at altitudes ranging from 4,877 to 8,848 metres above sea level, the mountainous region includes the renowned Himalaya, which is the world's youngest mountain chain. The Nepal Himalaya includes nine of the world's highest peaks and including the highest; Sagarmatha (Mount Everest).

3. The hilly region lies in the middle part of the country and is between 610 metres and 4,877 metres above sea level. The Kathmandu Valley and many other scenic valleys and basins are found in this region. The "Terai", which is an extension of the Gangetic plains of India, forms a low flatland along the southern border and comprises most of the fertile plains and forested area of the country.

4. Due to its diverse topography, most of the earth's climatic zones are found in Nepal: tropical, sub-tropical, temperate, alpine and sub-arctic. The mean annual temperature is about 15°C, but summer temperatures can rise above 40°C in some areas of the "Terai". Annual rainfall varies greatly from 250 mm to 4000 mm and about 80% of the total precipitation occurs during the monsoon season, which typically lasts from June until September each year.

5. The Himalaya Mountains play a critical role in the provision of water to continental Asia and to all of Nepal. There are about 6,000 rivers and rivulets which add up to some 45,000 km. in length. Several of these rivers are snow fed and depend upon winter snowfall and the gradual melting of snow in the "summer" months. The seasonal variations in the water resources of Nepal's Himalaya region are very high. The rivers of Nepal can be categorised into 4 major river basin systems: Kosi, Gandaki, Karnali and Southern river systems. In addition, there are two boundary rivers – the Machin in the East and the Mahakali in the West. Abrupt changes in existing temperature and precipitation patterns that have led to the present vegetation, ice, snow and permafrost zones are expected to adversely impact the unique ecological features of the Himalayas. This, in turn, would lead to significant perturbations to the existing socioeconomic activities of the populations living within the mountains themselves and more indirectly on the populations living outside these zones.

6. Nepal is a least developed country and faces a number of unique development constraints. The major environmental problems in Nepal are land degradation, deforestation and pollution. With about 90% of the population employed in the agriculture and related sectors, there is a tremendous pressure on land resources, while other resources, particularly water, are under-utilised.

7. In Nepal, the Himalayas provide the food, fuel and fresh water needed for human survival and are critical resources for tourism and economic development. Tourism contributes about

24% of Nepal's foreign-exchange earnings. The rugged topography of the country makes it difficult and expensive to develop the basic infrastructure necessary for economic development. Nepal's economy is based primarily on agriculture. Traditional cottage industries, such as basket-making and the small scale production of textiles and edible oils, account for 60% of the total industrial production. Jute, sugar and cigarettes are the other major industrial products in Nepal. After tourism, the jute industry is the country's principal source of foreign exchange.

Energy supply and Consumption

8. Nepal's main indigenous energy sources are woodfuel and hydropower. Agricultural residues and animal waste are also widely used for cooking and heating.

9. The pattern of energy consumption reflects a high dependence on woodfuel and accounts for 68% of the total energy supplies. Along with animal waste, woodfuel remains the basic energy source for household cooking and heating in rural areas, where 90% of the population resides.

10. The total annual woodfuel consumption, currently about 4.3 million tonnes of oil equivalent (toe) per year, exceeds the forest's sustainable yields. Forest areas and woodlands are therefore being harvested at a faster rate than the annual rate of regeneration.

11. Except for lignite deposits, which are extracted for use by brick kilns in the Kathmandu and Dang Valleys, all fossil fuels are imported and there are no economically viable petroleum or coal deposits. In 1993, out of the 580,000 tonnes of oil equivalent (toe) used for commercial energy, 523,000 tonnes of oil equivalent (90%) was imported. Domestic electricity production, which is equivalent to about 70,000 tonnes of oil equivalent (toe), accounts for only 1% of the total energy supply.

12. Nepal's per capita commercial energy consumption of 29 kg. of oil equivalent per year is one of the lowest recorded for any developing country. It is estimated that only 12.5% of Nepal's population has access to electricity.

13. The potential of hydropower in Nepal is very high and estimated to be 83,000 megawatts. The current installed hydropower capacity is about 253 megawatts. The large number (about 30,000) of traditional water mills for grinding corn indicates that there is considerable potential for developing micro-hydropower schemes through individual or community efforts. The potential for biogas energy production is also considered significant owing to the large livestock population. Solar energy technologies also appear to be promising and initial studies indicate that wind energy may be a viable option.

Environmental Policy and Legislation

14. The Conservation Strategy and Nepal Environment Policy and Action Plan (NEPAP) emphasise environmental conservation and sustainable development. The Conservation Strategy states that sustainable development and nature conservation must be firmly linked if Nepal is to improve the quality of life of its present population and that of future generations. The Strategy clearly recognises that the heavy reliance on woodfuel energy has resulted in the severe degradation of forested areas and contributed to biological, social and

economic losses. The Ninth Five Year Plan of Nepal (1997-2002) also stresses the importance of sustainable development, nature conservation and poverty alleviation.

15. The Environment Protection Act (1997) and the Environment Protection Regulation (1997) have recently come into force in Nepal and provide a mandate to the Ministry of Population and Environment for the conservation of the environment. In addition, the environment is also managed by a number of existing sectoral laws and regulations. The Government of Nepal has developed a National Conservation Strategy, the Nepal Environment Policy and Action Plan (NEPAP) and the National Environment Impact Assessment (EIA) Guidelines. These serve as a guide for the development of national policy related to the sustainable use of natural resources.

International Conventions

16. Nepal is a Party to several international environmental treaties, conventions and protocols. These include, among others:

- Convention Concerning the Protection of the World Cultural and Natural Heritage (acceded to in 1978)
- Convention on International Trade on Endangered Species of Wild Fauna and Flora (acceded to in November 1975);
- Vienna Convention for the Protection of the Ozone Layer (acceded to in 1994);
- the Montreal Protocol on Substances that Deplete the Ozone Layer (acceded to in April 1994);
- 1990 London Amendment to the Montreal Protocol (acceded to in 1994)
- UN Framework Convention on Climate Change (ratified in May 1994).
- the Convention on Biological Diversity (ratified in November 1993);
- the Convention to Combat Desertification (ratified in October 1996);
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (acceded to in 1996)

Environmental institutions

17. In September 1995, the Ministry of Population and Environment was established by a Cabinet decision. All matters related to policy, planning, the coordination of environmental issues and international actions related to the environment come under this Ministry. The Environment Division within this ministry coordinates the implementation of the NEPAP and provides the direction and guidelines for environmental protection and management in the country.

18. Within this ministry, the Environment Protection Council (EPC), which is chaired by the Prime Minister, includes high level representation from major ministries as well as national scientific organisations, industrial associations, etc. The EPC provides advice to the Government in framing policies related to environmental management and is responsible for coordinating the multi-sectoral institutions working in the environment field.

19. For climate change issues, the overall administration and coordination of the UNFCCC falls under the Ministry of Population and Environment (MOPE).

20. The Ministry of Population and Environment also represented Nepal during the UNFCCC process. However, the Department of Hydrology and Meteorology (DHM) under the Ministry of Science and Technology is the focal point for activities related to the Intergovernmental Panel on Climate Change (IPCC). As its mandate includes weather forecasting, climate prediction and assessing the potential impact of climate variability on the economy, it is one of the key national agencies for climate change issues.

Past and on-going activities related to climate change

21. In October 1994, Nepal was included in the US Country Studies Program (USCSP) and completed a greenhouse gas (GHG) inventory for the energy sector based on 1990 data. A climate change vulnerability and adaptation assessment of agriculture and of one major river basin (the Koshi) were also undertaken. This project also included an assessment of potential GHG mitigation options related to the energy sector. The preliminary results of these studies are now being reviewed and are expected to be published as a final report in late 1998.

22. It should be noted that the contribution of the USCSP to human and institutional capacity is limited. Moreover, the important sectors on which Nepal's economy is most dependent, land-use and forestry, and the impact of climate change on mountain ecosystem is not included in this programme. In addition, an inventory of GHG sinks has not yet been undertaken. A vulnerability assessment of three remaining major river basins, biodiversity and of the grassland/livestock sector is needed. The identification and assessment of GHG mitigation options and a greater emphasis on human capacity building also have to be addressed. The USCSP project, which is being executed by the Department of Hydrology and Meteorology under the Ministry of Science and Technology, is to be completed in late 1998, but is not considered a complete national assessment.

Project objectives

23. Article 12.5 of the UNFCCC requires, "*Parties that are least developed countries may make their initial communication at their discretion.*" The Government of Nepal is fully committed to the implementation of the UNFCCC, and intends to prepare and submit its initial National Communication two years after the approval date of this project.

24. The main objective of this proposed project is to enable the country to fulfil its commitments and obligations as required by Articles 4.1 and 12.1 of the Convention, especially the preparation and the reporting of its initial national communication as cited in Article 12.1 (a), (b) and (c) of the UNFCCC based on the recommended COP2 guidelines and format for non-Annex 1 Parties. The project will fill in the gaps and build on the past and on-going activities related to climate change.

Project Description

25. 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 Steering Committee and the National Climate Change Committee

26. Based on the existing administrative and technical expertise, the following two committees will be established:

a) Steering Committee (SC) - The Ministry of Population and Environment (MOPE) will convene a multi-sectoral Steering Committee (SC) to provide policy related oversight for the implementation of the project. The role of the SC will be to ensure the effective participation of relevant sectors of the government and society in the project in order to leverage action. The SC will also assist in removing any constraints related to the implementation of the project which may fall outside the authority of the executing agency. The SC will be chaired by the Secretary (Ministry of Population and Environment) and will be composed of senior members of national institutions responsible for environmental policy. The DHM, as the executing agency, will serve as the secretary of the SC. The SC will approve the final reports from the National Climate Change Committee (NCCC). The SC will interpret the results of the various studies into the formation of public policy.

National Climate Change Committee (NCCC) - This committee will be established by the Department of Hydrology and Meteorology (DHM) and will be chaired by its Director General. It will serve as the technical body for the project and will be composed of leaders of the four National Study Teams and other relevant technical experts from various ministries, private and public sector organisations, universities and research institutions. The members of this committee will assist the national project coordinator in day to day management. This group will also provide technical advice, review draft reports and facilitate the presentation of the final version of the National Communication to the UNFCCC/COP. The NCCC will meet periodically during the implementation of the project to review progress reports presented by the national project coordinator and/or the lead persons for each of the individual National Study Teams. The NCCC will oversee the completion of the National Communications that will incorporate the results of the national study components and advise the SC on technical and operational issues.

27. The DHM, as the executing agency is expected to form the following teams to ensure a systematic implementation of the project:

a) National Study Team (NST) - Four study teams described below, which will include persons with technical expertise in relevant scientific disciplines, will be established. Each of the study teams will be headed by a team leader. Owing to the cross-disciplinary nature of the study components, each of the teams will include the participation of experts from a variety of government agencies, research institutions, and where appropriate, national environmental NGOs.

(i) Greenhouse Gas Inventory

(ii) Vulnerability/Impact Assessment and Adaptation
(iii) Mitigation Options
(iv) National Action Plan and National Communications

Major output:

28. The major outputs of this proposed activity will be the establishment of the SC, the NCCC and the NST.

Activity 2: GHG inventory

29. Following the COP2 guidelines, the GHG inventory will focus mainly on CO_2, CH_4 and N_2O for the 1994 baseline year in (a) all energy sources; (b) industrial processes; (c) agricultural processes; (d) land use change and forestry; and (e) other sources. Data for other GHGs may be collected where available.

30. As mentioned in para. 21, Nepal is finalising a preliminary national GHG inventory for the 1990 base year for the energy sector and for cement production using the 1990 version of the IPCC guidelines. However, the results are considered very preliminary due to the general lack of data and the uncertainties inherent in the methodology itself. Therefore, a refinement of the inventory in these sectors and updating the GHG inventory to the 1994 base year are required. In addition, GHG emissions related to the land use and forestry sector, industrial processes and solvents have to be included and the GHG emission estimates for cement production must be updated.

31. As a first step, all existing data will be critically reviewed and the data gaps identified. An updated inventory for the year 1994, using the latest version of IPCC Guidelines, will be undertaken, taking into consideration of Decision 10/CP2 of COP2 with regard to the appropriate use of emission factors, which may need to be derived based on local conditions. This component will be undertaken by the GHG Inventory Group and will draw from the available national expertise, especially from the previous and ongoing studies.
32. A data collection and management system will be set up so that both the data and the GHG inventories can be regularly updated.

33. This activity will be coordinated with the regional efforts, such as the ALGAS programme, where possible.

34. At the end of the updated GHG inventory study, a review workshop will be held for relevant experts to assess the available data and results before being presented to national policy and decision makers in the proposed national workshop where the draft National Communications will be discussed (see para. 61).

Major outputs:

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

(a) A refined and updated GHG inventory for the year 1994 based on the updated IPCC Guidelines that can also be used as a basis for the selection of mitigation technology options.

(b) The identification of the shortcomings and gaps in the IPCC Guidelines related to local conditions, especially for the land use and forestry sectors and industrial processes.

(c) Recommendations on areas of targeted research to improve future inventories and to suggest revisions to the existing IPCC GHG inventory methodology.

(d) An improvement of relevant country specific emission factors or coefficients.

(e) A description of any original research needed to develop and/or apply new emission factors for specific sectors.

(f) A data management system for regular updating of the GHG inventory.

(g) Strengthening of the inventory study team, drawing from the expertise from all previous studies.

(h) Workshop report.

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

36. Based on the results of the updated GHG inventory, this project component will 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 will be developed.

37. In addition, crucial gaps of the USCSP sponsored project will be filled, such as including the land-use change and forestry sector (for sink enhancement) and the modeling of the macro-economic aspects. Opportunities for promoting carbon conservation and sequestration which are socially, economically and ecologically viable will be identified and assessed. Appropriate models will be used to assess various mitigation options.

38. The proposed activity will be undertaken by the Mitigation Options Group, drawing from available national expertise from both the public and private sectors. The capacity for this group to undertake the task will be strengthened where necessary.

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

Major outputs:

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

(a) Identification and assessment of mitigation options in all relevant sectors.

(b) Recommendations on reducing the amount and intensity of emissions from various sources and a plan for the enhancement of sinks by slowing the rate of loss and degradation of existing forests; estimating land availability for new afforestation and promoting natural or assisted regeneration of secondary forests.

(c) Preparation of the first national mitigation strategy for the national communication.

(d) Workshop report.

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

41. This activity will identify and develop policy options for adequate monitoring systems and response strategies for climate change impacts. These policy options will be based on the quantitative analysis of a vulnerability and impacts assessment using the *IPCC Technical Guidelines*. In particular, this activity will focus on the following areas which have not been undertaken in the previous studies (see para. 21 and 22) and strengthen the assessments already completed as the resolution of the models used earlier were inadequate for topographic features of Nepal:

(a) to assess the impact of increased temperature and increased seasonal variability in precipitation on elevation shifts of ecosystems in the Himalayas, mountain ecosystems, glaciers, glacial lakes and potential of glacial lake outburst floods (GLOFs), monsoon floods, snow-fed rivers, soil erosion and sedimentation and hydropower reservoir potential.

(b) to assess the vulnerability and impacts of climate change in the health sector (vector borne diseases, malaria, dengue, bilharzia, leishmaniasis, schistosomiasis etc.) recognising the increased resources the Government of Nepal has devoted to promotive and preventive health care.

(c) to extend the work of the USCSP funded assessment on the vulnerability and impacts to include forests, soil conservation and biodiversity. The scenarios of temperature rise on river systems, soil erosion, sedimentation and slope stability will be considered and threats to infrastructure will be assessed.

(d) to extend the work done on the one river basin to include the other three major river basin systems (see para. 5) in Nepal. This would involve estimation of surface run-off using scenarios for doubling carbon dioxide concentrations. Since WATBAL and CLIRUN 3.0 models were not validated for hilly region and monsoon area, alternative models will be identified.

(e) to undertake modeling using the data for grassland/livestock sector to assess the impacts of climate change on this sector.

42. A Vulnerability/Impact Assessment and Adaptation Group, drawing from the available expertise of both the public and private sectors, will be formed within the NST to undertake this task. The capacity for this group to undertake the task will be strengthened where necessary.

43. Although the USCSP has supported assessments of agricultural crops and one river basin, an urgent need exists to strengthen the capacity of relevant institutions participating in this and other new activities. Capacity building and training activities will be coordinated with regional efforts, such as CC:TRAIN (Phase II), where appropriate. In addition, lessons will be learned from the UNEP/GEF project "*Country Case Studies on Climate Change Impacts and Adaptation Assessments*".

44. Based on this study, policy options will be identified and developed for the response strategies.

45. 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.

Major outputs:

46. 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, including the pattern of expected temperature rise.

(b) Better understanding of the long-term behaviour of water basins in relation to climate change.

(c) A comprehensive vulnerability assessment for all important sectors based on established procedures.

(d) Enhanced capacity to apply models for assessing climate change impacts.

(e) Policy options for adequate monitoring systems and response strategies for climate change impacts on terrestrial and mountain ecosystems.

(f) Workshop report.

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

47. Based on the results of the vulnerability and impacts assessment for various sectors as described in Activity 4, this activity will identify, analyse and assess a range of potential adaptation (stage 1) options so that a national strategy of viable measures that will minimize the impacts of climate change on the economy and natural ecosystems can be developed. The earlier work of USCSP project on a limited adaptation assessment of crop production recommended additional mutli-location studies to identify and assess alternative cropping methods suitable to changing climatic conditions. The policy options developed under the USCSP project for adaptation measures in the Kosi river basin will be reproduced for the other 3 river systems. Information on the relative merits of different multicriteria decision models that can be used to evaluate adaptation options will be applied, as appropriate.

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

49. The capacity for the Vulnerability Assessment and Adaptation Group to undertake this task will be strengthened where necessary.

50. 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.

Major outputs:

51. 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.

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

52. In the context of developing a 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.

Major output:

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

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

54. 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.

55. For example, Activities 2 to 6 will contain elements for research and systematic observation, education and training. In addition, it is proposed to develop a cost-effective public awareness/outreach programme so that public awareness campaigns can be undertaken throughout the project cycle when and where possible and that reach all districts of the country. Both the public and private media (television, radio and newspapers) will be used to assist in enhancing public awareness on all aspects of climate change. CC:INFO/Web will also be used as a tool to enhance the national and international information flow. If possible, a CC:Web site will be established in coordination with the CC:INFO/Web initiative. Materials produced by the UNEP/IUC and UNITAR CC:TRAIN will be used where appropriate.

Major outputs:

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

(a) Information packages, video aids, relevant publications, etc.

(b) Enhanced public awareness at all levels and in all districts of the country.

Activity 8: Provision of other information

57. This project will also provide any other information relevant to the achievement of the objective of the UNFCCC. It will identify the technical and financial needs associated with proposed projects and response measures under Article 4. It will also provide material or data relevant for calculation of global GHG emission trends. In addition, it will describe the financial and technological needs and constraints associated with the communication of information. This description may include 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.

Activity 9: Preparation of national communication

58. Based on the outputs of Activities 2 to 8 as described above, the initial National Communication will be prepared and submitted to the UNFCCC Conference of Parties.

59. This task will be coordinated by the National Communication Group. It will involve all of the members of the NST responsible for preparing the relevant sections of the initial national communication.

60. Experience will be gained from other countries which have submitted their initial National Communications.

61. The draft national communication will be reviewed by competent national technical institutions. Based on this review, a revised version will be produced. A workshop will then be organised for key stakeholders as well as policy and decision makers to review this revised draft national communication. After incorporating the comments of the workshop participants the final draft will be presented to the Government of Nepal, through the MOPE, for approval and submission to the COP of the UNFCCC.

Major output:

62. The major output of this proposed activity will be the initial National Communication to be submitted to the UNFCCC Conference of Parties.

Institutional framework, project management and coordination

63. As mentioned in para. 17, the Ministry of Population and Environment (MOPE) has the overall responsibility on matters related to the environment. This responsibility is exercised under the Environment Division headed by the Chief. An Environment Protection Council chaired by the Prime Minister currently provides guidance to the MOPE (see para. 18).

64. Executing Agency - The Department of Hydrology and Meteorology, under the Ministry of Science and Technology, will be the executing agency for this project and will work closely with the Environment Division of the Ministry of Population and Environment. The SC will ensure the participation of various sectors of society in the project, while the NCCC will provide advice on overall implementation.

65. Various government institutions and NGOs will be involved at different stages of the study to ensure capacity building for significant sectors of the national economy.

66. The involvement of the important sectors of the economy is in line with the UNFCCC which has affirmed that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on development activities.

67. This project will seek to strengthen the existing institutional framework for project management where necessary.

68. As a GEF implementing agency, UNEP will play a technical support and advisory role through its Atmosphere Unit with the support of the Water Unit, the Regional Office for Asia and Pacific (Bangkok) and the UNEP Collaborating Centre on Energy and Environment (UCCEE) based in Denmark to ensure that the project is successfully implemented.

Proposed work schedule

69. The proposed timetable for the start-up and completion of all activities described above is given in Table 2. Detailed work plans for each activity will be developed later by the National Project Coordinator in consultation with Environment Division of the MOPE and with the assistance of UNEP, which will be consulted throughout the period of the project implementation.

Appropriate sequencing

70. 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. Lessons learned from the past studies and other enabling activities projects will be taken into consideration.

Activity matrix

71. The activity matrix which indicates the areas needed to be covered by this proposal are shown in Table 3. It has been ensured that there will be no duplication of effort for this project with the past and on-going activities.

Training

72. All training activities, including national workshops and participation in regional and international workshops to be organised by UNEP and UNDP or other international agencies for their on-going enabling activities programmes, will be coordinated by the national project coordinator. Participation in the UNITAR CC:TRAIN and other programmes will be explored where appropriate.

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

74. UNEP, with its extensive experience in training in enabling activities, will be consulted on all aspects of training, such as workshop agendas and prospective trainers. Advice on technical assistance will be provided where necessary.

National level support

75. This project enjoys a very high level and a wide range of national support. The proposal has been extensively reviewed by the Ministry of Population and Environment and Ministry of Science and Technology and has been endorsed by the national GEF Operational Focal Point (letter attached). The project will be implemented under the guidance of the Steering Committee (SC) which has broad representation from both the public and private sectors (see paragraph 26-a).

76. The support of UNEP's Regional Office for Asia and Pacific (ROAP) is crucial and it will be consulted when necessary during the implementation of the project. Other support, including the logistical support by UNDP field office will be solicited where appropriate.

Project financing and budget

77. 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$ 310,000 reflects the current needs and concerns of the country in order to fulfill its commitments for the preparation of its initial national communication (Table 4). This budget has been realistically estimated by MOPE with some help from DHM, the designated executing agency of the project, and the guidance of UNEP. Indeed, extensive and comprehensive discussions between MOPE and UNEP on the preparation of the project proposal, particularly the proposed budget, commenced in September 1997.

78. As a country "*with areas prone to natural disasters*" (Article 4.8 (d)), "*with areas with fragile ecosystems, including mountainous ecosystems*" (Article 4.8 (g)), "*Land-locked and transit countries*" (Article 4.8 (i)), *Countries with ... forested areas and areas liable to forest decay*" (Article 4.8 (c)) Nepal, as a least-developed country with a fairly large population, 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.

79. The in-kind contribution of the Government of Nepal, which will amount to US$ 70,000 over the period of the project, will include salaries for technicians and other supporting staff, vehicles for field trips and their maintenance, office rentals, library and information facilities, insurance and other costs.

Rationale for GEF support

80. This is a standard Enabling Activities proposal which will assist Nepal to meet 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

81. The Government of Nepal 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 Nepal in various aspects of the proposed activities, as well as the leading role taken by the DHM to execute the project, would enable the country to fulfill its obligations and commitments to the UNFCCC. The entire project management structure is designed to secure full participation of local experts in all aspects of activities to achieve sustainability in future actions.

Issues and risks

82. **Issues**: In order to successfully implement the project, close coordination between the Ministry of Science and Technology and Ministry of Population and Environment, the SC and the NCCC is essential to ensure the success of the project. Also, DHM needs to consult with all relevant stakeholders in both the public and private sectors, including NGOs and research organisations.

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

(a) Longer time period than expected for collection and analysis of data and the preparation of the national communication.

(b) Irregular consultations among various stakeholder.

(c) Lack of involvement of major policy makers in the formulation of final strategy and national communication.

84. Necessary actions will be undertaken to minimise all the risks mentioned above.

Monitoring and evaluation

85. The designated national project coordinator will provide quarterly progress reports to the NCCC, which will share it with UNEP. If possible, these reports may be compiled into an electronic newsletter that will be distributed to all participating institutions. These reports will enable the NCCC 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 NCCC for their quality and standard, comprehensiveness, and conformity to the proposed terms of reference and dates of completion.

86. The SC will meet regularly to provide policy and strategic guidance to the project. The minutes of these meetings will be shared with all participating institutions and recommendations identified. The NCCC will meet on a periodic basis to technically review project implementation and provide scientific and technical guidance.

87. DHM will provide quarterly financial reports to UNEP, based on UNEP formats.

88. UNEP will provide its monitoring and evaluation guidelines and assessment procedures, which be used to evaluate project progress at mid-term and upon completion.

TABLE 1

Composition of the Environment Protection Council

1.	Rt. Hon'ble Prime Minister	Chairman
2.	Hon'ble Deputy Prime Minister	Co-Chairman
3.	Hon'ble Minister, Ministry of Population & Environment	Vice-Chairman
4.	Hon'ble Minister, Ministry of Finance	Member
5.	Hon'ble Minister, Ministry of Housing & Physical Planning	"
6.	Hon'ble Minister, Ministry of Industry	"
7.	Hon'ble Minister, Ministry of Agriculture	"
8.	Hon'ble Minister, Ministry of Water Resources	"
9	Hon'ble Minister, Ministry of Works & Transport	"
10.	Hon'ble Minister, Ministry of Forest & Soil Conservation	"
11.	Hon'ble Minister, Ministry of Education	"
12.	Hon'ble Minister, Ministry of Tourism and Civil Aviation	"
13.	Hon'ble Minister, Ministry of Local Development	"
14.	Hon'ble Minister, Ministry of Science & Technology	"
15.	Hon'ble Minister, Ministry of Women & Social Welfare	"
15.	Hon'ble Minister, Ministry of Health	"
17	Hon'ble Minister, Ministry of Home Affairs	"
18	Hon'ble Minister, Ministry of Foreign Affairs	"
19	Hon'ble Minister, Ministry of Land Reform and Management	"
20	Hon'ble Chairman, Natural Resource and Environment Protection Committee, House of Representative	"
21	Vice-Chairman, National Planning Commission	"
22.	Member, National Planning Commission	"
23.	Vice-Chancellor, Royal Nepal Academy of Science & Technology.	"
24.	Chief Secretary, Cabinet Secretariat	"
25.	Vice-Chancellor, Tribhuvan University	"
26.	Vice-Chancellor, Kathmandu University	"
27	Representative, Nepal Communist Party (Unified Marxists-Leninists)	"
28.	Representative, Rashtriya Prajatantra Party	"
29.	Representative, Nepali Congress	"
30.	Representative, Nepal Sadbhavana Party	"
31.	Chairman, Federation of Nepal Chamber of Commerce & Industry	"
32.	Chairman, Federaion of District Development Committee	"
33	Chairman, Federation of Municipality	"
34	Chairman, Federation of Village Development Committee	"
35.	Nine Environment Experts nominated by His Majesty's Government	"
36.	Secretary, Ministry of Population and Environment	Member-Secretary

Table 2: Proposed Work Schedule

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

TIME IN MONTHS

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

* PM = Project Management.
* M&E = Evaluation and Monitoring.

Table 3: Standard Activity Matrix for Climate Change Enabling Activities in NEPAL

ENABLING ACTIVITY COMMITMENT	TYPE OF ACTIVITY			
	Planning /Execution	Capacity Building		
		Data Gathering & Research*	Institutional Strengthening	Training & Education
1. National Circumstances	X	NA	NA	NA
2. Greenhouse Gas Inventories				
* All Energy Sources	USCSP (x)	USCSP (x)	USCSP (x)	USCSP (x)
* Industrial Processes	USCSP (x)	USCSP (x)	USCSP (x)	USCSP (x)
* Agricultural Processes	USCSP (x)	USCSP (x)	USCSP (x)	USCSP (x)
* Land Use Change & Forestry	X	X	X	X
* Other(s)	X	X	X	X
3. General Description of Steps	X	X	X	X
(a) Programs related to sustainable development, research, public awareness, etc.	X	X	X	X
(b) Policy Options for Monitoring Systems and Response Strategies for Impacts	X	USCSP (x)	USCSP (x)	X
(c) Policy Frameworks for Implementing Adaptation Measures and Response Strategies	NA	NA	NA	NA
(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	X	USCSP (x)	USCSP (x)	NA
4. Other Information				
(a) Materials Relevant for Calculation of Global Emission Trends	X	X	X	X
(b) Financial and Technological Needs and Constraints for:				
* Projects for financing	X	X	X	X
* National Communication	X	X	X	X
* Vulnerability Assessment and Adaptation	X	USCSP (x)	USCSP (x)	X
5. Compilation and Production of the Initial National Communication	X	NA	NA	NA

* *In the context of communication-related enabling activities.*

BUDGET

Enabling Activity Commitment	Planning and execution (US$)	Capacity Building				Total Cost (US$)
		Data Gathering and Research (US$)	Institutional Strengthening (US$)	Training and Education (US$)	Technical & Admin. Support (US$)	
2. Greenhouse Gas Inventories		**26,500**	**12,000**	**16,500**	**5,000**	**60,000**
3. General Description of Steps		**57,000**	**26,000**	**35,500**	**8,500**	**127,000**
(a) Programs related to sustainable development, research, public awareness, etc.		5,000	3,000	2,000	1,000	11,000
(b) Policy Options for Monitoring Systems and Response Strategies for Impacts.		20,000	6,000	13,000	2,000	41,000
(c) Policy Frameworks for Implementing Adaptation Measures and Response Strategies.		15,000	8,000	9,500	2,500	35,000
(d) Building Capacity to Integrate Climate concerns into Planning		2,000	3,000	4,000	1,000	10,000
(e) Programs to address climate change, adverse impacts, including abatement, sink enhancement		15,000	6,000	7,000	2,000	30,000
4. Other Information		**4,600**	**2,000**	**2,800**	**600**	**10,000**
(a) Material relevant for Global Emission Trends		2,300	1,000	1,400	300	5,000
(b) Financial, Technological Needs and Constraints		2,300	1,000	1,400	300	5,000
5. Compilation and Production of Initial National Communication						**20,000**
Project Management						**60,000**
Monitoring/Evaluation						**10,000**
Total		**88,100**	**40,000**	**54,800**	**14,100**	**287,000**
% of Total		**45%**	**20%**	**28%**	**7%**	
UNEP Coordination (8%)						**23,000**
					Total	**310,000**

FAX 1

His Majesty's Government

Mr, Ravi Sharma

MINISTRY OF POPULATION AND ENVIRONMENT

Singh Durbar, Kathmandu
Phone No : 245363, 245364, 245365, 245366, 241586
Fax No 977-1-242138

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12 January, 1998

Mr. Ahmed Djoghlaf
Executive Coordinator
UNEP/GEF Unit
United Nations Environment Programme
Nairobi, Kenya

Fax no: 254-2-520825

Dear Mr. Djoghlaf,

The Ministry of Population and Environment has reviewed the document titled: "Nepal: Enabling Activities for the Preparation of Initial National Communication related to UN Framework Convention on Climate Change (UNFCCC)" which was developed by the Ministry & the Atmosphere Unit of UNEP. I am very pleased to inform you that we endorse and support the project.

As a land-locked country with fragile ecosystem, including mountain ecosystems Nepal deserves special consideration under the UNFCCC. We would be most grateful if the project is approved soonest by the GEF.

Best regards,

Sincerely,

Madhav Ghimire

Dr. Madhav P. Ghimire
National GEF Focal Point
& Chief, Environment Division

UNEP
GEF COORD. OFFICE
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ACTION REQUIRED
NO ☐ YES ☐
12 JAN. 1998
WHAT.....
WHO..... RS/BSC
WHEN COMPLETED.....
CIRCULATE NO ☐ YES ☐
FILE IN CC Ltr