

UNITED NATIONS DEVELOPMENT PROGRAMME

GLOBAL ENVIRONMENTAL FACILITY

Programme of the Governments of

GUYANA AND OTHER COMMONWEALTH COUNTRIES

Number and title: GUY/92/G31/A/1G/99 "GEF ASSISTANCE TO THE IWOKRAMA RAIN FOREST PROGRAMME".

Expected Duration: Three years

ACC/UNDP sector: 2000 Environment

Sub-sector: 2030 Enhancement and Monitoring

Lead Government Authority: Guyana Natural Resources Agency

Executing Agent: Department of International Economic Cooperation

Implementing Agencies: UNDP/OPS, FAO, UNESCO.

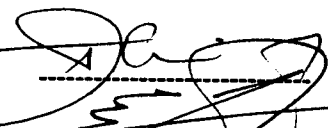
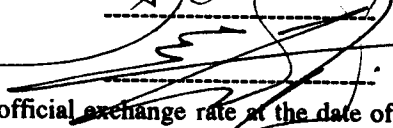
Starting Date: 1 April 1993

Government inputs (in kind): 360,000 ha. Rain Forest (3,600 km²)

Government inputs (in kind): GUY\$ 120,000,000 for local counterpart services.

GEF:	\$ 3,000,000
Parallel Financing:	
Commonwealth:	\$ 500,000
ODA:	\$ 280,500
GOG:	\$ 1,000,000
Total:	\$ 4,780,500

Brief Description: The Government of Guyana and the Governments of the other countries of the Commonwealth have established the Iwokrama Rain Forest Programme. Under this Programme Guyana has set aside 360,000 hectares of its tropical rain forest for an international programme to preserve unique, and largely endemic, bio-diversity, and to study and develop methods and techniques for the utilization of tropical forests resources on a sustainable basis. This GEF component seeks to support the preparation of the full-fledged Iwokrama Programme. Once successfully implemented, it will place the Governments of the Commonwealth countries and scientists and scholars in the international community in a more advantageous position to take strategic-level decisions on investments and support for continuing research and initiatives on the sustainable utilisation of the resources from tropical rain forests. Programme accomplishments will contribute to the world's knowledge of critical aspects of rainforest management and development. Through exchange visits by scientific institutions, scientists, scholars, firms and entrepreneurs, replicability issues will be addressed to ensure that lessons learned from the Iwokrama Programme impact beneficially on the management of comparable rain forests in other countries.

On behalf of:	Signature	Name/Title	Date
The Government of Guyana:		Head of	93-02-10
UNDP:		FRANCIS NENE R.R. ai	10-2-93

United Nations official exchange rate at the date of last signature of the project document:
US\$1.00 = GUY\$.....

A. CONTEXT

1. Description of the sub-sector

The Iwokrama Rain Forest Programme straddles several sub-sectors including natural resources, forestry, minerals, water, environment, wildlife, protected areas and tourism. Guyana is acknowledged to be - relative to its size - one of the richest countries in the world in terms of plant and animal species. The country is home to at least 1,200 animal species, including 728 birds, 198 mammals, 137 reptiles, and 105 amphibians. Tree species, currently recorded, exceed 1,000. In one small area of Mount Roraima, 8,000 vascular plant species have been registered, almost half of which are endemic. Taking into consideration Amerindian customs and practices, it is estimated that some 10% of the plants in Guyana may have medicinal value. Less than 1% of all plants, however, have been examined for their chemical composition.

The forestry sector employs 10,000 persons, produces some 94,000 m³ of timber annually and accounts for US \$4 million in export earnings per annum. These parameters have remained static over several decades. Eight firms are regularly involved in timber exports. These are medium in size and utilise modern equipment and techniques. Operations are characterized by low unit product value and heavy dependence on 12 tree species which represent slightly over 1% of all species. One of the species, greenheart (*Ocotea Rodiaei*), accounts for 45% of annual felling, but comprises only 1% of total stand. Due to concentration on only a small number of timber species and the high grading practices of both large and small firms, damage to forest ecosystems has been negligible.

New challenges to Guyana's tropical forest estate are emerging in the 1990's, with the entrance of larger international firms planning to use a wider range of tree species for the production of lumber, veneer, and panels. New risks of stand damage may be introduced, as well as new levels of economic opportunity in the forest sector. At the institutional level there is limited national ability to study, let alone realize, the economic potentials of the wood and non-wood products which include the wide range of animal species, food, bio-chemicals, gene pools and other special products that may be developed from this rich native resource. There is also no strong national capability to develop and pursue acceptable guidelines for the sustainable utilization of all aspects of the forests in the face of expanding commercial involvement in the activities of the sub-sector.

2. Host Country Strategy

The Government of Guyana has recognized that more intensive utilization of its forests is necessary in the context of improving the welfare of all its peoples. However, it is aware that such utilization should be pursued in the context of appropriate environmental and conservation concerns. Because of this, the Government has embarked on the implementation of a National Forestry Action Plan (NFAP) which is the national response to the international call for a Tropical Forestry Action Plan (TFAP).

The NFAP envisages policy and operational actions in the following areas:

- Development of Institutions and Human Resources, which are inadequate, in support of more intensive but sustainable levels of utilization of all the resources of the forests, not only the wood resources.
- Improvement of the management techniques and technologies available to the Timber Industry for the effective utilization of all the Resources of the Forests.
- Increased levels of Conservation of the Resources of the Forests against the background of sustainable utilization practices. This will include the balanced development of a countrywide Protective Area System aimed at ensuring the integrity of the forest ecosystems, protection for the variety of species and the rich biodiversity of the forests.

- Coordination of Land Use Policies to guarantee balance use of lands for forestry, watershed management, agriculture, habitation for local communities and indigenous people, and all other purposes.
- Maintenance of a balanced perspective between the use of wood for satisfying the energy needs of rural and forest people and the preservation of adequate levels of forest cover and the rehabilitation of denuded areas.

3. Prior or Ongoing Assistance

Initiatives with complementary objectives in the operational sphere include the 1989 National Forestry Action Plan which focusses on design and implementation of programmes and activities in such areas as forest inventory, and management and other aspects of forest industry development, on conservation and protection of vulnerable forest areas and species and on the strengthening of the regulatory agencies to manage forestry development. In the area of research, the Tropenbos programme, executed by University of Utrecht in the Netherlands, is examining how to improve current silviculture methods in the greenheart forests. A Centre for Biodiversity is under construction at the University of Guyana, supported by the Smithsonian Institution and others. The Iwokrama Rain Forest Programme will develop and maintain collaborative arrangements with these efforts as well as expand the scope of rain forest research and development activities.

The taxonomic wealth of the area has been studied by external agencies for many years. Important collections of plant samples from the Guianas are at the British Museum, Kew Gardens, Oxford, Smithsonian Institute, New York Botanical Garden, Missouri Botanical Garden, Göttingen, Leiden, Paris, Wageningen and Utrecht. Many of these agencies are currently involved in compiling and publishing a major new treatise: *The Flora of the Guianas*. Eleven large fascicles have been published to date. The University of Utrecht, with others, has published *The Flora of Suriname* - in six large volumes. Tropenbos, has updated an earlier British compendium of woody plants in its technical publication: *Check-list of Woody Plants of Guyana*. Each of these cooperating entities works through and with the herbarium at the University of Guyana. However the resources of the herbarium have not permitted operational maintenance of collections or even a complete database. The new Centre for Biodiversity will improve the situation, but needs technical assistance and operating funds.

4. Institutional Framework for Development Efforts in the Sub-sector.

The Iwokrama Rain Forest Programme has been developed, as a collaborative effort under Commonwealth auspices by a Commonwealth Group of Experts, the Guyana Inter-Agency Committee, and the Guyanese Counterpart Technical Team. The Guyana Inter-Agency Committee will continue to assist international agencies in implementation of the Programme.

This will increase demands on the numerous sectoral and cross-sectoral national institutions each of which has critical and important cooperative roles to play in development and implementation of the Programme. The entities represented in the Guyana Inter-Agency Committee are:

- the Guyana Natural Resources Agency, which supervises the Guyana Forestry Commission and the Guyana Geology and Mines Commission, is also the Lead Government Authority for this GEF-project;
- the Guyana Agency for Health Sciences, Education, Environment and Food Policy
- the Ministry of Foreign Affairs;
- the Wildlife Services Division of the Ministry of Agriculture;
- the Institute of Applied Science and Technology;
- the University of Guyana;
- the National Agricultural Research Institute, and,
- the Department of International Economic Co-operation, which is also the Executing Agency for this GEF-project.

The Guyana Inter-Agency Committee will continue to function and provide the required coordination until such time as an Interim Board of Trustees, a Programme Management Group, a Site Management Authority and other institutional arrangements are established.

B. PROGRAMME JUSTIFICATION

1. Background

At the October 1989 Commonwealth Heads of Government Meeting in Kuala Lumpur, Malaysia, the Government of Guyana offered to the Commonwealth and the international community, 360,000 hectares of its Amazonian rain forest for an international pilot project which would develop and demonstrate methods of sustainable management of tropical forests and of conserving unique biological diversity, for the benefit of the international community (Map 1 following, and Annex 1, Site Description). Subsequently, a multi-disciplinary group of experts from the Commonwealth, jointly with a Guyana Inter-Agency Committee, prepared a Programme for Sustainable Tropical Forestry (PSTF), which was released simultaneously by Guyana and the Commonwealth Secretariat on World Environment Day, 5 June 1990.

According to the Expert Group, the Programme for Sustainable Tropical Forestry "would help initiate a new chapter in the ecological and economic history of Guyana and other countries endowed with tropical rain forests" offering "a unique opportunity for Commonwealth and international cooperation in an area of supreme relevance to the future of the quality of life on our planet".

Further project design and planning work has refined site descriptions and management needs, and the proposed institutional framework of the PSTF under its new title, the Commonwealth - Government of Guyana: Iwokrama Rain Forest Programme, which draws its name from the Iwokrama mountain range, a major topographic feature of the programme site. The Iwokrama Rain Forest Programme envisages the following components:

An Amazonian Rain Forest Wilderness Preserve to serve as a natural laboratory where evolutionary mechanisms can continue uninterrupted and offer opportunities for research in biodiversity and ecosystems;

An Area for the Sustainable Utilization of Tropical Rain Forest Resources to demonstrate how such a forest can yield ecologically compatible economic benefits to the people of Guyana and the international community from wood and non-wood products, mining, eco-tourism, medicinal plants, etc.

An International Centre for Research and Training for the Sustainable Management of Tropical Forests to allow international scientists and scholars to conduct research and undergo practical training in sustainable utilization and management of tropical forest.

An International Environment Communications Centre to promote environmental literacy utilizing computer-based information management and dissemination systems. This Centre will be a unit of the International Centre for Research and Training for the Sustainable Management of Tropical forests.

2. The Problem to be Addressed

Several constraining factors affect the ability of the Governments of the Commonwealth and, in particular, the Government of Guyana to refine the parameters of the Programme, develop the detailed implementation programme and manage the complex institutional relationships at both the national and international levels. One of the principal problems is the absence of an established legal entity and an institutional framework for the management and administration of the Programme. In this regard, there is also a lack of adequate levels and numbers of technical and scientific skills to undertake the tasks of research, collection, cataloguing and storage of data and information on the natural resource base in the designated programme area.

One of the objectives of this project, therefore, is to establish the parameters of an International Board of Trustees, which would have overall responsibility for the Iwokrama Programme. It would also facilitate the establishment of the International Centre for Research and Training for the Sustainable Management of Tropical Forests, by identifying possible research and training needs and issues, and by articulating the strategy for future research and training. Consequently, the question of financial and institutional sustainability of the Programme will be a matter for consideration under this GEF-project. One of the outputs will specifically address the required parameters for such sustainability.

At a secondary level, there are several logistical and operational problems. Among these is the absence of a detailed technical and scientific inventory of the natural and physical resources in the Programme area as well as the lack of adequate computerised systems and software for the storage of appropriate data and information. In addition there are currently no field stations and other physical and laboratory facilities in the designated area to facilitate work and study. Another problem which exists is the absence of the refined and more comprehensive Iwokrama Programme and its supporting detailed work plan and resource mobilisation strategy.

3. Expected End of Project Situation

At the end of the project the Governments of the Commonwealth countries will be enabled to make decisions on investments and the allocation of resources to further scientific work in areas related to the sustainable use of tropical rain forests and the implications of bringing into greater harmony the relationships between the conflicting demands of natural resource conservation and the needs of economic development. An international Board of Trustees will be fully functional and in place to manage the Iwokrama Programme and review and approve the work-programmes of Commonwealth and other scientists on management and conservation of natural resources.

Scholars from other international non-Governmental institutions will be in a position to share this knowledge with colleagues in Universities and other institutions of learning. International investment companies and private entrepreneurs will have access to an important tropical laboratory in which new products can be developed and tested in an environment which is governed by strict principles of conservation and preservation which will guide the development of productive enterprises based on sensible and harmonious natural resource exploitation.

4. Target Beneficiaries

The international beneficiaries of the Programme will be those institutions with Commonwealth and other Governments and international scientific institutions who will have been provided with an opportunity to disseminate information about the possibilities for sustainability of the natural environment through experimentation in a unique area of the world's diminishing rain forests. In Guyana, the local population will have been provided with employment opportunities through implementation of the Programme and through the building of professional and technical skills. The indigenous population in the vicinity of the Programme area will become familiar with additional techniques and approaches which will help improve their economic and social development through sensitive use of natural resources.

The direct recipients of the Programme will be those scientists and other technicians who will have had the horizons of their knowledge expanded through familiarity with natural processes in a controlled and well managed environment. These scientists will be able to pursue research and scientific activities and impart knowledge in such areas as biodiversity, sustainable utilization of forest resources, development of methods and transfer of techniques for sustainable use of tropical forests, the preservation of unique genetic and biological diversity, as well as the maintenance of the function of the tropical rain forest as a carbon sink.

5. Project Strategy and Implementation Arrangements

Given the magnitude, complexity and international scope of the Programme, the strategy adopted is to establish an International Interim Board of Trustees which will be comprised of a group of national and international scientists and administrators who, based on their experience, will together be responsible for defining the institutional arrangements, further development, management and administration and implementation of the Iwokrama Rain Forest Programme. This Interim Board will define an indicative research programme reflecting the views and recommendations of local and foreign scientists.

The Interim Board will establish an Interim Programme Management Group (See ANNEXE 2 for Organisation Chart and Tasks for Interim Programme Management Group) for the Iwokrama Rain Forest Programme which will develop and install systems and procedures for the control, management and monitoring of activities in the Programme area. This will entail close coordination of all activities particularly those related to data collection and resource investigation. Shortly after the commencement of programme activities, and through meetings and consultations between the Implementing and Cooperating Agencies, detailed work plans will be prepared, considered and approved and these will confirm the allocation of programme resources in order to implement the envisaged activities.

The Department for International Economic Cooperation (DIEC) will be the Executing Agency for this GEF-financed project in keeping with its overall responsibility for the allocation and use of UNDP resources in Guyana. Specific reporting and accounting responsibilities will be further detailed in the work-programme. Notwithstanding such reporting responsibilities, overall responsibility for the use of the Global Environment Facility resources will rest with DIEC.

While the Programme's Lead Government Authority and Lead Implementing Agency will be the Guyana Natural Resources Agency, a single professional will be employed directly under the Project as National Project Manager and will be responsible for the production of project's outputs and the overall management of the project. The Agency, through its administrative responsibility for the National Project Manager, will also be responsible for overseeing and reporting on the progress being made towards achievement of the project's immediate objectives and to this end will designate a specific individual to be the contact person. However, to facilitate the implementation of the project activities, there will be close collaboration between project officials and participants with the Interim Board of Trustees as well as with the Interim Programme Management Group. Both of these bodies will be replaced by the permanent institutions, once the terms of reference, scope and structure of these bodies will have been defined and articulated under the project. The relationships between the main Programme institutions, National Project Manager and the host-country institutions are depicted in Chart I.

Upon approval of the project document, an Implementation Mission will be undertaken comprising GNRA, DIEC, Commonwealth Secretariat and UNDP/OPS. A specialist in project management systems and project monitoring techniques, to be financed through the GEF-resources, will accompany this mission. The purpose of the mission will be to:

- Specify arrangements and procedures for the disbursement and accounting for GEF resources.
- Determine and specify the services, for the Project, to be provided by UNDP/OPS, FAO, UNESCO, DIEC, GNRA and COMSEC.
- Develop a provisional Work Programme for the entire duration of the GEF Project, with suitable details for the first twelve (12) months.
- Prepare Budget Cost Estimates for activities identified within the Work Programmes and determine the required timing or phasing of disbursements/expenditure approved for the GEF Project.

- **Prepare a Provisional Training Programme** for the duration of the Project; detailed for the first twelve (12) months.
- **Prepare suitable Project Management Monitoring and Reporting Systems** for the implementation of the GEF Project in Guyana.
- **Identify critical targets** for project activities, including review and evaluation activities.
- **Identify and determine the amounts and timing of non-GEF Project inputs for the Programme e.g. by the Government of Guyana (Cash Counterpart contributions), the Commonwealth Fund for Technical Co-operation, the Overseas Development Administration of the Government of the United Kingdom, and from any other source.**
- **Specify TSS-2 and AOS arrangements and corresponding UNDP/GEF Budget Adjustments.**
- **Define the role of the Project Monitoring Unit to be established by the GNRA and determine staffing requirements.**
- **Identify, describe and justify (in terms of impact on Project Outputs) the requirements for equipment items to be financed from GEF Project funds.**

For purposes of refining the work programme, the project management specialist will remain in Guyana for a period of approximately 6 weeks. It is expected that the work programme and training programme will be finalized in a period not exceeding two months. This, in turn, will enable a Tripartite Review Meeting to review the respective programmes enabling the Secretary to the Interim Board of Trustees to submit these programmes to the Interim Board of Trustees for approval. It is proposed that the first Tripartite Review Meeting take place not later than three months after project approval.

Notwithstanding this mandatory requirement, the National Project Manager (See ANNEX 3 for Job Description of National Project Manager) will administer a number of initial and ongoing activities including the recruitment and appointment of consultants and other project personnel who will proceed with the collection of baseline data on the site and preparations for the proposed surveys.

It is expected that the UNDP Office for Project Services (OPS) will provide international recruitment, administration and procurement services for the Project as determined by the Implementation Mission. FAO and UNESCO will be requested to identify technical services within their respective mandates to be provided to the Project. FAO will specifically be approached for assistance in soil and plant taxonomy. UNESCO's services will be invaluable in terms of defining and establishing international research co-operation agreements and in defining strategies and arrangements to protect intellectual property rights, particularly with respect to ethno-botanical issues. The components of activities to be implemented by Agencies of the Government of Guyana will also be determined by the Implementation Mission. The detailed services to be rendered by other implementing agencies will be further defined during the initial three month period and detailed co-operating agreements will constitute annexes to the work-plan.

A tentative schedule of significant activities, missions, milestones and timing of outputs is attached as Chart III to this project document.

Other agencies, institutions and Governments will also be involved in the implementation of the project including the following:

5.1 The Commonwealth

The Commonwealth Heads of Government Meeting in 1989 (in Malaysia) and in 1991 (in Zimbabwe) endorsed the Iwokrama Rain Forest Programme and committed their Governments to providing support for the Programme. The precise level of support can only be determined after further consultations. Tentative proposals for membership subscriptions are currently before the Interim Board of Trustees. One of the critical objectives of the UNDP/GEF project is to define the research and development programmes, and to prepare a long-term funding plan and resource mobilization plan for the Programme. Greater definition of the full implications of the Iwokrama Programme will enable concrete commitments to specific parts of the Programme, in kind, or otherwise.

The Government of the United Kingdom, financed the undertaking (through the Natural Resources Institute), which started in April 1992, of PHASE I) of the Site Resources Survey, at an estimated cost of \$280,500. The Government of the United Kingdom has expressed its willingness to finance a suitable module of PHASE II of the Site Resources Survey.

5.2 The Commonwealth Secretariat

The Commonwealth Secretariat will serve on the Interim Board of Trustees of the Programme. It will also provide, through the Commonwealth Fund for Technical Corporation (CFTC), the services of four (4) professionals to serve on the Interim Programme Management Group at a cost of approximately \$500,000.

5.3 Government of Guyana

Various agencies operating in Guyana will need to collaborate in the implementation of this project. The linkages between the Iwokrama Programme and Governmental Agencies in Guyana are listed at ANNEX 4.

5.4 Non-Governmental Organisations and Scientific Institutes.

ANNEX 5 indicates the NGO's and institutes with which collaborative arrangements have already been established. During the activities aimed at specification of a detailed work-programme, consideration will be given to the possibilities of having some, or parts of, the contemplated sub-contracts awarded to environmental NGO's.

5.5 Private Sector Involvement

One of the pre-studies for the Iwokrama Programme, financed by the Commonwealth Secretariat, has tentatively identified membership arrangements to which private sector entities could subscribe. This would also apply to international scientific foundations. The precise nature of these arrangements is still being considered by the Government of Guyana and the Commonwealth Secretariat. The Interim-Board of Trustees will review specific proposals at its next meeting (March 1993).

Arrangements are also expected to be worked out with private sector entities in Guyana, particularly the logging and mining sectors.

6. GEF criteria

6.1 Environmental Policy Framework:

The Iwokrama Rain Forest Programme is one of several tropical forest initiatives being pursued in Guyana. The commitment of the Government of Guyana to dedicate the defined programme site to the purposes of protection, study and pilot trials in sustainable utilization of forest resources represents their principal (and valuable) contribution in the short-term. In the longer run, the aims of the Iwokrama Rain Forest Programme are no less than the fullest possible realization of the potential of tropical rain Forests in Guyana and elsewhere to contribute to growth and development on a sustainable basis.

The specific institutions responsible for natural resource management, conservation and utilization of natural resources are recognized to be weak. The Inter Agency Committee formed during the design phase of the Programme sought to ensure real linkages with operational resource projects in Guyana. The Iwokrama Rain Forest Programme will be technically coordinated with all other domestic initiatives relating to sustainment and development and with similar initiatives outside of Guyana. It will strengthen and draw strength from all of these initiatives.

6.2 Programme Type:

The programme envisaged is a Type II programme. Without GEF support, adequate funding would not be immediately available to commence the preliminary activities which will lead to implementation of the Iwokrama Rain Forest Programme.

6.3 Global Environmental Benefit:

- Preliminary studies characterize the Programme area comprising seven vegetation types, ranging from mixed forests on steep hills, to open wetland savannah. This considerable variety of ecosystem types indicates a large diversity of plant species are present in the Programme area. While wildlife census data are limited, the Programme environs reportedly contain a wealth of vertebrate taxa. Guyana hosts 83 species of mammals, distributed in 28 families, and 10 orders. A provisional list of mammals for the Programme area encompasses eight orders, 20 families, and 28 species which include tapir, jaguar, giant otter, peccary, forest deer, various monkeys and tamarin. Listed in CITES, (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and found within the Programme region, are birds such as the harpy eagle, cock of the rock, and scarlet macaw. Rare reptile species include the black caiman, two species of turtles, boa constrictor, anaconda, and rainbow boa.

The surface hydrology of the Programme area, comprising numerous rivers, streams, swamps and oxbow lakes, provides a variety of aquatic habitats, supporting species such as the caiman previously mentioned, and notable fish, such as the rare arapaima, South America's largest freshwater species.

The substantial size of the Programme area, its varied topography and ecosystem types, and the undisturbed nature of habitats contained therein, offer a good likelihood that endemic species, will be encountered when detailed floral and faunal surveys are undertaken. The presumed diversity of plant species also offers the promise of genetic resources, particularly new strains of economically important plant species.

Although the ecosystems found in the Programme site area are not presently in danger of destruction or degradation, this Programme presents an opportunity to assist in conserving and managing such ecosystems before they become threatened. The road which provides access through the Programme site presents an opportunity to test site management techniques for maintaining the integrity of a Programme area. The expectation is that successful site management techniques and approaches in the Programme area will prove applicable elsewhere, both within the country, and internationally.

The whole focus of the Programme is sustainable management of biological resources and the conservation of biodiversity through outright protection of habitat, and pilot studies on the management and utilization of various types of forest resources as well as the pursuit of other types of economic activities. The sustainable use component of the Programme would examine economic benefits flowing from timber and tree-based products, non-timber products, mining, production of pharmaceuticals, tourism, etc.

6.4 Form of Innovation:

The most innovative aspect of the Programme is the offer by the Government of Guyana to confer, by way of legislation, research and management authority of the study area to an international body. This is an unprecedented move which will encourage innovative research and management activities. This would permit easy exchange of information and research findings with other international bodies. It would also permit the application of the lessons learned in research and experimentation to similar forest and ecosystems within the Commonwealth as well as in other countries.

6.5 Contribution to the GEF Portfolio:

The notion of sustainable utilization of tropical forests remains a partially tested hypothesis. In many regions where sustainable tropical forestry methods have been tried such as West Africa, Southeast Asia, and Central America political or economic conditions have always cut short these experiments, before their value has been demonstrated conclusively in relation to shorter term, often unsustainable activities. Some tropical forests, such as those in the Amazon, the Guianas and Papua New Guinea and the Congo Basin, have been protected by their own complexity (few species known in commercial markets) and by inaccessibility. However, this form of protection cannot be depended upon for the long term. More formal, and reliable measures are required. With this Programme, there is a unique opportunity to establish a laboratory for long-term experimentation with various methods of sustainable tropical forestry.

The proposed project will provide necessary support to the Iwokrama Rain Forest Programme which has the basic objective of protecting the biodiversity of the site by designating it a protected area. The Programme will also seek to develop guidelines for the sustainable utilization of tropical rain forests and for the conservation and protection of the wide range of species and genetic materials which inhabit the site.

6.6 Sustainability:

Ensuring the financial and institutional sustainability of the ultimate Iwokrama Rain Forest Programme constitutes the core focus of this GEF project. Project outputs will define the parameters which will need to be met in order to ensure the Programme's long-term sustainability. There is no question that Guyana's institutional capabilities are modest relative to the long-term Programme management tasks. It is precisely for this reason that the Government and the Commonwealth have agreed on an international programme. Tentative examinations have already taken place of proposed membership arrangements, which will ensure the financing of the long-term investment and recurrent financing requirements of this Programme.

6.7 Monitoring and Evaluation:

The UNDP OPS will provide an independent expert in project monitoring and evaluation to periodically assess the progress of the project and report to UNDP on project achievements and problems and recommend adjustments and revisions to ensure that project outputs are produced in a timely manner and at the required qualitative levels all within the framework of the Iwokrama Rain Forest Programme's goals and objectives.

6.8 Government Approval:

From its inception more than two years ago, the Programme has been developed by the Commonwealth Secretariat (on behalf of the Commonwealth Governments) and the Government of Guyana, specifically the Guyana Inter Agency Committee, under the general direction of the Guyana Natural Resources Agency. Thus, the Programme enjoys the full support of pertinent government bodies in the Commonwealth as well as the Government of Guyana and the Commonwealth Secretariat.

6.9 Indigenous People:

A research programme component in ethno-biology is proposed as one aspect of the ultimate Programme. This will benefit from and be beneficial to the existing Amerindian Research Unit at the University of Guyana. For this Programme, most, if not all of the proposed site management and forest ranger corps will be selected from local Amerindian communities. Resource surveys will utilize local knowledge of biodiversity, including useful products of the forest, and the special knowledge often possessed by women on such matters. Training, and knowledge exchange will commence at the most important level in the short run - in the forest.

There are three settled communities of Amerindians (Kurupukari, Surama and Annai) close to the Programme area, but none within the Programme area itself. The area is used on an ad hoc basis by itinerant Amerindian groups, which provides them with a significant familiarity with the various site features. The Amerindian communities adjacent to the site have been heavily involved in the ongoing activities in the area. They are providing vital support services and knowledge to the current scientific reconnaissance efforts. The Regional Administrations, which include Amerindians, have been consulted about a well-defined and meaningful role of the Amerindian communities in the Programme and Project, which will fully recognize their rights, as well as the significant historical and botanical knowledge which these groups possess. Within this administrative framework, the Amerindian captains, i.e. leaders of their communities, and their Village Councils have been involved and will continue to play a role in the planning of activities and the implementation of agreed actions within and in respect of the Programme area. One of the senior positions on the Interim Programme Group is expected to be filled by an Amerindian.

7. Reasons for Assistance from UNDP

The Iwokrama Rain Forest Programme has been endorsed by Commonwealth Governments. Some work has been completed in respect of some aspects of the further development of the Programme. However, in spite of the allocation and expenditure of funds by the Commonwealth Secretariat, the Government of Guyana and the Government of the United Kingdom, (Overseas Development Administration and Natural Resources Institute) a substantial amount of preliminary activities are incomplete or have not yet commenced because of funding constraints. There is no short or long-term management structure in place to pursue the Programme. There is no operational plan which can attract international funding. There is no funding plan. The pursuit of this project will allow the completion of these activities so that financing and assistance can be secured to implement the Iwokrama Rain Forest Programme.

8. Coordination Arrangements

The project will be implemented under the guidance of the Guyana Inter-Agency Committee supported by the Guyanese Counterpart Technical Team which has been in place since the inception of the Iwokrama Rain Forest Programme. All the relevant national resource, research and education institutions are represented. The Committee is chaired by the Guyana Natural Resources Agency (GNRA).

Global Environmental Facility assistance to the Iwokrama Rain Forest Programme will encourage important links with all relevant agencies, including coordination of surveys and research, joint field training programmes for rangers, use of field access systems and facilities. ANNEX 4 provides a short listing of some of the proposed interactions by agency. The new Centre for Biodiversity at the University of Guyana, with strong links to the Smithsonian Institution, will be a valuable partner during the project, and in later research work under the Programme.

On the international level, normal GEF coordination and communication will be maintained between UNDP, World Bank, and UNEP. Close communication and coordination will be maintained with ongoing project activities through the Guyana Natural Resources Agency, the Guyana Forestry Commission, through UNDP contacts, and the Commonwealth Secretariat. Contact will be established and maintained with the emerging CGIAR programme in tropical forestry research, through the World Bank Commonwealth network, and UNDP. The CGIAR programme is being managed by the Forestry Centre at Australian National University, Canberra, during its initial phase.

9. Counterpart Support Capacity

The activities under the project are varied and require many skills. These skills are available but not always at the required levels and in adequate numbers. The proposed project will serve to enhance national and Commonwealth capacities. It will do this in two ways.

First, by employing directly under the Project:

- (a) non-technical staff who will be responsible for field work in the Programme site;
- (b) technical and professional staff who will be responsible for the collection and analysis of data from the Programme site; and,
- (c) administrative staff who will be responsible for the management of the project and for its successful completion.

Second, by creating opportunities for both professional, technical, non-technical and administrative support staff within the GNRA and other Governmental bodies to work on various aspects of the project as counterparts to those staff employed directly under the Project.

C. DEVELOPMENT OBJECTIVE

The complex renewable tropical forest assets of Guyana and all countries which possess the resources of tropical rain forests should be convertible to sustainable economic benefits, according to historic and recent analyses. Prescribing sustainable forestry methods, on the one hand, and empirically demonstrating that such methods can indeed be profitable contributing to harmonious development, on the other hand, offer quite distinct challenges. The work in the Iwokrama Rain Forest Programme will seek to demonstrate that the tropical rain forest can maintain desired levels of biological diversity while supporting economic activity. An integrated approach to sustainable utilisation of the resources derived from tropical rain forests, featuring a variety of economic activities is more acceptable than one reliant solely upon forestry.

Through accomplishment of the scientific and technical work which is envisaged within the Iwokrama Rain Forest Programme Governments of the Commonwealth and other countries will be in a more advantageous position to examine and take strategic-level decisions on investments and support for a variety of national and international initiatives on sustainable utilisation and management of tropical rain forests through technical and scientific reports and exchange visits of governmental and scientific institutions, scientists, scholars, investment companies and entrepreneurs.

The project itself by involving an expanded range of local professional and technical staff from many agencies and institutions will assist in developing a widening pool of staff while drawing on experience in and knowledge of methodologies relating to sustainable forest management, preservation of biological diversity and conservation for the benefit of the entire country.

D. IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES

1. Immediate Objective

International Board of Trustees of the Iwokrama Rain Forest Programme capable and enabled to undertake total management of the international programme for the sustainable utilisation of the resources from tropical rain forests and the conservation of biodiversity.

1.1 Output 1

Established legal entity and institutional framework for the long-term development of the Iwokrama Programme. Completion within twelve (12) months.

1.1.1 Activities

1. review and finalise with Interim Board existing draft legislation.
2. submit to Attorney General for promulgation by Legislature.
3. establish international authority for management and administration of the Programme.

1.2 Output 2

Functional geographic information system containing natural and physical resource data pertaining to the Programme site. Completion within twelve (12) months.

1.2.1 Activities

1. determine availability of suitable base maps
2. define additional surveys as required.
3. digitalise topographic maps and identify appropriate software.
4. establish database structure and remote communication links.
5. collect and enter data.

1.3 Output 3

Fully functional base camp, supporting field and related (e.g., hydro-met) stations. Completion within twelve (12) months.

1.3.1 Activities

1. carry out hydrographic, hydrological, soil and other surveys.
2. determine locations for base camp and field stations.
3. prepare specifications and construction plans and obtain approval.
4. undertake construction and commissioning of camp and field stations.

1.4 Output 4

Detailed inventory of species and site characteristics. Completion within thirty (30) months.

1.4.1 Activities

- 1. conduct baseline forest/floral and faunal surveys.**
- 2. interpret site survey data.**
- 3. prepare draft zoning and management plan for the site.**
- 4. submit for approval and implement preliminary site management activities.**

1.5 Output 5

Draft biodiversity research strategy, indicative programme and options for implementation. Completion within eighteen (18) months.

1.5.1 Activities

- 1. identify and list research issues.**
- 2. develop research strategy and programme.**
- 3. determine scope and draft terms of reference for research work.**
- 4. submit for approval and implement research.**

1.6 Output 6

Identification of specific sustainability parameters of the Iwokrama Programme and articulation of a long-term financing plan and resource mobilisation strategy. Completion within twenty-four (24) months.

1.6.1 Activities

- 1. develop medium and long-term funding plan and prospects.**
- 2. define revenue systems to be applied to programme, discoveries/products including intellectual property.**
- 3. indicate possible framework for capital fund and donor participation.**
- 4. prepare membership and subscriber lists.**
- 5. integrate funding possibilities and plans with programme activities.**

1.7 Output 7

Detailed training programme formulated in fields related to the sustainable utilization of natural resources with special reference to concerns about environment and conservation. The training programme will be predicated on an analysis of available skills and of skills required for sustainable utilisation of resources from tropical rain forests.

1.7.1 Activities

- 1. Fellowships for professional and technical staff in the following fields:**
 - (a) natural resources management;**
 - (b) environmental economics and natural resources development;**
 - (c) environment and natural resources accounting.**

2. Study tours and conferences to provide opportunities for project and other personnel to visit similar or related projects and programmes in comparable areas of the world.
3. Provision of in-service training for middle level staff of counterpart agencies.

E. INPUTS

1. Government of Guyana:

1.1 360,000 hectares of tropical rain forest;

1.2 Services of the Guyana Inter-Agency Committee. This body comprises:

Executive Chairman, Executive Chairman,	Guyana Natural Resources Agency Guyana Agency for Health Sciences Education, Environment and Food Policy
Vice-Chancellor, Director-General, Director,	University of Guyana Ministry of Foreign Affairs Institute of Applied Science and Technology
Asst. Chief Crops and Livestock Officer (Wildlife) State Counsel, Head,	Wildlife Services Division, Ministry of Agriculture Attorney General's Chambers Department of International Economic Co-operation
Director	National Agricultural Research Institute

This body will provide inter-agency coordination in Guyana, Programme direction and policy advice to the Member of the Interim Board of Trustees (GNRA);

1.3 Guyanese Counterpart Technical Team

The various disciplines required for the implementation of the Iwokrama Programme will draw on Guyanese counterparts, to the extent available. A key responsibility of this team will be the provision of technical back-stopping for the Guyanese Inter-Agency Committee, as well as providing available and relevant data to the Interim Programme Management Group. The Guyanese Counterpart Technical Team comprises the members of the Guyana Inter-Agency Committee in addition to:

Chief Hydromet. Officer	Hydrometeorological Division, Ministry of Agriculture
Commissioner	Lands & Surveys Division, Ministry of Agriculture
Commissioner	Guyana Forestry Commission
Commissioner	Guyana Geology and Mines Commission
Director	Walter Roth Museum of Anthropology

1.4 Government Cash Counterpart Contributions (GCCC) for Operational and Logistical Support.

The Guyana Government will contribute in cash to the cost of the logistics of field surveys and salaries of survey assistants. Local sub-contracts for design-work, materials and equipment will also be financed through this contribution. The modality of disbursement of this contribution will be detailed once the work-programme has been prepared.

The Government of Guyana and the United States Agency for International Development (USAID) agree that the proceeds generated from the sale of PL 480 assistance to Guyana, can be used for this particular contribution to the Iwokrama Programme.

1.5 Site Control and Management Inputs

Programme site management will ultimately be the responsibility of the Guyana Site Authority, once the enabling legislation is defined and passed. However, in the interim GNRA authority will be exercised through the Interim Board of Trustees discussed in ANNEX 3. (Physical site management issues are discussed in detail in ANNEX 1, Site Description).

A Site Development Manager will be responsible for developing and implementing detailed plans for a base camp and general site access as soon as possible after project initiation, followed by plans for field camps, baseline trails, lookout points, and security measures. The field base camp will be built near to or within the site to act as the centre of operations for patrols, field work and maintenance of trails, research plots etc. in the Programme area. A local Base Camp Manager will be selected at the outset of field activities and trained by the Site Development Manager and other PMG members during the first year. Local knowledge, good field skills and good communications with the local Amerindian community will be the principal requirements.

In addition, five rudimentary field stations/camps will be constructed throughout the site, to provide local bases for field research and sites for weather instruments, etc. Specific locations will be informed by site management and control concerns. A system of baseline trails will be constructed to join the field stations, points of access on the road and rivers. At least two lookout points will also be accessed on vantage points of the Iwokrama mountains and the separate emergent hills in the northeast of the Programme area. Baseline trails will be surveyed and marked as feasible to provide reference locations and access for future surveys, research plots etc.

Twelve candidates will be selected for the initial Iwokrama Forest Ranger Corps, from the local communities, including Amerindian communities. The success of the Iwokrama programme is contingent on the effective and meaningful collaboration of the local communities with the national and international scientists. Initial protective patrols will be established as soon as feasible, and will be maintained consistently until 1995. Training and initial selection will commence with camp and trail construction.

Ranger candidates will be trained in survey and forestry techniques over the project period. PMG staff and or specialized programme contractors will conduct parts of each training course, which will be integrated with Forestry Commission and other resource agency training programmes.

2. Commonwealth Secretariat

2.1 Coordination.

The Commonwealth Secretariat has provided the full-time services of a coordinator for the Iwokrama Programme through 1992. Additionally, significant contacts have been established with other donors for participation in the Programme.

2.2 Public Relations.

An information package comprising photographic material and leaflets on major aspects of the Iwokrama Programme has been financed by the Commonwealth Secretariat and was used at the UNCED conference in Rio de Janeiro.

2.3 Scientific collaboration.

Various workshops are planned over the next two years for scientists from the Commonwealth to bring together the experiences and knowledge of scientific institutes working on sustainable use of tropical rain forest resources, biodiversity, ethno-botany and human ecology. These events will specifically address the replication of the Iwokrama experiences to similar programmes.

3. Commonwealth Fund for Technical Cooperation (CFTC)

An important concept in the preparation for the full-fledged Iwokrama Programme is the establishment of an Interim Programme Management Group. This Group will comprise: (See ANNEX 6)

- 3.1 Programme Development Manager (and Team Leader)
- 3.2 Site Development Manager
- 3.3 Research & Development Manager
- 3.4 Resource Economist
- 3.5 Site Resources Surveys Manager
- 3.6 Communications, Information and Education Manager

CFTC will finance the services of the Site Development Manager (24 w/m), the Site Resources Surveys Manager (18 w/m), the Research and Development Manager (18 w/m) and the Resource Economist (12 w/m). The positions of Programme Development Manager and Communications, Information and Education Manager will be financed through the Global Environment Facility contribution.

4. Commonwealth Countries

The Interim-Board of the Iwokrama Programme has requested the Commonwealth Secretariat to pursue the possibility of the secondment to Guyana of Commonwealth scientists in fields of research pertinent to the Iwokrama Programme.

5. Overseas Development Agency of the United Kingdom.

5.1 Resource Surveys.

Recognising the general paucity of resource data for this largely inaccessible area, the Commonwealth Secretariat and the Guyana Inter-Agency Committee have agreed on a two-phased programme to provide essential base line information on the physical nature and dimensions of the area as well as its fauna and flora. Phase I is seen as a multi-disciplinary reconnaissance survey by resource specialists. It will last 2-4 months and will map the cultural features and physical resources to facilitate definition of boundaries and internal zoning. Phase II will comprise more detailed surveys, inventories and research, such as will be determined by Phase I.

The Overseas Development Administration, on behalf of the Commonwealth Secretariat, has commissioned Natural Resources Institute (NRI) to undertake the Phase I work programme, sharing responsibility for some tasks with the appropriate members of the Guyanese Counterpart Technical Team (See Natural Resources Institute, 1992). Principal tasks will consist of the following:

- Complete a boundary survey, and survey the existing road through the Programme area;
- Develop a map characterizing forest types within the Programme area;
- Describe the characteristics of the forest types identified
- Characterize the dominant soils of the Programme area and classify them within a land system;
- Describe the hydrology and climatology of the Programme area and propose an appropriate monitoring programme;
- Begin a survey of mineral resources and mining activity within the Programme area;
- Establish a Geographic Information System (GIS) database for the Programme area, containing the above, as well as other information;
- Study the potential of the Programme area for supplying non-timber forest products to the national and international market;
- Identify plants useful for medicinal or other household purposes, employing indigenous ethno-botanical knowledge;
- Contribute to discussions leading up to the subdivision of the Programme area into wilderness and potential sustainable use areas, and into management units.

Two important computerized data bases of the Iwokrama Programme will result from Phase I of the initiating project:

- Database of internationally available and accessible knowledge of the flora and fauna of the site;
- Mapped resource data on the Programme site in a Geographic Information System at the Programme Centre.

This survey work will constitute ground truth for other surveys such as remote sensing and radar surveys. Remote sensing imagery is of limited value to the Iwokrama Programme and to similar programmes in the tropics because of cloud cover. However the European Resources Satellite ERS-1 (launched in May of 1991) is equipped with microwave sensors which can penetrate cloud, haze and can work at night. In addition the European Space Agency has also embarked on an experimental programme called SAREX-92 (South American Radar Experiment). Aircraft equipped with synthetic aperture radar (SAR) have flown three passes over the Iwokrama site in April of 1992. Additional passes were made over an adjoining area where the Dutch Tropenbos programme is undertaking scientific research. This collaboration will enable the processing of the SAR imagery at the University of Wageningen in the Netherlands. A full report on the quality of the information to be collected through the ERS-1 images, SAREX-92 images and the NRI ground surveys, is expected to become available towards the end of 1992.

6. Global Environment Facility

- 6.1 Two members of the Programme Management Group;
- 6.2 Administrative Support Personnel for the Programme Management Office;
- 6.3 International air travel and domestic charter flights for the Programme Management Group and collaborating scientists;
- 6.4 National professionals for the positions of: National Project Manager, base camp manager, base camp assistants, forest rangers, survey assistants, research director and communications director;
- 6.5 Training;
- 6.6 Sub-contracts and strategic studies;

The report of the Commonwealth Expert Group provided strategic concepts for what has come to be named the Iwokrama Rain Forest Programme. However the team report clearly stated that further detailed definitions would be required for the institutional/legal framework, for the proposed research programme, and for long range funding plans.

Under the direction of the Programme Development Manager and the Research and Development Manager, with guidance from the Interim-Board of Trustees and involved local agencies, the initiating project will provide resources for specialized strategic studies and reports, such as topographic and mapping surveys, flora taxonomy surveys, fauna taxonomy surveys, hydrological surveys, fish & aquatic surveys, development of Geographic Information Systems, access and use of international scientific communication networks, long-term funding plan and resource mobilization strategies.

- 6.7 Financing for the travel and meetings of the Interim Board of Trustees.

F. RISKS

There are few short-term risks which can be associated with the achievement of the immediate objectives of the project. Whatever minimal risks there are, these relate to the relatively weak capacity of local agencies to provide effective and timely support for the activities envisaged under the project. However, the continuing emphasis on training and involvement of Guyanese is going a long way towards overcoming this. In addition, the judicious use of consultants will ensure that project implementation is steady and constant and not impeded by staff shortages. Finally, the commitment demonstrated by Governmental and other agencies in Guyana to the Programme which this Project supports guarantees that any difficulties which arise will be addressed and resolved.

There are risks associated with the overall objectives of the full-fledged Iwokrama Programme. However, it is precisely the purpose of the subject project to establish the necessary and sufficient conditions which will make the full programme sustainable and replicable.

G. PRIOR OBLIGATIONS AND PREREQUISITES

There are no remaining prerequisites for the project. Site management issues and institutional arrangements have been addressed by consultancies conducted during January, 1992, with findings incorporated within this document.

H. PROJECT MONITORING, REPORTING AND EVALUATION

Regular half-yearly reports will be prepared by the Guyana Natural Resources Agency and submitted to the Interim Board of Trustees and to UNDP through the Department of International Economic Cooperation. Once a year, preferably coincident with a Board of Trustees meeting, a review meeting will be convened by GNRA to which all contributing agencies will be invited. A formal Mid-Term Review, in accordance with the pertinent UNDP rules and regulations, will be convened by GNRA during the last quarter of 1994. A programme evaluation is scheduled for mid-1995. A terminal report will be prepared by GNRA three months before the end of programme activities.

Within GNRA, a small Project Monitoring Unit will be established to provide continuous monitoring of the performance under the Project. The Unit will comprise at least two (2) persons who will be in constant contact between the Project participants and GNRA to ensure as far as practicable that project activities are not impeded by avoidable delays, that bottlenecks are unclogged and that the smooth operations under the project are assured. GNRA will also hold regular monthly meetings with project personnel.

The Board of Trustees, when established as a permanent body will work closely with GNRA to avoid any conflict between the objectives and operations of the Programme and the more limited objectives and activities of this project. It can be anticipated that the Board will report to GNRA as to the effectiveness of the implementation of the project as far as this impinges on the successful pursuit of the Programme.

I. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article I, Para. 1 of the standard Basic Assistance Agreement between the Government of Guyana and the UNDP, signed by the parties on the 3rd of May, 1977.

The draft legislation provided by the Attorney General of Guyana provides an excellent basis for the proposed International Programme of forest protection, surveys, utilisation, research and education/communication. It basically defines a Guyana Authority for site ownership and control, and an International Centre for programme development/management.

The Commonwealth legal framework provides a sound and useful basis for the Board of Trustees and proposed Iwokrama Rain Forest Programme in the short - to - medium term. The ultimate implementation of the Programme will require a wider international legal framework as well as the finalized national framework. Both frameworks will include issues related to intellectual property.

COUNTRY : GUYANA

DATE PRINTED: 09/02/93 : PAGE 1

PROJECT NUMBER : GUY/92/G31/A/1G/99

SHADOW BUDGET : LAST REV : 26/07/92

PROJECT TITLE : GLOBAL ENVIRONMENT FACILITY
IWOKRAMA RAIN FOREST PROJECT

PROJECT BUDGET COVERING UNDP CONTRIBUTION (in U.S. dollars)

PROJECT COMPONENTS	TOTAL AMT M/N	1993 AMT M/N	1994 AMT M/N	1995 AMT M/N	1996 AMT M/N
*010 PROJECT PERSONNEL					
*11 EXPERTS					
011-001 Programme Development Manager	192,000	64,000	96,000	32,000	
	24.0	8.0	12.0	4.0	
011-002 Communications Manager	180,000	60,000	90,000	30,000	
	24.0	8.0	12.0	4.0	
011-050 Project Management Specialist	18,000	18,000			
	3.0	3.0			
011-051 Legal Advise (Institutional)	32,000	32,000			
	4.0	4.0			
011-052 Legal Advise (Int. Property)	16,000	16,000			
	2.0	2.0			
11-99 Subtotal (*)	438,000	190,000	186,000	62,000	
	57.0	25.0	24.0	8.0	
*13 Admin Support Personnel:					
013-001 Office Administrator	31,800	7,066	10,600	10,600	3,534
012-002 Office Technician	26,400	5,866	8,800	8,800	2,934
013-003 Secretary	26,400	5,866	8,800	8,800	2,934
013-004 Driver 1	10,200	2,400	3,600	3,600	600
013-005 Driver 2	10,200	2,400	3,600	3,600	600
013-006 Secretary 1	10,200	2,400	3,600	3,600	600
013-007 Secretary 2	10,200	2,400	3,600	3,600	600
13-99 Subtotal (*)	125,400	28,398	42,600	42,600	11,802
*15 Office travel:					
015-001 Travel - Management Group	95,000	20,000	32,500	32,500	10,000
015-002 Local Travel & Air Charters	105,000	20,000	32,500	32,500	20,000
015-003 Travel - Sub-Contracts	92,000	32,000	30,000	30,000	

COUNTRY : GUYANA

DATE PRINTED: 09/02/93 ; PAGE 2

PROJECT NUMBER : GUY/92/G31/A/1G/99

SHADOW BUDGET ; LAST REV: 26/07/92

PROJECT TITLE : GLOBAL ENVIRONMENT FACILITY
IWOKRAMA RAIN FOREST PROJECT

PROJECT BUDGET COVERING UNDP CONTRIBUTION (in U.S. dollars)

PROJECT COMPONENTS	TOTAL AMT M/N	1993 AMT M/N	1994 AMT M/N	1995 AMT M/N	1996 AMT M/N
015-004 Travel - Consultants	81,000	20,000	27,500	27,500	6,000
015-005 Travel - Interim Board	85,000	20,000	32,500	32,500	
15-99 Subtotal	458,000	112,000	155,000	155,000	36,000
*16 Mission costs:					
016-001 Implementation Mission	10,000	10,000			
016-002 Mid-Term Review Mission	20,000		20,000		
016-003 Evaluation Mission	20,000			20,000	
16-99 Subtotal	50,000	10,000	20,000	20,000	
*17 National Professionals:					
017-002 Base Camp Manager	31,700	7,000	10,600	10,600	3,500
	36.0	8.0	12.0	12.0	4.0
017-002 Base Camp Assistant (2)	27,000	6,000	9,000	9,000	3,000
	36.0	8.0	12.0	12.0	4.0
017-003 Forest Rangers (3)	35,400	7,864	11,800	11,800	3,936
	36.0	8.0	12.0	12.0	4.0
017-004 Survey Assistants (3)	35,400	7,864	11,800	11,800	3,936
	36.0	8.0	12.0	12.0	4.0
017-005 National Programme Manager	45,000	10,000	15,000	15,000	5,000
	36.0	8.0	12.0	12.0	4.0
017-007 Research Director	44,000	10,664	16,000	16,000	1,334
	33.0	8.0	12.0	12.0	1.0
017-008 Communication Director	36,000	10,664	16,000	9,338	
	27.0	8.0	12.0	7.0	
17-99 Subtotal (*)	254,500	60,056	90,200	83,538	20,706
	240.0	56.0	84.0	79.0	21.0
016 COMPONENT TOTAL	1,325,900	400,454	493,800	363,138	68,508
	297.0	81.0	108.0	87.0	21.0

COUNTRY : GUYANA		DATE PRINTED: 09/02/93 PAGE 3				
PROJECT NUMBER : GUY/92/G31/A/1G/99		SHADOW BUDGET LAST REV : 26/07/92				
PROJECT TITLE : GLOBAL ENVIRONMENT FACILITY IWOKRAMA RAIN FOREST PROJECT						
PROJECT BUDGET COVERING UNDP CONTRIBUTION (in U.S. dollars)						
PROJECT COMPONENTS		TOTAL AMT	1993 AMT	1994 AMT	1995 AMT	1996 AMT
		M/N	M/N	M/N	M/N	M/N
*020 SUBCONTRACTS						
021 000 Topographic/Mapping Surveys		60,000	30,000	30,000		
022 000 Flora Taxonomy Surveys		68,000	11,200	45,600	11,200	
023 000 Fauna Taxonomy Surveys		56,000	7,000	42,000	7,000	
024 000 Hydrological Surveys		56,500	6,500	42,000	8,000	
025 000 Fish/Aquatic Surveys		41,000	5,600	30,000	5,600	
026 000 Geographical Information Systems		40,000	10,000	20,000	10,000	
029 COMPONENT TOTAL (***)		321,700	70,300	209,600	41,800	
*030 TRAINING						
031 001 Fellowships		180,000	20,000	80,000	60,000	20,000
031 002 In-Service Training		128,621	16,000	35,000	35,000	22,621
031 003 Workshops		64,800		43,200	21,600	
039 COMPONENT TOTAL (***)		353,421	36,000	158,200	116,600	42,621
*040 EQUIPMENT						
041 001 Office Supplies		24,000	4,000	8,000	8,000	4,000
042 001 4wd Vehicles (4)		113,000	56,500	56,500		
042 002 Station Wagons (2)		40,000	40,000			
042 003 PC's - 485 CPU (5)		40,000	16,000	24,000		
042 004 Laser Printer (2)		5,000	5,000			
042 005 Fax Equipment		5,000	5,000			
042 006 Local Area Network		35,000	20,000	15,000		
042 007 Software Modems		16,000	8,000	8,000		
042 008 Radio Equipment		25,000	10,000	15,000		
042 009 Office Furniture		24,000	10,000	10,000	2,000	2,000
042 010 Typewriters (4)		6,000	3,000	3,000		

COUNTRY : GUYANA

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PROJECT NUMBER : GUY/92/G31/A/1G/99

SHADOW BUDGET | LAST REV : 26/07/92

PROJECT TITLE : GLOBAL ENVIRONMENT FACILITY
IWOKRAMA RAIN FOREST PROJECT

PROJECT BUDGET COVERING UNDP CONTRIBUTION (in U.S. dollars)

PROJECT COMPONENTS	TOTAL AMT M/N	1993 AMT M/N	1994 AMT M/N	1995 AMT M/N	1996 AMT M/N
042 011 River Boats (4)	40,000	20,000	20,000		
042 012 Geographic Positioning System	15,000	10,000	5,000		
042 013 Meteorological Stations (6)	24,000	12,000	12,000		
042 014 Hydrological Stations (6)	24,000	12,000	12,000		
042 015 Computer - Satellite Link-up	20,000	10,000	10,000		
042 016 Software & Peripherals	10,000	5,000	5,000		
042 017 Campaign Equipment	12,000	6,000	6,000		
042 018 Boat Spares	16,000	2,000	6,000	6,000	2,000
042 019 Remote Sensing Imagery	20,000	10,000	10,000		
042 020 GIS Computer Stations (2)	9,400	4,700	4,700		
042 021 Plotter/Peripherals	22,000	10,000	12,000		
042 022 GIS Software	15,000	15,000			
042 023 Audio Visual Equipment	22,000	10,000	12,000		
043 001 Office Rental	68,000	10,000	12,000	24,000	
043 002 Base Camp Annai	50,000	25,000	25,000		
043 003 Field Stations	40,000	15,000	20,000	5,000	
043 004 Mapping Supplies	24,000	4,800	7,200	7,200	4,800
049 COMPONENT TOTAL	764,400	359,000	330,400	52,200	22,800
*050 MISCELLANEOUS					
051 001 Vehicle Operation/Maintenance	61,200	12,800	20,800	20,800	6,800
051 002 Hydro-Met Station Maintenance	12,000	2,000	4,000	4,000	2,000
051 003 Base Camp Maintenance	12,000	2,000	4,000	4,000	2,000
051 004 Boat Operation/Maintenance	62,000	10,000	20,000	20,000	12,000
059 COMPONENT TOTAL (**)	147,200	26,800	48,800	48,800	22,800
099 BUDGET TYPE TOTAL (***)	2,912,621 297.0	892,554	1,240,800	622,538	156,729
999 UNDP TOTAL (***)					

COUNTRY : GUYANA

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PROJECT TITLE : GLOBAL ENVIRONMENT FACILITY
IWOKRAMA RAIN FOREST PROJECT

PROJECT BUDGET COVERING UNDP CONTRIBUTION (in U.S. dollars)

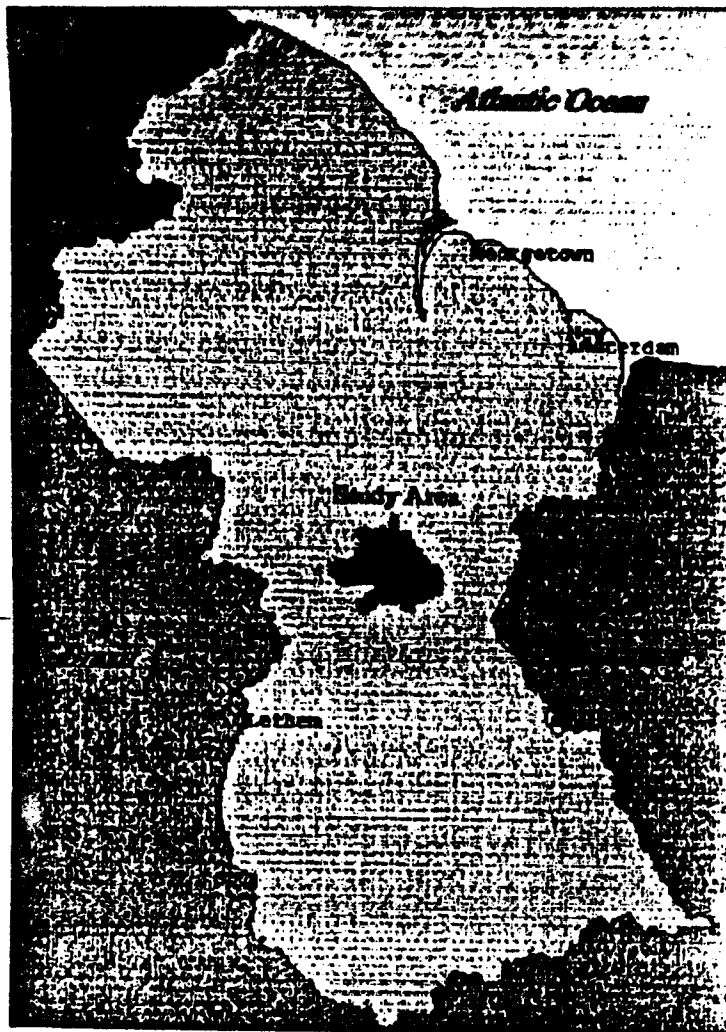
PROJECT COMPONENTS	TOTAL AMT M/N	1993 AMT M/N	1994 AMT M/N	1995 AMT M/N	1996 AMT M/N
*100 COST SHARING					
103 GEF FINANCING	2,912,621	892,554	1,240,800	622,538	156,729
109 COMPONENT TOTAL (**)	2,912,621	892,554	1,240,800	622,538	156,729
158 UNDP FIELD ADMIN-COSTS	87,379	26,777	37,224 1	18,676	4,702
159 COMPONENT TOTAL (**)	87,379	26,777	37,224 1	18,676	4,702
199 BUDGET TYPE TOTAL (***)	3,000,000	919,331	1,278,024	641,214	161,431

PROGRAMME SITE: LOCATION

Boundaries: The site covers an area in central Guyana bounded by longitudes 58°30' and 59°15' and latitudes 4°47' and 4°8' (See Map 2).

The boundaries of the Programme Site commence at the mouth of the Siparuni River (left bank Essequibo) on its right bank; thence along the right bank of the Siparuni to the mouth of the Takutu River; thence up the right bank of the Takutu River for about 11 miles, thence by cut line in a south-easterly direction for about 13 miles to a point near the source of Sipariparu River and just off the north-eastern flank of the Watamung Mountains; thence down the left bank of the Sipariparu River to its mouth on the Burro-Burro River; thence up the right bank of the Burro-Burro to the mouth of the Taramu River; thence up the right bank of the Surama River to the Surama Lake; thence eastward up the right bank of a tributary flowing into Surama Lake, to the source of the tributary, thence due east for 1.5 miles to a point on the left bank of the Kuiparu River; thence up the left bank Kuiparu for about 10 miles to the mouth of an unnamed creek entering the right bank of the Kuiparu; thence up the right bank of the unnamed creek, circling the southern foothills of Iwokrama Mountains to the source of a tributary located geographically at approximately Latitude 4°10' 57" N, Longitude 58°42' 13" W; thence by cut line in a SSE direction for about 2.75 miles (or alternatively 4.5 miles by trail) to a point near the source of an eastward flowing creek (tributary of the Ladysmith Creek) located geographically at approximately Latitude 4° 8' 45" N, Longitude 58° 41' 13" W; thence along the left bank of the tributary of the Ladysmith Creek; thence down the left bank of the Ladysmith Creek to its mouth on the left bank of the Essequibo River; thence down the Essequibo River to the point of Commencement - enclosing an area of approximately 360.000 hectares (900,000 acres).

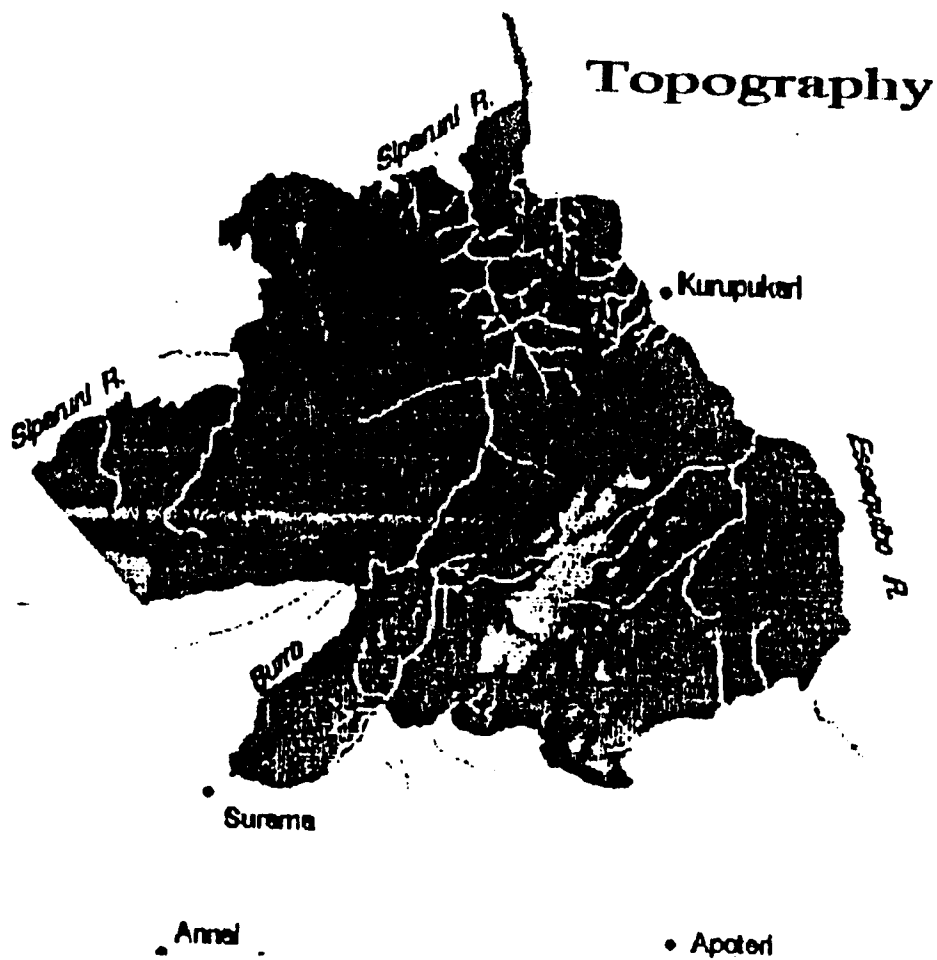
Although the precise boundaries of the Programme site will have to be finalised and mapped on the basis of detailed ground surveys, the outer boundaries have now been extended so that, where the boundary is a river or creek, it will be defined as 500 metres outwards from its talweg, except for the Essequibo river where the boundary is its talweg.



Republic of Guyana Study Area

100 km

Map 1



Legend

0-100 meters
100-200 meters
200-300 meters
300-400 meters
400-500 meters
500-600 meters
600-700 meters
700-800 meters
800-900 meters
900-1,000 meters
1,000-1,100 meters

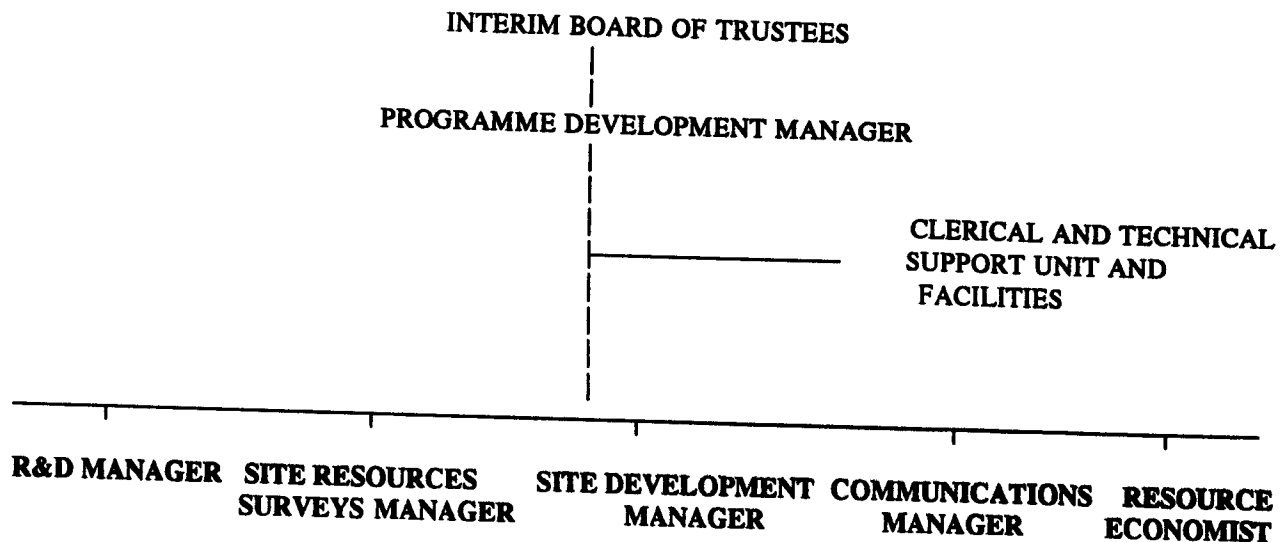
20 km

Map 2

INTERIM PROGRAMME MANAGEMENT GROUP
ORGANISATION CHART AND TASKS

1. **ORGANISATION CHART**

The Interim Programme Management Group will be supervised by the Interim Board of Trustees and organised and staffed as follows:



2. **TASKS FOR THE INTERIM PROGRAMME MANAGEMENT GROUP**

Under the overall direction and guidance of the Interim Board of Trustees the Interim Programme Management Group will:

- 2.1 Plan and execute specified site resources survey works, including:
- necessary boundary surveys around the site and specified control points within the site
 - baseline vegetation/forest cover maps
 - baseline soils and geology maps
 - baseline inventories of flora and fauna
 - GIS and database systems for storage and use of all survey data.
- 2.2 Prepare management and zoning plans and zoning for the demarcation and protection of the Programme area and its division into areas for:
- The Amazonian Wilderness Preserve
 - The Sustainable Utilisation of Tropical Rain Forest Resources.

- 2.3 Plan and supervise construction of necessary Programme Site infrastructure and field facilities such as base-camps, meteorological and hydrological stations.**
- 2.4 Develop plans for the establishment in Guyana of the International Centre for Research and Training for the Sustainable Management of Tropical Rain Forests, the Sustainable Tropical Forest Authority and the International Environmental Communications Centre.**
- 2.5 Develop collaborative and co-operative arrangements with Guyanese and non-Guyanese agencies (Commonwealth and non Commonwealth) as required for the long-term development and establishment of the Programme in Guyana.**
- 2.6 Develop communications materials suitable for national and international distribution regarding the progress and plans of the Programme.**
- 2.7 Develop technical liaison contacts with donor agencies and potential members of the Programme under direction of the Interim Board of Trustees.**
- 2.8 Prepare research and development programme structures and plans.**

NATIONAL PROJECT MANAGER

JOB DESCRIPTION

GENERAL: The National Project Manager will be employed by the UNDP/GEF Project to be responsible for maintaining the essential link between DIEC, the Inter-Agency Committee and the Guyanese Counterpart Technical Team (co-ordinated by the GNRA), the Interim Programme Management Group and the Interim Board of Trustees and for ensuring that UNDP/GEF Project inputs are timely and utilised to achieve agreed Project and/or Programme objectives/outputs.

TRAINING: Degree training in Economics, Management, Natural Sciences or Engineering.

EXPERIENCE: At least seven years experience in project/programme management with some familiarity with project planning management and evaluation techniques and systems.

TASKS:

- o Maintain close liaison with the Programme Development Manager of the Interim Programme Management Group, the Interim Board of Trustees, (through its Secretary) the Guyana Natural Resources Agency, the Department of International Economic Co-operation, the Inter-Agency Committee and the Guyanese Counterpart Technical Team for co-ordination of activities for the Iwokrama Rain Forest Programme.

Agree with the Project Development Manager UNDP/GEF project elements (including time and performance targets) to be implemented by the Interim Programme Management Group.

- o Agree with the Programme Development Manager timing for disbursement of financial and other resources required by the Interim Programme Management Group from the UNDP/GEF Project.
- o Monitor achievement of agreed UNDP/GEF Project Outputs or objectives and report thereon.
- o Oversees the work of the Project Monitoring Unit within the GNRA.
- o Undertake trouble-shooting activities designed to ensure achievement of agreed UNDP/GEF Project Objectives/Outputs.
- o Prepare periodic reports on the progress of implementation of the UNDP/GEF Project.

Time Requirement: 36 months

**LINKAGES OF IWOKRAMA RAINFOREST PROGRAMME WITH
GOVERNMENTAL AGENCIES IN GUYANA**

Guyana Natural Resources Agency (GNRA)

- programme originator and main steering agency.
- one of two Guyana representatives on Interim Board of Trustees.
- development of interagency and international links for more effective resource/environment sustenance and interaction and benefits with GNRA Units (see GFC and GGMC).

Guyana Forestry Commission (GFC)

- member of Guyanese Counterpart Technical Team.
- benefits from strengthening Botany, Silviculture surveying, image analysis at Univ of Guyana through guest lectures, other supports.
- joint programmes of field ranger training.
- benefits of specific applied silvicultural research results (eg sustainable stand treatments).
- use of field station network in training.
- improved protection of Guyana forest potentials.

University of Guyana

- one of two Guyana Representatives on Interim Board of Trustees.
- member Inter-Agency Committee.
- benefits from strengthening of natural sciences (botany, biology, forestry, hydrology etc) through lectureships.
- repatriation of *Flora of Guianas* data sets, other bioscience data and studies.
- strengthening of Amerindian Research Unit, Social Anthropology and Archeology Programmes (Walter Roth Museum) through funding contract research studies and lectureships.
- strengthening graduate studies programmes through programme funding and field training.
- use of field station network in research/training.
- strengthening of operations of new Centre for Biodiversity (WWF - Smithsonian); may include rental of programme office space and contract collection/taxonomy.
- eventual construction of campus of International Centre for Research and Training for the Sustainable Management of Tropical Forests

Guyana Agency for Health Sciences Education, Environment and Food Policy (GAHEF)

- member of Guyana Inter-Agency Committee.
- benefits from strengthening of botany, biology, hydrology at University of Guyana.
- joint programmes of field ranger training.
- protection of flora and fauna in Programme area.
- support for other biodiversity elements/reserves and studies in Guyana.
- benefits of specific ecosystem studies/research.
- information support for sustainable eco-tourism.
- studies of water flows and quality in basins of project site, impacts of mining.

Ministry of Agriculture - Wildlife Services Division

- member of Guyana Inter-Agency Committee.
- joint Ranger training.
- use of field station network.
- benefits of improved zoology training at University of Guyana.
- improved patrols in Programme site.
- long run benefits from applied wildlife management studies and research.
- improved international contacts for CITES, etc.
- development of fauna database, repatriation of wildlife information

National Agriculture Research Institute (NARI)

- member of Guyana Inter-Agency Committee.
- strengthen NARI capabilities in soil analysis through contract studies in Programme site
- expand links to Caribbean biodiversity programmes (part of NARI mandate).
- expand NARI ability to analyze soil dynamics (visiting scientists and contracts).
- improvements to University of Guyana programmes in entomology, biochemistry, soils through lectureships.
- repatriation of forest soil analysis/study information.

Ministry of Agriculture, Lands and Surveys Division

- member Guyanese Counterpart Technical Team.
- improved control network in programme area.
- use of geographic positioning equipment, skills.
- GIS system and skills for Programme area.
- improvements in surveying at University of Guyana through lectures.

Guyana Geology and Mines Commission

- member Guyanese Counterpart Technical Team.
- joint ranger training during programme
- improved patrols in Programme site area
- improved surface geology information on site
- eventual technical review of current methods of mining (especially river-based)
- eventual development of less damaging methods and of rehabilitation systems through R&D programme.

Ministry of Agriculture - Hydrometeorological Services Division

- member Guyanese Counterpart Technical Team.
- expanded network of hydrology and climate stations in mid-south rainforest and edge of Rupununi Savannah.
- improved instrumentation and skills.
- joint use of field stations: benefit or improvement at University of Guyana through lectureships

Ministry of Public Works, Communication and Regional Development - Highways Division

- member Guyanese Counterpart Technical Team.
- improved patrol system for programme site portion of Georgetown-Lethem Road.
- use of geographic positioning equipment, skills.
- use of base camp, field stations.

Department of International Economic Co-operation

- Member of Guyana Inter-Agency Committee
- Responsible for External Funding

LINKAGES OF IWOKRAMA RAIN FOREST PROGRAMME
WITH NON-GOVERNMENTAL AGENCIES

- **Centre for the study of Biological Diversity.** A collaborative effort between the Canadian arm of the World Wildlife Fund, the Smithsonian Institution (Washington, DC) and the University of Guyana.
- **The Institute of Aquatic Sciences** to be established at the University of Guyana with funding from UNESCO/UNDP.

Also of relevance for this Programme, is co-operative research being undertaken with the University of Guyana and other institutions in Guyana, with:

- **The University of Utrecht** (since 1975)
- **Tropenbos**
- **The Flora of the Guianas Project**
- **The New York Botanical Gardens**
- **The Smithsonian Institution** (which has a resident Botanical Collector in Guyana).

INTERIM PROGRAMME MANAGEMENT GROUP:
JOB DESCRIPTIONS

1 **Programme Development Manager**

Training: Degree training in relevant field of natural sciences or engineering or economics. Post graduate training in resource economics or business management would be desirable.

Experience: At least ten years of relevant experience in research management, institution development, plan/programme budgeting systems; complex programme evaluations. Technical field of expertise can be relatively open.

- Tasks:**
- o Maintain close communication/liaison with Interim Board of Trustees on Programme strategies, and progress.
 - o Develop orderly plan of operations to achieve Programme objectives.
 - o Supervise and monitor the achievement of tasks, according to schedule and budget in each major activity:
 - establishment of site control
 - conduct of surveys
 - preparation of management plans for Programme Area
 - preparation of Research Programmes Plans
 - o Assist the Interim Board of Trustees and the Attorney General's Chambers to develop the final legal framework for the establishment of the Iwokrama Rain Forest Programme in Guyana.
 - o Manage and account for financial and other resources for the Programme.

Time Requirement: 24 months

2. **Site Development Manager**

Training: Certificate or Degree in Engineering or surveying or equivalent experience in project construction, supply of goods and materials to remote sites, and management or transport and communications equipment.

Experience: At least seven years of relevant experience in sustaining extending and remote lines of transport and communications; planning and construction of remote camps; working with time and budget schedules under difficult conditions. Experience under forest conditions and in river navigation in Guyana highly desirable; ability to communicate with local communities near to programme site; knowledge of Guyana and transport systems.

- Tasks**
- o Maintain close co-operation and liaison with Programme Development Manager and other members of the Interim Programme Management Group.
 - o Assist in design, determination of location and development of site plans for field centres in programme area, as well as and required hydrometeorology stations.
 - o Arrange for and supervise construction of Programme Area infrastructure, including field centres/stations.
 - o Assist in design and implementation of road corridor control/management systems
 - o Design and supervise maintenance systems for infrastructure such as field centres/stations, including supply lines by road, river and air.
 - o Assist in design, staffing and implementation of security and control system for Programme Site.
 - o Establish and manage Logistical Support Systems for all activities in Programme Site.
 - o Provide Logistical Support for Cadastral Surveys and other Site Resources Surveys.
 - o Supervise Cadastral Surveys and Zoning of Programme Area
 - o Assist as required in initial planning and arrangements for the construction of the International Research Centre.

Time Requirement: 36 months

3. **Site Resources Surveys Manager**

Training: Degree training in forestry, botany, biology, zoology, geography or other relevant field; post graduate training desirable in photogrammetry, image analysis GIS/GLS or related fields or surveys technology.

Experience: At least seven years experience in forest resources inventories (fauna and flora), sampling, use of airphotos/images, data processing and/or related fields; tropical experiences essential; experience in design and use of GIS system essential; work in Guyana or Amazon Basin desirable;

- Task:**
- o Maintain close co-operation and liaison with Programme Development Manager, Site Development Manager and other members of the Interim Programme Management Group.
 - o Assist contractors or consultants with surveys design, testing, identification, local arrangements, etc.
 - o Supervise Site Resources Surveys in Programme Site
 - o Maintain close cooperation and liaison with GFC, Interim Forestry Project (CIDA), Tropenbos and any other NFAP forest survey activities to ensure consistency of site resources surveys with existing systems at the base level.
 - o develop training systems for Programme Site rangers in consultation/cooperation with the Guyana Forestry Commission, Wildlife Services Division of the Ministry of Agriculture, the Guyana Geology and Mines Commission, etc.
 - o Plan and supervise installation of microcomputer-based GIS system for site resources and other data, compatible with other Guyana standards, and major international systems.
 - o Develop training programmes for Personnel to be responsible for the operation, maintenance and management of Site Resources Data Base Systems.

Time Requirement: 24 months

4.

Communications Manager

- Training:** Degree or equivalent training in communications, public relations, visual arts, or journalism.
- Experience:** At least ten years experience in communications or public relations, including preparation of text, audio-visual materials, and full presentations for executive, technical and public audiences, Commonwealth experiences highly desirable; Guyana experience highly desirable; management of contract productions/subsystems essential.
- Tasks:**
- o Maintain close cooperation and liaison with Programme Development Manager and other members of Interim Programme Management Group.
 - o Design, plan and supervise contract production of various communication materials and systems for the Iwokrama Rain Forest Programme, for various audiences including:
 - Guyana citizens, schools, special groups
 - International donor communities, politicians, etc.
 - Commonwealth and international scientists
 - o Develop and foster special communication links with Commonwealth forest research centres, and regional (Amazon-Americas-Caribbean) centres/programmes.

Time Requirement 24 months; should be periodic over 3 years with supporting contract resources

5. Research and Development Manager

Training: Post-graduate degree training in tropical forestry, botany, biochemistry, biology, zoology or other relevant fields.

Experience: At least seven years experience in research and at least three in research programme design and management; broad tropical forest/ecosystem experience highly desirable; experience in Amazon-Guyanas desirable.

- Tasks**
- o Maintain close cooperation and liaison with Programme Development Manager, Site Resources Survey Manager, Site Development Manager and other members of the Interim Programme Management Group.
 - o Develop technical links with Wildlife Services Division of Ministry of Agriculture, the Guyana Forestry Commission, the Guyana Agency for Health Sciences Education, Environment and Food Policy, the National Agricultural Research Institute, the Institute of Applied Science and Technology, the University of Guyana (including the Biodiversity Centre), etc.
 - o Develop technical links with Commonwealth and other international forest sciences bodies/agencies including:
 - Commonwealth Forestry Association
 - Smithsonian Institution
 - Tropenbos
 - University of Utrecht
 - CATIE Costa Rica
 - Caribbean Biodiversity Programme (CARDI)
 - Brazil Amazon Institutes
 - Colombia and Venezuela Institute
 - IUFRO
 - o In close consultation with the Interim Board of Trustees and the Programme Development Manager develop research programme components for funding within priority programme areas for the Iwokrama Rain Forest Programme.
 - o Develop biodiversity definition, objectives and benchmarks for programmes to be undertaken within the Programme area.

Time Requirement: 18 months

6. Resource Economist

Training: Post Graduate degree training in resource economics, forestry or natural resource technical training desirable; training in project/programme scheduling-budgeting desirable.

Experience: At least seven years experience in analysis of tropical forest utilisation and management, knowledge of international project criteria necessary; experience in Guianas/Amazon desirable; experience in socio-economic analysis of research and development programmes desirable.

General The Resource Economist will develop a framework for socio-economic analysis of programme components and research projects, within accepted international standards. Together with the Programme Development Manager and the Interim Board of Trustees he will analyse proposed activities/components and ~~will assist in preparation of strategy documents and communication documents~~ for the sustainable economic utilisation of multiple forest resources as a major objective of the Iwokrama Rain Forest Programme.

- Tasks:**
- o Maintain close cooperation and liaison with Programme Development Manager, Research and Development Manager, Site Resources Survey Manager and other members of the Interim Programme Management Group.
 - o Develop economic analysis framework for research and development projects in tropical forest resources, defining inputs, outputs, expected benefits and timing.
 - o Develop technical links with local institutions and industries.
 - o Develop technical links with potential partners and donors with respect to their technical and economic criteria for research: e.g. - CGIAR, World Bank, forest industry, pharmaceutical industry.
 - o In close consultation with Programme Development Manager and the Interim Board of Trustees analyse proposed programme components in terms of expected costs and benefits, risks and schedules.

Time Requirement: 12 months

INSTITUTIONS

Background: Following field visits in Georgetown and at the Programme site, and subsequent discussions at the World Bank and UNDP, a Consultant (George Nagle) prepared a report which now provides a summary of the proposed institutional framework for the Commonwealth-Guyana Rainforest Programme, as originally outlined by the Commonwealth Team headed by Dr. Swaminathan, and as translated into a Commonwealth/UNDP-GEF proposal for an initiating project in 1993-96. The framework covers the period of the initiating programme funded by the Commonwealth and UNDP-GEF, and the proposed structure for the ultimate Rainforest Programme.

Legal Framework: The draft legislation provided by the Attorney General of Guyana provides an excellent basis for the proposed International Programme of forest protection, surveys, research and education/communication. It basically defines a Guyana Authority for site ownership and control, and an International Centre for programme development/management. The potential problems of parallel agencies will be minimized by the agreed position of the Board of Trustees - in charge of international funding and arbiter of management plans and budget questions. Both the Guyana Authority and the International Research and Training Centre will require international staff in the first few years of site control and programme development work. Conditions will be specified to international standards.

International The ultimate establishment of the International Centre for the Programme will require an international legal framework as well as the national one. This framework will have to include the issue of indigenous/international intellectual property. This might be provided by the Commonwealth, but a fully international programme will probably require a UN frame - such as UNDP-UNEP-GEF or other new post-UNCED framework.

The initiating programme will assist in the development of the ultimate international framework for the Programme through the Interim Board of Trustees.

Programme Governance Framework

Interim: A small, Interim Board of Trustees has been formed to provide selection of and guidance for the Interim Programme Management Group (PMG-see below) to achieve initial site management and programme development objectives on an accelerated schedule by 1996. This Interim Board of Trustees, is chaired by DR. M.S. SWAMINATHAN and comprises representatives of:

- Guyana Natural Resources Agency (GNRA)
- University of Guyana (UG)
- United Nations Development Programme (UNDP)
- Commonwealth Secretariat (COMSEC)
- University of West Indies (UWI)

The Interim Board of Trustees will have four members representing the Guyana Natural Resources Agency (GNRA), the University of Guyana (UG), the Commonwealth Secretariat (COMSEC), and UNDP-GEF. The Interim Board will assist the Attorney General of Guyana to complete draft legislation and regulations necessary to establish the proposed Iwokrama Rain Forest Programme. The Interim Board will supervise the development of initial site management plans, modules of the Programme, and communications with potential members and various publics. The Interim Board will also supervise defined processes of search, selection, establishment and transfer of authority to the proposed International Board of Trustees, including necessary support structures.

Permanent: The International Board of Trustees will be formally selected and established as soon as possible after legislation is in place, and site control/management is underway. Selection of Board Members will be conducted by a special selection Committee, made up of the Interim Board and four additional science advisors. It will be desirable to continue with the Chairman of the Interim Board of Trustees for at least two years of operation of the permanent Board. Two seats on the Board will be reserved for citizens of Guyana, and selection will give priority to representatives of initiating National Members of the Programme.

Programme Management Framework - Phase I

Interim Project Management Group: During the initiating UNDP-GEF Project, the Interim Board (and the Permanent Board when established) will supervise the work of the PMG.

Overall Iwokrama Rain Forest Programme Framework

Overview: The draft framework for the overall Iwokrama Rain Forest Programme will be developed in detail by the Programme Management Group, under direction of the Interim Board of Trustees. This Board, once established, will conduct search and selection procedures to acquire the founding Executive Director of the Iwokrama Rain Forest Programme. The Executive Director and the Board will finalize Programme plans. Together with the Board, the Executive Director will organize search and selection procedures to international (CGIAR) standards to acquire three Research Programme Managers for research components in:

- (a) Biodiversity Protection and Biofuture
- (b) Sustainable Rainforest Utilization
- (c) Ethno-biology and Human Ecology

In addition the Programme will require a full time Manager for the Education and Information components. The Guyana Authority established for site ownership and control will manage the Programme area, field camps, data stations, and field transport/communications, under technical and budget direction from the Board of Trustees.

CHART III: TENTATIVE SCHEDULE IWOKRAMA RAIN FOREST PROGRAMME

Period 1 March 1993 - 30 Nov 1995

Task Name	Start Date	End Date	1993				1994				1995			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Mission and Meetings	1 Mar 1993	31 Dec 1993	■											
Implementation Mission	15 Mar 1993	25 Mar 1993												
Work Programme Available	3 May 1993	3 May 1993												
Training Programme Available	3 May 1993	3 May 1993												
3CCC Detail Available	3 May 1993	3 May 1993												
SS-2 and AOS Defined	3 May 1993	3 May 1993												
Tripartite Review Mission	12 April 1993	26 April 1993												
2nd Meeting Board of Trustees	19 Mar 1993	21 Mar 1993												
Tentative Output Schedule	2 July 1993	9 Aug 1995												
Finalization Legal Framework	2 July 1993	19 July 1994												
Geographic Information System	2 July 1993	19 July 1994												
Establishment Base Camp	2 July 1993	19 July 1994												
Species of Site Inventory	4 Oct 1993	9 Nov 1995												
Biodiversity Research Strategy	4 Oct 1993	1 May 1995												
Id. Sustainability Parameters	2 Aug 1993	17 Aug 1994												
Long-Term Financing Plan	2 Aug 1993	10 Feb 1994												
Resource Mobilisation Strategy	10 Jan 1994	14 April 1994												

CHART II: OVERVIEW OF COMMITTED DONOR INPUTS

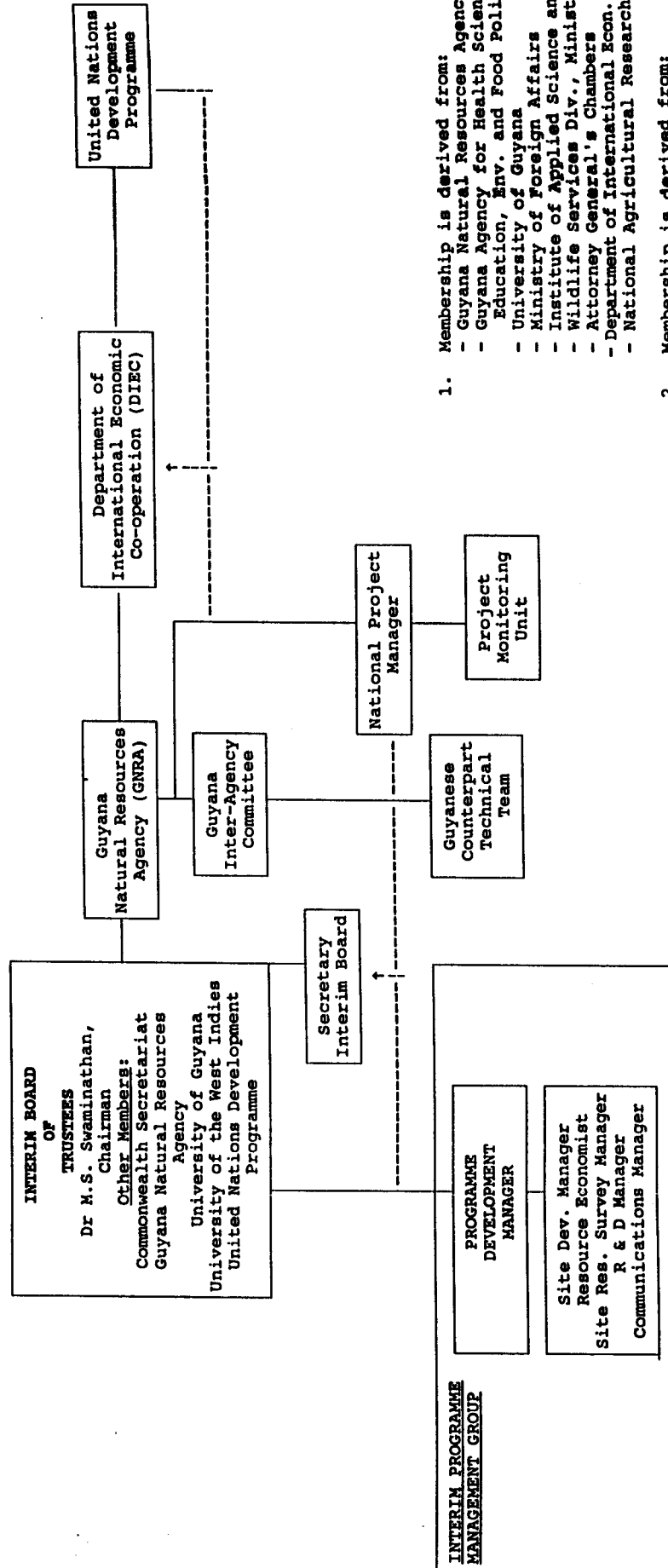
Agency/Organisation:	Description:	Estimated Amt:	Comments:
Government of Guyana	- 360,000 hectares of tropical Amazonian Rain Forest - Guyana Counterpart Cash Contribution (GCCC) - Services by the Guyana Inter-Agency Committee - Services by the Guyanese Counterpart Technical Team	n.a.	See Annex I.
Commonwealth Secretariat	- Co-ordination - Public Relations - Scientific Workshop - Dissemination of research results	\$ 250,000	Activities initiated since 1991.
Commonwealth Fund for Technical Co-operation	- Site Development Manager - Site Resources Survey Manager - Research and Development Manager - Resource Economist	\$ 250,000	Two of the six positions for the Interim Programme Management Group will be financed through UNDP/GEF assistance.
Commonwealth Countries	- Secondment of Scientists	n.a.	To be pursued by the Commonwealth Secretariat.
Overseas Development Administration	- Site Surveys and Topography - Geographic Information System	\$ 280,500	This work has been completed and was implemented by the Natural Resources Institute of the United Kingdom, ODA.
Global Environment Facility	- Various inputs aimed at the establishment of a Programme Management Group, base camp, field and hydromet. stations, scientific research, formulation of a long-term funding plan, a resource mobilisation strategy, etc.	\$3,000,000	See GEF Project Budget.

Chart 1.0 ORGANIZATION RELATIONSHIPS

Programme Management

Programme Implementation

Programme Implementation and Management



1. Membership is derived from:

- Guyana Natural Resources Agency
- Guyana Agency for Health Sciences Education, Env. and Food Policy
- University of Guyana
- Ministry of Foreign Affairs
- Institute of Applied Science and Technology
- Wildlife Services Div., Ministry of Agri.
- Attorney General's Chambers
- Department of International Econ. Co-operation
- National Agricultural Research Institute

2. Membership is derived from:

- The Guyana Inter-Agency Com. In Addition to:
- Hydrometeorological Div., Ministry of Agri.
- Lands and Surveys Div., Ministry of Agri.
- Guyana Forestry Commission
- Guyana Geology and Mines Commission
- Walter Roth Museum of Anthropology