

COUNTRY: Vietnam

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

GEF Focal Area: Climate Change

Country Eligibility: Ratified UNFCCC on 16 November 1994

GEF Financing: US\$250,000

Government Counterpart Funding: US\$50,000

GEF Implementing Agency: UNEP

Executing agency: Hydrometeorological Service (HMS)  
(Institute of Meteorology and Hydrology (IMH))

Collaboration Agencies: Ministry of Planning and Investment

Ministry of Science, Technology and Environment (MOSTE)  
(National Agency of Environment)

Ministry of Industry (Institute of Energy)

Ministry of Transportation (Department of Science and Technology)

Ministry of Agriculture and Rural Development  
(Institute of Forestry Science; National Institute for Agriculture Planning and Projection)

Ministry of Training and Education (University of Technology)

Vietnam Union of Scientific and Technical Associations (NGOs)

Estimated Starting Date: July 1998

Project Duration: 18 months

## 1. Background

1. Vietnam is located in Southeast Asia, sharing a land border with China, Laos and Cambodia. It has a land area of 330,990 km<sup>2</sup>, and stretches 1,650 km from north to south, 600 km at its widest and a mere 50 km at its narrowest. It consists of more than a million km<sup>2</sup> of water surface, with 3,260 km of coastline, and thousands of small islands, especially in Tonkin Gulf. Three quarters of the land is mountainous but the other quarter consists of rich plains, the rice bowls of Vietnam, where most of its 73.9 million (1995) people live. Vietnam is the 12th most populous country in the world, with a population growth rate of 2.5%. About 20% of the population lives in urban areas, while 80% in rural areas.

2. Vietnam can be divided in three distinct geographical regions - the south, the centre and the north. The Mekong Delta in the south and the Red River Delta in the north are separated by the thin central strip. This clear distinction in geographical regions is also reflected in economic development.

3. The South has a rich soil and it is the primary producer of agricultural products. With the mighty Mekong River meandering through Southern Vietnam, there is a continuous supply of water vital for the thousands of paddy fields along the banks. Ho Chi Minh City, formerly Saigon, is the largest city in the South, as well as the whole of Vietnam, and one of the most important economic centres in Vietnam. With the population estimated at 4-5 million, Ho Chi Minh City is expanding rapidly in all sectors and it has the highest per capita income in Vietnam.

4. The central highlands form the physical barrier between Vietnam and Laos. Due to the topography, the area is thinly populated, with few economically important areas. These areas are populated by a vast number of ethnic tribes which, in many cases, have preserved their cultural traditions and languages.

5. The North is separated by high mountain chains from China with the highest peak of Phan Si Pan rising to 3,143 m. It is where Hanoi, the capital, as well as the political and cultural centre of Vietnam, is located.

6. There are about 2,860 small and big rivers in Vietnam, but only 15 main river basins are of economic significance: Bang Giang and Ky Cung river basins, Nam Ron river basin, Tien Yen river basin, Red and Thai Binh river basins, Ma and Chu river basins, Muc river basin, Ca river basin, Gianh and Huong river basins, Thu Bon river basin, Tra Khuc and Con river basins, Tra Khuc and Con river basins, Ba river basin, Sperok river basin, Cai Luy river basin, Dong Nai river basin, and Cuu Long (Mekong) river basin.

7. Among all the rivers, the Red River and the Mekong River are the largest and most important ones. The Red River is originated from Yuan Nan (China) with a length of 1,140 km, and basin area of 61,627 km<sup>2</sup>; its section passing Vietnam has 500 km length and basin area of 21,787 km<sup>2</sup>. The water is read all year round (hence the name) because of 80 million m<sup>3</sup> carried by the river per year.

8. The Mekong River is one of the 10 largest rivers in the world. It is originated from Tibet (China) passing Myanmar, Laos, Thailand and Cambodia, and then coming into Vietnam. It has a total length of 4,220 km, with a basin area of 4,900 km<sup>2</sup>, which carries one billion tonnes of alluvium per year.

## Climate

9. Vietnam is located in the inter-tropical zone, but because of its long north-south span, climatic conditions vary from sub-zero temperatures in the northern mountains to the year-round heat of the Mekong Delta.

10. The North, strongly influenced by the North-East Monsoon, has two distinct seasons: cool, often drizzly with average temperature of 15°C, from November to April, and hot and humid with average temperature of 31°C from May to October. During the summer, the North is often ravaged by typhoons (with an annual average of 4.7 typhoons).

11. The northern part of Central Vietnam has a climate similar to that in the North whereas the southern part's climate is closer to that of the Mekong Delta. Dalat and the rest of the central highlands are much cooler than the coast.

12. The South, strongly influenced by the South-East Monsoon, has a tropical climate and there are rarely large fluctuations in temperature. The seasonal changes are rather characterized by the rainy season from May to October.

13. The average annual rainfall of Vietnam is about 1,950 mm, though the distribution of rainfall varies from areas to areas, and ranges from 600 mm to 5,000 mm.

## Agriculture

14. Vietnam's climate is favourable for developing tropical agriculture. The country is heavily dependent on agriculture, approximately 70% of the population is farmers, and in economic value terms, the agricultural sector contributes 40% of the total GDP.

15. Rice has been and will remain the main staple food for Vietnamese. Rice production not only guarantees domestic consumption but also exports 1.5 million tonnes per year on the average from 1989. However, the cultivating technology is still backward and ineffective, deducing mostly on natural conditions. Its annual yield is not stable due to natural disasters such as typhoons, floods, etc.

## Forestry

16. Prior to 1993, more than 35% of the country was covered with forest, while about 21% was agricultural land. However, land use has changed over the past decade due to population pressure and changes in economic structure. In 1993, forest area decreased to 29%, while agricultural land increased to 22%, of which areas the industrial crops and fruit crops increased from 549 million ha (1980) to 1,247 million ha (1993).

The structure of land use shifted from rice to fruit and vegetables, due to better returns from these produces.

17. There are 19 forest types in Vietnam, which can be divided into three groups: natural forest, planted forest and savannas. Although forest has been destroyed by war in recent decades, until now there are still 8.6 million ha of forest, of which 0.8 million ha are plantation forest, while 4.6 million ha are woody savanna and rocky savanna.

18. The Government realized the critical problems concerning land resources, particularly relating to forests. Attempts are being made to protect forest and increase forest area by reforestation. For

example, the Ministry of Forestry has begun a programme to allocate the country's forest lands on the basis of the following classifications: Special Use Forest (including national parks, conservation areas, etc.), Protection Forest and Production Forest (for commercial logging purposes).

## Industry

19. The industrial sector accounts for 29.6% of the GDP (1994), with an annual growth rate amounts to about 10%. The sector consists of centrally owned state enterprises, locally-owned (provincial) state enterprises, and the non-state sector made up of cooperatives and private firms. The emphasis of industrial development generally has favoured heavy industry. In the first half of the 1980s, about 80% of public investment in industry went to the heavy sector (including energy).

20. Vietnam has been aiming at market-oriented economy since the 1986 renovation called *Doi Moi*. Since 1991, the government has stressed the international competitiveness of consumer products, energy resources, and exportable manufactured and processed products. The present major industries include processing of agricultural, forestry and sea products, commodity production, engineering and electronics, electricity, fuels (oil and gas), construction materials, fertilizer and chemical industries.

## Energy supply and consumption

21. Vietnam has low per capita commercial energy supply (0.12 TOE in 1993 compared with 1.545 TOE in Malaysia, 3.642 TOE in Japan and 0.632 TOE in China). Since the early 1980s, priority has been given to the power sector for development of electricity generating sources and distribution networks, some large-capacity power plants such as Phalai thermal power plant, Hoa binh and Trian hydro-electric power plants were constructed, contributing to enhance the capacity of electricity power systems.

22. The total installed capacity of the Vietnamese power sector in 1994 was 4,484 MW, of which hydro-electric power plants accounted for 63%, coal fired power plant: 14.4%, oil-fired power plant: 4.4%, gas turbines: 8.5% and diesel generators: 9.7%.

23. In 1993, the share of electricity used for industry is 44.4%, agriculture: 14.6%, living and services: 41%. During 1993-1994, the growth rate of electricity consumption was about 13-14% compared with the economic growth rate of 9-9.5% at the same period. In fact, over 70% of total energy consumption in Vietnam is derived from fuelwood, and other biomass (rice straw), but most is sustainably produced.

## National environmental policy

24. The issue of natural resources and environmental protection is an important one in Vietnam. In September 1985, the Council of Ministers adopted Resolution No. 246 under the title "*Activities on Basic Investigation, Rational Utilization of Natural Resources and Environmental Protection*" which paved the way for various other policies and directives for the protection of the environment.

25. Concerned about the future demands that economic development would place upon the environment, the Government, with the assistance of UNEP, UNDP, SIDA and IUCN, has formulated a draft Environmental Action Plan, which was reviewed at the International Conference on Environment and Sustainable Development held in Hanoi on 3-6 December 1990. The Conference approved the submission to the Council of Ministers a "*National Plan for Environment and Sustainable Development (NPESD) 1991-2000: Framework for Action*", which was finally

approved on 12 June 1991 by the Chairman of the Council of Ministers.

26. The objectives of the NPESD are to:

(a) provide for the gradual development of a comprehensive framework for national and sub-national environment planning and management; and.

(b) lead to specific actions that are required in the short term to address priority problems at their very roots.

27. This framework ultimately would include a wide variety of components, including appropriate organizational structures, well-integrated environmental policies at the sectoral level, environmental legislation, priority projects and programmes, improved methods of data collection and management, environmental impact assessment procedures and monitoring systems.

28. In order to promote environmental protection, the Law on Environmental Protection was approved by the National Assembly of Vietnam in 1993. This Law deals with the prevention of environmental degradation, environmental pollution and environmental incidents and their remedies, the state management of environmental protection, as well as the international relations with respect to environmental protection. This Law was followed by the "Guidelines for the implementation of Environmental Law" approved by the Prime Minister on 18 October 1994.

#### **Vietnam and international conventions**

29. Vietnam ratified the UNFCCC on 16 November 1994. The Hydrometeorological Service (HMS) has been assigned by the Prime Minister Office to take full responsibility for climate change issues and for implementing programmes related to the objectives of the UNFCCC.

30. A Vietnam Climate Change Country Team (VNCCCT) was established in 1993 with a mandate to improve knowledge on climate change and its social, economic and environmental impacts. The VNCCCT consists of 20 members. It is chaired by the Director General of HMS, and it is represented by all relevant ministries and government agencies includes representatives from Government Office, Ministry of Science Technology and Environment (MOSTE) (National Agency of Environment), Ministry of Industry (Institute of Energy), Ministry of Transportation (Department of Science and Technology), Ministry of Agriculture and Rural Development (Institute of Forestry Science; National Institute for Agriculture Planning and Projection), Ministry of Training and Education (University of Technology), Ministry of Public Health, Ministry of Finance, Ministry of Trade, and Vietnam Union of Scientific and Technical Associations (NGOs). The VNCCCT has remained the main policy advisory body in the area of climate change. It will play a key role in the implementation of the present project as it will both be charged with overseeing and advising on the implementation of the project.

31. Apart from UNFCCC, Vietnam has signed, acceded or ratified, among others, the following international conventions:

- Vienna Convention for the Protection of the Ozone Layer (acceded in January 1994)
- Montreal Protocol on Substances that Deplete the Ozone Layer (acceded in January 1994)

- Convention On Biological Diversity (ratified in November 1994)
- Basel Convention on Transboundary Movement of Hazardous Wastes (ratified in March 1995)
- Convention on the Law of the Sea (signed 1982)

#### Past and ongoing activities on climate change

32. Vietnam is one of the participating countries in the following climate change programmes which are directly relevant to the preparation of initial national communication:

(a) UNDP/UNITAR/GEF "*CC:TRAIN (Phase I)*" -- Vietnam is one of the three participating countries in this project. It started in June 1994 and completed in June 1996. The project was implemented by the HMS in cooperation with relevant ministries and government agencies. Its objective was to assist the countries in formulating climate change policy for the implementation of the UNFCCC. A number of national programmes for implementing the UNFCCC has been identified, while actions needed and implementation measures have been outlined.

X (b) "*Asia Least-Cost Greenhouse Gas Abatement Strategy*" (ALGAS) Project -- Vietnam is one of the 12 participating countries in this UNDP/GEF/ADB project, which started in 1995. This project is implemented by the IMH of HMS. It aims to enhance and improve the national capacity of the participating countries in conducting GHG Inventory, assessing mitigation options, and developing the least-cost GHG abatement strategy and action plan. A GHG inventory based on the *IPCC Guidelines* for the year 1993 has been completed. However, this inventory was based on available statistical data and it has not been verified by any field observations, which are clearly needed in view of the default emission factors used. [So far the results of mitigation options analysis are still limited] Training on the use of LEAP and MARKAL models are needed. ?

(c) UNEP/GEF project on "*Economics of GHG limitation - Phase 1: Establishment of a Methodological Framework for Climate Change Mitigation Assessment*". This ongoing project builds on previous and ongoing work, especially that of ALGAS. It deals with GHG mitigation analysis and cost-effective options, focusing on four main issues: (a) associated macro economics; (b) land use and forestry; (c) agriculture, and (d) energy. This project is implemented by the IMH in cooperation with relevant ministries and government agencies. It is expected to be completed by the end of 1998.

(d) "*Vietnam Coastal Zone Vulnerability Assessment*" -- This project, funded by the Government of the Netherlands and executed by a Vietnamese project team from Marine Hydrometeorological Centre of Hydrometeorological Service working closely together with a European team comprised of Dutch and Polish experts in coastal zone management. It started in November 1994 and ended in April 1996, and the final report was published in December 1996. The objective was to assess the vulnerability of the entire coastal zone of Vietnam to the impacts of accelerated sea level due to climate change and outlined the first steps towards integrated Coastal Zone Management in Vietnam. Pilot studies at three sites - Nam Ha, Hue and Vung Tau - were included to provide insight into present coastal management problems.

(e) "*Climate Change in Asia: Vietnam*" -- A *Regional Study on Global Environment Issue* funded by ADB and implemented by the Ministry of Water Resources and General Department of Hydrometeorology of Vietnam. The project started in 1992, and a report was published by ADB in July 1994. Its scope includes GHG emission inventory based on the 1990 data and provided

mitigation options for energy and industrial, building, transportation, agricultural, forestry and land use sectors. In addition, it also included the socio-economic impact study on the Red River Delta and Mekong River Delta, and assessed the impacts on agriculture, monsoon and water resources, coastal zone, forestry, human health, energy system, transport and infrastructure. Policy options to cope with climate change for agriculture, water resources, coastal protection, forestry, human health and natural disasters were discussed. However, it is noted that the study was conducted by foreign (Climate Institute, Washington, DC/CSIRO, Australia/ICF, Washington, DC) and local (Institute of Water Resource Planning and Management) consultants, with no institutional strengthening and training.

(f) "*The potential socio-economic effects of climate change on Vietnam*" -- This UNEP-funded project aimed to consider the effects of present-day climate variability on the natural environment and economy of Vietnam, and to evaluate the implications of possible future climate changes that might result from the GHG emissions. It consisted of a number of research activities focusing on the assessment of potential impacts of climate variability in Vietnam on agriculture, human health, energy production and use, mangrove forests and coastal fisheries. A report was completed in May 1994. However, there are still gaps in this study. For example, little study has been made of the potential effects of higher temperatures on crop pests and diseases and on human diseases. Moreover, the timing of various aspects of the crop calendar with respect to current climatic variability deserves closer scrutiny. The potential increase in typhoons and the prolongation of the typhoon season and the possibility of increased risk of drought in south Vietnam resulting from higher rates of evapotranspiration in a warmer world also needs to be evaluated.

(g) "*Socio-economic and physical approaches to analyzing climate change impacts in Vietnam*" funded by the UK Economic and Social Research Council and implemented by the Centre of Environment Research, Education and Development (CERED), the University of Hanoi and the Centre for Social and Economic Research on the Global Environment and the Climatic Research Unit, University of East Anglia, UK. This 24-month research project started in April 1996. It is an interdisciplinary study of socio-economic vulnerability to climate change impacts in the coastal zone of the Red River delta of Vietnam. The ultimate goal is to develop an effective approach in support of policy development regarding options for adaptation relevant to both the case study site and, more generally, to vulnerable social groups and regions.

## II. Project objectives

33. 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 Vietnam is fully committed to the implementation of the UNFCCC, and hence, it intends to prepare and submit its initial national communication six months after the approval of the requested funding for this project. This national communication will highlight priority areas for sustainable development.

34. As Vietnam has undertaken some enabling activities relevant to the implementation of the UNFCCC (see para. 32), and hence the main objective of this proposal is to enable the country to harmonize and update the previous results, fill in gaps, further enhance 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.

### III. Project description

35. 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***

36. Based on the existing scientific and technical expertise from the past and ongoing projects, a Project Management Team (PMT) and a National Study Team (NST) will be established under the auspices of the Institute of Meteorology and Hydrology (IMH) of the Hydrometeorological Service (HMS) and other relevant ministries and governmental departments, as well as NGOs (e.g. Vietnam Union Scientific and Technical associations). The VNCCCT will provide guidance to the PMT (see para. 30).

37. The NST will comprise four working groups: GHG Inventory, Mitigation Options, Vulnerability/Impacts Assessment and Adaptation, and National Communication. Each working group is composed of a number of experts drawing from public and private sectors. The NST will be coordinated by a Project Coordinator, who will be designated by the IMH to coordinate the day-to-day project activities. The Director of the IMH, together with the Project Coordinator 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.

#### ***Major output:***

38. The major output of this proposed activity will be the establishment of the PMT and NST which are fully committed to the successful implementation of the project.

#### ***Activity 2: GHG inventory***

39. Following the COP2 guidelines, the GHG inventory will mainly focus on CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O 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.

40. Earlier work (see para. 32 b) has produced the GHG inventory for the year 1993, but mainly focused on CO<sub>2</sub> and CH<sub>4</sub>. In addition, data are collected through statistical year book and so far no field observations have been undertaken to verify the collected data.

41. As the first step, all existing data will be critically reviewed and the data gaps will be identified. An updated inventory based on the latest version of IPCC Guidelines and using the data for the year 1994 will be undertaken, taking into consideration of Decision 10/CP2 of COP2 with regard to the appropriate use of emission factors. **In particular, local methane emission factors from rice fields will be developed to improve the reliability of the emission data.** This component will be undertaken by the GHG Inventory Group, which will draw from the available expertise especially from the previous and ongoing studies.

42. Despite the previous studies, so far an effective data collection and management system has yet to be set up. This will be a top priority of this project so that both the data and the GHG inventory can be updated regularly and efficiently.

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

44. At the end of the GHG inventory, a workshop will be held to review and present the results to national policy and decision makers.

**Major outputs:**

45. 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) A description of any original research needed to develop and/or apply 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 database system for regular and efficient updating and management of the inventory.
- (f) Strengthening of the inventory study team, drawing from the expertise of both public and private sectors.
- (g) Workshop report.

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

46. 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.

47. Earlier work has shown some gaps in this area (see para. 32 b). **Further computer models (LEAP and MARKAL) will be acquired to provide a wider scope and range of assessment and analysis of various mitigation options.** Training in using these models will be provided.

48. 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*".

49. 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.

**Major outputs:**

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

- (a) Identification and assessment of 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.

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

51. 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 the quantitative 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 and marine ecosystems (these include agriculture, coastal zone, water resources, human health, natural ecosystems, and other aspects such as socio-economics and infrastructure) using the 1994 data.

52. All existing data will first be critically reviewed and data gaps identified. Earlier work (see paras. 32 d and 32 e) will be updated and extended where necessary. For example, apart from the climate change impacts on the Red River Delta and the Mekong River Delta, those on other major river basins (see para. 6) will also be assessed. The linkage between climate change and the frequency and intensity of typhoons, which are of great concern to the country, may be investigated (see para. 10). Indeed, extreme climate events, rather than changes in mean temperature and precipitation, constitute the major physical elements of increasing vulnerability over time.

53. A Vulnerability/Impacts Assessment and Adaptation Group, drawing from the existing expertise, will be formed within the NST 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.

54. Lessons will be learned from the methodology as developed by UNEP's "*Country Case Studies on Climate Change Impacts and Adaptation Assessments (Phase I)*". Despite some earlier work, there is still a general lack of data in this area, it is expected that further research will be needed.

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

56. 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:**

57. 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 and marine ecosystems.
- (d) Workshop report.

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

58. 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 and assess a range of potential adaptation (stage 1) options so that a national strategy for the viable measures can be developed and formulated 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 Vietnam.** Thus, this activity will be one of the major focuses of this project.

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

60. 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.

61. 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:***

62. 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***

63. 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.

**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 with the country's huge population. 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. 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.

67. Indeed, the Government of Vietnam 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**

68. 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**

69. 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. 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.

### ***Activity 9: Preparation of national communication***

70. Based on the outputs of Activities 2 to 8 as described above, the initial national communication will be prepared and submitted to the UNFCCC Secretariat.

71. 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.

72. The draft national communication, expected to be completed by March 1998, will be reviewed by VNCCCT. Based on this review, a revised version will be produced. A meeting will then be organized for key stakeholders and policy and decision makers to review this revised draft national communication before it is finalized and submitted to the UNFCCC Secretariat, hopefully by May 1998.

#### ***Major output:***

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

### **IV. Institutional framework, project implementation and coordination**

74. As shown in the project management and coordination structure (Figure 1), this project will be executed by the IMH, with the support of the Ministry of Science, Technology and Environment (MOSTE) (National Agency of Environment), Ministry of Industry (Institute of Energy), Ministry of Planning and Investment, Ministry of Transportation (Department of Science and Technology), Ministry of Agriculture and Rural Development (Institute of Forestry Science; National Institute for Agriculture Planning and Projection), Ministry of Training and Education (University of Technology) and Vietnam Union of Scientific and Technical Associations (NGOs). The VNCCCT (see para. 30) will guide the implementation of this project and to provide overall policy advice. It will ensure that the recommendations of the project are integrated into overall national development plans.

75. Based on the available expertise, a full-time local Project Coordinator will be assigned to coordinate the day-to-day activities of the project. This project will seek to strengthen the existing institutional framework for project management where necessary.

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

### **V. Proposed work schedule**

77. 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 IMH and VNCCCT 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.

## VI. Appropriate sequencing

78. 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.

## VII. Activity matrix

79. 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 ongoing activities.

## VIII. Training

80. Some training for the PMT and NST in various aspects of Activities 2 to 9 is likely to be 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. 63) will also be required.

81. 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 IMH. In particular, the country will participate in the regional workshops organized by the *UNDP-UNEP National Communications Support Programme*.

82. 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.

83. 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.

## IX. National level support

84. This project enjoys a very high level and a wide range of national support. It is fully endorsed and supported by the HMS, and it will be implemented under the guidance of VNCCCT, which has broad representation from the relevant ministries and government agencies and NGOs (see para. 29). Soon after the draft proposal was prepared in August 1997, it was reviewed in a meeting participated by representatives from various relevant ministries. Since then, the revised proposal has undergone a long and comprehensive review process within the Government, which has finally cleared the proposal by sending an endorsement letter dated 29 May 1998 written by Dr. Pham Kooi Nguyen, the GEF Operational Focal Point (see attached letter).

85. The UNDP office in Hanoi has been briefed during the preparation of this project. 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.

## X. Project financing and budget

86. 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\$250,000 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).

87. This budget has been realistically estimated by the IMH, 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 (see attached letter).

88. The Senior Programme Officer (Climate Change) of the GEF Coordination Office, UNEP, visited the country on 9-12 August 1997 to assist in the preparation of the project proposal. He has critically assess the past and ongoing activities related to climate change, as well as the availability of existing resources for the implementation of the project. He has had thorough discussions with the senior staff members of IMH on the detailed breakdown of the budget for each proposed activity. UNEP is fully convinced that the requested funding is most appropriate and essential for the successful implementation of the project over the project duration.

89. As a country "with low-lying coastal areas" (Article 4.8 b), "with ...forested areas..." (Article 4.8 c), "with areas prone to national disasters" (Article 4.8 d), "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), Vietnam, with its 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.

90. The contribution of the Government of Vietnam, which will amount to US\$50,000 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 others.

## XI. Rationale for GEF support

91. This is a standard enabling activities proposal which will assist Vietnam 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

## XII. Sustainability and participation

92. The Government of Vietnam 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 Vietnam in various aspects of the proposed activities, as well as the leading role taken by the IMH 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.

### **XIII. Issues and risks**

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

94. **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.

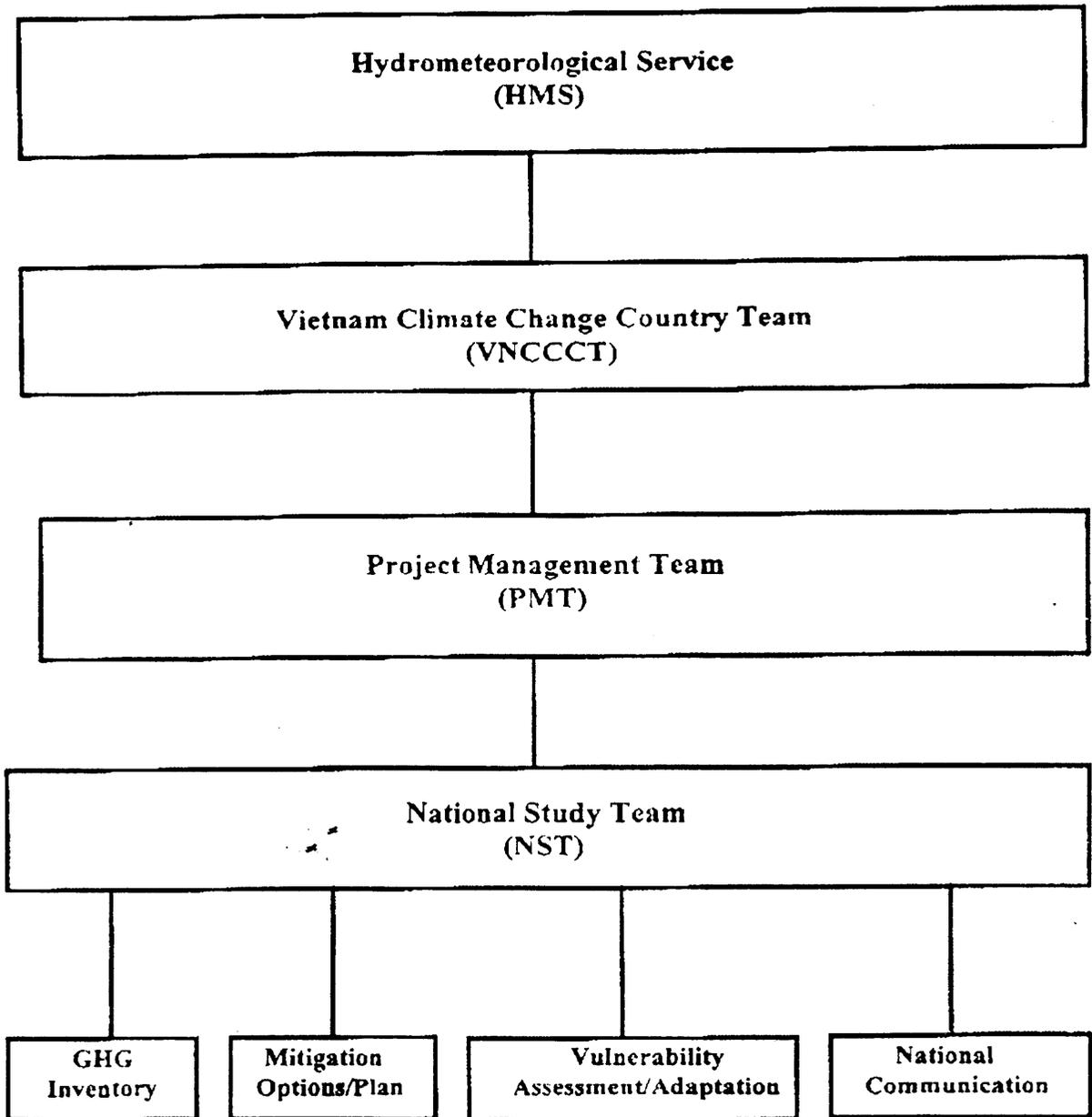
95. Necessary action will be undertaken to avoid all the risks mentioned above.

### **XIV. Monitoring and evaluation**

96. The Project Coordinator will provide a monthly progress report to the IMH, which will share it with VNCCCT 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 VNCCCT for their quality and standard, comprehensiveness, and conformity to the proposed terms of reference and dates of completion.

97. The VNCCCT 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 VNCCCT will guide the IMH on reports and make recommendation to the IMH, which, in turn, will provide quarterly progress reports and quarterly financial reports to UNEP based on UNEP's standard format.

98. 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<br>I<br>M<br>E<br><br>I<br>N<br><br>M<br>O<br>N<br>T<br>H | 1  | █ |   |   |   |   |   | █ |   |    |     |   |
|   | 2  | █ | █ |   | █ | █ | █ | █ | █ |    |     |   |
|   | 3  |   | █ |   | █ | █ | █ | █ | █ |    | █   |   |
|   | 4  |   | █ | █ | █ | █ | █ | █ | █ |    | █   |   |
|   | 5  |   | █ | █ | █ | █ | █ | █ | █ |    | █   |   |
|   | 6  |   | █ | █ | █ | █ | █ | █ | █ |    | █   | █ |
|   | 7  |   | █ | █ | █ | █ | █ | █ | █ |    | █   |   |
|   | 8  |   | █ | █ | █ | █ | █ | █ | █ |    | █   |   |
|   | 9  |   | █ | █ | █ | █ | █ | █ | █ |    | █   | █ |
|   | 10 |   | █ | █ | █ | █ | █ | █ | █ |    | █   |   |
|   | 11 |   | █ | █ | █ | █ | █ | █ | █ | █  | █   |   |
|   | 12 |   |   | █ | █ | █ | █ | █ | █ | █  | █   | █ |
|   | 13 |   |   | █ | █ | █ | █ | █ | █ | █  | █   |   |
|   | 14 |   |   | █ | █ | █ | █ | █ | █ | █  | █   |   |
|   | 15 |   |   |   |   |   | █ | █ | █ | █  | █   | █ |
|   | 16 |   |   |   |   |   | █ | █ | █ | █  | █   |   |
|   | 17 |   |   |   |   |   | █ | █ | █ | █  | █   |   |
|   | 18 |   |   |   |   |   | █ | █ | █ | █  | █   | █ |

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

PM is Project Management.

M&E is Evaluation and Monitoring.

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

| Enabling Activity   | 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>  | ADB/ALGAS (x)                        | ADB/ALGAS(x)                 | x                           | ALGAS (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   | " (x)                                | " (x)                        | x                           | (x)                  |
| <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.                            | ADB/Dutch (x)                        | ADB/Dutch (x)<br>UNEP/UK     | 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. | CC:TRAIN (I)(x)<br>ALGAS<br>UNEP-GEF | ALGAS (x)<br>UNEP/GEF        | ALGAS (x)<br>UNEP-GEF       | CC:TRAIN (I)(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                            | N/A                         | N/A                  |

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

**Table 3: Budget for Vietnam Enabling Activities Project**

| 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 Inventory (plus one workshop)   | 16,000                        | 8,800                              | 12,000                             | 3,200                         | 40,000                           |                   |
| 3. General Description of Steps   | 47,000                        | 26,000                             | 35,000                             | 9,000                         | 117,000                          |                   |
| (a) Programs related to sustainable development, research, public awareness, etc.                                 | 6,000                         | 3,300                              | 4,500                              | 1,200                         | 13,000                           |                   |
| (b) Policy options for monitoring systems and response strategies for impacts (plus one workshop)                 | 11,000                        | 6,000                              | 8,000                              | 2,000                         | 27,000                           |                   |
| (c) Policy frameworks for implementing adaptation measures and response strategies (plus one workshop)            | 13,000                        | 7,700                              | 10,500                             | 2,800                         | 35,000                           |                   |
| (d) Building capacity to integrate climate concerns into planning   | 6,000                         | 3,500                              | 4,500                              | 1,000                         | 15,000                           |                   |
| (e) Programs to address climate change, adverse impacts, including abatement sink enhancement (plus one workshop) | 10,000                        | 5,500                              | 7,500                              | 2,000                         | 25,000                           |                   |
| 4. Other Information  | 4,000                         | 2,200                              | 3,000                              | 800                           | 10,000                           |                   |
| (a) Material relevant for global emission trends  | 2,000                         | 1,000                              | 1,500                              | 400                           | 5,000                            |                   |
| (b) Financial, technical needs and constraints  | 2,000                         | 1,000                              | 1,500                              | 400                           | 5,000                            |                   |
| 5. Completion and Production of Initial National Communication (plus one workshop)                                |                               |                                    |                                    |                               | 20,000                           |                   |
| Project Management (including computer and communication equipment and expenses) for 18 months                    |                               |                                    |                                    |                               | 40,000                           |                   |
| Monitoring/Evaluation   |                               |                                    |                                    |                               | 6,000                            |                   |
| Total   |                               |                                    |                                    |                               | 217,000                          |                   |
| % of Total  | 40%                           | 22%                                | 12%                                | 8%                            |                                  |                   |
| UNEP Coordination (8%)  |                               |                                    |                                    |                               | 17,000                           |                   |
| <b>TOTAL</b>  |                               |                                    |                                    |                               | <b>250,000</b>                   |                   |

**FAX 1**

**MINISTRY OF SCIENCE, TECHNOLOGY AND ENVIRONMENT OF S.R.VIETNAM  
GEF - VIETNAM OFFICE**

Tel: (844) 8242511  
Fax: (844) 8248933

Address: 39 Tran Hung Dao Street  
Hanoi - Vietnam

From: **Dr. PHAM KHOI NGUYEN**  
Vice Minister  
Ministry of Science, Technology and Environment  
President of GEF/ Vietnam  
Fax : 844-8248933

95/1580

To: **Dr. ADMED DJOGLAF**  
Executive Coordinator  
GEF Coordinator Office  
UNEP, Nairobi, Kenya  
Fax: 2542- 520825, 2542 - 623162

Hanoi, 29 May 1998

Dear Dr. Admed Djoghla.

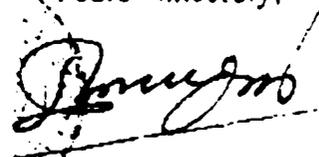
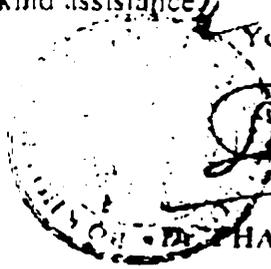
After carefully reviewing the GEF project proposal entitled "Vietnam: Enabling Activities for the Preparation of initial National Communication related to the UNFCCC" prepared by my colleagues of Hydrometeorological Service of S R Vietnam with the assistance of your colleague Dr. Pak-Sum-Low. I fully support and endorse the proposal as it stands.

The requested GEF funding of US \$ 250,000 would enable us to strengthen our capacity and to carry out further work in accordance with the COP2 guidelines, so that my Country is in a good position to prepare the initial national communication as required under Article 12 of the UNFCCC, and hence to fulfill my Country's obligations to the Convention.

My Government would be most grateful if the requested funding can be granted as soon as possible so that we can start the process for the preparation of our initial national communication without delay.

Thank you very much for your kind assistance.

Yours Sincerely,

Vice Minister

Ministry of Science, Technology  
and Environment of S.R. Vietnam  
President of GEF/Vietnam

|                                       |  |
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| <b>U N E P</b>                        |  |
| GEF COORD. OFFICE                     |  |
| <b>RECEIVED</b>                       |  |
| ACTION<br>NO <input type="checkbox"/> | REQUIRED<br>YES <input type="checkbox"/>                 |
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