

AGREEMENT
between
THE GOVERNMENT OF THE REPUBLIC OF PERU
and
THE GOVERNMENT OF THE REPUBLIC OF FINLAND
on
Finnish assistance to the environmental project in Peru

The Government of the Republic of Peru ("Peru") and the Government of the Republic of Finland ("Finland"), jointly referred to as "the Parties",

DESIRING to strengthen the friendly relations existing between the two States and their peoples;

CONFIRMING as the objectives of the co-operation the promotion of democracy, human rights, equality and reduction of poverty as well as promotion of sustainable development of environment;

OBSERVING that the overall responsibility for the Environmental Project, ("the Project") lies with Peru;

HAVE AGREED, regarding Finland's contribution to the Project as follows:

ARTICLE I
Scope and Objective

1. The Project shall be implemented in accordance with the Project Document, dated June, 1999 and attached as Annex I to this Agreement, as well as according to the annual work plans to be mutually agreed upon.
2. The overall objective of the Project is to support the environmental research in Peru.

ARTICLE II
Principles of Co-operation

1. Respect for democratic principles, human rights, good governance and the rule of law shall form the basis for the co-operation between Peru and Finland and constitutes an essential element of this Agreement.
2. The Project shall be implemented in accordance with the principles of transparency and open dialogue.



ARTICLE III

Competent Authorities

1. The authorities competent to represent the two Governments in matters pertaining to the implementation of this Agreement, as well as to further development co-operation between the Parties shall be the Ministry of Foreign Affairs of Peru and the Ministry for Foreign Affairs of Finland, represented in Peru by the Embassy of Finland.
2. The responsibility for the implementation of the Project lies with the Peruvian Institute for Amazonian Studies (IIAP), which shall also have the right to represent the Ministry of Foreign Affairs of Peru in other matters pertaining to such implementation and not affecting the overall responsibilities of Peru.

ARTICLE IV

Financing by Finland

The contribution of Finland towards the implementation of the Project in 1999 - 2002 shall, on a grant basis and subject to annual parliamentary approval in Finland, be a maximum of seven million five hundred thousand Finnish marks (FIM 7.500.000,-). However, the contribution shall only be used up to the actual amount necessary to cover the costs resulting from the implementation of the Project as specified in the Project Document.

ARTICLE V

Financing by Peru

1. Peru shall cover the costs, amounting approximately to 1.026.000, New Soles, as contribution to the implementation of the Project as specified in the Project Document.
2. All financial and other resources required for the implementation of the Project over and above the Finnish contribution shall be provided by Peru.

ARTICLE VI

Procurement

1. Finland shall procure the supporting services prescribed in the Project Document and shall conclude a contract with a consulting agency to be agreed upon with. Other procurements for the Project shall be made as agreed upon between Finland and Peru.
2. No offer, gift, payment or benefit of any kind, which would or could be construed as an illegal or corrupt practice, shall be accepted, either directly or indirectly, as an inducement or reward for the award or execution of procurement contracts.
3. All procurements shall be performed in accordance with generally accepted principles and good procurement practices. Invitations to tender as well as procurement contracts shall, respectively, include a clause on the possibility of the tender being rejected and the contract being cancelled, in case any illegal or corrupt practices have been connected with the award or the execution of the contract. Furthermore, the damage or loss caused to the buyer shall in case of the cancellation of the contract, be compensated by the supplier.

ARTICLE VII

Information

1. The Parties shall:
 - (a) Promptly inform each other of any event or situation which might affect the implementation of the Project; and
 - (b) Ensure that all relevant authorities and other organizations are informed of this Agreement and the Project.
2. Both Parties shall have the right to disseminate information about the Project to the general public and other interested parties.
3. Any publication or other material produced in connection with the Project shall bear an acknowledgement that the Project is being or has been implemented with the financial contribution of Finland and within the framework of the Finnish development co-operation.

ARTICLE VIII
Reporting and Monitoring

1. Peru shall submit to Finland reports on the implementation of the Project, prepared in accordance with the Guidelines for Program Design, Monitoring and Evaluation, issued by the Ministry for Foreign Affairs of Finland, and as agreed in detail between Peru and Finland.
2. Peru shall permit the representatives of Finland to carry out any inspection or audit regarding the implementation of the Project. Such an inspection or audit may also be initiated by Peru.

ARTICLE IX
Consultations

1. The Parties shall be available to each other for mutual consultations in order to:
 - (a) Follow up the co-operation; and
 - (b) Assess the attainment of the objectives of co-operation as well as the objectives and purposes of the Project.
2. The Parties shall provide each other with all necessary information for the purposes of the consultations.

ARTICLE X
Liability

1. Peru shall bear all risks arising from the implementation of the Project under this Agreement. Peru shall be responsible for dealing with claims, which may be brought by third parties against Finland, Consulting Agencies or any member of their Personnel or against a person employed by Finland, and shall hold them harmless in respect of claims and liabilities arising in connection with the implementation of the Project.
2. Paragraph 1 above shall not apply where a claim or liability arises from gross negligence, willful misconduct or criminal conduct established by a court of Peru to the satisfaction of Finland.

3. Peru shall be entitled, in the event it meets any claim under paragraph 1 above, to exercise and enforce any right of set off, counterclaim, insurance, indemnity, contribution or guarantee to which Finland, Consulting Agencies or a member of their Personnel or a person employed by Finland may become entitled.

ARTICLE XI

Suspension

1. Both Parties shall have the right, after consulting the other Party, to suspend in whole or in part the financing of the Project, if:
- with (a) The financing by the other Party is not forthcoming in accordance
this Agreement and the Project Document;
- is (b) Any other obligation under this Agreement or the Project Document
not fulfilled;
- (c) Management of the Project is deemed to be unsatisfactory;
- (d) A condition has arisen which interferes or threatens to interfere with the carrying out of the Project or the accomplishment of the objectives and purposes of the Project; or
- (e) The suspension is warranted by a fundamental change in circumstances under which the Project was started.
2. The suspension shall cease as soon as the event or events, which gave rise to suspension have ceased to exist.
3. Finland reserves the right to claim reimbursement in full or in part of the Finnish contribution if it is found to be misused or not satisfactorily accounted for.

ARTICLE XII

Special Provisions

1. The terms and conditions regarding services and commodities are set forth in Annexes II-IV, which constitute an integral part of this Agreement.
2. Other obligations of the Parties are specified in the Project Document (Annex I).
3. Peru shall accord Consulting Agencies, members of their Personnel and persons employed by Finland as well as their families treatment no less favorable than that accorded to development co-operation agencies and personnel of any other country or international organization.

4. Finland shall have the right to carry out an evaluation after the termination of the Project.

5. Commodities procured in or imported into Peru under this Agreement for the purposes of the Project shall be at the exclusive disposal of the Project. Upon the completion of the Project the commodities shall become the property of Peru. In case the Parties agree upon the following phases of the Project the commodities shall become the property of Peru upon the completion of the following phases.

ARTICLE XIII

Entry Into Force, Amendments, Settlement of Disputes and Termination

1. This Agreement shall enter into force on the date of its signature and remain valid until all the obligations under this Agreement have been duly fulfilled by the Parties, unless terminated earlier by either Party by giving a three months' prior written notice to that effect.


2. Should either Party consider it desirable to amend any provision of this Agreement it may request consultations with the other Party. Any amendment shall be agreed upon in writing between the Competent Authorities.

3. All disputes arising from the implementation or interpretation of this Agreement shall be amicably settled by mutual negotiations between the Competent Authorities.

Done in Lima, on September 29th, 1999

in two originals in the English language.

**FOR THE GOVERNMENT OF
THE REPUBLIC OF FINLAND**


.....

**FOR THE GOVERNMENT OF
THE REPUBLIC OF PERU**


.....

ENVIRONMENTAL PROJECT IN PERU

**BIOLOGICAL DIVERSITY OF PERUVIAN
AMAZONIA**

Technical Co-operation and Capacity Building

Peru-Finland

Project Document

Prepared for
Government of Finland
Ministry for Foreign Affairs

by

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Abbreviations

BD Biological diversity, biodiversity
CAME Andean Council for Ecological Management
CBD Convention on Biological Diversity
CDC-UNALM Centro de Datos para la Conservación
CEMAA Comision Especial de Medio Ambiente de la Amazonia
CIDA Canadian International Development Agency
CITES Convention on International Trade of Endangered Species of Fauna and Flora
CODESU The Ucayali Regional Consortium for Sustainable Development
CONADIB National Commission on Biological Diversity
CONAM National Council for Environment *Consejo Nacional del Ambiente*
COP Conference of the Parties of the Convention on Biological Diversity
CSD Commission on Sustainable Development (United Nations)
DGANPFS General Direction of Protected Natural Areas and Wildlife (INRENA)
EC European Community
ECOSOC Economic and Social Council of the United Nations
EU European Union
Ex situ Protection of species outside their natural habitat
FAO United Nation's Food and Agriculture Organisation
FIM Finnish Markka
GEF Global Environment Facility
GIS Geographical Information System
GoF Government of Finland
GoP Government of Peru
GTZ German Oversees Development Agency
IIAP Instituto de Investigaciones de la Amazonia Peruana
IMARPE Marine Institute of Peru
INGEMMET National Geological Survey, Instituto Geológico, Minero y Metalúrgico
INIA National Institute of Agricultural Research (INIA)
INRENA National Institute of Natural Resources of Peru
ITTO International Tropical Timber Organisation
NGO Non-governmental organisation
PMP-SHMP Machu Picchu Programme, Machu Picchu Historical Sanctuary
PROFONANPE Fondo Nacional para Areas Naturales Protegidas por el Estado
PUCP Pontificia Universidad Catolica del Peru
SAN National Aerophotography Survey
SBSTTA Subsidiary Body for Scientific, Technical and Technological Advice (CBD)
SECTI Secretariat for International Technical Co-operation
SENAMHI National Meteorological and Hydrological Survey (Ministry of Defence)
SINANPE System of the Protected areas of the State (INRENA)
SPDA Peruvian Society of Environmental Law
SVB Supervisory Board
TA Technical Assistance
TCA Amazon Co-operation Treaty
TM Thematic Mapping (landsat imagery)
UNALM Universidad Nacional de Agricultura La Molina
UNAMAZ Amazon University Network
UNAP Universidad Nacional de la Amazonia Peruana
UNCED United Nation's Conference on Environment and Development
UNEP United Nations Environment Programme
UNMSM Universidad Nacional Mayor de San Marcos
USD United States Dollar
UTCB University of Turku Centre for Biodiversity
WCMC World Conservation Monitoring Centre

1. Summary

Background

The Parties to the Convention on Biological Diversity (CBD) are in the process of developing national strategies for conservation and sustainable use of biological diversity as required by the Convention. As a Party to the Convention, Peru is currently compiling a National Biodiversity Strategy with main focus on the coastal and montane ecosystems. The National Strategy on Biodiversity is crucial for the country in order to develop conservation and sustainable use of biological resources. Formulation of a national strategy is further needed to establish long-term biodiversity programmes in co-operation with the financial mechanism of CBD, the Global Environment Facility (GEF).

INRENA, the National Institute of Natural Resources of Peru, proposed in 1995 to Finland establishment of a project of technical co-operation to assess the biodiversity of Peruvian Amazonia and to assist the country in developing a national strategy for conservation and sustainable use of biodiversity in the region. This request was a result of long-term research engagement between Peru and Finland through institutional co-operation between the University of Turku, Finland and INRENA, as well as several Peruvian universities.

In recent years, Peru has rapidly developed institutional framework in environmental and biodiversity issues. The National Environment Council (CONAM) and the National Committee on Biodiversity (CONADIB) were established during this process. These bodies have the prime responsibility of guiding the country's efforts on fulfilment of international agreements made on biological diversity.

The legal framework for conservation and sustainable use of biological diversity in Peru is still in a relatively undeveloped state. Substantial legislation of relevance was developed prior to the UNCED process and the adoption of the Convention on Biological Diversity. However, a major development is under way to modernise the legal structure. Current development is leading towards the establishment of more participatory public and private structures, better defined authority, more comprehensive intersectoral approach, and a more equal distribution of benefits derived from the use of natural resources.

Problems to be addressed

When the biodiversity situation in Peru is analysed, several sectors in need of further development are easily seen. The lack of funds is currently seriously hindering Peru to set priorities and to finalise the National Strategy on Biological Diversity. Prior to the accomplishment of the National Strategy, there are only limited possibilities to establish ways and means for conservation and sustainable use of biodiversity. The biologically richest diversity region, the Peruvian Amazonia, has not been subject to a

rigorous enough Country Study procedure and is in serious need of further development of the sector in the context of a National Biodiversity Strategy. A general survey on the threats to biodiversity has not been conducted. Also, the economic potential of biodiversity in the form of genetical resources is in need of substantial effort.

The biodiversity of the Peruvian Amazonia is still largely unknown due to shortage of research and collections. Collections, such as herbaria and zoological collections, act as reference points for changes over time in biodiversity and bring thus information on the current biodiversity situation in the country. The collection of specimens is important for the economic use of plants, animals, fungi and other biota including their potential as genetic resources for pharmaceutical, biotechnical and animal and plant breeding industry. Other *ex situ* conservation facilities such as nurseries of living organisms (e.g. botanical gardens, arboreta) form an important part of biodiversity. The *ex situ* conservation facilities become important when animal and plant species are in danger of extinction, the protected areas are threatened and the areas outside protected areas are not protected in any way. If Peru is to develop long-term capacity in research of biodiversity resources, a living plant collection should be established in Iquitos. A full-scale botanical garden in Iquitos would function as a depository and research facility for the genetic and forest biodiversity of the Peruvian Amazonian region.

The information that do exist on biodiversity and natural resources in Peru is planned to be collected into a national information database. However, lack of interinstitutional co-ordination has so far prevented formation of a truly functional national biodiversity database. The lack of co-ordination leads to unnecessary doubling of efforts and waste of scarce resources.

Current conservation activities as well as activities aiming at sustainable use of forestry and biodiversity resources are seriously hampered by the lack of adequate modern remote sensing treatment, ground-truthed by a field documentation programme. Considerably more work is needed to get an adequate picture of the forest resources in the region.

The need to assist in the further development of the protected area network is acknowledged. The newly established Allpahuayo-Mishana Reserved Zone is in need of financial and technical assistance in developing a management plan for the reserve as well as constructing an information centre in the area. The activities linking *ex situ* conservation (botanical garden in Iquitos) and the Allpahuayo-Mishana Reserved Zone will be subject to further planning and the Component 3 of the project is presented here as a preliminary plan.

Intervention

The overall objective of the biodiversity support program is to support sustainable economic and social development in the Peruvian Amazonia by assisting in finalisation of the National Biodiversity Strategy and making recommendations on biodiversity

policy to decision-makers as well as to contribute to the overall understanding of biodiversity issues at all levels of the Peruvian society by capacitating the key institutions. The overall objective will be reached through three intervention components which are linked together under one project. These components are presented as follows:

- Component 1: Finalisation of the National Strategy on Biological Diversity (Amazonian region) and development of a biodiversity database network.
- Component 2: Regional analysis of biodiversity in the Amazonian Departments of Loreto, Ucayali, Madre de Dios and San Martín.
- [Component 3: Establishment of an Amazonian botanical garden in Iquitos and an information centre for Allpahuayo-Mishana Reserve.
* (tentative; the component will be defined later)]

The project purpose is sustainable management of biological diversity in the Peruvian Amazonia. The project purpose for each intervention component are as follows:

- Component 1: Enhanced capacity of Peruvian environmental authorities, research bodies and other stakeholders to develop means to conserve and use the Amazonian biodiversity in a sustainable way.
- Component 2: Enhanced knowledge of the Peruvian authorities and research institutions about new methodologies to assess biodiversity in regional scales and advanced methodologies for the IIAP in development of the Amazonian Zonification programme.
- [Component 3: Capacity built for sustainable use of the botanical and genetic resources of Loreto in relation to establishing a major *ex situ* depository for economically important plants in Peruvian Amazonia and to facilitating co-operation between forestry and biological sciences.]
*

The geographic coverage of the project is regional, covering the Peruvian Amazonia, although participation at the national level is also important especially in Component 1. The financing period for the implementation is three-years. The grand total of the budget for the three year period is 8.526.000 FIM of which the Finnish contribution is 7.500.000 FIM and the Peruvian contribution 1,026.000 FIM.

*

This component will be appraised during year 2000 and additional funds may be added through an amendment to the convention. However, necessary studies and plans for this component may be done through the present project funding.

2. Present situation

Peru is one of the megadiversity countries in the world with probably more than one million species. Furthermore, the variability of the ecosystems in the country is among the highest on Earth of which several large biomes are still in relatively pristine stage (some of the Andean montane forests, and Peruvian lowland forests of the Amazonia). The biodiversity values of these ecosystems are exceptionally high in terms of genetic, forest product, agricultural and socio-economic value. Peru contains 13.8% of the world's endemic flora and 27% of all tropical plant species.

In future, especially the genetic resources of Peru are considered to provide an important source of foreign revenue. The CBD implies that the genetic resources of crop plants like potato, corn, cassava, cocoa and papaya collected from Peru will be commodities. The country also controls important genetic resources of plants used by biotechnological and pharmaceutical industry (e.g. *Uncaria tomentosa*, Cat's Claw and *Cinchona* spp., quinine tree), as well as non-timber forest products (NTFP).

2.1. Government and sectoral policies

The Parties to the Convention on Biological Diversity (CBD) are in the process of developing national strategies for conservation and sustainable use of biological diversity as required by the Convention. As a Party to the Convention, Peru is currently compiling a National Biodiversity Strategy with main focus on the coastal and montane ecosystems. The National Strategy on Biodiversity is crucial for the country in order to develop conservation and sustainable use of biological resources. Formulation of a national strategy is further needed to establish long-term biodiversity programmes in co-operation with the financial mechanism of CBD, the Global Environment Facility (GEF).

INRENA, the National Institute of Natural Resources of Peru, proposed in 1995 to Finland establishment of a project of technical co-operation to assess the biodiversity of Peruvian Amazonia and to assist the country in developing a national strategy for conservation and sustainable use of biodiversity in the region.

This request was a result of long-term research engagement between Peru and Finland through institutional co-operation between INRENA, several Peruvian universities and the University of Turku, Finland. This co-operation, carried out by support from GoF, the Academy of Finland and the European Commission since 1986, has already set path for national biodiversity assessment for the Peruvian Amazonia.

Since the proposal was submitted by INRENA to GoF in 1995, the following activities within the biodiversity sector have been carried out:

- Regional studies in the Amazonia: mapping and classification of the forests, faunal and floral surveys, and surveys on economically important

species. The forestry map of Peru was compiled and published in 1996. The map describes the main physiognomic forest formations of Peru. However, the map is not detailed enough to provide a tool for land-use or conservation planning.

- The Country Study on Biological Diversity sponsored by UNEP/GEF was finalised during 1997 by INRENA with main focus on conservation and sustainable use of Andean and coastal biodiversity.
- INRENA and UNALM are developing databases which include information about national inventories and state of the conservation of biological diversity in Peru.

2.1.1. Institutional framework and on-going biodiversity related projects

In recent years, Peru has rapidly developed institutional framework in environmental and biodiversity issues. The National Environment Council (CONAM) and the National Committee on Biodiversity (CONADIB) were established during this process. These bodies have the prime responsibility of guiding the country's efforts on fulfilment of the agreements made in the United Nation's Conference on Environment and Development (UNCED) and the Convention on Biological Diversity (CBD).

CONAM and CONADIB are currently involved in a national programme for the study, conservation and sustainable use of biological diversity. The programme is intended to stimulate the development of projects by both the public and the private sector organisations for the study, conservation and sustainable use of biological diversity. The intention is to set up a financial mechanism with which to support projects that will contribute to a better understanding and use of biological resources. These will be selected in an open competition to be held nationally.

The National Institute of Natural Resources (INRENA) is a decentralised public organisation under the Ministry of Agriculture, having the task to regulate, supervise and promote activities related to sustainable use of natural resources and environment, together with the participation of the private sector. Beginning in 1995, INRENA was assigned as the National Centre for Monitoring the Biological Diversity in the country.

INRENA had the task to co-ordinate and lead activities of the Peruvian Country Study on Biological Diversity, published in 1997. This Country Study identifies, determines and prioritises the components, processes, gaps of and threats to biological diversity, a necessary base for the determination of priorities for action. In the same way the Country Study will contribute to the integration and reinforcement of related institutes of biodiversity management.

INRENA is involved in several Amazonian biodiversity management programs, of which the most important are:

- Pilot-project 'Management of *Podocnemis expansa* (aquatic turtles) in the Reserve Pacaya-Samiria', financed by FAO.

- Project: 'Sustainable land use and management in the Biosphere Reserve and National Park of Manu', financed by EU.
- Digital map of the indigenous communities of Peru (scale 1:2.500.000), financed by the University of Kassel, Germany.
- Outline of a model for social sustainable forest management, National Forest Alexander von Humboldt, financed by the ITTO.
- Pre-project on the management of paca (agouti), financed by Bambusadal.
- Promotion and implementation of zoological nurseries in the Amazonian region of Peru, financed by the Treasury.
- Evaluation of the populations of *Aratinga erythrogonis* (Red-headed Macaw) and *Broteogeris pyrrhopterus*, (Grey-cheeked Parakeet), financed by CITES.
- Reforestation with valuable tropical timber trees and development of agroforestry systems in the province of Tambopata, financed by the Treasury.
- Reforestation for the production of valuable woods and non-timber forest products, financed by the Civil Association of Eco-environment, Natural environment and Reforestation and the Treasury.
- Regional project 'Planning and management of protected natural areas in the Amazonian region', financed by the EU and the Amazon Co-operation Treaty (TCA).
- Evaluation of the populations of *Tayassu tajacu* and *Tayassu pecari* in Amazonia, financed by UNEP.
- Assistance in the reinforcement of the National Centre and the Regional Centres monitoring the biological diversity, financed by the Treasury.
- Sustainable management of tropical humid forests in Alto Mayo, financed by the ITTO.
- Monitoring deforestation in Peruvian Amazonia, financed by the Treasury.
- Reinforcement of state protected natural areas, financed by FANPE (PROFONANPE).

Fondo Nacional para Areas Naturales Protegidas por el Estado (PROFONANPE) is legally a mixed private/state fund entitled to support the protected areas of the State. Its main object is to support the National System of Protected Areas of the State (SINANPE). There are 49 protected areas in Peru covering an area of 12.7 million hectares, almost 9,2% of the country. The Law on Protected Natural Areas (26834-1997) governs the management of protected areas. The policies and strategies concerning the protected area system are defined in the *Plan Director de Areas Naturales Protegidas* which was approved in 1999. (Decreto Supremo 010-99-A9) SINANPE promotes conservation of biological diversity through the maintenance of protected natural areas of the state. SINANPE is operating under the administration of INRENA.

The main international agencies supporting PROFONANPE are the Global Environment Facility (GEF) and the German Reconstruction Bank (KfW) with important support by CIDA.

Currently PROFONANPE is involved with the following projects with biodiversity liaisons:

- Integrated Management of the Machu Picchu Sanctuary (PMP-SHMP), which is a debt-swap-for-nature program, based on a development debt arrangement between Finland and Peru.
- Further development of protected areas in Rio Abiseo and Manu with Canada.
- Financing of recurrent costs of nine protected areas with Germany.

The Ministry for Foreign Affairs has a key role in guiding and developing international policy of biodiversity issues in Peru. Most of the biodiversity policy issues are submitted to the Department of Special Affairs of the Foreign Office.

The UNCED process was guided by the Office and the current involvement of Peru in the SBSTTA and the Conference of Parties to the CBD is through the Office. Furthermore, the relations with UNEP, FAO, ECOSOC, Amazon Co-operation Treaty, Andean Pact, Permanent Commission of the South Pacific and other international bodies relevant to the CBD are being handled by the Office.

The Ministry also states the governmental policy of the State of Peru in relation to international debate on biodiversity issues.

Peru is a member of the Amazon Co-operation Treaty which is actively developing (i) criteria and indicators for sustainable forest management through the project 'Development of Criteria and Indicators for Sustainable Use of Forest Resources in the Amazon' (Tarapoto-process; in co-operation with GoF); (ii) methods for sustainable use of biodiversity resources of the Amazon basin; and (iii) biodiversity legislation.

There are many ongoing projects in the field of biodiversity but they are scattered and somewhat *ad hoc*. The Government of the Netherlands is negotiating an increase in its environmental assistance to Peru, including the Amazonian region. Despite of all these projects, there is no comprehensive biodiversity strategy for the management of biodiversity in the Amazonian region.

2.1.2. Legislation and biodiversity in Peru

The legal framework for conservation and sustainable use of biological diversity in Peru is still in a relatively undeveloped state. A significant part of the relevant legislation was developed prior to the UNCED process and the adoption of Convention on Biological Diversity. However, a major development is under way to modernise the legal structure. Current development is leading towards the establishment of more participatory public and private structures, better defined authority, more comprehensive intersectoral approach, and a more equal distribution of benefits derived from the use of natural resources.

Of the existing legislation the Land Law (*Ley de Tierras*, legislative decree No 2606), especially the Article 12 on protected ecological areas in the Peruvian Amazonia are of direct importance on the biodiversity issues. There are three other important ongoing legislation procedures which are currently being circulated for comments, a procedure preceding the submission of the Laws to the Congress:

- Water Law
- Forestry Law (being discussed)
- Law on Genetic Resources and the Intellectual Property Rights of the Indigenous People.

The general legislative basis for biodiversity is found in Articles 67 and 68 of the Constitution of Peru, promulgated in 1993. According to the Constitution the government is to establish mechanisms for the conservation and sustainable use of biological diversity. In the same manner, it is established that the state is obliged to promote conservation of the biological diversity and of protected natural areas.

The Code of the Environment and Natural Resources, promulgated through the Legislative Decree no 613, constitutes another legal framework to protect the biological diversity. In this legislation, the Convention on Biological Diversity, ratified by Peru (legislative resolution no 26181) is incorporated as having the status of a law. The Biodiversity Law (1997) and the Law on the Development in the Amazon Region (1998) both have important elements on the sustainable use of biodiversity in the Amazon Region.

The intellectual property right issues related to biological diversity, as well as the legal steps to guarantee the national ownership of genetic resources are not yet adequately settled in Peru, a situation which prevails in most of the countries signatory to the Convention on Biological Diversity.

The environmental legislation gives CONAM and the Ministries the authority and instruments to guide environmental development of the country. Development takes place in a situation where the economy is being opened and decentralised. The goal of CONAM is to reach equilibrium between socio-economic development, conservation of nature and sustainable use of natural resources.

The Environmental Units of the Ministries implement sectoral public environmental policy as defined in the Code of the Environment and Natural Resources. They also supervise the environment related activities of the private sector. The activities of the Environmental Units are complemented by the decentralised institutions and bodies of some of the ministries (e.g. INRENA, IIAP). The weak environmental administration at departmental and lower levels is being strengthened by CONAM through the establishment of departmental environment council.

2.2. Background studies

The background studies were carried out during three preparatory missions to Peru by Prof. Jukka Salo in 1997 and 1998. The missions' primary results were:

- Peru needs urgently to develop a National Strategy on Biological Diversity (Amazonian region).
- This is only possible after the baseline data of biodiversity is adequately compiled, assessed and developed as a metadatabase (GIS). These databases will mainly be developed by the public sector.
- Many of the cultural, socio-economic and legal issues of biological diversity can only be incorporated in a development intervention after the basic biological elements of the sector have been assessed.

In the case that the presented intervention will continue after the first phase, a stronger involvement of NGO's and representatives of the indigenous people is envisaged.

2.3. Problems to be addressed

Peru is currently facing a period of major restructuring of the economy. As the biodiversity resources of the country are of considerable economic and ecological value (e.g. genetic resources, timber and non-timber forest products, ecotourism), the Government has shown clear initiative in conservation and sustainable use of biological diversity.

When the biodiversity situation in Peru is analysed, several sectors in need of further development are easily seen. The lack of funds is currently seriously hindering Peru to set priorities and to finalise the National Strategy on Biological Diversity. Prior to the accomplishment of the National Strategy, there are only limited possibilities to establish ways and means for conservation and sustainable use of biodiversity. This leads into severe difficulties in raising further biodiversity funding through the financial mechanisms of CBD and other sources.

The biologically richest biodiversity region, the Peruvian Amazonia, has not been subject to a rigorous enough Country Study procedure and is in serious need of further development of the sector in the context of a National Biodiversity Strategy. A general survey on the threats to biodiversity has not been conducted. Also, the economic potential of biodiversity in the form of genetical resources is in need of substantial effort.

The biodiversity of the Peruvian Amazonia is still largely unknown due to the shortage of research and collections. Collections, such as herbaria and zoological collections,

act as reference points for changes over time in biodiversity and bring thus information on the current biodiversity situation in the country. The collection of specimens is important for the economic use of plants, animals, fungi and other biota including their potential as genetic resources for pharmaceutical, biotechnical and animal and plant breeding industry.

Other *ex situ* conservation facilities such as nurseries of living organisms (e.g. botanical gardens, arboreta) form an important part of biodiversity. There are only a few small-scale facilities of this type of *ex situ* conservation in Peru. The *ex situ* conservation facilities become important when animal and plant species are in danger of extinction, the protected areas are threatened and the areas outside protected areas are not protected in any way. Botanical gardens function as keepers of national biodiversity and they are urgently needed in Peru to protect the biological diversity of the country. If Peru is to develop long-term capacity in research of biodiversity resources, a living plant collection should be established under the auspices of UNAP and IIAP, in Iquitos. A botanical garden in Iquitos would function as a depository and research facility for the genetic and forest biodiversity of the Peruvian Amazonian region.

Of major importance is also the fact that important elements of the information concerning biological diversity of Peru are located outside of the country. An important element on the capacity building in the sector is the repatriation of data on biological diversity.

The information that does exist on biodiversity and natural resources in Peru is to be collected into the information system of National Biodiversity Centre and the eight Regional Centres of which one will be located in Iquitos. Also, the universities and research institutions have important data bases, most notably UNMSM, the Biodiversity Centre of UNALM and the Iquitos-based IIAP and UNAP. However, lack of interinstitutional co-ordination has so far prevented formation of a truly functional national biodiversity database. The lack of co-ordination leads to unnecessary doubling of efforts and waste of scarce resources.

Current conservation activities as well as activities aiming at sustainable use of forestry and biodiversity resources are seriously hampered by the lack of adequate modern remote sensing treatment, ground-truthed by a field documentation programme. Recent development in this field has demonstrated that the Peruvian Amazonia is a forest mosaic with more than one hundred different forest types, of which every type would need a specific management plan. Considerably more work is needed to get an adequate picture of the forest resources in the region.

The need to assist in the further development of the protected area network is acknowledged. The newly established Allpahuayo-Mishana Reserve in the Department of Loreto is in need of financial and technical assistance in developing a management plan for the reserve as well as constructing an information centre in the area. The Reserve is widely considered to be the most important site for biodiversity conservation in the entire Amazonia. This is because of the highest recorded tree

species diversity (ca 310 species/ha) and because of the mosaic nature of the forest representing many of the known forest types in the Amazonia. Finland is already involved in the environmental management of the Machu Picchu Historical Sanctuary, Department of Cuzco. The first phase of the programme may later help to identify key actions which could be used to support the protected area network in the Amazonian region.

As the Allpahuayo-Mishana Reserved Zone has been gazetted only recently, the relationship between the botanical garden and the Reserved Zone need further clarification. Because of this, the third project component will be further appraised during the first quarter of the year 2000.

2.4. Stakeholders and beneficiaries

The following institutions participated in the identification of needs in the biodiversity sector and made proposals under the co-ordination by SECTI: CONAM, Ministry for Foreign Affairs, Ministry of Agriculture (INRENA), IIAP, UNALM, PROFONANPE, Natural History Museum of UNMSM and UNAP.

In addition to the Ministry of Foreign Affairs, also UNALM, IIAP, CODESU and UNMSM made proposals to support the on-going activities in the field of biodiversity surveys and institutional capacity building. These activities are further developed in the intervention Components 1 and 2 which involve scientists from these institutions (See 3. and 6.2.).

The stakeholders identified are: different Ministries, CONAM, CONADIB, INRENA, INGEMMET, SAN, UNAP, UNMSM, UNALM, and IIAP. The major beneficiaries are: INRENA, IIAP, UNALM, UNMSM, and UNAP.

The Project will contribute in a significant way to the plans and development programmes to be elaborated within the Agreement of Peace, subscribed between the governments of Peru and Ecuador, in 1998.

A closer look on the role and functions of the stakeholders is presented in the feasibility study of this project (Universidad de Turku Centro de la Biodiversidad 1998).

3. Definition of the intervention

In 1995, INRENA approached GoF with a request for Finnish assistance to survey and assess biodiversity in the Peruvian Amazonia. Also, Finnish assistance in the fields of (i) biodiversity data management, (ii) institutional development and (iii) development of protected areas has been earlier proposed by INRENA.

In 1997, INRENA submitted a further proposal describing the priorities for the Finnish-Peruvian co-operation. The proposal further affirms the four prioritised areas as follows:

- 1) Regional analysis of the biodiversity of the Peruvian Amazonia (Departments of Loreto, Ucayali, San Martín and Madre de Dios);
- 2) Assistance in development of the National Strategy on Biological Diversity (Amazonian region);
- 3) Establishment of a network of national databases on biological diversity;
- 4) Establishment of a botanical garden system in Iquitos.

During consultations in September, 1998, representatives of CONAM indicated that the institutional capacity building in Amazonian biodiversity should be co-ordinated by IIAP. IIAP has a long-term commitment to build capacity in Amazonian biodiversity and development issues.

3.1. Overall objectives (and corresponding indicators)

The overall objective of the biodiversity support program is to support sustainable economic and social development in the Peruvian Amazonia by assisting in the finalisation of the National Biodiversity Strategy and making recommendations on biodiversity policy to decision-makers as well as to contribute to the overall understanding of biodiversity issues at all levels of the Peruvian society by capacitating the key institutions. The overall objective will be reached through three intervention components which are linked together under one project. These components are presented as follows:

- Component 1: Finalisation of the National Strategy on Biological Diversity (Amazonian region) and development of biodiversity database network.
- Component 2: Regional analysis of biodiversity in the Amazonian Departments of Loreto, Ucayali, Madre de Dios and San Martín.
- [Component 3: Establishment of a system of Amazonian botanical gardens in Iquitos and an information centre for Allpahuayo-Mishana Reserve.]

The overall objective of Component 1 is to capacitate in development and finalisation of the National Biodiversity Strategy (Amazonian region) and to build a network of biodiversity related databases. The overall objective of Component 2 is to demonstrate regional biodiversity patterns of the Peruvian Amazonia lowland forests and to support the Zonification Programme of IIAP. For Component 3 the overall objective is to establish a system of botanical gardens in Iquitos and to support the Allpahuayo-Mishana Reserve. As the Allpahuayo-Mishana Reserved Zone has been gazetted only recently, the relationship between the botanical garden and the Reserved Zone need further clarification. Because of this, the third project component will be further appraised during the first quarter of the year 2000.

The corresponding indicators are presented in the logical framework (See Annex I).

3.2. Project purpose (and corresponding indicators)

The project purpose is sustainable management of biological diversity in the Peruvian Amazonia. The project purposes for each intervention component are as follows:

- Component 1: Enhanced capacity of Peruvian environmental authorities, research bodies and other stakeholders to develop means to conserve and use the Amazonian biodiversity in a sustainable way.
- Component 2: Enhanced knowledge of the Peruvian authorities and research institutions about new methodologies to assess biodiversity in regional scales, and advanced methodologies for the IIAP in development of the Amazonian Zonification programme.
- [Component 3: Capacity built for sustainable use of the botanical and genetic resources of Loreto in relation to establishing a major *ex situ* depository for economically important plants in Peruvian Amazonia and to facilitating co-operation between forestry and biological sciences.]

The corresponding indicators are presented in the logical framework (See Annex I).

3.3. Results (and corresponding indicators)

The results of the biodiversity project are: the National Strategy on Biological Diversity of the Peruvian Amazonia is finalised, Biodiversity Database Network is developed, primary regional analysis of biodiversity in four Peruvian Amazonian departments is conducted, the IIAP Amazonian Zonification programme is advanced, and a system of botanical gardens and an information centre are established.

The results for each of the components are presented in the logical framework (See Annex).

The corresponding indicators are presented in the logical framework (See Annex I).

3.4. Activities

Component 1

The component includes:

- Support for the compilation of the final output of the National Strategy in the form of capacitation and technical assistance for personnel of the government bodies, research institutions and other sectors of the society involved in the development of National Strategy on Biodiversity (i.e. institutions co-operating through CONAM/CONADIB);
- Support for distribution of biodiversity awareness material through media and educational networks;
- Support for organisation of an international conference, and national and regional workshops on biodiversity issues;
- Support for Peruvian representatives to attend the meetings organised by the Convention on Biological Diversity, SBSTTA and the Latin American regional bodies on biodiversity (especially the Amazon Co-operation Treaty network);
- Technical assistance to develop elements of a national biodiversity and natural resources database, based on Geographical Information Systems (GIS). Currently, INRENA and UNALM are developing elements of a national database on biodiversity. The co-ordination of national database building is organised through CONAM/CONADIB and INRENA. This component is suggested to capacitate the national database building programme and to introduce elements from the UNEP approach. UNEP is currently refining a methodology to compile national biodiversity databases. The implementation of UNEP co-ordination is operated through the UNEP/GEF project *Biodiversity Data Management Capacitation in Developing Countries and Networking Biodiversity Information*.

See logical framework (Annex I) for further details.

Component 2

The biodiversity of Peruvian Amazonia region has been assessed to be among the key 16 areas which have the highest global conservation priority. The region also has a high potential to provide genetic resources and other biodiversity services for the national and international community. However, the floristic, faunistic and genetic composition of the Peruvian Amazonia is poorly known.

Recent surveys indicate that the Peruvian Amazonian forest structure is highly mosaic. This mosaic structure presents challenge for future land use, forestry, conservation and sustainable use of biodiversity resources. A forest classification procedure is proposed as a key methodology for assessing the Amazon lowland diversity. The forest classification will be based on Landsat TM remote sensing, aerial photography, video imaging and ground-truthing.

The institutions involved in this survey may comprise of expertise provided by IIAP, INRENA, INGEMMET, UNAP, UNALM, UNMSN, SAN and other parties. The University of Turku will provide short-term consultancies and scientific backstopping.

See logical framework (Annex I) for further details.

[Component 3

Peru lacks an adequate collection of Amazonian plant and tree species. This handicaps the country in developing scientific and educational programmes for further use of biodiversity resources. UNAP/IIAP have the capacity to develop a system of botanical gardens in Iquitos for scientific, technical and educational purposes. This facility will be developed as a focal point for the Amazonian *ex-situ* biodiversity activities. It could also include *in situ* demonstration plots for agrobiodiversity.

Ex situ conservation is a fundamental part of biodiversity conservation. It is especially important when the protected areas are not rigorously protected, areas outside protected areas lack protection and when the animal and plant species are in danger on extinction. Collections of specimens are important because they are the reference points for changes over time in biodiversity composition and for identification of newly collected specimens in assessment of biodiversity in the country.

The attendance of the universities and research institutions to this component of the biodiversity support program is essential because they already have some *ex situ* conservation facilities and trained personnel. When the situation concerning *ex situ* conservation facilities is analysed in the country it becomes apparent that the universities should be granted the responsibility for this component because of their existing facilities and present know-how. The universities are as well centres for investigation of biodiversity in which the *ex situ* facilities are very important.

The importance of capacitating people in the maintenance of the collections is vital for the longevity of the collections. The database for *ex situ* facilities gathers the

information on *ex situ* practices in the country to one point and offers access to interested parties for information on *ex situ* conservation situation and collections.

The system of botanical gardens will benefit from the long-term research of the Allpahuayo Forest, carried out by the personnel of IIAP and UNAP. As the Allpahuayo Forest is among the most thoroughly studied sites in the Peruvian Amazonia, it will offer an important source for the *ex-situ* collections. Also, the strengthening of the garden of medicinal plants will be an important activity of this component.

The adequate conservation of these sites is paramount for the project. The adverse effects of the newly built Iquitos-Nauta highway on the Allpahuayo Forest are an alarming development. The newly established Allpahuayo-Mishana Reserved Zone will be assisted through the project through the establishment of an information centre and support for a management plan.

See logical framework (Annex I) for further details.]

4. Assumptions and risks

Component 1

The efficient cross-sectoral implementation of the project involves various sectors of the society, including the economic and social sector, as well as private enterprise. To fully disseminate the results of Country Study (Amazonia) and the National Strategy, a close participation of these sectors is envisaged.

Furthermore, the strengthening of regional biodiversity activities and research capacity, the implementation needs to find a balance between regionalist and centralist aspirations. The policy of access to biodiversity databases must be given special attention.

Component 2

This component includes computer-aided analysis of some 30 Landsat TM images, their interpretation and subsequent and parallel ground-truthing (field documentation based on taxon-specific sampling). These activities characteristically need participation of several specialists, national and foreign. UNALM and IIAP are considered as the main national institutions carrying out the task of remote sensing. It is assumed that the Steering Committee (See 6.2.) will co-ordinate the activities of both imagery and ground-truthing in a way that they mutually support each other.

The participating Museums have an important role in organising an international sample change programme, facilitated by effective research permission policy by INRENA.

[Component 3]

The system of botanical gardens needs to be developed as an internationally acknowledged living collection of important Western Amazonian species and samples of ecosystems. The capacity building component of establishing research-oriented gardens is usually executed by establishing twinning arrangements between various gardens with similar interest and capacity. Special concern must be given to develop the botanical garden in close co-operation with the Amazon Co-operation Treaty activities, as well as through the Amazon University Network (UNAMAZ) system.

It is expected that central and regional governments fully support the conservation activities in conjunction with the Allpahuayo-Mishana Reserve.]

5. Compatibility and sustainability

5.1. Compatibility with the strategic goals for Finnish development co-operation

The project aims to support sustainable economic and social development in the Peruvian Amazonia by assisting in the finalisation of the National Biodiversity Strategy and making recommendations on biodiversity policy to decision-makers as well as to contribute to the overall understanding of biodiversity issues at all levels of the Peruvian society by capacitating the key institutions. A National Biodiversity Strategy will help to make the decisions that will lead to a more equal distribution of benefits derived from the use of natural resources and at the same time help to secure the conservation of these resources. The goal is to reach an equilibrium between socio-economic development, conservation of nature and sustainable use of natural resources. The aim is the establishment of more participatory public and private structures. Peru has shown a strong commitment towards these goals in recent years.

5.2. Policy environment

By signing and ratifying the Convention on Biological Diversity the Peruvian Government has shown that conservation and sustainable use of biodiversity are important components in the national policy. By developing the legislative framework in this field it has also proved its willingness to implement the Convention. Important elements of new biodiversity legislation have already passed the Congress giving the program a firmer legal basis that ensures an extensive and intensive policy support.

5.3. Economic and financial feasibility

In the long run, the formulation and implementation of a National Biodiversity Strategy will lead to benefits and gains as biological resources are being sustainably

used and protected. This should ultimately lead to a more equal distribution of benefits derived from the use of natural resources and contribute to achieving a balance between socio-economic development, conservation of nature and sustainable use of natural resources. The project goals can be achieved within the budgetary framework. The financial commitment of the Peruvian government will help to achieve the set goals along with extensive participation of state institutions and their personnel.

5.4. Institutional capacity

The sustainability of the benefits that the society gets is secured by capacitation that enables the information gained during the programme to be passed on even after the termination of external support. Capacity building is a very important part of all the components of the biodiversity support programme ensuring the viability of the programme in the long run.

5.5. Participation and ownership

Peruvian key institutions will be taking part in the activities which will ensure ongoing participation and feeling of ownership within the participating institutions. The participating institutions have had a crucial role in the formulation of the project and their proposals have been truly integrated into the project planning and development. The Peruvian government has shown its commitment towards the project through the state sectoral institutions which ensures the active participation of the GoP in the process of project implementation. Capacitation of key Peruvian institutions will provide a framework within which continuation of project activities can reach beyond the life time of the project.

6. Implementation

6.1. Approach

The geographic coverage of the project is basically regional covering the Peruvian Amazonia, although participation at the national level is also important especially in Component 1. The financing period for the implementation is a three-year period. The project will organise planning workshops during the first trimestre of the first year in Iquitos and Lima in order to finalise institutional setting and responsibilities for the two components. During the first trimestre a detailed work plan for the first year will be constructed with a detailed budget as well as the detailed planning of the Component 3. Also, the recruitment of the project staff will happen during that time and the job descriptions will be finalised. The work plans are to be developed annually with a detailed budget. Job descriptions are subject to change during the course of the project.

6.1.1. Infrastructure

In Components 1 and 2 there is no need for investments in buildings because the adequate office and laboratory space already exist in the participating institutions.

[In Component 3 there is a need to build fencing, marking pole system and storage space. It is assumed that an existing land area will be provided for the extensions of the system of botanical gardens. Support will be given to the Allpahuayo-Mishana Reserve to define the borders of the area through aerial photography. The logistic services of the Reserve will also be improved and an information centre established.]

6.1.2. Equipment

Equipment that will be needed for the three components are mainly computers and related equipment, video and photography equipment, CDs, field sampling and storage material along with purchase of books and reports. The acquisition of 30 Landsat images in digital form is a major investment. The information centre will need audio-visual equipment.

6.1.3. Operational inputs

The operational inputs are mainly composed of:

- support staff services
- transport services
- communication services
- maintenance of office equipment
- maintenance of *ex situ* facilities
- maintenance of computing facilities
- production and dissemination of reports
- seminars, workshops and courses.

6.1.4. Local personnel

Local personnel is required both on long-term and short-term basis. Support is expected on behalf of the staff of IIAP, UNMSM, UNALM, UNAP and INRENA, with special reference to the TM processing and ground-truthing.

The local personnel is highly skilful in several fields of sustainable use and conservation of biological diversity. The strengths of Peruvian expertise are, among others:

- strong systematic tradition in several taxa
- long tradition in tropical botany
- management of biological collections
- environmental education.

The most obvious needs for external assistance are in the fields of

- remote sensing and forest mapping, including linkages with geoscientific surveys
- cross-sectoral issues in biodiversity management (socio-economic and legal issues)
- GIS and biodiversity data management.

The project intervention is targeted to build capacity also in these fields.

Component 1 will involve the following local personnel (See Annexes Budget (II), Logical Framework (I), and Job Descriptions (III) for details):

Two (2) National experts on biodiversity data (68 man-months in total, Components 1 and 2), representing the universities and the research institutions. The experts will be responsible for compiling the data from the museum archives, collections, data bases and national/international and grey literature. The task will include international travel to visit the main collections. The salaries are jointly covered by the participating institutions and by the project. UNALM, UNMSM.

Five (5) Taxon specialists (60 man-months in total, Components 1 and 2) who will be responsible for the following tasks: scientific assessment of existing data on biodiversity in the Peruvian Amazonia; collection of new baseline data on Amazonian biodiversity; input to the National Strategy. IIAP, UNALM, UNAP, UNMSM.

One (1) Secretary (36 man-months in total) is responsible for the editorial work involved in the Components 1 and 2. UNMSM.

Component 2 involves the local personnel specified in Component 1 along with ground-truthing personnel, field survey teams and taxon specialists who will be mainly Peruvian experts and students who will be employed on the basis of short-term consultancy. UNALM, UNMSM.

[**Component 3** involves the following local personnel (See Annexes Budget (II), Logical Framework (I), and Job Descriptions (III) for details):

One (1) Curator of the botanical garden (24 man-months in total), UNAP

Two (2) Botanists (24 man-months in total), UNAP, IIAP

One (1) Manager of *ex situ* biodiversity resources (12 man-months in total), UNAP

One (1) Secretary (data input, 36 man-months in total), UNAP

One (1) Environmental education specialist for the establishment of the information centre, assisting in the planning of the centre activities and in implementing the activities. IIAP

Several graduate students

Field and laboratory technicians (48 man-months in total)

Workers involved in the establishment phase of the garden and the information centre.]

The employment contracts with the local personnel will finish at the end of the project.

6.1.5. Technical Assistance

Component 1

One (1) Team leader who is responsible for co-ordination between the national and international project teams, SVB, Steering Committee and the CONAM/CONADIB/INRENA organisations as well as compiling the data on Amazonian biodiversity (36 man-months in total, Activity 1.2). The project management implementor will be selected by the Finnish Ministry for Foreign Affairs according to the regulations of the Ministry. In Peru based at IIAP.

One (1) Biodiversity management specialist (Biologist) who will assist the Peruvian institutions in formulating the National Strategy as specified by the SVB. The expertise is targeted on the issues of sustainable use and conservation of biological diversity (Components 1 and 2: 12 man-months in total). The Expert will also provide scientific backstopping and co-ordination on the behalf of the participating Finnish institution. Minimum working experience 10 years. In Peru based at IIAP, UNALM.

One (1) Biodiversity data management specialist (Information specialist) who will assist the Peruvian institutions in compiling museum and archive data on biodiversity as well as providing backstopping in developing the national GIS bases on biodiversity; compiling and linking the results of Component 2 (12 months in total). Minimum working experience 5 years. In Peru based in IIAP, UNALM.

Component 2

(see Component 1)

[Component 3

One (1) Expert on Management of Botanical Gardens/Taxon specialist (Botanist) who will provide assistance in planning and management of the botanical garden; scientific backstopping and advice in developing economically sustainable programme for the garden and will provide scientific backstopping for the Component 2 (12 man-months in total). Minimum working experience 5 years. In Peru based at UNAP.

One (1) Specialist on protected areas to assist in the development of a management plan for Allpahuayo-Mishana Reserve and in the establishment of the information centre (12 man-months in total). Minimum working experience five years. In Peru based at IIAP.]

Services

Technical assistance comprises of the services of international personnel. The inputs in person-months and the nature of their services are presented in the logical framework and budget sheet.

6.2. Organisation

The project will establish a Supervisory Board (SVB), with participation of the GoP and GoF. The SVB is the highest executive body of the project. The changes in the project document are to be decided by the Supervisory Board which also approves the annual work plans and budget.

The Supervisory Board will include representatives from the Finnish Ministry for Foreign Affairs/Embassy of Finland, Peruvian Ministry for Foreign Affairs, Ministry of Agriculture (INRENA), and SECTI.

The tasks and activities of the participating institutions will be determined in the annual work plans approved by the Supervisory Board. To facilitate these decisions, a planning workshop will be arranged during the first trimestre of 2000.

The Steering Committee will guide the activities of all the three components. The Committee will also provide assistance in developing the cross-sectoral issues of biodiversity and will seek participation of the NGO's, private and educational sector. There should be a possibility to include the participation of the indigenous people in the Steering Committee's work. Initially, the Steering Committee will be comprised of the following institutions:

- Embassy of Finland/Ministry for Foreign Affairs (Finland)
- Ministry for Foreign Affairs (Peru)
- SECTI
- CONAM (Consejo Nacional del Ambiente)
- CONADIB
- INRENA
- UNMSM
- UNALM
- UNAP
- IIAP as chair
- Environmental NGO
- Technical Assistance Team
- Project Team Leader as secretary.

The Management Team will be comprised of the project personnel (national and TA), and a representative of IIAP (See Annex). IIAP will appoint the Chairman of the SVB and local Co-Director to the project with whom the Team Leader reports to the SVB.

Components 1 and 2 will be organised in the annual work plans. The participation of IIAP, UNMSM, UNALM, UNAP and INRENA is envisaged. The TM digital processing is to be carried out by UNALM and IIAP in co-operation with an international remote sensing laboratory. The interpretation of the imagery, as well as linking the ground-truth documentation with the imagery, is to be carried out by the

institutions to be identified in the annual work plans. During the implementation phase, the practical work will be guided by the Steering Committee.

[**Component 3** will engage UNAP together with IIAP with a twinning arrangement with one or more internationally acknowledged *ex situ* institutions. The Steering Committee will be involved in linking the Component 3 with the other components.]

The IIAP has a special role in Amazonian studies and together with INRENA, IIAP is seen as the key institution in developing strategies for the natural resource use of the Peruvian Amazonia. The project is planned to support the Ministries, IIAP, UNALM and INRENA in their efforts to develop strategies for the management of living resources of the Amazonia (genetic and species valuation, timber- and non-timber forest products etc.). Also other sectors of the society involved in the development of the National Strategy on Biodiversity (i.e. institutions co-operating through CONADIB) are supported.

From the Peruvian side IIAP is responsible for the overall implementation of the project and will be assisted and supported by INRENA. The collection of information will be assisted by UNAP, UNALM and UNMSM. The Management Team is responsible for the daily management and administration of the project.

For each of the components the University of Turku will be responsible for the implementation of the scientific components of technical assistance of the project.

The project management implementing body will be selected by the Finnish Ministry for Foreign Affairs according to the regulations of the Ministry.

The intergovernmental project agreement will be signed by the Ministry for Foreign Affairs of Peru as recommended by SECTI.

6.3. *Tentative timetable*

The tentative time table is presented as an annex (See Annex IV).

6.4. *Budget*

The Cost Estimate and Financial Plan for the project is presented in the Budget sheets (See Annex II). The grand total of the budget for the three year period is 8.526.000 FIM of which the Finnish contribution is 7.500.000 FIM and the Peruvian contribution 1,026.000 FIM.

7. Monitoring

The progress effectiveness, efficiency, impacts and sustainability of the project will be planned and monitored by the Project Organisation and the Competent Authorities

through regular planning and reporting system which will include the following reports:

- * annual work plans;
- * annual monitoring reports;
- * quarterly financial and progress reports will cover the whole year and are included in the annual monitoring reports.

The above plans and reports meet the requirements of the Guidelines for Programme Design, Monitoring and Evaluation of the Ministry for Foreign Affairs of Finland (1998).

The biodiversity support program implementation work plan will schedule project activities and set deadlines when program key milestones are to be achieved. The progress of the program will be evaluated in regular meetings where the achievements and constraints are reported (see Annex for details). The meetings will constitute an important internal indicator on assessing the effectiveness of implementation activities. External monitoring will be by production of progress reports on a regular basis.

8. Evaluation

A final evaluation will be carried out at the end of the external support phase. Financial reports will be presented quarterly. Towards the end of the program an evaluation will be done. The evaluation will include a seminar in which all the parties including a representative of the donor and an external consult, as well as other mutually agreed experts, will participate. The evaluation procedure should follow the approach presented in the Guidelines for Forest Sector Development Co-operation (EC 1997) and the GoF Guidelines.

ANNEX I

Biological Diversity of Peruvian Amazon Technical Co-operation and Capacity Building Peru-Finland	Logical Framework	Project title: Component 1: Finalisation of the National Strategy on Biological Diversity (Amazon) and Development of Biodiversity Database Network	Estimated project period: 1999-2002	Sheet no. 1
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Overall objectives: Capacitation in development and finalisation of the national biodiversity strategy (Amazon region) and build-up of a network of biodiversity related databases	The major elements (genetic, species, ecosystems) of Peruvian Amazon biodiversity assessed & defined to serve the finalisation of National Biodiversity Strategy	Official documentation of the sectoral bodies (i.e. CONAM, CONADIB, SECTI, IIAP, INRENA)	Successful co-operation between the sectoral bodies, research institutions, regional governments, private sector and the NGO's
Project purpose: Enhance the capacity of Peruvian environmental authorities, research bodies and other stakeholders to develop means to conserve and use the Amazonian biodiversity in a sustainable way	The institutional structure of biodiversity management has capacity to implement Convention on Biological Diversity, including the sustainable use and technology transfer issues	Reports of Government of Peru to COP-CBD, SBSTTA and CSD	The sectors actively seek an active role in the regional biodiversity co-operation (Amazon Pact, Amazon Co-operation Treaty)
Results: 1. Major elements of Peruvian Amazon biodiversity assessed (compilation of base-line data) 2. Development of the knowledge basis for the National Strategy on Biological Diversity	Major sources of Peruvian Amazon biodiversity data identified and assessed. Data assessed by using the UNEP-93 methodology and national priorities Data organised in databases	Documentation (files) of the participating institutions; Collections Number of accessions in databases, including genetic accessions	The data in various international, regional, national and local databases can be consulted efficiently. National priorities clearly set The context and scope of the National Strategy set during the first trimestre

Biological Diversity of Peruvian Amazon Technical Co- operation and Capacity Building Peru-Finland	Logical Framework	Project title: Component 1: Finalisation of the National Strategy on Biological Diversity (Amazon) and Development of Biodiversity Database Network	Estimated project period: 1999-2002	Sheet no. 2
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
3. Publication of the National Strategy on Biological Diversity (Amazon Region) 4. Peruvian authorities capacitated in the key biodiversity issues as defined by the CBD 5. New material on sustainable use and conservation of BD available for the national media and the educational networks 6. Functioning network of Amazon biodiversity databases	Publication of the final strategy The Peruvian key institutions and organisations actively attending the COP-CBD, SBSTTA and other CBD-related meetings. Institutional role of the key players defined and stabilised. The research institutions and government bodies involved in the project have a set of educational and information material available for the media and the schools on all the components of biological diversity A BD-metadatabase (network of databases) functional, roles of institutions in further compilation of the data clarified	Publication of the final strategy Publication of the National Strategy registered by UNEP Number and quality of the BD support material Number of specialised databases, their taxonomic and economic coverage, amount of repatriated data	All the cross-sectoral issues involved are efficiently identified during the two first trimestres; participation of the NGO's during the final formulation The mandate of each sectoral body clearly identified The support (media) material is adequately tailored for the larger public; educational support material targeted to all levels of the education system The roles of each participating institution and individual expert are defined during the early implementation
Activities: 1.1 Collection of the national data on Amazon biodiversity	<i>Specification of national/international inputs</i> National experts on biological collections, including <i>inter alia</i> IIAP, UNMSM, UNALM, UNAP, INRENA	<i>Specification of costs</i> see separate budget sheets	see "Results"

Biological Diversity of Peruvian Amazon Technical Co- operation and Capacity Building Peru-Finland	Logical Framework	Project title: Component 1: Finalisation of the National Strategy on Biological Diversity (Amazon) and Development of Biodiversity Database Network	Estimated project period: 1999-2002	Sheet no. 3
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
1.2 Collection and compilation of the relevant international data on Amazon biodiversity (biological museums, universities, databases of UNEP, WCMC and other institutions) ...	TA and national experts, short term		
2.1 Organisation of the data collected by Activities 1.1 & 1.2 to support the development of National Strategy	National experts, guidance from CONAM, CQNADIB		
2.2 Priority setting through participatory planning	National experts, TA, guidance from CONAM, CONADIB, SECTI, Ministry for Foreign Affairs		
2.3 Formulation of the National Strategy ...	The project will assist in technical questions through the TA. However, the policy setting will be strictly guided by the respective sectoral bodies		
3.1 Publication of the National Strategy	Support to publication		
4.1 Seminars and workshops on Peruvian Amazon BD	TA (short term), national experts		
4.2 Support of Peruvian delegates to participate the CBD-meetings ...	Financial support to the institutions sending delegates		
5.1 Production of support material to the media	National experts		

Biological Diversity of Peruvian Amazon Technical Co- operation and Capacity Building Peru-Finland	Logical Framework	Project title: <u>Component 1: Finalisation of the National Strategy on Biological Diversity (Amazon) and Development of Biodiversity Database Network</u>	Estimated project period: 1999-2002	Sheet no. 4
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
5.2 Production of education material on BD	National experts		
6.1 Definition of the BD metadatabase and national networking	TA, National experts		
6.2 Workshop on BD data management	TA, National experts		
6.3 Division of responsibilities in BD data management	National experts		
6.4 Production of compatible data base protocols	National experts and institutions, TA short term		
6.5 Participation in regional and international networking of BD data	Policy setting by CONADIB, Ministries		

Biological Diversity of Peruvian Amazon Technical Co-operation and Capacity Building Peru-Finland	Logical Framework	Project title: Component 2: Regional analysis of biodiversity in the Amazonian departments of Loreto, Ucayali, Madre de Dios and San Martín	Estimated project period: 1999-2002	Sheet no. 1
Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions	
Overall objectives: Demonstrate regional biodiversity patterns of the Peruvian Amazon lowland forests & support the Zonification Programme of IIAP	The Component 2 will produce the first comprehensive map of the Peruvian Amazon forests demonstrating the areal heterogeneity.	Regional Zonification documents of IIAP	Successful co-operation between the remote sensing, ground-truthing and the data collection (see Component 1)	
Project purpose: To provide the Peruvian authorities and research institutions new methodologies to assess biodiversity in regional scales; methodological advancement of the IIAP Amazon Zonification programme	New TM image analyses in use at IIAP and other Peruvian institutions involved in regional planning	Publications of IIAP, UNALM, INRENA, UNAP and UNMSM, <i>inter alia</i>	Biological species recognition and taxon selection operational during the first year; linkages with the ground-truthing teams and remote sensing established during the early phase of the Component	
Results: 1. Landsat TM-based forest map of the Peruvian Amazon 2. Biogeographical, ecological and geological units of the Peruvian Amazon defined	Map published by the year 2002 Publications supporting the forest map	The map Number of publications, number of national researchers capacitated during the project	TM tapes obtained during the first half of 2000 Coverage of the TM images not obstructed by cloud cover Close co-operation with SAN Effective use of the existing data and collections in Peru Functioning identification of biological samples Close co-operation with INGEMMET	

Biological Diversity of Peruvian Amazon Technical Co- operation and Capacity Building Peru-Finland	Logical Framework	Project title: Component 2: Regional analysis of biodiversity in the Amazonian departments of Loreto, Ucayali, Madre de Dios and San Martín	Estimated project period: 1999-2002	Sheet no. 2
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
3. The IIAP Zonification Programme capacitated	Use of TM and other remote sensing images as a base for forest and land use decisions	The practices used in the Zonification Programme, Publications of IIAP	Pilot sites in Iquitos functional (Allpahuayo)
Activities: 1.1 Analysis of the Peruvian Amazon forest structure (large-scale) by using TM and other remote-sensing data 1.2 Production of a forest map covering departments of Loreto, Ucayali, Madre de Dios and San Martín 1.3 Production of local forest map of the Iquitos region to serve as a pilot site for joining the ground-truthing data with the results of remote sensing (digital still/videoimaging) ... 2.1 Ground truthing of the Activity 1: taxon-specific collections of biological material 2.2 Ground-truthing of the geological forest units ... 3.1 Technical assistance to IIAP to integrate Zonification Program with results obtained from image analyses and ground-truthing	<i>Specification of national/international inputs</i> Remote sensing will be carried out jointly by IIAP, INRENA and UNALM and the TA The map will be published by the participating institutions TA and the participating institutions Analysis will be carried out by a team of taxon specialists (trees, herbs, insects, selected vertebrates), both by national experts and TA National experts, TA, guidance from INGEMMET Workshops and seminars Training in international institutions (image analysis, ground-truthing) for Peruvian experts and students (several institutions)	<i>Specification of costs</i> see separate budget sheets	see "Results"

Biological Diversity of Peruvian Amazon Technical Co- operation and Capacity Building Peru-Finland	Logical Framework <i>Note: Component 3 will be appraised in 2000</i>	Project title: <u>Component 3: Establishment of a system of Amazonian Botanical Gardens in Iquitos and establishment of an information centre for Mishana Allpahuayo Reserve</u>	Estimated project period: 2000-2002	Sheet no. 1
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Overall objectives: Establishment of a system of Amazonian botanical gardens in Iquitos and support to the Allpahuayo Reserve	Installations and scientific programmes operational by the year 2002 Active participation in the work of Botanical Gardens Conservation International (BGCI)	Number of accessions Number, quality of scientific programmes and publications	Regional Centre for Biological Diversity established in Iquitos Joint biodiversity research programme established by the gardens and Allpahuayo
Project purpose:			

Biological Diversity of Peruvian Amazon Technical Co- operation and Capacity Building Peru-Finland	Logical Framework <i>Note: Component 3 will be appraised in 2000</i>	Project title: Component 3: Establishment of a system of Amazonian Botanical Gardens in Iquitos and establishment of an information centre for Mishana Allpahuayo Reserve	Estimated project period: 2000-2002	Sheet no. 2
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Build capacity for sustainable use of the botanical and genetic resources of the Loreto Facilitation of co-operation between the forestry and biological sciences Establishment of a major <i>ex situ</i> depository for economically important plants in Peruvian Amazon	Research activity, co-operation in the field of sustainable use of forest species and genetic resources increased Collections established according to priority lists derived from Components 1 & 2 (Amazon) and other sources Functioning training programmes with international research institutions	New research programmes established Contacts with private sector established Co-operation with government bodies responsible for sustainable use and conservation of BD established (e.g. Gobierno Regional, CONADIB)	Successful gazetting of the Allpahuayo Reserve
Results:			

Biological Diversity of Peruvian Amazon Technical Co- operation and Capacity Building Peru-Finland	Logical Framework <i>Note: Component 3 will be appraised in 2000</i>	Project title: Component 3: Establishment of a system of Amazonian Botanical Gardens in Iquitos and establishment of an information centre for Mishana Allpahuayo Reserve	Estimated project period: 2000-2002	Sheet no. 3
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Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
1. Establishment of a system of botanical gardens (Iquitos) and a functional co-operation in <i>ex situ</i> conservation of BD between the gardens and the Allpahuayo Reserve 2. Establishment of an information centre for the Reserve <i>Activities</i> 1.1 Collection and planting the accessions 1.2 Establishment of operational procedure for the maintenance of the Collection 1.3 Formulation of a scientific research programme	Operational gardens by the year 2002 Operational information centre by the year 2002 The accessions of most important species of economic or conservation value collected and planted by the year 2001 Databases, collection management programmes functional New programmes initiated at the end of the implementation phase	Construction finalised, collections operational Construction finalised, centre operational Accessions registered in the data base, annual management plan for the collections established Accessions registered in the data base, annual management plan for the collections established Programmes listed in UNAP register	Construction phase finalised at the end of 2001 Construction phase finalised at the end of 2001 Major collection work finalised during 2001 Build-up of the database and management procedure can be started in the beginning of 2001 Co-operation with other major research bodies and institutions (e.g. IIAP, CONADIB) established

Biological Diversity of Peruvian Amazon	Logical Framework Note: Component 3 will be appraised in 2000	Project title: Component 3: Establishment of a system of Amazonian Botanical Gardens in Iquitos and establishment of an information centre for Mishana Allpahuayo Reserve	Estimated project period: 2000-2002	Sheet no. 4
Technical Co- operation and Capacity Building Peru-Finland				

Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
1.4 Establishment of a training programme in co-operation with national and international research institutions	Scientific personnel and students of UNAP trained in international <i>ex situ</i> institutions	Documentation of the training courses	Long-term functioning and sustainability of the Gardens are secured
1.5 Development of ecotourism: Linking the Botanical Gardens and the Allpahuayo Reserve	Botanical Garden and Allpahuayo major ecotourist attractions by 2002	Number of visits Contracts with tourist operators in Iquitos	Tourism stays at the present level in Iquitos

Budget Sheet: Biological Diversity of Peruvian Amazon; Components 1 & 2 (in Finnish markka FIM, 1 FIM=0.172 USD)

ITEM	First year				Second year			Third year			Grand Total
	m/ m	Unit cost	Finland	Peru	m/m	Finland	Peru	m/m	Finland	Peru	
A Technical Assistance											
Team Leader (Co-ordinator)	11	50.000	550.000	-	11	572.000	-	11	572.000	-	1.694.000
Biodiversity management specialist	3	50.000	150.000	-	3	150.000	-	3	150.000	-	450.000
Biodiversity data management specialist	4	50.000	200.000	-	4	200.000	-	4	200.000	-	600.000
Taxon specialist	3	40.000	120.000	-	3	120.000	-	3	120.000	-	360.000
Recurrent expenditure			206.000			205.000			205.000		616.000
Sub total			1.226.000	-		1.247.000	-		1.247.000	-	3.720.000
B. Operational cost				-							
B.1. Local personnel											
Local team leader	12	11.388		138.000	12		136.000			136.000	410.000
Biodiversity data specialists (2)	20	13.500	135.000	135.000	24	162.000	162.000	24	162.000	162.000	918.000
Taxon experts (5)	20	11.200	224.000	-	20	224.000	-	20	224.000	-	672.000
Other local personnel			80.000	35.000		80.000	35.000		80.000	35.000	345.000
Sub-total			439.000	308.000		466.000	333.000		466.000	333.000	2.345.000
B.2 Per diem											
National personnel (days)	200	80	16.000	-	200	16.000	-	200	16.000	-	48.000
Expatriates (days)	100	80	8.000	-	100	8.000	-	100	8.000	-	24.000
Sub-total			24.000	-		24.000	-		24.000	-	72.000
B.3 Air transportation											
To/from Lima (national personnel)	5	5.000	25.000	-	5	25.000	-	5	25.000	-	75.000
National flights	20	800	16.000	-	20	16.000	-	20	16.000	-	48.000
Sub-total			41.000	-		41.000	-		41.000	-	123.000

B.4 Operations											
Travel of Peruvian delegates to CBD meetings			69.000	-		69.000	-		69.000		207.000
Ground-truthing programmes (Component 2)			45.000	12.000		144.000	20.000	-	144.000	20.000	385.000
National and international seminars and workshops (Components 1&2)			38.000	-		38.000	-	-	38.000	-	114.000
Stipendium, travel (Peruvian students)			24.000	-		48.000	-	-	48.000	-	120.000
Landsat TM imagery			285.000	-		205.000	-	-	-	-	490.000
Videoimaging (Iquitos)			120.000	-		-	-	-	-	-	120.000
Computer cartography and imagery			55.000	-		55.000	-	-	55.000	-	165.000
GIS licences, software			40.000	-		40.000	-	-	20.000	-	100.000
4-wheel drive (Iquitos)			100.000	-		-	-	-	-	-	100.000
Stationaries			40.000			40.000			20.000		100.000
Publication of the National Strategy			-	-		-	-	-	35.000	-	35.000
<i>Sub-total</i>			<i>816.000</i>	<i>12.000</i>		<i>639.000</i>	<i>20.000</i>		<i>429.000</i>	<i>20.000</i>	<i>1.936.000</i>
Home office co-ordination			40.000			40.000			40.000		120.000
Contingency			70.000			70.000			70.000		210.000
Government of Finland			2.656.000			2.527.000			2.317.000		7.500.000
<i>Peru</i>				<i>320.000</i>			<i>353.000</i>			<i>353.000</i>	<i>1.026.000</i>
Project Grand Total FIM											8.526.000
Project Grand Total USD											1.497.365

Job descriptions

National personnel, Components 1 & 2

Job title	2 Biodiversity data specialists
Duty station:	Iquitos and Lima
Contract:	2 years, part time
Duties:	The experts will be responsible for compiling data from museums archives, collections, databases as well as national/international and grey literature. The base-line data compiled will be linked with the ongoing Amazonian zonification project of IIAP which will ultimately form the basis for sustainable use of biodiversity through comprehensive land use planning in the Departments of Loreto, San Martín, Ucayali and Madre de Dios. The specialists will also establish links with the UNEP-guided biodiversity data support programme. The specialists are assumed to be employed part time by their home institutions.
Qualifications:	Degree in biology/forest science, specialisation in biodiversity issues. Fluent in Spanish and English.
Job title	5 Taxon specialists
Duty station:	Iquitos and Lima
Contract:	3 years, part time
Duties:	The taxon experts will be responsible for the following tasks: scientific assessment of existing data on biodiversity in the Peruvian Amazon; collection of new baseline data on Amazonian biodiversity as part of the ground-truthing programme; analysis of data and contribution to the National Strategy on Biological Diversity (Amazonian region).
Qualifications:	Degree in biology/forest science, specialisation in taxon-specific biodiversity assessments.

Technical Assistance, Components 1 & 2

Job title	Team leader
Duty station:	Iquitos (11 m/m per year)
Duties:	The team leader is responsible for the co-ordination between national and international project teams, SVB, Steering Committee and the CONAM/CONADIB/INRENA organisations as well as compiling the data on Amazonian biodiversity. As the team leader she/he is responsible for planning, co-ordination and overall management, technical and financial, of all the three components of the programme. The team leader will recruit the project staff in collaboration with directors/rectors of all participating institutions. She/he is responsible for concluding co-operative agreements with the participating institutions. The team leader controls and supervises the use of project equipment and scientific facilities. She/he is also in charge of annual work plans, budgets and documentation.
Qualifications:	Degree in biology/forest science, specialisation in biodiversity. Fluent in English and Spanish.
Job description	Biodiversity management specialist
Duty station	Iquitos and Lima (3 m/m per year)
Duties	The biodiversity management specialist will provide technical assistance in the development of national strategy on Peruvian Amazonian biodiversity. She/he will assist the sectoral bodies, most notably SECTI, Ministry for Foreign Affairs, and CONADIB in the field of conservation and sustainable use of biological diversity as requested. She/he will also assist the research institutions (i.e. IIAP, INRENA, UNALM, UNMSM, UNAP, <i>inter alia</i>) in development of their biodiversity agenda.
Qualifications	10+ years of experience in international cross-sectoral biodiversity issues, degree in biology

Job description	Biodiversity data management specialist
Duty station	Iquitos and Lima (4 m/m per year)
Duties	The biodiversity data management specialist will provide technical assistance in the development of national network of biodiversity data on the Peruvian Amazonian biodiversity (Component 1). She/he will also provide technical assistance in data management of the Component 2.
Qualifications	5+ years of experience in biodiversity data management, degree in biology/computing science
Job description	Taxon specialist
Duty station	Iquitos and Lima (3 m/m per year)
Duties	The duties of the taxon specialist will include participation in all the three components by providing technical assistance in (1) species identifications (Activities 1.1, 1.2, 2.3 of the Component 1; Activities 1.1, 1.2, 1.3 and 2.1 of the Component 2 and Activities 1.1 and 1.3 of the Component 3).
Qualifications	5+ years of experience in taxon-oriented biodiversity research, degree in biology

[Component 3

National personnel, Component 3

Job title	Curator
Duty station	Iquitos (8 m/m per year)
Duties	The curator will organise the collections of the botanical garden in Iquitos. She/he is responsible for the selection of species, development of scientific program and cultivation of economically important and/or endangered species of the Peruvian Amazonian region. The curator will also establish the contacts with other national and regional (Amazonian) collections as well as supervise the data management program of the garden.
Qualifications	Degree in botany/forestry

Job title	2 Botanists
Duty station	Iquitos (8 m/m per year)
Duties	The two botanists will organise taxonomical and reproductive biology activities of the botanical garden in Iquitos. They will be responsible for species identification and listing and research on the ecology of economically important species. The botanists will establish the conditions for <i>ex situ</i> conservation as well as carry out data management procedures of the garden.
Qualifications	Degree in botany/forestry

Job description	Natural resource manager
Duty station	Iquitos (4 m/m per year)
Duties	The natural resource manager will be responsible for the management of <i>in situ</i> and <i>ex situ</i> biodiversity conservation activities in the Allpahuayo-Mishana Reserve in close co-operation with the botanical garden. The incumbent will organise collection of representative arboreal flora in the Allpahuayo-Mishana Reserve to form the basis of the <i>ex situ</i> collection in the garden. She/he will organise joint ventures between the botanical garden, Allpahuayo-Mishana Reserve, and private and public tourist sector as well as develop a long-term sustainability plan for the garden and the Reserve in co-operation with the municipality of Iquitos and the Regional Government. She/he is responsible for providing inputs in tandem for strengthening of the Allpahuayo botanical garden of medicinal plants.

Qualifications Degree in forest science

1 Secretary

Duty station: Iquitos (12 m/m per year)
Duties: Secretarial work of the project, including correspondence and filing; assistance in editorial work and personnel management]

Technical Assistance, Component 3

Job description Protected Area specialist

Duty station Iquitos and Lima (4 m/m per year)
Duties The protected area specialist will assist in the development of a management plan for Mishana Allpahuayo Reserved Zone and in the establishment of the information center and its environmental education activities.
Qualifications 5+ years of experience in protected area management, degree in biology

Job description Environmental education specialist

Duty station Iquitos (6 m/m per year)
Duties The environmental education specialist will be responsible for the establishment of the information centre. She/he will assist in the planning of the centre activities and will be responsible for the environmental education programme of the centre. She/he will assist in the planning of educational activities for the system of Amazonian botanical gardens. She/he will assist in the implementation of the information centre and botanical garden environmental education activities.
Qualifications Degree in biology with experience in education.

Chronogram of Activities

	Year	First				Second				Third			
		Trimestre				Trimestre				Trimestre			
Component 1: Finalisation of the National Strategy on Biological Diversity (Amazon) and Development of Biodiversity Database Network													
1.1 Collection of the national data on Amazon biodiversity													XXXXXXXXXXXX
1.2 Collection and compilation of the relevant international data on Amazon biodiversity (biological museums, universities, databases of UNEP, WCMC and other institutions)													XXXXXXXX
2.1 Organisation of the data collected by Activities 1.1 & 1.2 to support the development of National Strategy													XXXXXXX
2.2 Priority setting through participatory planning													XXXXXXX
2.3 Formulation of the National Strategy													XXXXXXX
3.1 Publication of the National Strategy													XXXXXXX
4.1 Seminars and workshops on Peruvian Amazon BD													XXXXXXX
4.2 Support of Peruvian delegates to participate the CBD-meetings													XXXXXXX
5.1 Production of support material to the media													XXXXXXX
5.2 Production of education material on BD													XXXXXXX
6.1 Definition of the BD metadatabase and national networking													XXXXXXX
6.2 Workshop on BD data management													XXXXXXX
6.3 Division of responsibilities in BD data management													XXXXXXX
6.4 Production of compatible data base protocols													XXXXXXX
6.5 Participation in regional and international networking of BD data													XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Component 2: Regional Analysis of Biodiversity in the Amazonian departments of Loreto, Ucayali, Madre de Dios and San Martín													
1.1 Analysis of the Peruvian Amazon forest structure (large-scale) by using TM and other remote-sensing data													XXXXXXXXXXXXXXXX
1.2 Production of a forest map covering departments of Loreto, Ucayali,													

Chronogram of Activities (continued)

Chronogram of Activities (continued)	Year	First				Second				Third								
		Trimestre				1	2	3	4	1	2	3	4	1	2	3	4	
1.3 Production of local forest map of the Iquitos region to serve as a pilot site for joining the ground-truthing data with the results of remote sensing (digital still/videoimaging)																		
2.1 Ground-truthing of the Activity 1: taxon-specific collections of biological material																		
2.2 Ground-truthing of the geological forest units																		
3.1 Technical assistance to IIAP to integrate Zonification Program with results obtained from image analyses and ground-truthing																		
[Component 3: Establishment of a system of Amazonian Botanical Gardens in Iquitos and establishment of an information centre for the Mishana Allpahuayo Reserve]																		
1.1 Collection and planting the accessions																		
1.2 Establishment of operational procedure for the maintenance of the Collection																		
1.3 Formulation of a scientific research programme																		
1.4 Establishment of a training programme in co-operation with national and international research institutions																		
1.5 Development of ecotourism: Linking the Botanical Garden and the Allpahuayo Reserve]																		

The project will organise a workshop during January 2000 to finalise the Chronogram and to approve the annual work plan. Also the activities of the Component 3 will be defined during the workshop.

ANNEX V

<i>Project Management and Monitoring Set-up</i>	<i>General Mandate</i>	<i>Specific Monitoring Practices</i>	<i>Members Responsible for Monitoring/Finnish side</i>	<i>Members responsible for monitoring/Peruvian side</i>	<i>Timing</i>
Supervisory Board (SVB)	Policy issues and amendments to the Project Document; Approval of the annual monitoring report; Approval of the work plan	Monitoring review based on the annual monitoring report; Rating of the Project using the performance summary form	Representation from the Ministry for Foreign Affairs and/or Embassy of Finland	Representation from the Ministry for Foreign Affairs, Ministry for Agriculture (INRENA) and SECTI	Monitoring review takes place once per year in connection with the Supervisory Board Meeting or in case of a specific need
Steering Committee	Steering Committee represents participating institutions and the stakeholders	Steering Committee finalises the work plans, quarterly progress reports, financial reports and annual monitoring report and presents them to SVB	Representation from the Ministry for Foreign Affairs and/or Embassy of Finland, TA team, Project Team Leader as a secretary	Ministry for Foreign Affairs, SECTI, CONADIB, INRENA, UNMSM, CONAM, UNALM, UNAP, environmental NGO, IIAP as a chair	2 times per year or in case of specific need
Management Team	Daily project management and administration	Design and installation of the internal monitoring system including both quantitative and qualitative indicators. Drafts the work plans and quarterly progress reports, and compiles the annual monitoring reports	TA personnel	National project personnel, representation from IIAP	Weekly/Monthly meetings or when necessary

List of other documentation available

INRENA, 1995: Costos y beneficios de la conservacion y uso sostenible de la diversidad biológica.

Proyecto Amazonia, Universidad de Turku 1993: Amazonia Peruana - Vegetación húmeda tropical en el llano Sub-Andino.

TCA 1995: Los Recursos Fitogeneticos de Cultivos Alimenticios y Frutales Amazonicos.

TCA 1995: Plantas Medicinales Amazonicas: Realidad y Pespectivas.

TCA 1995: Uso y Conservacion de la Fauna Silvestre en la Amazonia.

TCA 1996: Patentes, Propiedad Intelectual y Biodiversidad Amazonica.

UNEP/WCMC 1995: UNEP Electronic Network Inventory.

UNEP/WCMC 1996: Guide to Information Management.

Universidad de Turku Centro de la Biodiversidad 1998: Diversidad biológica de la Amazonia Peruana. Cooperación Técnica y Capacitación - Perú-Finlandia. Feasibility Study.

ANNEX II

CONDITIONS FOR CONSULTING AGENCIES**1. Definition**

For the purposes of this Agreement the term "Consulting Agencies" shall mean any public authority and public or private corporation as well as any organization whether public or private, national or international, approved by the Parties and engaged by the Ministry for Foreign Affairs of Finland to provide supporting services for the implementation of the projects and programs.

2. Obligations of Finland

Finland shall, unless otherwise agreed in Specific Agreement, pay the fees and costs of the Consulting Agencies, excluding the costs to be covered by Peru as stated in paragraph 3 below.

3. Obligations of Peru

Peru shall, unless otherwise agreed in a Specific Agreement;

- (a) Grant Consulting Agencies, free of charge and without undue delay, all necessary permits and authorizations;
- (b) Provide and bear the costs of suitable office accommodation, communication and other services for Consulting Agencies in the performance of their official duties;
- (c) Exempt Consulting Agencies from income tax or any other direct tax or charge in respect to any emoluments paid to them from funds or resources outside Peru for the services in Peru under this Agreement;
- (d) Impose no currency or foreign exchange restrictions on funds introduced into Peru by Consulting Agencies in accordance with the laws of Peru for the implementation of the projects and programs, and allow the exportations of such funds as well as facilitate the opening of bank accounts;
- (e) Exempt Consulting Agencies from professional registration, license and other similar requirements;
- (f) Exempt Consulting Agencies from the duty to submit to the authorities of Peru any tax or financial declarations required from private persons or corporations;
- (g) Promptly issue, free of charge, the necessary import licenses and other permits on importation of equipment to be used for the implementation of the project or program;

- (h) Exempt the equipment from, or bear the costs of all customs duties, taxes and other related charges such as customs storage costs, pertaining to their entry into and export from Peru, exempt the equipment from all import and export prohibitions and restrictions, and ensure swift and safe reception, berthing, handling, clearing, forwarding as well as storing and onward transportation of the imported equipment;
- (i) Facilitate the registration of vehicles brought into Peru.

ANNEX III

CONDITIONS FOR PERSONNEL**1. Definition**

For the purposes of this Agreement the term "Personnel" means personnel employed by Consulting Agencies as well as persons employed by Finland for the implementation of the projects and programs under this Agreement.

2. Obligations of Finland

2.1 Finland shall cover the salaries, fees and costs of Personnel excluding the costs to be covered by Peru as stated in paragraph 3 below.

2.2 Finland shall cover the travel costs of Personnel and their families to and from Peru.

3. Obligations of Peru

Peru shall take the following measures with regard to the expatriate Personnel serving in Peru:

- (a) Grant Personnel and their families, free of charge, and without undue delay, multiple entry and exit visas, work and residence permits and other necessary permits and authorizations for the entire duration of their assignment;
- (b) Facilitate the registration of vehicles for the personal use of Personnel and their families;
- (c) Facilitate the issuance of national driver's licenses to Personnel and their families;
- (d) Exempt Personnel and their families from customs duties, taxes and other related charges such as customs storage costs, with regard to household or personal effects, including vehicles, imported into Peru for their exclusive use within six months of their arrival into Peru. Personnel and their families are entitled to export these effects free of any customs duties, taxes and other related charges;
 - (i) In the event that any of the goods referred to in paragraph (d) above are damaged beyond repair at reasonable cost or otherwise lost without neglect on the part of the Personnel and their families, the exemption mentioned in that paragraph shall apply to the importation of new ones irrespective of any time limit;

- (ii) Should Personnel or the members of their families sell in Peru any of the effects mentioned in paragraph (d) above to a person not likewise privileged they shall be obliged to pay all customs duties, taxes and other related charges;
- (e) Exempt Personnel from income tax or any other direct tax or charge, including contributions to national social security schemes, in respect of any emoluments paid to them for their services in Peru under this Agreement;
- (f) Exempt Personnel and the members of their families from the duty to submit to the authorities of Peru any tax or financial declarations required from the citizens of Peru or aliens residing in Peru;
- (g) Impose no currency or foreign exchange restrictions on funds introduced into Peru by Personnel and their families for their personal use, and allow the exchange and the exportation of such funds as well as facilitate the opening of bank accounts;
- (h) Exempt Personnel from professional registration, license and other similar requirements;
- (i) Ensure that Personnel and their families shall enjoy full protection of law;
- (j) Accord Personnel and their families the same repatriation facilities in the event of national or international crises as provided for personnel of diplomatic missions;

4. Other provisions

- 4.1 Peru has the right to request recall or replacement of any member of Personnel, whose work or conduct is deemed unsatisfactory. Before exercising this right Peru shall consult Finland.
- 4.2 Finland has the right, upon prior notice in writing to Peru, to recall a member of Personnel. Before exercising this right Finland shall, except in cases of special urgency, consult Peru and, if requested, endeavor to secure a suitable replacement.
- 4.3 The Finnish Embassy in Peru shall be promptly notified in the event of arrest or detention, for any reason whatsoever, of Personnel or members of their families, or of criminal proceedings being instituted against them. The representatives of Finland shall be entitled to visit the arrested or detained person. Such a person shall have the right to be represented by a lawyer.

CONDITIONS FOR COMMODITIES

1. Definition

For the purposes of this Agreement the term "Commodities" means goods, materials, vehicles, machinery, equipment and any other items made available by Finland for projects and programs under this Agreement.

2. Obligations of Finland

Finland shall, unless otherwise agreed in a Specific Agreement:

- (a) Cover the actual costs such as purchase, transport and, as appropriate, insurance connected with each consignment of Commodities;
- (b) Be in charge of the delivery of Commodities to Peru;
- (c) Require that the Consulting Agencies notify designated agencies in Peru of the estimated date of the arrival of the consignments immediately upon dispatch, and forward shipping documents, invoices and other related information.

3. Obligations of Peru

Peru shall, unless otherwise agreed in a Specific Agreement:

- (a) Notify, if appropriate, Finland of the documentation required for and procedures related to customs clearance;
- (b) Promptly issue, free of charge, the necessary import licenses and other permits on importation of Commodities
- (c) Exempt Commodities from, or bear the costs of all customs duties, taxes and other related charges such as customs storage costs, pertaining to their entry into Peru as well as exempt Commodities from all prohibitions and restrictions on import or export;
- (d) Ensure swift and safe reception, berthing, handling, clearing, forwarding as well as storing and onward transportation of the imported Commodities;
- (e) Take all appropriate measures and institute any proceedings that may be necessary with regard to claims for loss or damage whether total or partial of any consignment of Commodities and notify Finland promptly thereafter;
- (f) Be exclusively responsible for and bear the costs of the measures mentioned in paragraph (d) above if the Commodities have been handed over to Peru;
- (g) Facilitate the registration of vehicles brought into Peru.

4. Other provisions

- 4.1 The Commodities shall be at the exclusive disposal of the respective project or program during its implementation.