



**United Nations Development Programme**  
GLOBAL ENVIRONMENT FACILITY (GEF)

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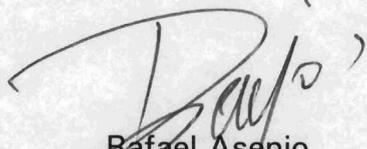
Dear Mr. El-Ashry,

Please find attached copy of the UNDP/GEF Project document entitled: ***Papua New Guinea: Climate Change Assistance Project for the amount of \$345,500*** approved by the GEF Executive Council in February 1995.

As per paragraph 29 and 30 of the *GEF Project Cycle*, we are submitting this project to you for circulation to the members of the GEF Executive Council for their review and comments, and subsequently, for your final endorsement.

Thank you in advance for expediting the review and approval of this project.

Yours sincerely,

  
Rafael Asenjo  
Executive Coordinator

Mr. Mohamed El-Ashry  
Chief Executive Officer  
Global Environment Facility  
Room G6005  
1776 G Street  
Washington, D.C. 20433  
NM/RH/pm

# UNITED NATIONS DEVELOPMENT PROGRAMME

## GLOBAL ENVIRONMENT FACILITY

PROJECT OF THE GOVERNMENT OF PAPUA NEW GUINEA

### PROJECT DOCUMENT

**PROJECT NUMBER**  
**PROJECT TITLE:**

PNG/96/G31/A/1G/99:  
PAPUA NEW GUINEA: CLIMATE CHANGE  
ASSISTANCE PROJECT

**Total Project Cost:**  
\$345,600

**DURATION:**

24 MONTHS

**GEF Financing:**  
\$345,600

**PROJECT SITE:**  
**ACC/UNDP SECTOR**  
**AND SUBSECTOR**

PAPUA NEW GUINEA  
2000 ENVIRONMENT, CLIMATE  
CHANGE

**GOVERNMENT INPUT:**

IN-KIND (STAFF AND INSTITUTIONAL RESOURCES)

**EXECUTING AGENCY:**

GOVERNMENT OF PAPUA NEW GUINEA

**IMPLEMENTING**  
**AGENCY:**

DEPARTMENT OF ENVIRONMENT AND CONSERVATION

**ESTIMATED**  
**START DATE:**

JANUARY 1997

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THIS PROJECT SEEKS TO ENHANCE THE CAPABILITY OF PAPUA NEW GUINEA THROUGH THE DEPARTMENT OF ENVIRONMENT AND CONSERVATION TO FULFILL ITS OBLIGATIONS TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE UNDER ARTICLES 4 AND 12 (COMMUNICATION OF INFORMATION RELATED TO IMPLEMENTATION) LEADING TO THE NATIONAL COMMUNICATION. IT AIMS TO: (A) DEVELOP METHODS, BUILD CAPACITY AND STRENGTHEN INSTITUTIONS TO ASSESS THE SOCIO-ECONOMIC AND ENVIRONMENTAL IMPACTS OF CLIMATE CHANGE; AND (B) INCREASE THE CAPACITY OF THE GOVERNMENT OF PAPUA NEW GUINEA TO IDENTIFY AND EVALUATE POLICY OPTIONS AND PLANS FOR ADAPTATION TO POSSIBLE CLIMATE CHANGE.

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ON BEHALF OF

**GOVERNMENT OF PAPUA NEW GUINEA**  
**NATIONAL ENVIRONMENT COMMISSION**  
**UNDP**

SIGNATURE

DATE

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**UNITED NATIONS DEVELOPMENT PROGRAMME**

**GLOBAL ENVIRONMENT FACILITY**

PROJECT OF THE GOVERNMENT OF PAPUA NEW GUINEA

**PROJECT DOCUMENT**

**PROJECT NUMBER:** PNG/96/G31/A/1G/99:  
**PROJECT TITLE:** PAPUA NEW GUINEA: CLIMATE CHANGE ASSISTANCE PROJECT

**DURATION:** 24 MONTHS

**PROJECT SITE:** PAPUA NEW GUINEA  
**ACC/UNDP SECTOR AND SUBSECTOR:** 2000 ENVIRONMENT, CLIMATE CHANGE

**GOVERNMENT INPUT:** IN-KIND (STAFF AND INSTITUTIONAL RESOURCES)

**EXECUTING AGENCY:** GOVERNMENT OF PAPUA NEW GUINEA

**IMPLEMENTING AGENCY:** DEPARTMENT OF ENVIRONMENT AND CONSERVATION

**ESTIMATED START DATE:** JANUARY 1997

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| <p><b>Total Project Cost:</b><br/>\$345,600</p> <p><b>GEF Financing:</b><br/>\$345,600</p> |
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THIS PROJECT SEEKS TO ENHANCE THE CAPABILITY OF PAPUA NEW GUINEA THROUGH THE DEPARTMENT OF ENVIRONMENT AND CONSERVATION TO FULFILL ITS OBLIGATIONS TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE UNDER ARTICLES 4 AND 12 (COMMUNICATION OF INFORMATION RELATED TO IMPLEMENTATION) LEADING TO THE NATIONAL COMMUNICATION. IT AIMS TO: (A) DEVELOP METHODS, BUILD CAPACITY AND STRENGTHEN INSTITUTIONS TO ASSESS THE SOCIO-ECONOMIC AND ENVIRONMENTAL IMPACTS OF CLIMATE CHANGE; AND (B) INCREASE THE CAPACITY OF THE GOVERNMENT OF PAPUA NEW GUINEA TO IDENTIFY AND EVALUATE POLICY OPTIONS AND PLANS FOR ADAPTATION TO POSSIBLE CLIMATE CHANGE.

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| ON BEHALF OF                    | SIGNATURE | DATE  |
|---------------------------------|-----------|-------|
| GOVERNMENT OF PAPUA NEW GUINEA  | _____     | _____ |
| NATIONAL ENVIRONMENT COMMISSION | _____     | _____ |
| UNDP                            | _____     | _____ |

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**PAPUA NEW GUINEA  
CLIMATE CHANGE ASSISTANCE PROJECT**

**COUNTRY AND SECTOR BACKGROUND**

1. The country of Papua New Guinea (PNG) is both highly vulnerable to the potential impacts of climate change and able to significantly affect its own future greenhouse gas emissions. In recognition of the importance of climate change as an environmental issue and of the need to integrate climate change issues into its environmental and economic development objectives, Papua New Guinea ratified the United Nations Framework Convention on Climate Change (UNFCCC) in late 1993. The Convention entered into force on March 21, 1994. As a UNFCCC ratifier, PNG is obliged to submit periodic national communications. For this to occur, there is a pressing need for assistance in developing and sustaining a process by which PNG can complete a greenhouse gas inventory, assess its vulnerability to climate change, and develop adaptation and mitigation strategies.

**Country Description**

2. Papua New Guinea comprises the eastern half of the sub-continental island of New Guinea, the great islands of the Bismarck Archipelago and the northernmost Solomon group, and some 600 additional smaller islands. PNG's borders stretch from the equator to 12 degrees south latitude, and encompass about 455,000 square kilometers of land with a marine jurisdictional zone in excess of 2 million square kilometers.

3. The region is geologically complex and lies upon at least three of the earth's main tectonic plates (Australian, Pacific, Solomon). PNG is also located on the crossroads of several major biogeographic provinces. These factors have contributed to PNG's rich terrestrial and marine biodiversity. This biological and geological diversity is equally matched by PNG's cultural wealth, reflected in over 700 distinct language groups.

4. PNG has a population of almost four million and a population growth rate of 2.3%. It has a per capita GNP of US \$860. Social indicators show a low quality of life for many in the rural areas and for the unemployed in the towns. Law and order pose a serious socioeconomic problem, particularly in urban areas. Only 10% of the population is employed in the formal wage sector. The potential work force is expanding at the rate of about 50,000 per year, only a small proportion of which can expect to find wage employment.

5. Recent significant economic events have placed particularly heavy demands on economic management in PNG. The steady but moderate growth in GNP of the mid 1980s was followed in 1989 and 1990 by negative growth rates of -1.4% and -3.7% respectively. This downturn was due to a sharp fall in the terms of trade, exacerbated by the closure of the Bougainville copper mine, which alone contributed about 35% of export revenues. The economy bounced back in with growth rates of 9.5% in 1991 and 9% in 1992 as new petroleum and mining ventures came on line. Management of these momentous changes has been

demanding on the Government's resources, particularly at the macro-economic and planning levels.

6. PNG is rich in natural resources. Besides large reserves of petroleum, natural gas, gold, and copper, the country possesses large forestry and fishery resources. About 3/4 of the country's land area is forested, but much of this is inaccessible to commercial exploitation. Although foreign fleets exploit the region's fisheries, PNG's own fishing industry is poorly developed. As a result, agriculture is and will continue to be the mainstay of the economy. Approximately 85% of the population reside in rural areas and the vast majority of these people depend at least partially upon subsistence agriculture for their food. Agriculture accounts for approximately 25% of GDP and 13% of total export earnings.

7. Only a small percentage of PNG's land cover is under active management. Of more than 45 million hectares of total land area, approximately 400,000 are classified as cropland, 100,000 as pasture, and more than 38 million hectares as forest and woodland. Much of PNG's natural environment is still comparatively pristine, but environmental quality is under threat from current patterns of development, consumption, and population growth. Migration patterns and demographic patterns exacerbate the management challenges posed by traditional land tenure and resource ownership systems. Previous reviews of PNG's resource management have emphasized the need for urgent attention to all key sectors, including sustainable management of renewable natural resources such as forests, land, coastal and marine ecosystems, and the management of mineral and petroleum resources to provide an investment for the future.

8. PNG is highly vulnerable to the impacts of climate change. PNG encompasses more than 17,000 kilometers of coastline, and has almost 2,000 coastal villages and a rural coastal population of approximately 500,000, making it vulnerable to sea level rise and other weather-related manifestations of climate change. Its fishery resources, although currently abundant, could prove susceptible to temperature and other changes. PNG's terrestrial ecosystems are particularly diverse and complex, and the impacts of climate changes on these ecosystems are not well understood.

9. PNG is a relatively small source of GHG emissions, and land-use change is currently the primary source of these emissions. According to the World Resource Report 1994-95, land-use change in 1991 accounted for 29 million tons of CO<sub>2</sub> emissions, while energy and industrial-related emissions accounted for only 2.2 million tons. Methane emissions in PNG are estimated at 10,000 tons per year from a combination of solid waste disposal and livestock. All of these figures must be viewed as highly uncertain. Hydropower provides the mainstay of PNG's electricity system, and the potential for expansion of the hydropower system is enormous. Increased export-oriented exploitation of PNG's oil and gas reserves, however, could increase energy-related emissions over time. The same can be said for the growing transportation sector.

### **Papua New Guinea's Forestry Sector**

10. PNG's forest estate covers over 36 million hectares of the country's total land area of

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45.5 million hectares. PNG's forest ecosystems are among the most diverse in the world. There are over 9,000 species of higher plants, including as many as 1500 species of forest trees. PNG is home to over 700 species of birds and almost 200 species of mammals.

11. With increasing population pressure, the traditional agricultural production systems are damaging the environment. The main cause of deforestation in PNG is shifting cultivation. It has been estimated that the area of forest cleared for this purposes is between 150,000 and 200,000 hectares annually, and that approximately 100,000 hectares permanently lose their forest cover each year.

12. Approximately 14 million hectares of PNG's forests are accessible for logging purposes; one million hectares of this area has already been logged. The government of PNG has acquired 8.7 million hectares for logging as of December, 1995. Unprocessed logs account for over 97% of total wood exports and wood chips for the bulk of the remainder. Notwithstanding the importance of the forestry resource, the sector provides employment for only 7,500 people, representing 4% of total formal sector employment.

13. The 1991 National Forest Policy Act mandates that PNG's forests be managed on a sustainable basis. The sustainable harvest volume from the available natural forest has been estimated at 4.9 million cubic meters per annum, assuming a 35-year cutting cycle. The level of harvest has increased from 1 million cubic meters in 1980 to more than 3 million cubic meters in 1993. The permitted cut is presently 8 million cubic meters.

14. Approximately 97% of PNG's land is customary land held under traditional ownership arrangements. The nation's legal system explicitly recognizes Melanesian traditions of land resource tenure, which have evolved over thousands of years. There is no formal market for land, people cannot easily expand their holdings or emigrate to other provinces and obtain land for farming. Also, land development stimulates ownership disputes which often hamper project implementation. Community-based leadership and landholding groups hold the key to environmentally sound land use planning and management in PNG.

15. A Tropical Forestry Action Plan (TFAP) was undertaken in 1985. In response to ongoing critical assessments of the state of PNG's forestry sector, however, including the well-known Barnett Inquiry from 1987-1989, major changes were implemented. The 1991 Forest Policy Act (amended in 1993) abolished the Department of Forests and created the National Forest Authority (PNGFA). The PNGFA is governed by a Board, comprising private sector and national and provincial government representatives, which provides independent advice and direction. PNG's TFAP was dropped in favor of a National Forestry and Conservation Action Programme (NFCAP), implemented with World Bank and other donor assistance.

#### **Environmental Commitments and Policy Framework in Papua New Guinea**

16. Evidence of the Government's increasing concern about environmental degradation is illustrated by strong steps it has taken to incorporate long-term environmental perspectives in its approach to national development. In 1991, PNG's National Executive Council (NEC)

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endorsed a sustainable development approach to resource development, and endorsed Agenda 21 at the UNCED conference in 1992. PNG also signed the Rio Declaration. This was followed in March 1994 by the entry into force in PNG of the UNFCCC, and in April 1994 by the NEC's endorsement of a National Sustainable Development Strategy (NSDS). A Steering Committee was created to coordinate the formulation of the NSDS through a nationwide participatory process.

17. Evidence of PNG's environmental commitments can also be found in the comprehensive system of laws dealing with natural resource management. PNG's resource management laws, including its forestry and mining laws, are generally considered quite advanced institutional and legislative frameworks. Effective implementation of these frameworks, however, has proven a major hurdle to effective resource management given a lack of central policy making, coordinating, planning, and project implementation functions. The legal establishment of the National Forest Authority in 1991, designed to enforce the new national legislation with representation from provincial governments, landowners, non-governmental organization (NGOs), and the private sector, was a step toward addressing this problem. The same can be said of the recent establishment of a National Planning Office, which is just now being staffed.

18. Other than its ratification of the UNFCCC, PNG has no policy framework targeted specifically at climate change concerns. In spite of official recognition of the need to address the environmental issues facing PNG, including climate change, external assistance from the GEF is required in order to strengthen the institutional and technical capabilities required to comply with the country's obligations under the UNFCCC, and to produce PNG's first national communication. Because so little has taken place in PNG in the climate change arena thus far (see attached capabilities Annex), reinforcement of PNG's technical capacity is required in all key areas, including completion of a GHG inventory, carrying out adaptation and mitigation assessments, completing a national climate change plan, and filing of PNG's national communication.

#### **Related Activities**

19. As stated above, PNG has no climate change policy framework. PNG does not participate in the U.S., German or UNEP Country Studies Programs. Nor is PNG a party to regional GEF enabling activities including the Pacific Island Climate Change Assistance Program (PICCAP), the Asian Least-Cost Greenhouse Gas Abatement Strategies Project (ALGAS), the UNITAR CC:TRAIN Phase II Training Programme, or the Vulnerability Studies Series being funded by Japan

20. PNG is a participant in AusAID's South Pacific Sea Level Monitoring (SPSLM) Project, and hosts two sea level monitoring stations. There are four components to the SPSLM project: (1) project management; (2) information and training; (3) research and data interpretation; and, (4) infrastructure maintenance and development. The project is not designed to assist countries in the fulfillment of obligations under the UNFCCC, but its outputs will be useful. Components (2) and (3) are of most relevance to the proposed project, and cover the following activities:

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- public awareness raising including the dissemination of information related to climate change and sea level rise in the form of a regional newsletter and press releases;
- education material development over the next two years for us in primary and secondary schools throughout the region;
- reports on data collected by the sea level gauges are regularly distributed by the Australian National Tidal Facility;
- general training in relation to the science of climate change (to be closely linked to PICCAP implementation); and
- research and data interpretation focused on the technology and approach to sea level monitoring as well as potential impacts in island countries (to be closely linked to PICCAP implementation).

21. There are many activities ongoing within PNG that are relevant to PNG's various obligations under the UNFCCC. These include policy and project activities in the forestry and energy supply sectors. Although not targeted at climate change concerns, and not currently generating the information needed to complete PNG's national communication, these activities can be drawn upon for purposes of the various activities to be carried out through this project. This is particularly the case for PNG's forestry sector, which as previously stated is the primary source of GHG emissions in the country. The National Forestry and Conservation Action Programme (NFCAP) has significant implications for GHG emissions and sequestration opportunities in PNG. Several objectives of the NFCAP are:

- (a) to sustain the PNG national forest estate for the purpose of producing a whole range of forest services and products, or alternatively to avoid or reduce deforestation;
- (b) to achieve a balance between the use of forests for conservation and industrial production;
- (c) where a decision has been made that the forest is to be used for industrial production, to ensure that it is managed for sustained yield and harvested to prescribed environmental standards;
- (d) to improve the benefits flowing from the forest to the customary forest owners;
- (e) to increase the forest owner's involvement with management of the resource.

22. The NFCAP currently comprises some 26 components aimed at strengthening government, NGO and landowner capacity to better plan forest sector development and management, and to provide for conservation of PNG's natural heritage. Total NFCAP funding over the period 1992 - 1997 is expected to exceed US \$40 million. Examples of NFCAP program components include support for forest management and planning, NGO and government policy development, biodiversity conservation, a National Forest Plan, study of the effects of logging, and conservation requirements for sustainable forest use in PNG. The climate change objectives associated with this project will add a valuable new dimension to these

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ongoing NFCAP components. Conversely, ongoing NFCAP efforts will contribute valuable information and data needed for completion of PNG's national communication under the UNFCCC.

23. Another technical effort with a direct relationship to the objectives of this project is the continuing development of the Papua New Guinea Resource Information System (PNGRIS). PNGRIS includes the development of GIS-based maps of the entire country. PNGRIS was established to provide a tool to assist national level agricultural and natural resource development planning. It integrates existing relevant national resource, land use and population distribution information for the whole nation into a user-friendly computer system that was installed in the PNG Department of Agriculture and Livestock. The approach and scope of PNGRIS is currently being reevaluated, offering a timely opportunity for the incorporation of the data collection needs associated with carrying out PNG's GHG inventory, and with the assessment of forest management options associated with development of PNG's national climate change plan. These components are not currently addressed by the PNGRIS system.

## **PROJECT OBJECTIVES**

### **Legal Premises**

24. This project will assist PNG in preparing national communications consistent with the requirements of the UNFCCC. The Convention provides a clear mandate for all of the activities planned in this project. Specifically:

- Article 12 requires developing countries to prepare national communications, due three years after entry into force of the Convention. It is assumed for purposes of this project that this deadline will be extended in the case of Papua New Guinea, for which the Convention entered into force in March 1994.
- Article 4.1 calls on all countries to formulate and implement programs to mitigation and adapt to climate change.

25. The proposed project will put into place the needed institutional mechanisms in PNG for an ongoing response to the requirements of the UNFCCC.

### **Development Objectives**

26. The key objective of this enabling activities project is the completion of PNG's first UNFCCC national communication. The capacity building and analysis required to accomplish this objective, however, corresponds well to a number of PNG development objectives. Of particular concern to PNG is the potential effect of climate change on its natural resource base, including the forest sector, fisheries, and the coastal zone. Regardless of the eventual climate change impacts, it is important that PNG possess the necessary human/institutional resources to integrate appropriate responses into its ongoing development priorities. Government objectives being advanced in parallel to direct compliance with PNG's obligations under the

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UNFCCC include:

- *Greater understanding of the relationship between climate change mitigation strategies and attainment of national sustainable development objectives.* Where there are national programs aimed at ecosystem protection through forest and coastal zone management, knowledge about the linkages between these programs and climate change mitigation needs to be reinforced among key decision makers.
- *Strengthened cooperation and coordination among ministries, agencies, and institutions in areas pertinent to climate change.* Despite the establishment of various governmental entities responsible for environment, implementing cross-cutting activities relevant to climate change will have the effect of improving coordination between government and research institutes, academic institutions, the private sector, and NGOs. A climate change policy dialogue process, including governmental, nongovernmental, academic, business, and grassroots organizations, will be created and strengthened to foster understanding of climate change issues and linkages among a wide stakeholder group. Providing this stakeholder group as quickly as possible with access to the rapidly expanding information and expertise available through the Internet will also strengthen the framework. Given the recent frequency of governmental reorganizations in PNG, it is imperative to establish not only a broad ownership of any PNG climate change response strategy, but to take all opportunities to strengthen the strategy through internal and external networking.
- *A capacity to financially engage a concerned international community capable of financing climate change mitigation projects that complement national sustainable development objectives.* Concern over global climate changes is likely to result in enhanced availability of project funding related to climate change mitigation and perhaps also adaptation. The PNG Government has considerable interest in taking advantage of such opportunities, but has little knowledge of what the opportunities might be or how they might be exploited. Funding proposals that pursue these financing opportunities can concurrently advance climate change mitigation and national development priorities. Successful attraction of such funding, with the associated analysis and verification requirements, could establish a funding base and technical rationale for a self-sustaining administrative process. Carrying out the activities associated with this project will advance PNG's interests in this area.

## PROJECT DESCRIPTION

### Strategy

27. This project builds PNG knowledge and capacity related to implementing the UNFCCC by focusing on issues clearly perceived by the government as environmental and developmental priorities. The strategy revolves around the understanding and management of carbon stocks and sinks within PNG, and seeks to promote the incorporation of climate change concerns and objectives into the resource management sector. The project strategy will consist of the

following major components:

### *Training*

28. Since this is a capacity and institution building project, training activities are a significant component. The training component will take full advantage of ongoing GEF/UNDP and other initiatives such as the regional PICCAP, ALGAS and SPSLM projects, CC:TRAIN, and CC:FORUM. Beyond general capacity building efforts associated with the production of PNG's national communication, the project will identify key national personnel who would benefit from specialized training in order to be capable of assembling, interpreting, and disseminating data relevant to GHG emissions and mitigation of climate change impacts. Training approaches that will be used include:

- *In-Service Training:* In-service training will include participation of governmental and nongovernmental representatives in national as well as international workshops and seminars organized through this project or carried out under the auspices of other GEF/UNDP projects. Training topics will relate to climate change vulnerability and adaptation, GHG inventory completion, UNFCCC national communications contents and formats, and assessment of GHG mitigation options relevant to the PNG context.
- *Technical Expert and Consultancy Training:* The project will provide technical experts to conduct studies, carry out analyses, and train national governmental and nongovernmental personnel on specific issues relevant to PNG that are not sufficiently covered through in-service training, or which require a more PNG-specific focus to be most useful. Consultants will provide technical expertise in areas such as forest GHG inventory assessment, and mitigation options in the oil and gas sectors.

### *Institution Building*

29. The project will pull together many governmental and non-governmental entities currently involved in resource and development planning in PNG. Several new institutional frameworks will be put into place with the explicit goal of utilizing interdisciplinary knowledge bases to address climate change concerns in the short and long terms.

### *Technical Discourse*

30. Linking this project to forest inventory and management issues is critical. The project will initiate a dialogue at multiple institutional levels to address climate change linkages to the natural resources sector. The project will sponsor national and cooperative seminars and workshops and incorporate climate change related informational requirements into ongoing research efforts such as those being carried out under the NFCAP. It will also expand governmental participation in project areas where PNG participation has been primarily through academic circles up to this point, including sea level rise.

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### *Network Building*

31. It is essential that project participants within PNG become tied in to the many climate change related processes underway elsewhere in the Pacific region and elsewhere. The project will establish close links with parallel ongoing subregional UNDP/GEF projects such as PICCAP and ALGAS. It will build on relevant elements of other UNDP/GEF projects such as in sub-Saharan Africa and the Maghreb states. It will work to take advantage of relevant Country Studies Programs being carried out by the U.S., GTZ, and other agencies. Furthermore, it will build linkages with existing international climate change networks including CC:TRAIN and CC:FORUM. The project will provide direct PNG access to international information networks.

32. In summary, the project strategy will assist Papua New Guinea to fulfill its obligations under the Convention and to effectively participate in the global effort to limit GHG emissions and develop GHG sinks. The project will simultaneously contribute toward national environment and development priorities, while adhering to the specific objectives and criteria of the UNFCCC.

### **Institutional Framework**

33. The project will be executed and implemented using four key institutional actors:

(a) *Government of Papua New Guinea*

Because of its stated environmental policies as well as PNG's national commitments under the UNFCCC, the government of PNG will be the executing agency for this project. Government inputs will include counterpart support, including allocation of technical experts, communication/office facilities, secretarial/administrative services, expertise in certain areas, and information services.

(b) *Project Steering Committee*

The Project Steering Committee (PSC) will be the project policy-making body that incorporates high-level representation of selected PNG government ministries and agencies. The PSC will oversee project implementation and ensure inter-agency coordination. A recommended PSC composition would include the Department of Environment and Conservation (DEC), the Foreign Affairs Ministry, the National Forest Authority (NFA), the Agriculture Ministry, the National Planning Office, the Foundation of the Peoples of the South Pacific, and the University of Papua New Guinea. Chairmanship of the PSC will rest with the DEC given its general portfolio, as well as its specifically assigned responsibility for UNFCCC implementation (a responsibility shared with the Foreign Affairs Ministry).

© *Project Coordinator*

A Project Coordinator (PC) will be selected from within the Department of Environment and Conservation. The PC should have proven experience in managing a broad-ranging technical and policy assessment process. The PC will coordinate project activities between the Project Steering Committee and the National Technical Committee. In order to foster institutional ownership of the process within PNG and to facilitate the sustainability of the process put into place through this project, the PC's salary will be provided by DEC. The PC will have a full-time Technical Assistant and other technical support needs provided by the Project.

(d) *National Technical Committee*

The National Technical Committee (NTC) will consist of individuals with expertise from relevant sectors, including government agencies, academic institutions, NGOs, and private sector organizations. Community participation would appropriately include representatives of landowner and Melanesian interests. Members of the NTC, supported as needed by national and international expertise, will be the focus of the training activities associated with the project, and will carry out the activities associated with the project.

#### IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES

34. The enabling activities of this project will facilitate the implementation, in accordance with the Convention, of effective response measures by Papua New Guinea. The immediate aim of the PNG Climate Change Assistance Project is to enable PNG to meet its reporting obligations under the UNFCCC, leading to its national communication as required under Article 12. In this regard, seven specific objectives have been identified:

- To put into place the procedural and infrastructural elements that will form the framework for the rest of project activities.
- To enable PNG to fulfil its reporting obligations with regard to the development of an inventory of GHG sources and sinks. The resulting inventory will be able to be updated periodically in accordance with the IPCC methodology. Although primarily focused on land-use related CO<sub>2</sub> sources and sinks, the inventory will also encompass energy related emissions as well as CH<sub>4</sub>, N<sub>2</sub>O, and CFC emissions.
- To enable PNG to identify options for mitigating climate change, in both the land-use and energy production sectors.
- To enable PNG to identify its vulnerability to future climate change and sea level rise.
- To enable PNG to identify adaptation measures to climate change and sea-level rise.
- To enable PNG to develop its national implementation plan.

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- To enable PNG to fulfil its reporting obligations with respect to communicating information under Article 12 of the Climate Convention (national communications).

35. The enabling activities of this project will facilitate the implementation, in accordance with the Convention, of effective response measures by Papua New Guinea. The immediate aim of the project is to enable PNG to meet its reporting obligations under the Framework Convention on Climate Change, leading to its national communication as required under Article 12. The key objectives, outputs and activities are summarized below.

**Immediate Objective 1  
(INFRASTRUCTURE DEVELOPMENT):**

To put into place the procedural and infrastructural elements that will form the framework for the rest of project activities.

**Activities:**

- 1.1 Establish a Project Steering Committee based on National Executive Council direction. The PSC will be composed of senior representatives of the involved agencies, and will function as the primary policy-making body for the project. During project implementation, the Project Steering Committee will:
- give guidance on, steer and monitor the implementation of the project;
  - establish permanent inter-agency links to coordinate climate change related issues and initiatives in the country; and
  - ensure and support smooth transition from this enabling activity to the finalization of a national communication and implementation of the national GHG mitigation strategy.
- 1.2 Project Steering Committee will name a Project Coordinator from within DEC. With outside assistance as required the PC will prepare a detailed work plan for the project and identify the institutions that are capable of implementing different subcomponents of the project.
- 1.3 The Project Steering Committee and Project Coordinator will cooperate in assembling a National Technical Committee with broad-based governmental, academic, NGO, and industry representation.
- 1.4 The Project Coordinator will identify and develop links to both national and international sources of information (such as the US Country Studies Program and other bilateral programs, UNEP, IPCC, CC:TRAIN, international research

**Success Criteria:**

Within 4 months the PSC, PC, and NTC will be fully operational.

**Responsible Parties:**

PNG National Executive Council

Project Steering Committee

Project Coordinator and Project Steering Committee

Project Coordinator

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institutes dealing with inventories, other climate change related issues, ongoing "enabling" activities in other recipient countries, etc.). These information sources will be utilized as appropriate to provide background training for the project, undertake the specific tasks of the project, learn from the experiences and ideas of similar kind of projects elsewhere, and avoid duplication of effort. The necessary equipment will be procured and installed to provide ready project access to e-mail through Compuserve. When and if internet access becomes available in PNG, the project will establish such access.

- 1.5 In carrying out the above activities and establishing the administrative bodies needed for the project, specific attention will be paid to dissemination of and public access to the available information (as well as to the results of this project) in order to enable a wide participation and involvement of all the interested individuals and organizations both during and after the project. Information dissemination efforts will rely as much as possible on existing information flows that can be taken advantage of by the project.

Project Coordinator, National Technical Committee, Project Steering Committee

#### **Objective 2 (INVENTORIES):**

To enable PNG to fulfil its reporting obligations with regard to the development of an inventory of greenhouse gas (GHG) sources and sinks.

#### **Success Criteria:**

By month 18 PNG will have the capacity to conduct a national GHG inventory.

#### **Output 2.1:**

Procedures and training needed for compiling a comprehensive national greenhouse gas (GHG) inventory of sources and sinks appropriate for PNG, while maintaining consistency with internationally-agreed upon methodologies.

#### **Success Criteria:**

By month 12, procedures for a GHG inventory methodology adapted to PNG circumstances will have been developed, and national staff trained.

#### **Activities:**

- 2.1.1 Adapt the IPCC/OECD Greenhouse Gas Emissions Inventory Guidelines to the needs of

#### **Responsible Parties:**

Project Coordinator, Regional Consultant, National Technical

PNG, taking particular advantage as appropriate of efforts through PICCAP to adapt the Guidelines to the particular circumstances of Pacific island states. In addition, a particular emphasis will be needed to reflect the importance of the forest sector to PNG's inventory activities.

Committee, CC:TRAIN

2.1.2 Adapt training materials and modules being developed by CC:TRAIN, PICCAP and other relevant projects.

Project Coordinator, Regional Consultant, National Technical Committee

2.1.3 Convene PNG Workshop to refine inventory procedures and data needs.

Project Coordinator, Regional Consultant

**Output 2.2:**

**Success Criteria:**

Comprehensive PNG GHG inventory in accordance with IPCC/OECD Guidelines.

By month 18, PNG will have completed its GHG inventory.

**Activities:**

**Responsible Parties:**

2.2.1 Identify any external expertise required to complete the identified inventory methodology.

Project Coordinator, National Technical Committee

2.2.2 Identify modifications to existing initiatives such as NFCAP components and the PNGRIS system that would generate valuable inventory data.

Project Coordinator, National Technical Committee

2.2.3 As prioritized by the PC and NTC, carry out PNGRIS digitization of updated land-use information focusing on high priority parts of the country, including areas that have undergone significant land-use change in the last 15 years.

National Technical Committee, NFCAP

2.2.4 Carry out GHG inventory. Although primarily focused on land-use related CO<sub>2</sub> sources and sinks, the inventory will also encompass energy related emissions as well as CH<sub>4</sub>, N<sub>2</sub>O and CFC emissions.

Project Coordinator, National Technical Committee, Regional Consultant

**Objective 3 (MITIGATION):**

**Success Criteria:**

To enable PNG to prepare its first national GHG abatement strategy.

By month 21, PNG will have carried out its mitigation options analysis.

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**Output 3.1:**

National mitigation options that are appropriate for PNG, particularly long-term measures which are cost-effective and environmentally sustainable.

**Success Criteria:**

Same as for Objective 3.

**Activities:**

**Responsible Parties:**

- |   |  |
|---|--|
| 3.1.1 Participate in CC:TRAIN, PICCAP and ALGAS activities adapted to the mitigation options facing PNG.  | Project Coordinator, National Technical Committee                      |
| 3.1.2 Convene PNG mitigation workshop with particular emphasis on land-use based mitigation measures.   | Project Coordinator, Regional Consultant                               |
| 3.1.3 Assign mitigation related research and policy analysis tasks to individual NTC members and groups of members based on their particular capabilities. The subjects to be covered will go beyond sectoral interventions such as forestry measures, and will include regulatory and legislative options (e.g. tariff and fiscal policies, tax incentives etc.) Capacity will be built in research institutes and NGOs working in particular sectors relevant to the mitigation assessment. | Project Coordinator, National Technical Committee                      |
| 3.1.4 Evaluate PNG's GHG inventory to identify potential areas for reduction of sources and enhancement of sinks.   | Project Coordinator, Regional Consultant, National Technical Committee |
| 3.1.5 Define the range of possible mitigation options within the country.   | Same   |
| 3.1.6 Identify and evaluate least-cost mitigation options for PNG, with a likely primary emphasis on the land-use and energy production sectors. Particular attention will also be paid to sectors whose GHG emissions may increase significantly over time, including the energy production and transportation sectors.  | Same   |
| 3.1.7 Create a PNG-specific Manual on Climate   | International Consultant   |

Change Project Development. This will provide a useful guide to the development of climate change mitigation project proposals that serve PNG's environmental and development priorities, and at the same time satisfy the requirements of climate change project funders. Maximum benefit will be made of similar manual development work in GEF's Maghreb and Sub-Saharan projects; it is anticipated that completion of the PNG Manual will require only modest modification of similar efforts currently underway in those projects. The Manual will be distributed to agencies and NGOs with a potential interest in project development.

**Objective 4 (VULNERABILITY):**

To enable PNG to identify its vulnerability to future climate change and sea level rise. The special needs of small island developing states like PNG and their enhanced vulnerability to climate change has been recognized by the FCCC, the Agenda 21 and the Barbados Declaration for special attention.

**Success Criteria:**

By month 21, PNG will have carried out its climate change vulnerability analysis.

**Output 4.1:**

Procedures for assessing PNG's vulnerability to climate change and sea level rise.

**Success Criteria:**

By month 12, procedures for a vulnerability assessment will have been developed, and national staff trained.

**Activities:**

**Responsible Parties:**

- 4.1.1 Participate in CC: TRAIN, PICCAP and SPSLM activities focusing on vulnerability assessments relevant to PNG's ecological and socioeconomic context.
- 4.1.2 Adapt available training materials and modules to any unique circumstances facing PNG, including importance of forest and marine ecosystems.
- 4.1.3 Conduct training of national stakeholders.

- Project Coordinator, National Technical Committee
- Project Coordinator, Regional Consultant, CC:TRAIN
- Project Coordinator, Regional Consultant

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**Output 4.2:**

A comprehensive set of PNG baseline data to use as reference points for assessing future vulnerability and adaptation options.

**Activities:**

- 4.2.1 Define the information requirements.
- 4.2.2 Collect, evaluate and compile existing national and regional data, including data generated through the SPSLM project.
- 4.2.3 Identify data shortcomings.

**Output 4.3:**

Comprehensive assessment of PNG vulnerability to climate and sea-level change.

**Activities:**

- 4.3.1 Adapt scenarios developed by the PICCAP, SPSLM and Vulnerability Studies projects for future region-specific changes in climate and sea level and in related environmental, social and economic conditions.
- 4.3.2 Additional background research and policy analysis to fill any remaining gaps projects will be assigned to individual NTC members and groups of members based on their particular capabilities. Capacity will be built in research institutes and NGOs working in particular sectors relevant to the adaptation and vulnerability assessments. Particular attention will be paid to the potential implications of climate change for PNG's particularly complex forest ecosystems.
- 4.3.3 Conduct a national vulnerability assessment.

**Success Criteria:**

By month 15, PNG vulnerability baseline data will have been assembled.

**Responsible Parties:**

Project Coordinator, Regional Consultant, CC:TRAIN

Project Coordinator, National Technical Committee

Project Coordinator

**Success Criteria:**

Completion of PNG assessment by month 21.

**Responsible Parties:**

Project Coordinator, Regional Consultant, CC:TRAIN

Project Coordinator, National Technical Committee

Project Coordinator, Regional Consultant, National Technical Committee

**Objective 5 (ADAPTATION):**

To enable PNG to identify adaptation measures to climate change and sea-level rise.

**Output 5.1:**

Procedures for identifying and evaluating adaptation options.

**Activities:**

- 5.1.1 Participate in CC:TRAIN and PICCAP activities associated with the development of regionally appropriate procedures for identifying and evaluating adaptation options which are consistent with the IPCC Technical Guidelines.
- 5.1.2 Adapt training materials and modules as needed for use in PNG.
- 5.1.3 Conduct PNG stakeholder training.

**Output 5.2:**

National options for adapting to climate change.

**Activities:**

- 5.2.1 Define the range of options applicable to PNG, with a particular emphasis on forestry-based options.
- 5.2.2 Evaluate and identify least-cost national adaptation options.

**Output 5.3:**

National options for coping with sea-level rise, including the analysis of options within an ICZM

**Success Criteria:**

By month 21 completion of PNG's adaptation assessment.

**Success Criteria:**

By month 12, procedures for a adaptation assessment will have been developed, and national staff trained.

**Responsible Parties:**

Project Coordinator, National Technical Committee

Project Coordinator, Regional Consultant, CC:TRAIN

Project Coordinator, Regional Consultant

**Success Criteria:**

By month 15, national options will have been identified.

**Responsible Parties:**

Project Coordinator, Regional Consultant, National Technical Committee, CC:TRAIN

Project Coordinator, Regional Consultant, National Technical Committee

**Success Criteria:**

By month 15, national options will have been identified.

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framework.

**Activities:**

- 5.3.1 Participate in CC:TRAIN and PICCAP activities associated with the development of sea-level rise and coastal zone management.
- 5.3.2 Define the range of options applicable to PNG.
- 5.3.3 Evaluate and identify least-cost national options, in the context of an ICZM framework.

**Objective 6 (NATIONAL IMPLEMENTATION PLANS):**

To facilitate PNG's preparation of a national implementation plan.

**Output 6.1:**

Institutional framework and political support

**Activities:**

- 6.1.1 Convene project institutions (see Objective 1 above)
- 6.1.2 Participate in the planned PICCAP Regional Workshop to review guidance material and identify common elements and information needs.
- 6.1.3 Adapt training materials and modules available through CC:TRAIN and other projects.

**Responsible Parties:**

Project Coordinator, National Technical Committee

Project Coordinator, Regional Consultant, National Technical Committee, CC:TRAIN

Project Coordinator, Regional Consultant, National Technical Committee

**Success Criteria:**

By month 24, relevant PNG agencies have agreed upon and submitted a national implementation plan to the Convention Secretariat.

**Success Criteria:**

Assignment and ongoing evidence of a high priority to the project by the National Executive Council.

**Responsible Parties:**

Department of Environment and Conservation

Project Coordinator, National Technical Committee

Project Coordinator, Regional Consultants

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6.1.4 Training of national stakeholders through PNG workshops to raise national awareness and political support, and to develop guidance on national implementation plans.

Project Coordinator, Regional Consultants, National Technical Committee

**Output 6.2:**

Nationally-endorsed implementation plan.

**Success Criteria:**

National Executive Council approval of PNG's national implementation plan.

**Activities:**

**Responsible Parties:**

6.2.1 Prepare a PNG implementation plan.

Project Coordinator, National Technical Committee, Project Steering Committee

6.2.2 Convene national workshops for presentation to policy and decision makers.

Project Coordinator, Project Steering Committee

**Objective 7 (NATIONAL COMMUNICATIONS):**

To enable PNG to fulfil its reporting obligations with respect to communicating information under Article 12 of the Climate Convention (National Communications).

**Success Criteria:**

By month 24, relevant PNG agencies will have signed off on and submitted PNG's first National Communication.

**Output 7.1:**

Politically-endorsed and supported National Communication.

**Success Criteria:**

By month 23, the draft National Communication submitted to the Project Steering Committee.

**Activities:**

**Responsible Parties:**

7.1.1 Participate in PICCAP Regional Workshop to take advantage of emerging guidelines and application procedures.

Project Coordinator, National Technical Committee

7.1.2 Adapt training materials and modules as appropriate for PNG's special circumstances.

Project Coordinator, National Technical Committee

7.1.3 Conduct training of relevant PNG stakeholders.

Project Coordinator, National Technical Committee

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- |       |   |  |
|-------|---|--|
| 7.1.4 | Prepare National Communication.   | Project Coordinator, National Technical Committee                              |
| 7.1.5 | Convene PNG workshops for presentation to stakeholders as well as policy and decision makers. | Project Coordinator, National Technical Committee, Project Steering Committee. |

### **Monitoring and Evaluation**

37. The project will emphasize internal monitoring and evaluation in order to optimize the process of inter-institutional transfer of knowledge and experience. External monitoring and evaluation procedures will be established to ensure conformance with emerging UNFCCC guidance, and to conform to related projects such as PICCAP. In addition, the proposed Project Steering Committee will be charged to maintain close project oversight including periodic technical and programmatic reviews. These reviews will be supported by regularly scheduled project progress reports. The purpose of the review will be to identify in the very early stages of the project the eventual gaps, overlaps and other risks of the successful implementation as well as to identify potential partners and sources of information of which the project could benefit. Every six months the Project Coordinator will prepare a progress report for the PSC that will be formally discussed during the Committee's regular meetings. A final evaluation of the project will be conducted in accordance with UNDP procedures.

38. A post-project evaluation will be undertaken by UNDP in collaboration with the relevant parties not later than one year after the termination of the project, in order to evaluate the extent to which the outputs of the projects are being used as intended.

### **RATIONALE FOR GEF SUPPORT**

39. The project is consistent with the February 1996 GEF Operational Strategy which emphasizes the development of climate change enabling activities as a priority in the initial period. It is also consistent with GEF Operational Criteria for enabling activities in that the project falls within the cost norms, is not duplicating any on-going or planned work in PNG and it follows best practice and a logical sequencing of activities.

40. In addition to the immediate output of preparing the national communication, the project will build technical capacity and establish an institutional framework to facilitate the implementation and further development of the identified follow-up activities.

41. It is clear that in the absence of GEF financial support, this project is not possible and a valuable opportunity to influence the integration of climate change considerations into PNG's national development will have been lost. The activities described in this project brief are required as part of the UNFCCC and would not have been independently undertaken by PNG to address development goals.

## **SUSTAINABILITY AND PARTICIPATION**

42. The Government of Papua New Guinea fully supports the objectives of this project and gives a very high priority to it. National development objectives and strategies are well served by the project through activities intended to foster advanced and sustainable resource management in PNG. In particular, the project's emphasis on climate change mitigation strategies that are compatible with long-term forest resource management and conservation will help stimulate national long-term support for the services and activities of the project.

43. The project emphasizes long-term capacity building and training that are intended to establish a permanent foundation for UNFCCC compliance. After the project has ended and the first national communication to the Conference of the Parties has been finalized, the Government will take responsibility to regularly update the inventory and prepare further communications in accordance with agreements reached by COP. It is expected that after successful completion of the project, the Project Steering Committee will continue to deal with UNFCCC related matters on a permanent basis.

### **Consultative and Participatory Processes**

44. This proposal has been prepared by the GEF based on in-country consultations with individuals and/or panels in relevant institutions, including:

- *Government Ministries, Agencies and Departments:* Department of Environment and Conservation, Department of Foreign Affairs; Department of Agriculture and Livestock, National Planning Office, National Forest Authority; National Forestry and Conservation Action Program.
- *Academic and Research Institutions:* University of Papua New Guinea.
- *Nongovernmental Organizations:* Foundation for the Peoples of the South Pacific; Integrated Conservation and Development Project.

## **LESSONS LEARNED AND RESPONSE TO TECHNICAL REVIEW**

45. Previous technical reviews of enabling activities processes under the UNFCCC have noted the importance of cooperation and networking of a broad range of experts. This leads to an exchange of information that is linked both nationally and internationally, and considerably strengthens the context within which the project is pursued. For this reason, this capacity building project emphasize the development of national expertise through training and the exchange of information.

46. Project design has also taken into account previous technical review of the National Forestry and Conservation Action Programme in PNG, which faced many of the same organizational issues that will face this project. That review, completed in 1994, noted the

difficulties encountered in establishing a new institutional structure to address a specific topic like sustainable forest management. In that case it was found that it proved difficult for an externally established and funded entity to establish a sustained leadership role among the large group of PNG forestry stakeholders. As a result, this proposal avoids reliance on establishment of an implementation structure external to existing agencies, and focuses on establishing governmental ownership of the climate change response process.

47. Technical review comments have been incorporated.

## **PROJECT FINANCING AND BUDGET**

48. The total GEF cost of this project is \$345,600. As an enabling activity, this project would not take place without the UNFCCC. Therefore, the full costs of the project equal the incremental costs of the project. The GEF contribution will cover the costs outlined below. In addition to this, the PNG Government will make in-kind contribution including salaries for staff time associated with operation of the Project Steering and National Technical Committees. Other in-kind contributions will include basic communications and office facilities.

49. The most important circumstances facing PNG with respect to the budget required to fulfill its UNFCCC obligations are:

- the nascent state of knowledge and capacity in PNG on climate change issues generally, and relevant UNFCCC-required outputs specifically;
- the need to build broad-based ownership and capability into PNG's climate change response strategy if it is to prove sustainable;
- the importance of networking extensively with other ongoing efforts in the region and beyond; and
- the high costs associated with travel to and from PNG.

50. These circumstances require stretching the budget available for national enabling activities through the GEF. Several examples have been identified of how this project can cost-effectively build on other efforts underway in the region in order to maximize its own success:

- CC:TRAIN in coordination with the PICCAP project will be building national teams and helping the teams generate political support through awareness-raising and participatory activities aimed at policy-makers. PNG will be able to utilize these efforts in advancing its own project agenda. It is anticipated that the project will be able to get full access to CC:TRAIN materials and workshops through the United Nations Institute for Training and Research (UNITAR).
- The South Pacific Regional Environment Program (SPREP) will gain considerable resources and expertise through the efforts of PICCAP and CC:TRAIN. Close cooperation with SPREP will allow PNG to mobilize technical assistance and identify opportunities for collaboration in carrying out PNG's project.

- PNG will be able to take advantage of training carried out through PICCAP and CC:TRAIN regional workshops on such subjects as vulnerability and adaptation assessment, and compilation of national implementation plans.

51. The attached budget (see Annex 1) reflects the particular circumstances facing PNG is carrying out this project, and the opportunities for maximizing its cost-effectiveness through cooperation and collaboration with parallel efforts that will already be underway.

### **INCREMENTAL COSTS**

52. Preparation of national communications by developing countries is to be fully financed by the GEF for the UNFCCC. An incremental cost assessment for this project is therefore not required.

53. This project is consistent with the enabling activity and capacity building objectives listed in INC Document (A/AC.237/90/Add.3), prepared jointly by the interim secretariat of the UNFCCC and the GEF Secretariat in order to facilitate coordinated and timely assistance to countries for the implementation of the Convention. This project responds to such objectives by implementing an activity needed to enable this country to fulfill its commitments to implement the Convention.

### **ISSUES, ACTIONS, AND RISKS**

54. The project represents an approach to capacity building that emphasizes training, networking, and national dialogue. It is adapted to PNG's particular context and technical capabilities. The ultimate criterion of success will be whether a sustainable climate change assessment and reporting process is established, and whether the results of the project are incorporated into PNG's broader development goals. The project seeks to establish a long-term institutional framework for PNG compliance with its obligations.

55. The risks associated with implementation of a project such as this one have been explicitly addressed in project design. One risk is that essential personnel and equipment resources may not be sufficient. Considering the specific outputs required of the project, a crucial element will be close collaboration among the different ministries and departments at the institutional level, as well as collaboration of the project personnel at the individual level with each other and the project support staff. The government of PNG, however, has committed the active participation of relevant agencies to the project. The project budget also provides for sufficient external expertise, equipment, and travel to accomplish the project's aims.

56. Another possibility in project implementation is that the methods and approaches used will not conform to the international framework for enabling activities being developed under the UNFCCC. To address this risk, the project will employ commonly accepted methodologies and will modify its approach as guidance from the Convention on issues including enabling activities become better defined. Relevant entities including the IPCC and UNEP will be

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consulted to ensure that the methods and details used in the project are appropriate. In order to avoid redundancy with other ongoing efforts and to promote effective project implementation, the project will also use the results of ongoing or finalized projects like the UNDP/GEF PICCAP and ALGAS projects, the sub-Saharan and Maghreb regional greenhouse gas mitigation projects, CC:TRAIN and related efforts, and relevant Country Study Programs including those of the U.S., the GTZ, and UNEP.

58. The frequent reorganization of governmental agencies and functions that often accompanies the rapid evolution of policy and administrative structures in many developing countries poses a challenge to the long-term institutionalization of PNG compliance with UNFCCC requirements. This risk in particular has been addressed through maximizing the likelihood of broad-based ownership of PNG's climate change response process by the country's governmental and non-governmental stakeholder communities. This ownership is strongly encouraged through extensive participatory and training activities, and by building as much as possible on existing infrastructural capacity within PNG's resource management agencies.

59. The project is structured as a two-year project. There is a risk that this is an insufficient period of time to carry out the large number of activities associated with the project; this risk was identified by some technical reviewers of the project. The two year time frame is timed to be able to take maximum advantage of enabling activities taking place in the region and elsewhere during this period. It was concluded that slowing the project down to stretch it over three years might be counter-productive in being able to take maximum advantage of these other efforts and resources. Establishing the Project Coordinator as a full time or close to full time position was an approach taken to maximize PNG's ability to complete the project during a two year period. Should extension of the project prove necessary, or should parallel projects move more slowly than anticipated, production of the national communications could be delayed without significant budgetary impact.

**ANNEXES**

1. **Project Budget**
2. **Project Work plan and Schedule**
3. **Job Descriptions**
4. **Capacity Table**

Annex IA  
Project Budget

| Budget Code  | Description  | Total |                | 1997 |                | 1998 |                |
|--------------|--|-------|----------------|------|----------------|------|----------------|
|              |  | m/m   | \$             | m/m  | \$             | m/m  | \$             |
| <b>10.00</b> | <b><u>Project Personnel</u></b>                      |       |                |      |                |      |                |
| <b>11.00</b> | <b><u>International Experts</u></b>                  |       |                |      |                |      |                |
| 11.01        | Short Term Consultants                               | 2     | 20,000         | 1    | 10,000         | 1    | 10,000         |
| <b>15.00</b> | <b><u>Expert Official Travel</u></b>                 |       |                |      |                |      |                |
| 15.01        | Expert Official Travel                               |       | 32,000         |      | 16,000         |      | 16,000         |
| <b>16.00</b> | <b><u>Mission Cost</u></b>                           |       |                |      |                |      |                |
| 16.01        | Mission Costs  |       | 15,000         |      | 7,500          |      | 7,500          |
| <b>17.00</b> | <b><u>National Professionals</u></b>                 |       |                |      |                |      |                |
| 17.01        | National Project Manager                             | 24    | 20,000         |      | 10,000         |      | 10,000         |
| 17.02        | National Experts                                     | 10    | 10,000         |      | 5,000          |      | 5,000          |
| <b>19.0</b>  | <b>COMPONENT TOTAL</b>                               |       | <b>97,000</b>  |      | <b>48,500</b>  |      | <b>48,500</b>  |
| <b>21.00</b> | <b><u>Subcontracts</u></b>                           |       |                |      |                |      |                |
| 21.01        | Inventory (energy sector)                            |       | 15,000         |      | 10,000         |      | 5,000          |
| 21.02        | Inventory (non-energy sector)                        |       | 15,000         |      | 10,000         |      | 5,000          |
| 21.03        | Mit. Analysis and Strategy                           |       | 25,000         |      | 10,000         |      | 15,000         |
| 21.04        | V & A  |       | 40,000         |      | 20,000         |      | 20,000         |
| <b>29.00</b> | <b>COMPONENT TOTAL</b>                               |       | <b>95,000</b>  |      | <b>50,000</b>  |      | <b>45,000</b>  |
| <b>30.00</b> | <b><u>Training</u></b>                               |       |                |      |                |      |                |
| 32.01        | In-service training (in-country and abroad)          |       | 46,000         |      | 26,000         |      | 20,000         |
| 32.02        | Group training workshops/ dissemination of materials |       | 42,000         |      | 24,000         |      | 18,000         |
| <b>39.00</b> | <b>COMPONENT TOTAL</b>                               |       | <b>88,000</b>  |      | <b>50,000</b>  |      | <b>38,000</b>  |
| <b>40.00</b> | <b><u>Equipments</u></b>                             |       |                |      |                |      |                |
| 41.00        | Equipment (computers and networking)                 |       | 20,000         |      | 15,000         |      | 5,000          |
| <b>49.00</b> | <b>COMPONENT TOTAL</b>                               |       | <b>20,000</b>  |      | <b>15,000</b>  |      | <b>5,000</b>   |
| <b>50.00</b> | <b><u>Miscellaneous</u></b>                          |       |                |      |                |      |                |
| 51.00        | Operational (inc. Internet)                          |       | 20,000         |      | 10,000         |      | 10,000         |
| 52.00        | Publication Costs                                    |       | 8,000          |      |                |      | 8,000          |
| 53.00        | Sundry   |       | 7,600          |      | 4,000          |      | 3,600          |
| 54.00        | Project Support Services (3%)                        |       | 10,000         |      | 5,000          |      | 5,000          |
| <b>59.00</b> | <b>COMPONENT TOTAL</b>                               |       | <b>45,600</b>  |      | <b>19,000</b>  |      | <b>26,600</b>  |
| <b>99.00</b> | <b>GRAND TOTAL</b>                                   |       | <b>345,600</b> |      | <b>182,500</b> |      | <b>163,100</b> |

## Annex 1B

## Project Budget in the GEF format

|   | Output<br>(Planning<br>&Execution) | Institutional<br>Strengthening | Training      | Technical &<br>Admin.<br>Support | Total Cost     |
|---|------------------------------------|--------------------------------|---------------|----------------------------------|----------------|
| <b><u>Inventory/Stocktaking</u></b>                     |                                    |                                |               |                                  |                |
| -Greenhouse gas inventory                               | 38,000                             | 15,000                         | 20,000        | 5,000                            | 78,000         |
| -Vulnerability assessment                               | 20,000                             | 5,000                          | 13,000        | 5,000                            | 43,000         |
| <b><u>Identification of Options</u></b>                 |                                    |                                |               |                                  |                |
| -Mitigation options                                     | 18,000                             | 7,000                          | 10,000        | 5,000                            | 40,000         |
| -Stage I adaptation                                     | 18,000                             | 7,000                          | 10,000        | 5,000                            | 40,000         |
| <b><u>Preparation of Plan</u></b>                       | 20,000                             | 5,000                          | 15,000        |                                  | 40,000         |
| <b><u>Preparation of National<br/>Communication</u></b> | 10,000                             | 5,000                          | 5,000         |                                  | 20,000         |
| <b><u>Fixed Project Costs</u></b>                       |                                    |                                |               |                                  |                |
| -Project management                                     | 29,600                             | 15,000                         | 15,000        | 10,000                           | 69,600         |
| -Monitoring/Evaluation                                  | 15,000                             |                                |               |                                  | 15,000         |
| <b>TOTAL COSTS</b>                                      | <b>168,600</b>                     | <b>59,000</b>                  | <b>88,000</b> | <b>30,000</b>                    | <b>345,600</b> |
| <b>Percentage of total costs</b>                        | <b>49%</b>                         | <b>17%</b>                     | <b>25%</b>    | <b>9%</b>                        | <b>100%</b>    |

wm - working months

Annex 2

Project Work plan and Schedule

| Quarter        | Year 1 |   |   |   | Year 2 |   |   |   |
|----------------|--------|---|---|---|--------|---|---|---|
|                | 1      | 2 | 3 | 4 | 1      | 2 | 3 | 4 |
| Activity 1.1.1 | █      |   |   |   |        |   |   |   |
| Activity 1.1.2 | █      | █ |   |   |        |   |   |   |
| Activity 1.1.3 | █      | █ | █ |   |        |   |   |   |
| Activity 1.1.4 | █      | █ | █ | █ |        |   |   |   |
| Activity 1.1.5 |        | █ | █ | █ | █      | █ | █ | █ |
| Activity 2.1.1 |        | █ | █ | █ |        |   |   |   |
| Activity 2.1.2 |        | █ | █ | █ |        |   |   |   |
| Activity 2.1.3 |        |   | █ | █ |        |   |   |   |
| Activity 2.2.1 |        |   | █ | █ |        |   |   |   |
| Activity 2.2.2 |        |   | █ | █ | █      | █ |   |   |
| Activity 2.2.3 |        |   | █ | █ | █      | █ | █ |   |
| Activity 2.2.4 |        |   | █ | █ | █      | █ | █ | █ |
| Activity 3.1.1 | █      | █ | █ | █ | █      | █ | █ | █ |
| Activity 3.1.2 |        |   | █ | █ | █      | █ | █ |   |
| Activity 3.1.3 |        |   | █ | █ | █      | █ | █ |   |
| Activity 3.1.4 |        |   | █ | █ | █      | █ | █ |   |
| Activity 3.1.5 |        |   |   | █ | █      | █ | █ |   |
| Activity 3.1.6 |        |   |   | █ | █      | █ | █ |   |
| Activity 3.1.7 |        |   | █ | █ | █      | █ | █ |   |
| Activity 4.1.1 | █      | █ | █ | █ | █      | █ | █ | █ |
| Activity 4.1.2 | █      | █ | █ | █ | █      | █ | █ |   |
| Activity 4.1.3 |        | █ | █ | █ | █      | █ | █ |   |
| Activity 4.2.1 |        | █ | █ | █ | █      | █ | █ |   |
| Activity 4.2.2 |        | █ | █ | █ | █      | █ | █ |   |
| Activity 4.2.3 |        | █ | █ | █ | █      | █ | █ |   |
| Activity 4.3.1 |        |   | █ | █ | █      | █ | █ |   |
| Activity 4.3.2 |        |   | █ | █ | █      | █ | █ |   |
| Activity 4.3.3 |        |   | █ | █ | █      | █ | █ |   |
| Activity 5.1.1 | █      | █ | █ | █ | █      | █ | █ | █ |
| Activity 5.1.2 | █      | █ | █ | █ | █      | █ | █ |   |
| Activity 5.1.3 |        | █ | █ | █ | █      | █ | █ |   |
| Activity 5.2.1 |        |   | █ | █ | █      | █ | █ |   |



**Annex 3****Job Descriptions****PROJECT COORDINATOR (PC)****Qualifications:**

- a. University level degree or equivalent in an area related to energy, environment, and public policy.
- b. At least 5 years of experience in the areas of policy analysis and training, as well as in technical and administrative management of projects. During this work he or she should have displayed leadership qualities and ability to work with others.
- c. Be attached to an institution with specific responsibility for climate change policy development and implementation.
- d. Fluency in English, both for writing and speaking.

**Tasks:**

The Project Coordinator (PC) will ensure coordination between the decisions of the Project Steering Committee and the activities carried out by the National Technical Committee.

- a. Upon being selected the Project Coordinator (PC) will undertake development of a final Work plan for the project, closely following the project document, and submit it to the Project Steering Committee for approval. The Work plan will include:
  - i. composition and functioning of the National Technical Committee;
  - ii. how linkages will be created with international organizations and parallel enabling activities projects in order to promote PNG's being able to take maximum benefit of these resources. This will include immediate communication with CC:TRAIN and PICCAP regarding

planned workshop and project schedules, and procedures for purchase of full access to CC:TRAIN materials and resources;

- iii. proposed PNG representation at regional and international workshops in light of budget constraints, with recommended prioritization among the many opportunities for such representation.
- iv. a proposed national workshops schedule to transfer the training and expertise obtained through CC:TRAIN and PICCAP activities to the larger National Technical Committee.
- v. establishment of e-mail access (provisionally through Compuserve), as well as ongoing investigation of the opportunities for establishing full internet access when it becomes available in PNG;

Annex 4

CAPACITY TABLE FOR CLIMATE CHANGE ENABLING ACTIVITIES IN PAPUA NEW GUINEA

| Enabling Activity | Plannin<br>g | Instit<br>Strengt<br>h | Trainin<br>g | Researc<br>h | Educatio<br>n |
|-------------------|--------------|------------------------|--------------|--------------|---------------|
|-------------------|--------------|------------------------|--------------|--------------|---------------|

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| <b>Background Information for National Communication</b> | x | x | x | x | x |
| <b>Emission inventory</b>                                |   |   |   |   |   |
| - CO2 from energy sources                                | x | x | x | x | x |
| - CO2 from land use changes                              | x | x | x | x | x |
| - CH4  | x | x | x | x | x |
| - N2O  | x | x | x | x | x |
| - other sources and gases                                | x | x | x | x | x |
| <b>Mitigation Options</b>                                |   |   |   |   |   |
|  | x | x | x | x | x |
| <b>Energy related</b>                                    |   |   |   |   |   |
| - industry   | x | x | x | x | x |
| - transport  | x | x | x | x | x |
| - residential  | x | x | x | x | x |
| - energy supply  | x | x | x | x | x |
| - other  | x | x | x | x | x |
| <b>Non-Energy Sources</b>                                |   |   |   |   |   |
| - agriculture  | x | x | x | x | x |
| - forestry   | x | x | x | x | x |
| - waste management                                       | x | x | x | x | x |
| - other  | x | x | x | x | x |
| - sink enhancement                                       | x | x | x | x | x |
| <b>Vulnerability Assessment</b>                          |   |   |   |   |   |
| - agricultural sector                                    | x | x | x | x | x |

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|                                       |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|
| National Plans                        | x | x | x | x | x |
| - national plan (mitigation)          | x | x | x | x | x |
| - national plan (adaptation)          | x | x | x | x | x |
| - other elements?                     | x | x | x | x | x |
| Formulation of National Communication | x | x | x | x | x |
| - inventory                           |   |   |   |   |   |
| - mitigation options                  | x | x | x | x | x |
| - vulnerability and adapt.            | x | x | x | x | x |
| - information on research             | x | x | x | x | x |
| and observation                       | x | x | x | x | x |
| - information on education            | x | x | x | x | x |
| - other relevant information          | x | x | x | x | x |
|                                       | x | x | x | x | x |

## Key to Table

**X** = Areas to be covered by the proposed project