INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT PROPOSAL

TITLE:	INFORMATION AND TRAINING PROGRAMME FOR SUSTAINABLE FOREST MANAGEMENT IN THE PERUVIAN AMAZON REGION
SERIAL NUMBER:	PD 178/02 Rev.1 (F)
COMMITTEE:	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY:	GOVERNMENT OF PERU
ORIGINAL LANGUAGE:	SPANISH

SUMMARY

This project is aimed at meeting the private and public sectors' needs for qualified personnel to formulate, implement and monitor forest management plans as stipulated in the new Forestry Law promulgated in Peru in 2000. To this end, a Sustained Forest Management Information System (SIMFOS) will be established to provide information and specialised tools and to facilitate the exchange of experiences among key forest sector stakeholders in the region. Furthermore, with the support of Amazon universities and regional cooperation groups, the project will provide training on sustainable forest management (SFM) to 60 leaders, which will be supplemented with a technical mission to Bolivia to visit successful forest initiatives. Expected project outputs include the SIMFOS system networked and operational, 60 leaders trained in SFM and disseminating the knowledge acquired, and training material on SFM validated and adjusted to the conditions of the Peruvian Amazon region. Project sustainability will be guaranteed by the Peruvian Amazon Research Institute and participating Amazon universities that will ensure the continuity of project activities by providing specialised personnel, facilities and equipment.

EXECUTING AGENCY:	PERUVIAN AMAZON RESEARCH INSTITUTE (INSTITUTO DE INVESTIGACIONES DE LA AMAZONIA PERUANA – IIAP)
COOPERATING GOVERNMENTS	---
DURATION:	18 MONTHS
APPROXIMATE STARTING DATE:	UPON APPROVAL

BUDGET AND PROPOSED SOURCES OF FINANCE:

Source	Contribution in US$
ITTO	**185,097**
IIAP	56,769
TOTAL	**241,866**

PART I: CONTEXT

1. Origin

The most significant experiences in the field of forest management in the lower Amazon region have been undertaken by the Jenaro Herrera Research Centre (73º45'W – 4º55'S) since 1969, when the first species tests for plantations were established and forest typification studies were carried out, generating knowledge on forest composition, species taxonomy, natural and artificial regeneration with native species, and seed production, among others.

These efforts, which are still being implemented today, have led to the establishment of over 62 hectares of pilot plantations with 7,988 individuals under ongoing monitoring, 204 permanent growth plots with 32 native species, a 9-hectare arboretum, where more than 352 forest tree species have been identified and catalogued, including some new species that were unknown to Peru and to science, and 9 hectares of permanent growth plots in alluvial forests where ongoing records have been kept since 1994. The scientific findings of this work are contained in more than 160 scientific articles and publications throughout the world and over 50 PhD, master's and graduate degree theses. All of these achievements are the result of contributions from the Peruvian Government and the Swiss Government's Technical Cooperation Agency COTESU – now COSUDE –, which provided support until the mid- 80's. This extensive experience makes the Jenaro Herrera Research Centre (CIJH) the ideal institution for the provision of training on sustainable forest management.

2. Sectoral policies

The Ministry of Agriculture is in the process of formulating a National Forest Development Strategy with the financial support of the Government of the Netherlands and FAO's technical assistance. In this context, the following objectives have been established for the year 2021:

a) Increase timber and timber product exports from US$98 million to US$2 billion per annum.
b) Increase non-timber forest product exports from US$50 million to US$500 million per annum.
c) Bring 25 million hectares of permanent production forests under sustainable forest management through forest concessions.
d) Expand commercial plantations from 300,000 ha to 1,000,000 ha.

3. Programmes and operational activities

The new Forestry and Wildlife Law No. 27308, promulgated in July 2000, requires that all commercial forest extractive activities should be subject to a management plan, which is one of the most significant policy guidelines of the Ministry of Agriculture. This is consistent with the commitment undertaken by the Peruvian Government regarding the "Year 2000 Objective", for which the Government is currently in the process of designating permanent production forests.

It is estimated that there are currently about 45 management plans being implemented in tropical moist forests in the country by private companies, covering an area of 900,000 hectares. However, according to the new Forestry Law, these management plans must be adjusted to the new conditions.

The Ministry of Agriculture, through the National Institute for Natural Resources, is currently conducting a public tender process for the granting of concessions to provide access to permanent production forests under management plans.

It is further estimated that the management of 25 million hectares will require the services of 2,500 forest engineers, 12,000 technicians and 62,500 skilled workers.

ITTO has supported several forest management initiatives in Peru for timber and non-timber production purposes, but no specific action has been supported in relation to forest management training and information so as to facilitate the systematic use of the achievements of the above efforts by key stakeholders.

This project will significantly contribute to the training of personnel, whose work in public and private organisations will ensure the technical and economic viability of management plans.

PART II. THE PROJECT

1. OBJECTIVES

1.1 Development Objective of the Project

Promote sustainable tropical forest management with the support of competent personnel.

1.2 Specific Objectives of the Project

Establish a Sustainable Forest Management Information System for the Peruvian Amazon region to provide current relevant information and specialised computer tools and facilitate the exchange of information among key forest sector stakeholders in the region.
Strengthen capacities and train leaders in the formulation, implementation and monitoring of sustainable forest management plans.

2. JUSTIFICATION

2.1 Problem to be addressed

a. The need for sustainable forest management

In general terms, the forest policy of Peru promotes the utilisation of forests under forest management plans, but there is only very limited information available on the effects of the implementation of different management practices, whether they are based on natural regeneration, artificial regeneration, or both. The quantity, quality and availability of knowledge and technical personnel required to ensure the technical and economic success of management operations is still very limited.

The current government has undertaken to place 25 million hectares (21.39 million hectares of which have already been established as permanent production forests) of tropical forests under sustainable management plans, but it has very limited human capacity and technological means to provide technical assistance to those in charge of planning management activities as well as their implementation and monitoring.

b. Improving the levels of forest harvesting and processing activities

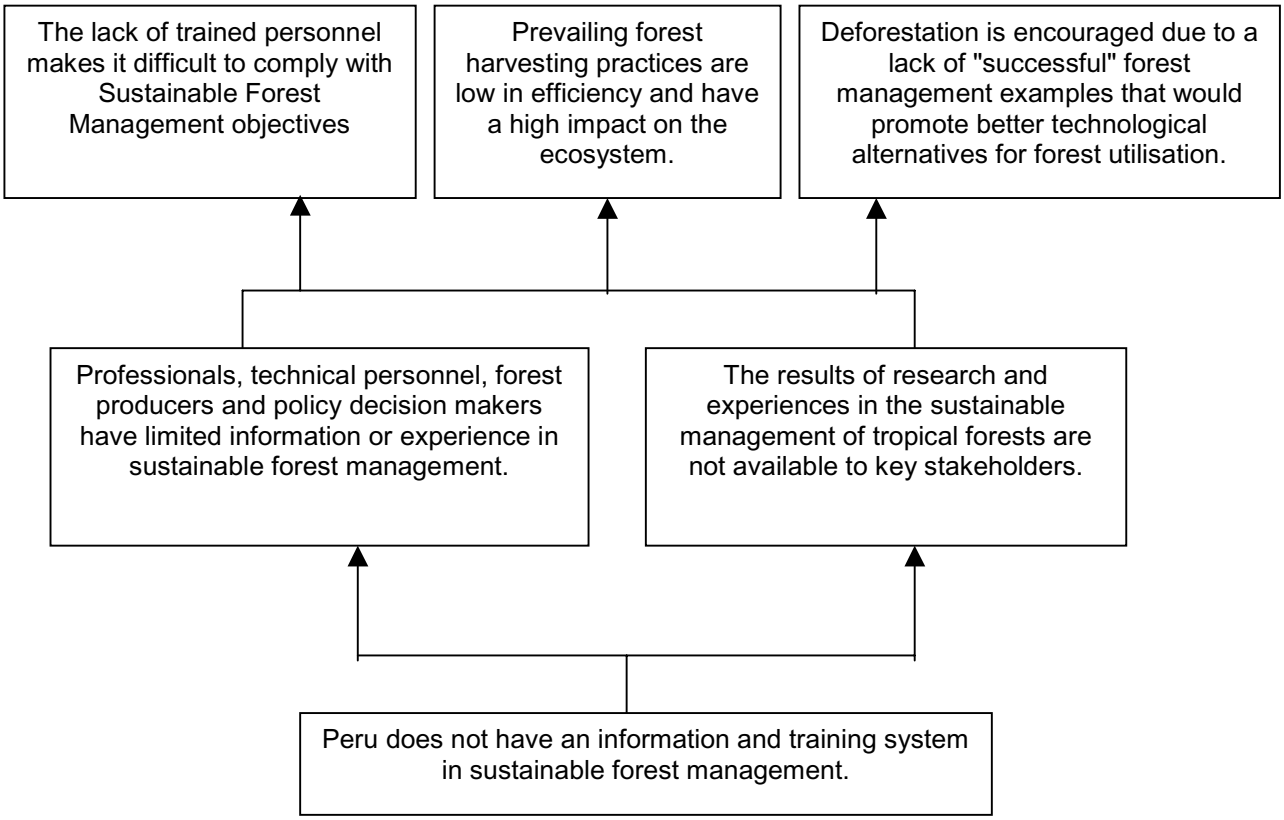
Forest harvesting activities are limited to only a few high commercial value species (5 m^3/ha), with a limited degree of processing and low efficiency levels. Studies have shown that almost 100% of forest harvesting and processing equipment operators have never undertaken a training course. There is a high level of waste during harvesting activities, with approximately 50% of gross volumes being lost due to bad harvesting practices, and the damage to the residual forest is high. Estimates indicate that for every cubic meter of harvested timber, two cubic meters per hectare of the remaining volume are damaged.

c. Combating poverty and deforestation

The national deforestation rate, which is 261,158 hectares per annum, is mainly caused (90%) by subsistence agricultural practices affecting over 9.5 million hectares, accounting for nearly 12.6% of the total forest area of the country.

The lack of better technological alternatives for the utilisation of forests, together with inappropriate rural development policies, force farmers to practise these predatory technologies.

PROBLEM-TREE



2.2 Intended situation after project completion

After project completion the following changes are expected:

- An Sustainable Forest Management Information System (Sistema de Información sobre Manejo Forestal Sostenible - SIMFOS) will be available and accessible to key forest stakeholders.
- Sector leaders will be capable of disseminating the forest management principles to a wide range of interested groups.
- Forest loggers and industrialists will be better informed and will have a better understanding of sustainable forest management techniques and practices.
- Existing information and experiences on sustainable forest management will be disseminated amongst major forest stakeholders.
- Low impact logging techniques will be introduced into forest harvesting operations.

2.3 Project strategy

2.3.1 Project strategy for Objective 1.

"Establish a Sustainable Forest Management Information System for the Peruvian Amazon region to provide current relevant information and specialised computer tools and facilitate the exchange of information among key forest sector stakeholders in the region."

It is envisaged that the project will contribute to the solution of identified problems and will promote a culture of information among key forest stakeholders in the Peruvian Amazon Region through the implementation of an **Sustainable Forest Management Information System**, thus providing specialised information tools and promoting the exchange of experiences among these stakeholders. Three outputs have been identified to achieve this end:

Output 1.1:
Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios have easy access to current relevant information on Sustainable Forest Management (SFM).

It is envisaged that the project will establish an Information System on Sustainable Forest Management (SIMFOS) which will be made up of a network of institutions that produce, manage and use information on sustainable forest management in the Peruvian Amazon region. This information can be in different formats, e.g. easily downloadable documents on SFM from institutions such as CIFOR, FAO or ITTO; information on forest statistics and on contracts and forest concessions, such as that available at the Strategic Forest Information Centre - CIEF (ITTO project); information on the conservation of natural resources, such as that available at the Conservation Data Centre - CDC of the La Molina National Agrarian University - UNALM; information from specialised virtual libraries, such as the ORTON Commemorative Library of CATIE or REDINFOR of UNALM; information on forest research; interconnection with continental information networks, such as the Agricultural Information and Documentation Network of America - SIDALC, which interlinks National Networks in Tropical America and Agri2000. Teaching materials are also available in electronic format on SFM, such as those published by the GTZ; databases on biological diversity such as SIAMAZONIA, developed through an IIAP-Finland cooperation agreement; "raw" databases such as information on forest plantation growth and on alluvial forests in Jenaro Herrera; meteorological data from experimental stations in tropical forest regions; information on approximately 45 forest management plans formulated in Peru; and database on SFM experts and list of SFM services associations and of the leaders trained by the project (output 2.1), among others. In order to ensure the exchange of all this information, one of the priority activities will be the establishment of conventions and/or agreements with the institutions that produce or manage the information. Furthermore, the system must be designed in such a way that it can easily generate inputs for the project's training activities. To this end, the SIMFOS must use a standard, proven, flexible and economic system, that will readily allow for an increase in the number of users and the incorporation of new services that may need to be added to the system. Therefore, the system will use the Internet as its main communication medium.

Finally, the SIMFOS system must be regarded as a process and not an end product, as it must grow and evolve in order to meet the requirements of participating institutions and users. SIMFOS will use the capacities of the Peruvian Amazon Research Institute (IIAP), including its information systems department, its trained personnel and its Internet server. The project will also have access to IIAP's decentralised offices (Regional Research Centres - CRIs) which are located in the departments of Loreto, Ucayali, Tarapoto and Madre de Dios. These centres will be used as facilitator nodes for the dissemination of SIMFOS to the relevant stakeholders in these departments that do not have access to the Internet or to those who require the information but do not know how to use the system (activity 1.1.6). This installed capacity will continue to be used after project completion, thus ensuring the long-term sustainability of the system.

SIMFOS specifications

System's network

The network must be based on a decentralised nodal system (see annex A), with one institution coordinating all system activities (coordinating node) and given its capacity in both equipment and personnel (activity 1.1.1) this coordinating institution will be IIAP. In a nodal system, the nodes are the institutions where the data and information that support the information system are physically located.

The network must include two main information storage facilities:
(a) Data base with taxonomic, bibliographic, ecological, legal and political information, among others.
(b) Cartographic information databases on forest types, production forest areas, forest contracts and concessions, native community areas, protected areas and data on the distribution and abundance of species, among others. One of the strong points of IIAP in this area is that it has the experience and technology to input GIS information into map servers for the INTERNET, which will allow users to have direct access to this information.

System's content

In general terms, once developed the system should contain information that is available through the system nodes, as well as information identified by the project. However, in terms of structuring the information, it can be divided into meta-data, data-sets, databases and digital geographic information (see annex B).

System Implementation and Operationalisation

The implementation of this network will be carried out over several phases, growing regularly according to the requirements of project beneficiaries and the institutions involved. However, in general terms the implementation should include five main phases:

- Initial phase
- Development of the web site
- Integration of information
- System documentation
- System Operation

During the first phase, the project will hold **coordination meetings**, will determine the **general design of the system**, will hold consultations with information suppliers and managers as well as other consultations as required, will define rules and regulations, and will give final approval to the general system design. This phase could last up to 2 months (activity 1.1.1).

The **development of the web site** phase will include the computer design of the site, the development of the databases, the development of the tools required for the interconnection of nodes, the development and testing of the web site and its final approval. This phase could last up to 4 months (activity 1.1.2).

The **integration of information** phase will include, coordination with the system nodes and with information producers, training, implementation of the tools required and connections to the system. Furthermore, the project will study the possibility of integrating or linking-up with other national and international networks. The approximate duration of this phase is 2 months (activity 1.1.3).

The **system documentation** phase will involve the generation of documents to support the SIMFOS system, including documents such as the Technical Design Document, that will provide specialists with in-depth information about the system and the Users' Manual, which will facilitate the use of the system for target beneficiaries. This activity is scheduled for 2 months (activity 1.1.4).

The **system operation** phase includes tests and adjustments to the SIMFOS system operation and three workshops/seminars for the dissemination of the system in the main cities of the Peruvian Amazon region. This activity is scheduled for 2 months (activity 1.1.5).

It will also be necessary to include presentations or training courses on the SIMFOS system in the various project events.

Output 1.2:
Forest managers have easy access to computer programmes to facilitate the sound and sustainable technical management of natural forests and/or forest plantations.

The project plans to establish links and agreements with institutions that are developing specialised forest information management software, such as the TREMA program ("Tree Management and Mapping"), which is a set of computer programs designed to process and map inventory data, stocks and dasometric and botanical information. Another example is the SILVA software, which is also a set of computer programs aimed at the sustainable technical management and administration of forest plantations. BOLFOR has developed the "Computerised Forest Inventory Processing and Analysis" program, which can manage and analyse a great quantity of inventory data with specifications for the tropical regions of America. The Tropical Agricultural Centre for Research and Education - CATIE has developed the MIRASILV program, which can store and process information on forest plantation growth and yields and correlate these data to site-specific factors such as soils and climate. These and other programs to be identified will be disseminated via electronic media (under agreement) to key forest stakeholders in the region through SIMFOS.

Output 1.3:
Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios exchange forest information and experiences on sustainable forest management.

The project intends to use the Regional Forest Management Group (Grupo Regional de Manejo de Bosques-GRMB)[1] as the medium for the horizontal exchange of experiences and information on Sustainable Forest

[1] The GRMB is a horizontal forest management cooperation group that was established in the departments of Ucayali and Madre de Dios. In Loreto it was established in the city of Iquitos in 1998 and has an inter-institutional and inter-sectoral character, incorporating

Management. The GRMB was selected because it constitutes a network of horizontal cooperation on sustainable forest management issues and also because it incorporates most of the target project beneficiaries in the departments of Loreto, Ucayali and Madre de Dios. Its members include: forest producers associations, forest industrialists associations, NGOs involved in forestry and environmental issues, forest engineers associations, forest engineering faculties, associations of forestry graduates, cooperation services operating in the region, indigenous communities and farmers associations, research institutes, local governments and chambers of commerce, among others. The exchange of experiences and information sharing will strengthen the consultation capacity of the key stakeholders, who will be able to benefit from the lessons learnt. This process will also strengthen and facilitate discussion and proposals of common interest, such as on the marketing of products from SFM, legal and political proposals on SFM, market information, communities-forest industry interrelations, the conservation of natural resources, inter-cultural exchanges, and SFM impacts, among others.

Furthermore, the project will benefit from the facilities provided by SIMFOS and the advantage of using a very accessible medium such as the Internet, in order to increase the possibilities for the exchange of experiences and lessons learnt by the ACAFRAP[2], through different virtual fora and communities that can also incorporate experiences from other countries and from foreign experts. As an example of successful precedents of these fora in Peru, we could cite the Ecological Forum administered by the Peruvian Environmental Law Society as well as the Peruvian Science and Technology Forum.

2.3.2 Project strategy for Objective 2

Strengthen capacities and train leaders in the formulation, implementation and monitoring of sustainable forest management plans.

It is envisaged that the project will train and educate leaders in sustainable forest management through 3 project outputs:

Output 2.1:
Sixty (60) leaders (workers, technicians, professionals, university professors, forest producers, government officers and decision-makers) trained in the formulation, implementation and monitoring of management plans and in low-impact logging techniques.

In order to achieve this output, a group of 60 leaders in their respective activities or institutions will be selected from within the Regional Forest Management Groups (Horizontal Cooperation Network for Sustainable Forest Management) of the departments of Loreto, Ucayali, San Martin and Madre de Dios, who will be trained in Sustainable Forest Management (SFM) and low-impact logging techniques. Once trained, they will be responsible for disseminating the knowledge acquired and, to this end, the project will facilitate the establishment of an association of forest managers. This strategy will optimise the use of financial resources as it will ensure maximum results. To this end, the project will rely on the active participation of the following universities: the National University for the Peruvian Amazon Region; the Ucayali National University and the National Agricultural University of La Molina, through the coordination of SFM training courses and their participation as active participants in the Regional Forest Management Groups.

The training provided to leaders will consist of two workshops/seminars covering the following topics: formulation, implementation and monitoring of forest management plans and low-impact logging techniques.

First seminar - workshop: Formulation, implementation and monitoring of forest management plans

This seminar - workshop will provide training for 30 professional leaders in the following topics: ecological principles guiding the formulation of forest management plans, growth of managed forests, productivity by site class, prevention of negative ecological effects of forest management, forest zoning, planning of access roads, resources inventory, tree registration system, coupes and annual allowable cut, felling cycle, pre- and post-felling treatments, monitoring (permanent growth plots), planting techniques and natural regeneration

15 key stakeholders and their respective interests into forest management. The current members include: CARE-Peru, The Association of Forestry Graduates of the Peruvian Amazon Region (AEFAP), CURMI, The National Association of Agroforestry Indigenous and Farmer Organizations of Peru (COICAP), the Centre for the Development of Indigenous Peoples of the Amazon Region (CEDIA), the Peruvian Amazon Research Institute (INIA), the Loreto Timber Industrialists Association (AIMAL), the Environmental Office of the Transitional Regional Administration Council of Loreto (CTAR-L), the magazine "Bosques Amazonicos", the Forestry Engineering Faculty of UNAP, Pro Naturaleza, the National Development Institute (INADE), the Netherlands Development Cooperation Service (SNV), the Spanish International Cooperation Agency (AECI) and the Agricultural Producers Committee of the Maynas Province (COPAPMA).

[2] Key Forest Stakeholders in the Peruvian Amazon Region (Actores Clave de la Actividad Forestal en la region Amazonica Peruana-ACAFRAP)

treatments, intensity and opportunity of clearings, thinning operations, liberation cutting, management for certification purposes, and forest management costs and benefits. During the seminar-workshop, the participants will break up into three groups of 10 persons each to formulate a management plan that will be submitted at the end of the training event. The professional services of two university professors will be hired for the implementation of this seminar - workshop; one for management and planning aspects and the other for inventory and cost of management operations.

Second seminar - workshop: Low-impact logging

This seminar - workshop will provide training for 30 professional leaders in the following topics: planning forest harvesting operations, opening of primary and secondary access roads, model felling technique, directional felling, special cutting techniques, post-harvesting techniques, log skidding, location and size of timber yards, harvesting activities recording system, costs and benefits of planned harvesting operations, operation and maintenance of logging machinery and equipment (tractors, chainsaws, winches, etc) and prevention of accidents. The professional services of two university professors will be hired for the implementation of this seminar - workshop; one for the topics related to forest harvesting and the other for the maintenance of logging machinery and equipment.

Output 2.2:
Fifteen (15) forest sector leaders incorporate successful sustainable forest management experiences.

In order to complete the training on sustainable forest management, the 15 most outstanding leaders of the two seminars - workshops will be selected (11 from the first seminar - workshop and 4 from the second) to participate in technical missions to Bolivia to visit successful sustainable forest management and low-impact logging experiences. The participants will visit the BOLFOR project and the *Hura crepitans* doors and windows factory.

Output 2.3:
Training material on sustainable forest management (SFM) validated and adjusted to the conditions of the Peruvian Amazon region.

The training material prepared for the formulation, implementation and monitoring of forest management and low-impact logging plans will be tested during the course of the two seminars - workshops with the help of the participants of both seminars -workshops. This will provide both feedback and training material adapted to the conditions of the Peruvian Amazon Region. The two university professors hired by the project for the implementation of both seminars - workshops will be responsible for the formulation and improvement of this training material.

The validated training material that will result from this training and education plan on sustainable forest management and low-impact logging will be incorporated into of the Information System mentioned in specific objective one (1) so as to widely disseminate the material.

2.4 Target beneficiaries

The following interest groups will directly benefit from the outputs of the project:

- Forest loggers and forest managers
- Local, indigenous and mestizo communities
- Forest professionals
- Forest industrialists
- Universities and technological institutes
- Public entities involved in forest administration
- Research institutions
- Non-governmental organisations

2.5 Technical and scientific aspects

In relation to the **training** component, the project will seek to disseminate the basic ecological principles that guide the formulation of forest management plans, particularly those related to the preservation of essential ecological processes, environmental services and primary and secondary productivity. All of this to be presented in a simple and didactic manner, adapted to the different target groups. This will involve the formulation of course contents by target group, under the direction of specialists in technology transfer. A

second course module will be related to sound management practices, a sample list of which is described below:

A. Forest harvesting plans. Types of plans according to company size. Required information on growth of managed forest, productivity by site class, prevention of ecological impacts of management in relation to soil fertility, biodiversity, natural regeneration, integrated harvesting, waste reduction, and costs and yields of management operations, etc.

B. Forest zoning, inventory of resources, annual cut and allowable cut, felling cycle, road network, harvesting and transport, pre and post harvest tending, monitoring, etc.

C. Plantation techniques and natural regeneration tending: intensity and opportunity of clearings, thinning and liberation cutting.

D. Registration system for harvesting and management activities aimed at timber certification.

E. Operation and maintenance of harvesting machinery and equipment (tractors, chainsaws, winches, etc.)

The Jenaro Herrera Research Centre will be evaluated in order to asses its suitability to become the training centre, as it has the required scientific infrastructure such as experimental plantations, natural regeneration plots, classified and surveyed forests, digital mapping facilities, GIS, arboretum, on-site herbarium, tools, instruments, etc.

With regard to **forest information**, the most modern quantitative and qualitative data gathering and processing technology will be used in relation to the Sustainable Forest Management, thus developing a database that will be managed for the production of information, in accordance with training requirements and users' needs. IIAP has had ample experience in activities of this nature, as it has recently established a fully operational information system for the biological diversity of the Peruvian Amazon region www.siamazonia.org.pe, within the framework of a scientific and technological cooperation agreement with the Government of Finland.

This database will be linked to the National Institute for Natural Resources, which, as the agency in charge of forest production statistics, will be capable of establishing peripheral nodes with other bodies such as the Peruvian Timber Corporation, the Association of Exporters, and Universities, among others.

2.6 Economic aspects

The project will have a positive influence over the whole production process at the forest level, by increasing the efficiency in the use of resources and improving the profit margins of forest industrialists. The expected economic benefits cannot yet be quantified ex-ante, but in general terms it is envisaged that the project will contribute to:

- Minimising the damages caused by harvesting operations to remaining forests
- Reducing waste levels
- Increasing the volume harvested per hectare
- Reducing harvesting costs
- Improving the supply of raw materials
- Incorporating currently lesser-used species into the market

2.7 Environmental aspects

The Peruvian Amazon region is characterised by having two clearly defined landscapes resulting from their dependency on the rising and receding cycles of the rivers in the region:

a) Flood-prone alluvial plain forests.
b) Non flood-prone high terrace forests.

Most of the log production that supplies the forest industries in the regions of Ucayali and Loreto come from alluvial forests, which are more accessible by river and have a less heterogeneous flora composition, but with higher volumes of commercial species such as cedar (*Cedrela Odorata*), lupuna (*Ceiba pendrata*), catahua (*Hura crepitans*), capirona (*Callycohpyllum spruceanum*), capinurí (*Maquira coriacea*) and cumala

(*Virola spp*), many of which have a heliophytic behaviour, which facilitates their natural regeneration. Despite this, all major forest management efforts in Peru have concentrated on non flood-prone highland forests that are only accessible by road, a fact which considerably increases harvesting costs.

The project will strategically promote the differentiated management of these major ecosystems, which are well represented in the experimental forests that belong to the Jenaro Herrera Research Centre.

2.8 Social aspects

The banks of the Amazon rivers are the areas of major human activity, not only because they constitute the most important communication links, but also because fishing activities provide the most important source of animal protein for the human population of the region. Furthermore, as a result of the sediments deposited by the annual floods that cover the surrounding lands, they contain the most naturally fertile lands in the country.

The project will provide training and technologies to the local mestizo and indigenous communities for the sustainable management of their forests. These communities will be consulted during the planning phase of training events in order to ensure that the training activities carried out genuinely respond to the interests of these groups.

Forest activities offer the possibility of contributing to the establishment of the basis for sustainable development, with a strong employment-generation component, technological development and environmental protection.

2.9 Risks

The national economic recession could affect the capacity of some key stakeholders to be interested in SFM as well as the purchasing power of the population to buy products from managed forests. The project has a limited influence in cushioning this risk through its activities aimed at capacity strengthening.

3. OUTPUTS

Specific objective 1:
Establish a Sustainable Forest Management Information System for the Peruvian Amazon region to provide current relevant information and specialised computer tools and facilitate the exchange of information among key forest sector stakeholders in the region.

Output 1.1:
Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios have easy access to current relevant information on sustainable forest management.

Output 1.2:
Forest managers have easy access to computer programmes to facilitate the sound and sustainable technical management of natural forests and/or forest plantations.

Output 1.3:
Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios exchange forest information and experiences on sustainable forest management.

Specific objective 2:
Strengthen capacities and train leaders in the formulation, implementation and monitoring of sustainable forest management plans.

Output 2.1:
60 leaders (workers, technicians, professionals, university professors, forest producers, government officers and decision-makers) trained in the formulation, implementation and monitoring of management plans and in low-impact logging techniques.

Output 2.2:
15 forest sector leaders incorporate successful sustainable forest management experiences.

Output 2.3:
Training material on sustainable forest management (SFM) validated and adjusted to the conditions of the Peruvian Amazon region.

4. ACTIVITIES

4.1 Output 1.1
Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios have easy access to current relevant information on sustainable forest management.

Activity 1.1.1
Design and structure the Sustainable Forest Management Information System (SIMFOS).

Activity 1.1.2
Design and prepare Web site for node connections.

Activity 1.1.3
Integrate information and connect to system nodes.

Activity 1.1.4
Edit and publish a technical design document and a user's manual for the Sustainable Forest Management Information System (SIMFOS).

Activity 1.1.5
Implement /promote the Sustainable Forest Management Information System (SIMFOS) in the departments of Loreto, Ucayali, San Martin and Madre de Dios.

Activity 1.1.6
Facilitate the use of SIMFOS in the departments of Loreto, Ucayali, San Martin and Madre de Dios through IIAP's CRI's.

4.2 Output 1.2:
Forest managers have easy access to computer programmes to facilitate the sound and sustainable technical management of natural forests and/or forest plantations.

Activity 1.2.1
Identify specialised computer programmes or tools for forest management and the institutions that develop them.

Activity 1.2.2
Establish agreements and links with institutions involved in the development of computer programmes.

Activity 1.2.3
Request and/or purchase licences for the most relevant specialised computer programmes.

Activity 1.2.4
Disseminate computer programmes through SIMFOS.

4.3 Output 1.3
Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios exchange forest information and experiences on sustainable forest management.

Activity 1.3.1
Use the Regional Forest Management Group (GRMB) as a forum for the exchange of information and experiences on sustainable forest management (SFM).

Activity 1.3.2
Use the SIMFOS system in virtual fora and communities, interest lists and electronic newsletters as a means for the exchange of information and experiences on sustainable forest management.

4.3 Output 2.1

60 leaders (workers, technicians, professionals, university professors, forest producers, government officers and decision-makers) trained in the formulation, implementation and monitoring of management plans and in low-impact logging techniques.

Activity 2.1.1
Coordinate with universities and select leaders for the implementation of training courses.

Activity 2.1.2
Conduct training seminar/workshop on sustainable forest management plans formulation, implementation and monitoring for 30 professionals.

Activity 2.1.3
Conduct training seminar/workshop on low-impact logging techniques for 30 loggers and workers.

4.4 Output 2.2

15 forest sector leaders incorporate successful sustainable forest management experiences.

Activity 2.2.1
Coordinate with the authorities of the Ministry for Sustainable Development and Environment of Bolivia and select leaders to carry out visits to successful sustainable forest management and low-impact logging experiences.

Activity 2.2.2
Conduct study and observation visits to successful sustainable forest management experiences in Bolivia (with the participation of 15 trained leaders).

4.5 Output 2.3

Training material on sustainable forest management (SFM) validated and adjusted to the conditions of the Peruvian Amazon region.

Activity 2.3.1
Prepare manuals on formulation, implementation and monitoring of management plans and low-impact logging, and validate manuals in training activities.

Activity 2.3.2
Edit and print 2 validated manuals and prepare final technical document.

5. LOGICAL FRAMEWORK WORKSHEETS

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS (/RISKS)
Development objective Promote sustainable tropical forest management with the support of competent personnel.	Forest management plans are implemented in the country using personnel with information and experience in sustainable management practices.	General Forest Directorate's records. Management plans approved by the Forest Administration.	Forest concessions are granted to private individuals for forest harvesting under management plans.
Specific objective 1 Establish a Sustainable Forest Management Information System for the Peruvian Amazon region to provide current relevant information and specialised computer tools and facilitate the exchange of information among key forest sector stakeholders in the region.	Upon project completion, at least **1,000** key forest sector stakeholders in the Peruvian Amazon region will have relevant information available on SFM and access to specialised computer tools to exchange information and experiences on SFM.	Information systems statistics. Surveys on the use of specialised software. Minutes of meetings and records of represented sectors.	ITTO approves project funding.
Output 1.1 Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios have easy access to current relevant information on sustainable forest management.	As from month 10 of the project, SIMFOS will start providing information to users.	Web site.	
Activity 1.1.1 Design and structure the Sustainable Forest Management Information System (SIMFOS).	After month 3 of the project, the SIMFOS model will have been conceptualised, the sustainable forest management database will have been developed, the node network will have been built, its members will have been defined, operating standards will have been set and the overall final design will have been approved.	Technical document on system design. Minutes and reports of coordination meetings between node members.	
Activity 1.1.2 Design and prepare Web site for node connections.	After month 7 of the project, the database will have been configured and the tools required for node connection will have been developed. The Web site will have been developed and approved.	Web site ready for connection.	
Activity 1.1.3 Integrate information and connect to system nodes.	After month 8 of the project, the databases of at least **5** nodes will have been inter-connected and the network will have been implemented.	Connectivity and search tests, remote access to node databases.	
Activity 1.1.4 Edit and publish a technical design document and a user's manual for the Sustainable Forest Management	After month 10 of the project, the technical design document and SIMFOS manual will have been completed.	500 technical documents printed. 500 system manuals printed.	

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS (/RISKS)
Information System (SIMFOS).			
Activity 1.1.5 Implement /promote the Sustainable Forest Management Information System (SIMFOS) in the departments of Loreto, Ucayali, San Martin and Madre de Dios.	As from month 11 of the project, SIMFOS will provide information and there will be feedback mechanisms available for its validation. SIMFOS will be promoted through **4** workshops/seminars in the departments of Loreto, Ucayali, San Martin and Madre de Dios.	Statistics on effective entries to Web site. Statistics on computer feedback and incorporation of suggestions. Promotion seminar and workshop proceedings.	
Activity 1.1.6 Facilitate the use of SIMFOS in the departments of Loreto, Ucayali, San Martin and Madre de Dios through IIAP's CRI's.	As from month 11 of the project, **4** decentralised IIAP nodes (CRI's) will provide facilitation services for the use of SIMFOS to forest sector stakeholders in L, U, SM and MD.	Record of facilitation service users.	
Output 1.2 Forest managers have easy access to computer programmes to facilitate the sound and sustainable technical management of natural forests and/or forest plantations.	Upon project completion, **at least 20%** of forest managers will use computer programmes and tools in the planning, monitoring and implementation of forest management plans.	INRENA records. Surveys.	
Activity 1.2.1 Identify specialised computer programmes or tools for forest management and the institutions that develop them.	At the end of month 5 of the project, there will be a list of programmes and institutions specialised in the development of forest information management and processing software.	List and contacts.	
Activity 1.2.2 Establish agreements and links with institutions involved in the development of computer programmes.	At the end of month 8 of the project, at least **5** agreements and links will have been established with institutions such as CIFOR, FAO, CATIE, BOLFOR, CIEF, UNALM, etc. for the acquisition and distribution of specialised software.	Agreements, links, authorisations.	
Activity 1.2.3 Request and/or purchase licences for the most relevant specialised computer programmes.	At the end of month 10 of the project, the most relevant specialised forest information management programmes (at least 5 programmes) will have been acquired, e.g. MIRASILV, SILVIA, TREMA, CO2FIX, SISTEMA DE INVENTARIOS FORESTALES, etc.	Specialised software.	
Activity 1.2.4 Disseminate computer programmes through SIMFOS.	At the end of month 13 of the project, **all** software download mechanisms - freeware and shareware - will have been established in SIMFOS.	Functional download links in web page.	

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS (/RISKS)
Output 1.3 Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios exchange forest information and experiences on sustainable forest management.	Upon project completion, the capacity of at least **20%** of key forest sector stakeholders in the region will have been strengthened through the exchange of information and experience on SFM.	Replication of successful experiences. Repetition of mistakes in SFM is avoided.	
Activity 1.3.1 Use the Regional Forest Management Group (GRMB) as a forum for the exchange of information and experiences on sustainable forest management (SFM).	As from month 10 of the project, key forest sector stakeholders in the region share experiences and information through the GRMB.	Minutes and agendas of meetings.	
Activity 1.3.2 Use the SIMFOS system in virtual fora and communities, interest lists and electronic newsletters as a means for the exchange of information and experiences on sustainable forest management.	As from month 8 of the project, key forest stakeholders in the region use virtual fora and communities and receive information through interest lists and electronic newsletters.	Participation and registration in virtual fora and communities, interest lists and electronic newsletter.	Users' technological capacity.
Specific objective 2 Strengthen capacities and train leaders in the formulation, implementation and monitoring of sustainable forest management plans.	At least **10** forest management plans are designed and implemented by trained personnel and skilled low-impact logging workers.	Forest management plans under implementation.	Sustainable forest management technologies are in demand.
Output 2.1 60 leaders (workers, technicians, professionals, university professors, forest producers, government officers and decision-makers) trained in the formulation, implementation and monitoring of management plans and in low-impact logging techniques.	At the end of month 12 of the project, **60** promoter leaders will have been trained in forest management plans and low-impact logging techniques.	SFM services associations set up by trained leaders.	
Activity 2.1.1 Coordinate with universities and select leaders for the implementation of training courses.	At the end of month 10 of the project, coordination will have been established with **2** regional universities for the organisation of courses on SFM and low-impact logging and leaders will have been selected and convened to participate in the courses.	Subcontract with universities for the provision of training, list of leaders to be trained and invitations.	
Activity 2.1.2 Conduct training seminar/workshop on sustainable forest management plans formulation, implementation and monitoring for 30 professionals.	At the end of month 11 of the project, 30 professionals will have been trained in the formulation, implementation and monitoring of SFM plans.	Database of trained leaders available to SIMFOS users. Forest concessionaires use trained personnel.	

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS (/RISKS)
Activity 2.1.3 Conduct training seminar/workshop on low-impact logging techniques for 30 loggers and workers.	At the end of month 12 of the project, **30** workers and loggers will have been trained in low-impact logging techniques.	Database of trained workers in SIMFOS.	Reluctance to adopt low-impact logging techniques.
Output 2.2 15 forest sector leaders incorporate successful sustainable forest management experiences.	At the end of month 12, the capacity of **15** leaders will have been strengthened with the incorporation of successful sustainable forest management experiences.	Report on successful forest management experiences.	
Activity 2.2.1 Coordinate with the authorities of the Ministry for Sustainable Development and Environment of Bolivia and select leaders to carry out visits to successful sustainable forest management and low-impact logging experiences.	At the end of month 11, the project will have coordinated with the Ministry for Sustainable Development and Environment of Bolivia and with forest management companies for the respective visits. 15 leaders will have been selected to visit successful SFM experiences.	Coordination documents. List of beneficiaries.	
Activity 2.2.2 Conduct study and observation visits to successful sustainable forest management experiences in Bolivia (with the participation of 15 trained leaders).	At the end of month 12, **15** leaders will have assimilated and will be applying the knowledge acquired through successful SFM experiences in the Peruvian Amazon region.	Reports on study trips.	
Output 2.3 Training material on sustainable forest management (SFM) validated and adjusted to the conditions of the Peruvian Amazon region.	Upon project completion, training material on SFM will be used in the development, implementation and monitoring of forest management plans.	Demand for training material.	
Activity 2.3.1 Prepare manuals on formulation, implementation and monitoring of management plans and low-impact logging, and validate manuals in training activities.	At the end of month 15 of the project, **2** SFM and low-impact logging manuals will have been developed with the incorporation of the suggestions of trained leaders for their improvement and validation.	Two sustainable forest management training manuals validated and ready for publication. Validation surveys.	
Activity 2.3.2 Edit and print 2 validated manuals and prepare final technical document.	As from month 17 of the project, **500** copies of SFM and low-impact logging manuals will be disseminated among key forest sector stakeholders, including GRMB members and represented parties in Loreto, Ucayali, San Martín and Madre de Dios. The final technical document will be completed by the end of month 18 of the project.	500 copies of manuals on SFM and low impact logging distributed. GRMB's regional survey on the use of manuals. Final technical document.	

6. WORK PLAN

ACTIVITIES	RESPONSIBLE PARTY	SCHEDULE IN MONTHS																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Output 1.1 Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios have easy access to current relevant information on sustainable forest management.		Implementation of project (recruitment of staff, office space, purchase of equipment, and other)																	
Activity 1.1.1 Design and structure the Sustainable Forest Management Information System (SIMFOS).	Coordinator Systems Expert																		
Activity 1.1.2 Design and prepare Web site for node connections.	Systems Expert																		
Activity 1.1.3 Integrate information and connect to system nodes.	Coordinator Systems Expert																		
Activity 1.1.4 Edit and publish a technical design document and a user's manual for the Sustainable Forest Management Information System (SIMFOS).	Coordinator Systems Expert																		
Activity 1.1.5 Implement /promote the Sustainable Forest Management Information System (SIMFOS) in the departments of Loreto, Ucayali, San Martin and Madre de Dios.	Coordinator																		
Activity 1.1.6 Facilitate the use of SIMFOS in the departments of Loreto, Ucayali, San Martin and Madre de Dios through IIAP's CRI's.	Coordinator – IIAP																		
Output 1.2 Forest managers have easy access to computer programmes to facilitate the sound and sustainable technical management of natural forests and/or forest plantations.																			
Activity 1.2.1 Identify specialised computer programmes or tools for forest management and the institutions that develop them.	Coordinator Systems Expert																		
Activity 1.2.2 Establish agreements and links with institutions involved in the development of computer programmes.	Coordinator																		
Activity 1.2.3 Request and/or purchase licences for the most relevant specialised computer programmes.	Systems Expert																		
Activity 1.2.4 Disseminate computer programmes through SIMFOS.	Systems Expert																		
Output 1.3 Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios exchange forest information and experiences on sustainable forest management.																			

ACTIVITIES	RESPONSIBLE	SCHEDULE IN MONTHS																	
	PARTY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Activity 1.3.1 Use the Regional Forest Management Group (GRMB) as a forum for the exchange of information and experiences on sustainable forest management (SFM).	Coordinator																		
Activity 1.3.2 Use the SIMFOS system in virtual fora and communities, interest lists and electronic newsletters as a means for the exchange of information and experiences on sustainable forest management.	Systems Expert Coordinator																		
Output 2.1 60 leaders (workers, technicians, professionals, university professors, forest producers, government officers and decision-makers) trained in the formulation, implementation and monitoring of management plans and in low-impact logging techniques.																			
Activity 2.1.1 Coordinate with universities and select leaders for the implementation of training courses.	Project Coordinator																		
Activity 2.1.2 Conduct training seminar/workshop on sustainable forest management plans formulation, implementation and monitoring for 30 professionals.	Sustainable Forest Management Expert																		
Activity 2.1.3 Conduct training seminar/workshop on low-impact logging techniques for 30 loggers and workers.	Low-impact logging expert																		
Output 2.2 15 forest sector leaders incorporate successful sustainable forest management experiences.																			
Activity 2.2.1 Coordinate with the authorities of the Ministry for Sustainable Development and Environment of Bolivia and select leaders to carry out visits to successful sustainable forest management and low-impact logging experiences.	Project Coordinator																		
Activity 2.2.2 Conduct study and observation visits to successful sustainable forest management experiences in Bolivia (with the participation of 15 trained leaders).	Project Coordinator																		
Output 2.3 Training material on sustainable forest management (SFM) validated and adjusted to the conditions of the Peruvian Amazon region.	Project Coordinator																		
Activity 2.3.1 Prepare manuals on formulation, implementation and monitoring of management plans and low-impact logging, and validate manuals in training activities.	Project Coordinator																		
Activity 2.3.2 Edit and print 2 validated manuals and prepare final technical document.	Project Coordinator																		

7.1 CONSOLIDATED PROJECT BUDGET

Budget Component			TOTAL	Year 1	Year 2
10. Project Personnel	11	National experts	75600	51600	24000
	13	Other labour	23000	14000	9000
	14	Fellowships and training			
	19	**Component total**	**98600**	**65600**	**33000**
20. Subcontracts	21	Subcontracts with universities	8000	8000	0
	22	Subcontract – supplier	9000	9000	0
	29	**Component total**	**17000**	**17000**	**0**
30. Duty Travel	31	DSA	13850	12905	945
	32	International travel	5325	5325	0
	33	Transport costs	7245	7245	0
	34	Domestic travel	14020	13180	840
	39	**Component total**	**40440**	**38655**	**1785**
40. Capital Ítems					
	44	Capital equipment	6000	6000	0
	49	**Component total**	**6000**	**6000**	**0**
50. Consumable Ítems	51	Raw materials			
	53	Utilities/fuel	13890	9160	4730
	54	Office supplies	4650	4000	650
	59	**Component total**	**18540**	**13160**	**5380**
60. Miscellaneous	61	Sundry	12280	10000	2280
	62	Auditing	4000	0	4000
	69	**Component total**	**16280**	**10000**	**6280**
70. IIAP Management Cost	**72**	**IIAP Administrative Costs**	**29529**	**19686**	**9843**
	79	**Component total**	**29529**	**19686**	**9843**
		SUB-TOTAL	**226388**	**170100**	**56288**
80.ITTO Monitoring, Evaluation & Administration	**81**	Monitoring and review costs	5000		
	82	Programme Support Costs **(6%)**	**10477**		
	89	**Component total**	**15477**		
90. Refund of Pre-project Costs	**99**	**Component total**	**0**		
100. GRAND TOTAL			**241866**		

7.2 PROJECT BUDGET BY ACTIVITY

Outputs – Activities	10. Project Personnel	20. Sub-contracts	30. Duty Travel	40. Capital Ítems	50. Consumable Ítems	60. Miscellaneous	Quarter Year	Grand Total
Output 1.1 Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios have easy access to current relevant information on sustainable forest management.								
Activity 1.1.1 Design and structure the Sustainable Forest Management Information System (SIMFOS).	15900		1680		1360	500	Q1-Y1	19440
Activity 1.1.2 Design and prepare Web site for node connections.	10050				1360		Q2-Q3-Y1	11410
Activity 1.1.3 Integrate information and connect to system nodes.	3699				2560		Q3-Y1	6259
Activity 1.1.4 Edit and publish a technical design document and a user's manual for the Sustainable Forest Management Information System (SIMFOS).	5050	5000			400		Q3-Q4-Y1	10450
Activity 1.1.5 Implement /promote the Sustainable Forest Management Information System (SIMFOS) in the departments of Loreto, Ucayali, San Martin and Madre de Dios.	8975		2380		1360	2000	Q4-Q5-Q6, Y1-Y2	14715
Activity 1.1.6 Facilitate the use of SIMFOS in the departments of Loreto, Ucayali, San Martin and Madre de Dios through IIAP's CRI's.	8000			6000	3060		Q4-Q5-Q6, Y1-Y2	17060
Sub-total 1	**51674(E/I)**	**5000(I)**	**4060 (I)**	**6000(I)**	**10100(E/I)**	**2500(I)**	Q1-Q6, Y1-Y2	**79333.74**

Outputs – Activities	10. Project Personnel	20. Sub-contracts	30. Duty Travel	40. Capital Ítems	50. Consumable Ítems	60. Miscellaneous	Quarter Year	Grand Total
Output 1.2 Forest managers have easy access to computer programmes to facilitate the sound and sustainable technical management of natural forests and/or forest plantations.								
Activity 1.2.1 Identify specialised computer programmes or tools for forest management and the institutions that develop them.	5300				1360		Q2-Y1	6660
Activity 1.2.2 Establish agreements and links with institutions involved in the development of computer programmes.	4350.06				680		Q2-Q3-Y1	5030
Activity 1.2.3 Request and/or purchase licences for the most relevant specialised computer programmes.	4150				1360	3000	Q2-Q3-Y1	8510
Activity 1.2.4 Disseminate computer programmes through SIMFOS.	7225				680		Q4-Q5-Y1-Y2	7905
Sub-total 2	**21025(E/I)**				**4080(E/I)**	**3000(I)**	Q1-Q5, Y1-Y2	**28105**
Output 1.3 Key forest sector stakeholders in the departments of Loreto, Ucayali, San Martin and Madre de Dios exchange forest information and experiences on sustainable forest management.								
Activity 1.3.1 Use the Regional Forest Management Group (GRMB) as a forum for the exchange of information and experiences on sustainable forest management (SFM).	4541.7				150	1500	Q4-Q5-Q6,Y1-Y2	6191.665
Activity 1.3.2 Use the SIMFOS system in virtual fora and communities, interest lists and electronic newsletters as a means for the exchange of information and experiences on sustainable forest management.	8317.5				1360		Q5-Q6-Y2	9677.5
Sub-total 3	**12859(I)**				**1510(E/I)**	**1500(I)**	Q1-Q4, Y1	**15869**
Output 2.1 60 leaders (workers, technicians, professionals, university professors, forest producers, government officers and decision-makers) trained in the formulation, implementation and monitoring of management plans and in low-impact logging techniques.								
Activity 2.1.1 Coordinate with universities and select leaders for the implementation of training courses.	2250		1060		400		Q3-Q4-Y1	3710

Outputs – Activities	10. Project Personnel	20. Sub-contracts	30. Duty Travel	40. Capital Ítems	50. Consumable Ítems	60. Miscellaneous	Quarter Year	Grand Total
Activity 2.1.2 Conduct training seminar/workshop on sustainable forest management plans formulation, implementation and monitoring for 30 professionals.	500	4000	7575		600	5280	Q4-Y1	17955
Activity 2.1.3 Conduct training seminar/workshop on low-impact logging techniques for 30 loggers and workers.	500	4000	8910		850		Q4-Y1	14260
Sub-total 4	**3250(I)**	**8000(I)**	**17545(I)**		**1850(I)**	**5280**	Q1-Q4, Y1	**35925**
Output 2.2 15 forest sector leaders incorporate successful sustainable forest management experiences.								
Activity 2.2.1 Coordinate with the authorities of the Ministry for Sustainable Development and Environment of Bolivia and select leaders to carry out visits to successful sustainable forest management and low-impact logging experiences.	2750		1060		500		Q3-Q4-Y1	4310
Activity 2.2.2 Conduct study and observation visits to successful sustainable forest management experiences in Bolivia (with the participation of 15 trained leaders).	500		17775				Q4-Y1	18275
Sub-total 5	**3250(I)**		**18835(I)**		**500(I)**		Q3-Q4, Y1	**22585**
Output 2.3 Training material on sustainable forest management (SFM) validated and adjusted to the conditions of the Peruvian Amazon region.								
Activity 2.3.1 Prepare manuals on formulation, implementation and monitoring of management plans and low-impact logging, and validate manuals in training activities.	2583				500		Q4-Q5-Y1-Y2	3083
Activity 2.3.2 Edit and print 2 validated manuals and prepare final technical document.	3958	4000					Q6-Y2	7958
Sub-total 6	**6542(I)**	**4000(I)**			**500(I)**		Q4-Q6, Y1-Y2	**11042**
NON-ACTIVITY BASED EXPENSES								
(1) Fuel and utilities								
(2) Office supplies								
(3) Auditing						4000		
Sub-total 7						**4000**		**4000**
ITTO Sub-total	**83600**	**17000**	**40440**	**6000**	**6300**	**16280**		
IIAP Sub-total	**15000**				**12240**			
TOTAL	**98600**	**17000**	**40440**	**6000**	**18540**	**16280**		**196860**

7.3 PROJECT BUDGET BY SOURCE

YEARLY PROJECT BUDGET BY SOURCE - ITTO

Annual Disbursements / Budget Components	TOTAL	YEAR 1	YEAR 2
10. Project Personnel	**83600**	**53600**	**30000**
20. Subcontracts	**17000**	**17000**	**0**
30. Duty Travel	**40440**	**38655**	**1785**
40. Capital Ítems	**6000**	**6000**	**0**
50. Consumable Ítems	**6300**	**5000**	**1300**
60. Miscellaneous	**16280**	**10000**	**6280**
SUB-TOTAL 1	**169620**	**130255**	**39365**
80. ITTO Monitoring, Evaluation and Administration Costs 81. Monitoring and Review Costs (effective estimation)	**5000**		
SUB-TOTAL 2	**174620**		
83. Programme Support Costs **(6% of Sub-total 2)**	**10477**		
TOTAL	**185097**		

YEARLY PROJECT BUDGET BY SOURCE - IIAP

Annual Disbursements / Budget Components	TOTAL	YEAR 1	YEAR 2
10. Project Personnel	**15000**	**12000**	**3000**
20. Subcontracts			-
30. Duty Travel			-
40. Capital ítems			-
50. Consumable ítems	**12240**	**8160**	**4080**
60. Miscellaneous			-
SUB-TOTAL 1	**27240**	**20160**	**7080**
70. Administrative costs IIAP (15% of total actv)	**29529**	**19686**	**9843**
TOTAL IIAP (EXECUTING AGENCY)	**56769**	**39846**	**16923**

7.4 DETAILED PROJECT BUDGET BY COMPONENT AND FUNDING SOURCE

Budget Component			TOTAL	Year 1	Year 2
10. Project Personnel	11	National experts	75600	75600	0
	13	Other labour	23000	8000	15000
	14	Fellowships and training	0		
	19	**Component total**	**98600**	**83600**	**15000**
20. Subcontracts	21	Subcontracts with universities	8000	8000	0
	22	Subcontract – supplier	9000	9000	0
	29	**Component total**	**17000**	**17000**	**0**
30. Duty Travel	31	DSA	13850	13850	0
	32	International travel	5325	5325	0
	33	Transport costs	7245	7245	0
	34	Domestic travel	14020	14020	0
	39	**Component total**	**40440**	**40440**	**0**
40. Capital Ítems					
	44	Capital equipment	6000	6000	0
	49	**Component total**	**6000**	**6000**	**0**
50. Consumable Ítems	51	Raw materials	0		
	53	Utilities/fuel	13890	1650	12240
	54	Office supplies	4650	4650	0
	59	**Component total**	**18540**	**6300**	**12240**
60. Miscellaneous	61	Sundry	12280	12280	0
	62	Auditing	4000	4000	0
	69	**Component total**	**16280**	**16280**	**0**
70. IIAP Management Cost	**72**	**IIAP Administrative Costs**	**29529**	**0**	**29529**
	79	**Component total**	**29529**	**0**	**29529**
		SUB-TOTAL	**226389**	**169620**	**56769**
80.ITTO Monitoring, Evaluation & Administration	**81**	Monitoring and review costs	5000	5000	0
	82	Programme Support Costs **(6%)**			
	89	**Component total**	**10477**	10477	0
90. Refund of Pre-project Costs	**99**	**Component total**	**0**	0	0
100. GRAND TOTAL			**241866**	**185097**	**56769**

PART III: OPERATIONAL ARRANGEMENTS

1. Management structure

The Peruvian Amazon Research Institute (IIAP) will implement the project in close coordination with the National Institute for Natural Resources – INRENA and the following universities: National University of the Peruvian Amazon Region – UNAP, National University of Ucayali – UNU and National Agrarian University of La Molina – UNALM.

The project will have a Steering Committee, which will be made up as follows:

a. The President of the Peruvian Amazon Research Institute – IIAP, who will chair the Committee.
b. A representative from INRENA.
c. A representative from the aforementioned universities.
d. An ITTO representative.

Upon project approval, ITTO will sign an agreement with IIAP establishing the conditions and procedures required for project monitoring and implementation. Financial disbursements, expenditures and accounting will be carried out in accordance with ITTO procedures. To this end, the implementing agency will open a special account in a reputable bank in the city of Iquitos, where IIAP headquarters are located. The Project will be directed by a Project Coordinator, who will be responsible for submitting financial statements as well as technical and administrative reports as required and in accordance with ITTO procedures. A financial audit will be carried out by independent consultants after project completion.

In addition to the Project Coordinator, the executing agency will recruit specialist staff for the installation of the Information System and the conduction of seminars/workshops, following the procedures recommended by ITTO. The participation of key institutions related to sustainable forest development will be ensured through the Steering Committee, whose function will be to approve the yearly plan of operation and the final budget balance statement, assess project progress and outputs, and recommend remedial measures as appropriate.

2. Monitoring, reporting and evaluation

Project monitoring, reporting and evaluation will be carried out in accordance with ITTO procedures.

Reports will be submitted according to the following schedule:

First progress report: 30th day of month 9
Final report: 30th day of month 18

In addition, progress reports will be submitted for the ITTO annual sessions.

ITTO, in coordination with the executing agency, will decide on a project evaluation and monitoring mission to be conducted *in situ*.

3. Future operation and maintenance

The continuity of project activities will be guaranteed by the Peruvian Amazon Research Institute – IIAP, through the decentralised Information System nodes located in IIAP's Regional Research Centres in the Departments of Loreto, Ucayali, San Martin and Madre de Dios, where the service for forest sector stakeholders will operate. Furthermore, the Amazon universities will have validated training material available to replicate the training programs.

PART IV: THE TROPICAL TIMBER FRAMEWORK

1. Compliance with ITTA 1994 objectives

This proposal is consistent with the following objectives established in the International Tropical Timber Agreement, 1994:

*"c) To contribute to the process of **sustainable development**"*

The training provided will produce **economic benefits** for Peruvian forest producers, who will acquire knowledge and technologies for a guaranteed supply of forest products, which will in turn lead to improved levels of production and income. The local communities living in and near forest areas will be economically benefited as the training provided will promote forest management as an alternative to unsustainable land-use practices.

*"d) To enhance the **capacity of members** to implement a strategy for achieving exports of tropical timber and timber products from sustainably managed sources by the year 2000"*

The project is closely related to the **production and utilisation of tropical timber** by promoting the training of competent human resources that will be able to efficiently apply management and production practices which are required to achieve the aims of forest management and product marketing.

The incorporation of trained personnel to the forest management process will lead to the **expansion of the international trade** in tropical timber from sustainably managed forests.

2. Compliance with ITTO Action Plan

The proposal is consistent with the main objectives established for the Committee on Reforestation and Forest Management of encouraging and supporting **the development and implementation of sustainable forest management systems** and with the strategies to **contribute to the establishment of a scientific basis for sound forest management, as well as promoting and facilitating the development of adequate skills for forest management research and operations**.

ANNEX A

PROFILE OF THE EXECUTING AGENCY

3.1 Expertise of the executing agency

The executing agency will be the **Peruvian Amazon Research Institute (IIAP)**, a public entity with legal capacity specialised in Amazon forest and biodiversity research and development. It is covered by the provisions of the Peruvian Political Constitution and legislation, and has been duly registered in Volume 2 Folio 577, Section LXXXV, Entry One of the Register of Associations of Loreto on 8 March 1984.

IIAP was established in 1981 through Act no. 23374 with the **explicit mandate** to *implement inventories, research, evaluation and monitoring of natural resources, and promote their rational utilisation and industrialisation for the economic and social development of the region*.

IIAP is implementing an increasing number of research activities and actively participates in human resource training programmes for its own staff and interest groups, as human resources are considered to be the most valuable resource of any organisation for the achievement of objectives. To this end, IIAP organises an annual training programme as part of its yearly work plan. Within this framework, the rational utilisation and industrialisation of forest resources requires ongoing support through training and the transfer of knowledge and technologies, activities that are closely related to research and experimentation.

Within IIAP, the Programme for Land Ecosystems (PET) will be directly responsible for the implementation of this project as the agency in charge of technological development to improve the sustainability of forest production.

IIAP has experience in information systems and training. It has recently implemented a Biodiversity and Environmental Information System for the Peruvian Amazon Region with financial support from the Government of Finland in the Web site http://www.siamazonia.org.pe/. With regard to training, IIAP has organised several courses on forest resources, in particular the following:

> First international workshop on tropical forest management in the Low Forest Region of Peru, organised and held by the National Development Institute – INADE and IIAP in July 1987.
>
> Course on Management and Evaluation of Information on Growth and Yield Levels in Plantations and Agroforestry Systems Based on the MIRA System, sponsored by CATIE and CIFOR in December 2000.

In addition, the Jenaro Herrera Research Centre, with the financial support of the Swiss Government and the endorsement of the Ministry of Education of Peru, provided official training courses for forest workers over a period of 7 years, which resulted in the training of 70 young people who are now working in various public and private institutions.

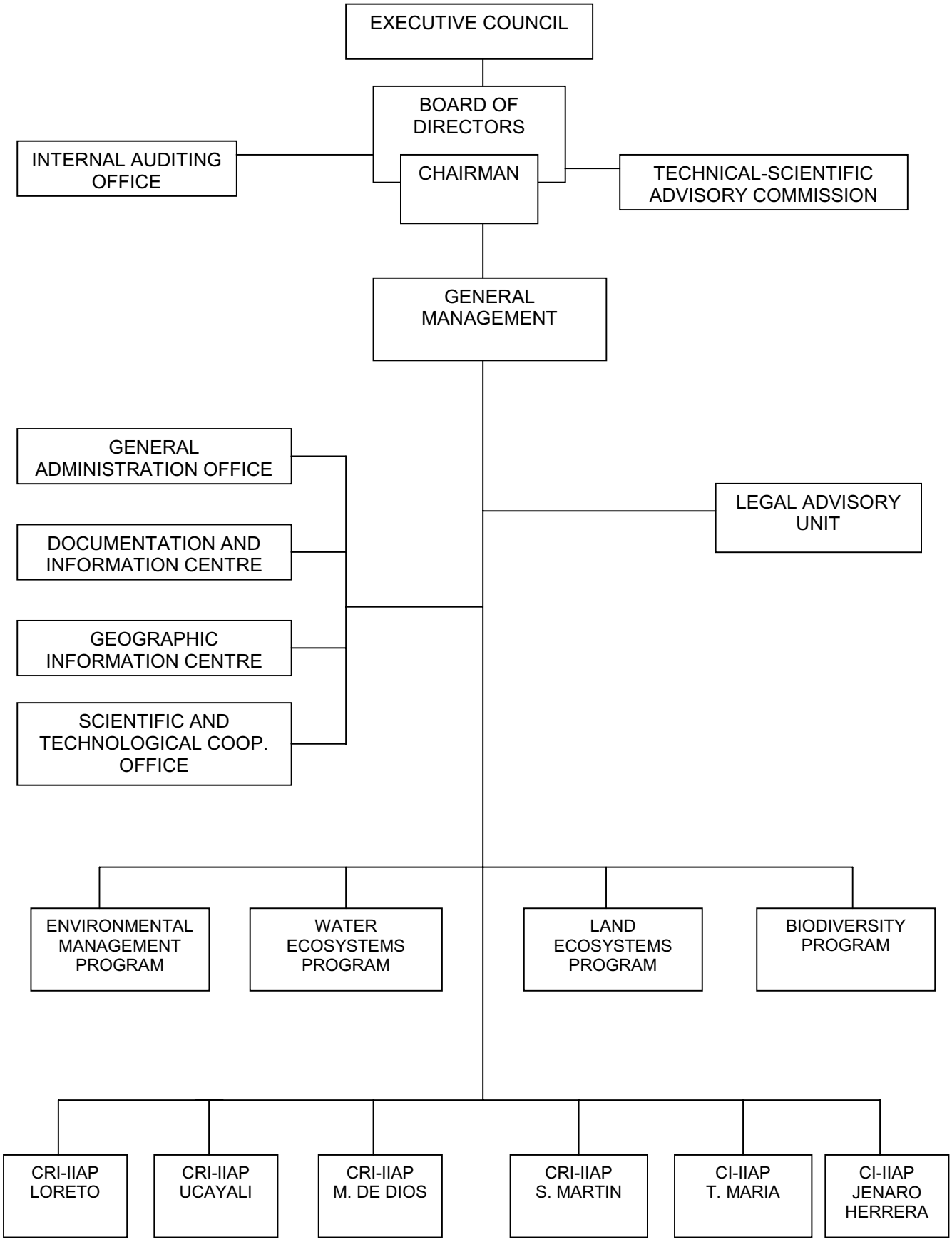
Ongoing Projects:

- National Biodiversity Strategy for the Peruvian Amazon Region. Agreement with Finland – US$1.6 million.
- *In-Situ* Conservation of Genetic Resources of Cultivated Plants and Related Wild Species in the Highlands (Sierra) and Forest (Selva) Regions. GEF/UNDP – US$6.0 million.
- Management of the Nanay River Watershed. GEF/World Bank – US$750,000.

Other cooperating agencies in IIAP studies and projects:

- Friedrich Ebert Foundation
- World Wildlife Fund – WWF Peru
- Government of Finland, Convention on Biological Diversity
- Indigenous Fund for Amazon Development – FIDA
- FANPE Project – INRENA/GTZ
- University of Leeds, England
- United Nations Environment Programme – UNEP – ROLAC
- IDB – BIOFOR Agreement
- World Bank

PERUVIAN AMAZON RESEARCH INSTITUTE
ORGANISATIONAL CHART



3.2 Infrastructure of the executing agency

IIAP is a totally decentralised public institution based in the city of Iquitos, with branch offices in the cities of Pucallpa, Tarapoto, Puerto Maldonado and Tingo María and jurisdiction over the Amazon Basin.

In order to fulfil its functions, IIAP is organised in 4 research programmes:

- Environmental Management Research Programme – POA
- Sustained Water Ecosystem Production Research Programme – PEA
- Sustained Land Ecosystem Production Research Programme – PET
- Sustainable Biodiversity Utilisation and Research Programme – PBIO

Research Centres

- QUISTOCOCHA Research Centre – Loreto
- ALLPAHUAYO Research Centre – Loreto
- JENARO HERRERA Research Centre – Loreto

Research support agencies

IIAP has adequate logistic and physical support to facilitate its work and establish the appropriate conditions to achieve its research goals. These support agencies are:

- Peruvian Amazon Geographic Information Centre – CIGAP
- Documentation and Information Centre – CDI
- Computer and Networking Office
- Central Administration Office
- Scientific and Technological Cooperation Office
- Internal Auditing Directorate

3.3 Budget

IIAP's average annual budget over the last 3 years has been US$2,836,491 and is financed through Public Treasury funds and funding collected from oil royalties and levies in the Peruvian Amazon Region. The increasing international cooperation provided to the Institute has strengthened the funding of research projects. In 1999, it accounted for 28% of the budget.

The following table shows IIAP's budget by component in the last three years:

ITEM	BUDGET YEAR		
	1998	1999	2000*
RUNNING COSTS	**2 163 832**	**2 795 196**	**2 795 962**
Personnel and social benefits	275 277	277 429	266 884
Goods and services	1 876 015	2 460 962	2 489 802
Other running costs	12 140	56 806	39 276
CAPITAL EXPENDITURES	**314 403**	**334 081**	**105 999**
Investments	264 333		42 495
Other capital expenditures	50 070	334 081	63 504
DEBT SERVICE			
Debt interests and charges			
Debt redemption			
TOTAL US$	**2 478 235**	**3 129 277**	**2 901 961**

* As at 18 April 2002.
Exchange rate: US$1 = S/. 3.4

IIAP is committed to institutional efficiency and competitiveness and therefore 77% of the budget is allocated to the research system.

3.4 Personnel

One of the main strengths of IIAP in facing the scientific and technological challenge involved in the sustainable development of the Amazon region is its highly qualified personnel, comprising 48 high level permanent researchers as detailed below:

- Experts with PhDs: 7
- Experts with Master's degrees: 20 (including 7 with a second specialisation)
- Experts with university degrees: 21

All of these experts work in inter-disciplinary and inter-institutional teams supported by a high level team of specialists in geographic information, documentation, administration and control.

ANNEX B: CURRICULA VITAE OF KEY STAFF

TERMS OF REFERENCE FOR THE PROJECT COORDINATOR

DUTIES:

a. Responsible for the technical and administrative aspects of the project. As such, the Project Coordinator will represent the project and ensure the achievement of its specific objectives.
b. Coordinate, guide and supervise the work of project consultants.
c. Ensure the rational and efficient administration of economic, physical and human resources available.
d. Coordinate project activities with national and international public and private institutions.
e. Organise and participate in training events and the technical mission.
f. Coordinate the preparation and publication of training manuals.
g. Submit project technical and administrative reports.

QUALIFICATIONS:

a. Forest engineer with a Master's Degree or PhD.
b. A minimum of 5 years professional experience in forest training or university teaching.
c. Experience in the coordination of international technical cooperation projects or similar positions.
d. Good command of Spanish and English.

TERMS OF REFERENCE FOR TRAINING EXPERTS ON MANAGEMENT PLANS FORMULATION, IMPLEMENTATION AND MONITORING

Expert I

DUTIES:

a. Prepare a training manual for the formulation, implementation and monitoring of management plans covering all aspects related to ecological principles guiding the development of forest management plans, growth of managed forests, coupes and annual allowable cut, felling cycle, pre and post harvesting operations, monitoring (permanent growth plots), planting techniques and natural regeneration operations, intensity and opportunity of clearings, thinning operations, liberation cutting, productivity by site class, prevention of negative ecological impacts of management, management for certification purposes, and forest management costs and benefits.
b. Coordinate the seminar/workshop on formulation, implementation and monitoring of management plans and develop the aforementioned topics.
c. Validate the training manual for the formulation, implementation and monitoring of management plans in his/her field of expertise.
d. Prepare seminar/workshop proceedings.

QUALIFICATIONS:

a. Forest engineer with a postgraduate degree in his/her field of expertise.
b. A minimum of 5 years professional experience in training or university teaching in his/her field of expertise.
c. Good command of Spanish.

Expert II

DUTIES:

a. Assist in the preparation of the training manual for the formulation, implementation and monitoring of management plans covering all aspects related to forest zoning, road planning, forest inventories and tree recording systems.
b. Assist in the organisation of the seminar/workshop on formulation, implementation and monitoring of management plans and the development of the aforementioned topics.
c. Assist in the validation of the training manual for the formulation, implementation and monitoring of management plans in his/her field of expertise.
d. Assist in the preparation of seminar/workshop proceedings.

QUALIFICATIONS:

a. Forest engineer with a postgraduate degree in his/her field of expertise.
b. A minimum of 5 years professional experience in training or university teaching in his/her field of expertise.
c. Good command of Spanish.

TERMS OF REFERENCE FOR TRAINING EXPERTS ON LOW-IMPACT LOGGING

Expert I

DUTIES:

a. Prepare a training manual on low-impact logging techniques covering all aspects related to forest harvesting planning, opening of main and secondary roads, felling techniques, directional felling, special cutting techniques, post-felling techniques, log skidding, location and size of log yards, harvesting activities recording system, and costs and benefits of planned harvesting operations.
b. Coordinate the seminar/workshop on low-impact logging and develop the aforementioned topics.
c. Validate the training manual on low-impact logging in his/her field of expertise.
d. Prepare seminar/workshop proceedings.

QUALIFICATIONS:

a. Forest engineer with a postgraduate degree in his/her field of expertise.
b. A minimum of 5 years professional experience in training or university teaching in his/her field of expertise.
c. Good command of Spanish.

Expert II

DUTIES:

a. Assist in the preparation of the training manual on low-impact logging covering all aspects related to operation and maintenance of logging machinery and equipment (tractors, chainsaws, winches, etc.) and prevention of accidents.
b. Assist in the organisation of the seminar/workshop on log-impact logging and the development of the aforementioned topics.
c. Assist in the validation of the training manual on low-impact logging in his/her field of expertise.
d. Assist in the preparation of seminar/workshop proceedings.

QUALIFICATIONS:

a. Forest or mechanical engineer with a specialisation in tractor, chainsaw and winch maintenance.
b. A minimum of 5 years professional experience in training or university teaching in his/her field of expertise.
c. Good command of Spanish.

TERMS OF REFERENCE FOR THE EXPERT IN INFORMATION SYSTEMS

DUTIES:

a. Design and structure the SIMFOS system.
b. Design the Web site.
c. Operationalise SIMFOS.
d. Prepare the SIMFOS user's manual.
e. Coordinate four courses on SIMFOS management.

QUALIFICATIONS:

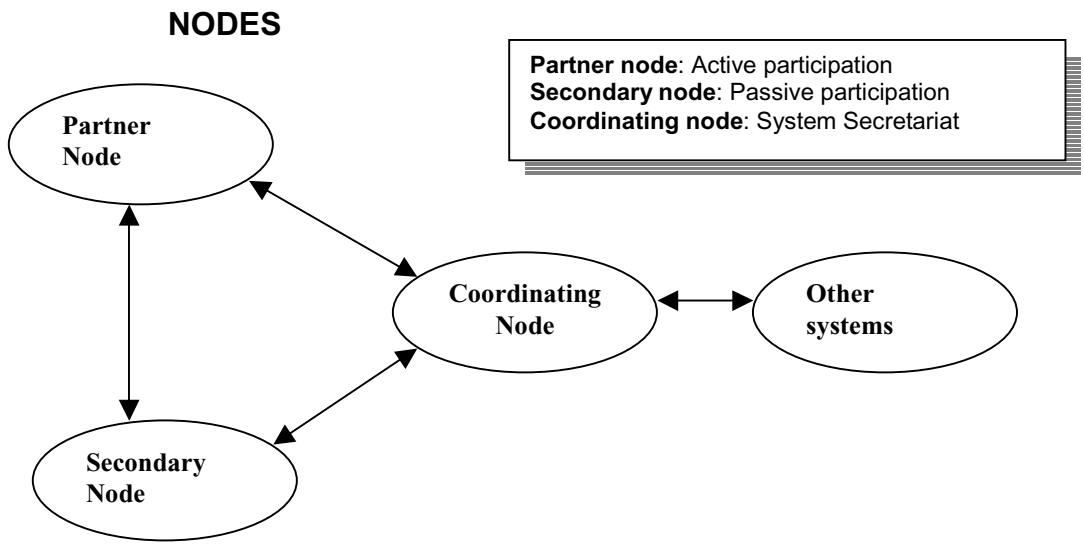
a. Systems or Computer Engineer.
b. A minimum of 5 years professional experience in information systems design and installation.
c. Good command of Spanish and English.

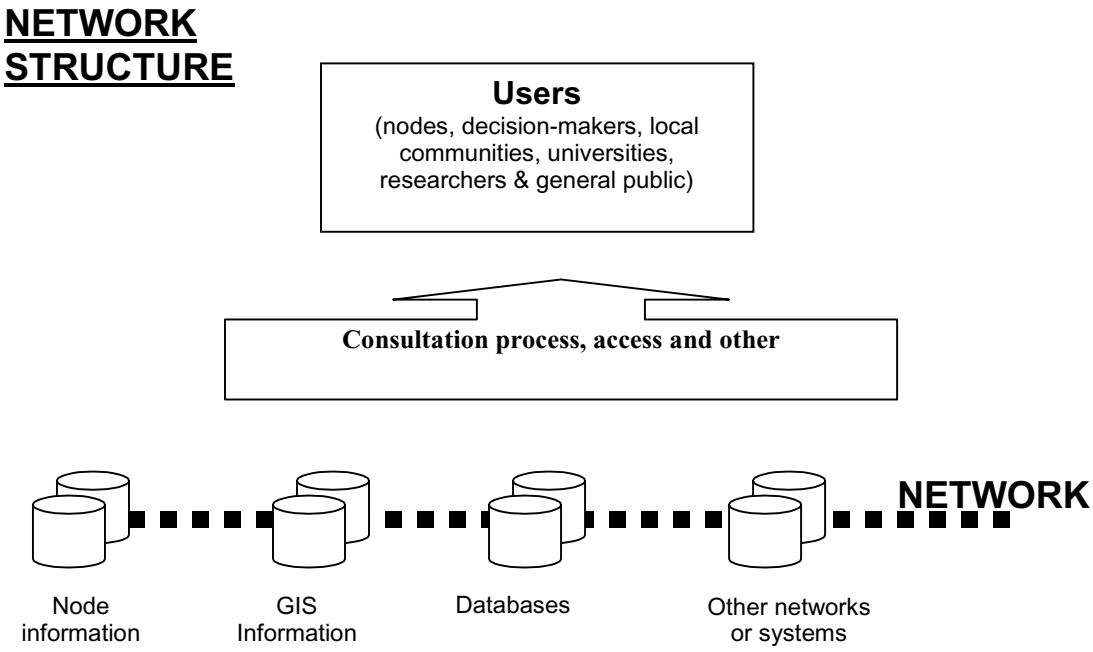
Annex C
DETAILED ANALYTICAL PROJECT BUDGET

Outputs/Activities	Inputs	No.	Unit Cost	Quarter Year	Budget Component	TOTAL AMOUNT
Activity 1.1.1 Design and structure the Sustainable Forest Management Information System (SIMFOS).	M/M Coordinator	3	2500	Q1-Y1	11	7500
	M/M Systems expert	3	1800		11	5400
	M/M Programmer	3	1000		13	3000
	Coordination meeting	1	500		61	500
	National airfares (return tickets)	6	140		34	840
	DSA (days)	12	70		31	840
	M Dedicated line- Loreto	2	680		53	1360
SUB-TOTAL 1						19440
Activity 1.1.2 Design and prepare Web site for node connections.	M/M Coordinator	1.7	2500	Q2-Q3-Y1	11	4250
	M/M Systems expert	1.83	1800		11	3300
	M/M Programmer	2.5	1000		13	2500
	M Dedicated line	2	680		53	1360
SUB-TOTAL 2						11410
Activity 1.1.3 Integrate information and connect to system nodes.	M/M Coordinator	0.4	2500	Q3-Y1	11	1000
	M/M Systems expert	0.67	1800		11	1198.8
	M/M Programmer	1.5	1000		13	1500
	M Dedicated line - Loreto	2	680		53	1360
	Operational costs	4	300		54	1200
SUB-TOTAL 3						6259
Activity 1.1.4 Edit and publish a technical design document and a user's manual for the Sustainable Forest Management Information System (SIMFOS).	M/M Coordinator	0.5	2500	Q3-Q4, Y1	11	1250
	M/M Systems expert	1	1800		11	1800
	M/M Programmer	2	1000		13	2000
	Editing and publication	2	2500		22	5000
	Operational costs	1	400		54	400
SUB-TOTAL 4						10450
Activity 1.1.5 Implement /promote the Sustainable Forest Management Information System (SIMFOS) in the departments of Loreto, Ucayali, San Martin and Madre de Dios.	M/M Coordinator	0.95	2500	Q4-Q5-Q6, Y1-Y2	11	2375
	M/M Systems expert	2	1800		11	3600
	Programmer	3	1000		13	3000
	Return tickets (Iquitos, Puerto Maldonado, Pucallpa and Tarapoto)	8	140		34	1120
	DSA (days)	18	70		31	1260
	M Dedicated line - Loreto	2	680		53	1360
	Seminars/workshops	4	500		61	2000
SUB-TOTAL 5						14715
Activity 1.1.6 Facilitate the use of SIMFOS in the departments of Loreto, Ucayali, San Martin and Madre de Dios through IIAP's CRI's.	M/M Node facilitator	8	1000	Q4-Q5-Q6, Y1-Y2	13	8000
	Computer equipment	4	1500		44	6000
	M Dedicated line - Loreto	2	680		53	1360
	Operational costs	4	200		54	800
	M Internet service in Ucayali, San Martín and Madre de Dios	30	30		53	900
SUB-TOTAL 6						17060
Activity 1.2.1 Identify specialised computer programmes or tools for forest management and the institutions that develop them.	M/M Coordinator	1	2500	Q2-Y1	11	2500
	M/M Systems expert	1	1800		11	1800
	M/M Programmer	1	1000		13	1000
	M Dedicated line - Loreto	2	680		53	1360
SUB-TOTAL 7						6660
Activity 1.2.2 Establish agreements and links with institutions involved in the development of computer programmes.	M/M Coordinator	0.9	2500	Q2-Q3-Y1	11	2250
	M/M Systems expert	1.17	1800		11	2100.06
	M Dedicated line - Loreto	1	680		53	680
SUB-TOTAL 8						5030.06
Activity 1.2.3 Request and/or purchase licences for the most relevant specialised computer programmes.	M/M Coordinator	0.70	2500	Q2-Q3-Y1	11	1750
	M/M Systems expert	1.33	1800		11	2399.94
	Purchase of licences	5	600		61	3000
	M Dedicated line - Loreto	2	680		53	1360
SUB-TOTAL 9						8510

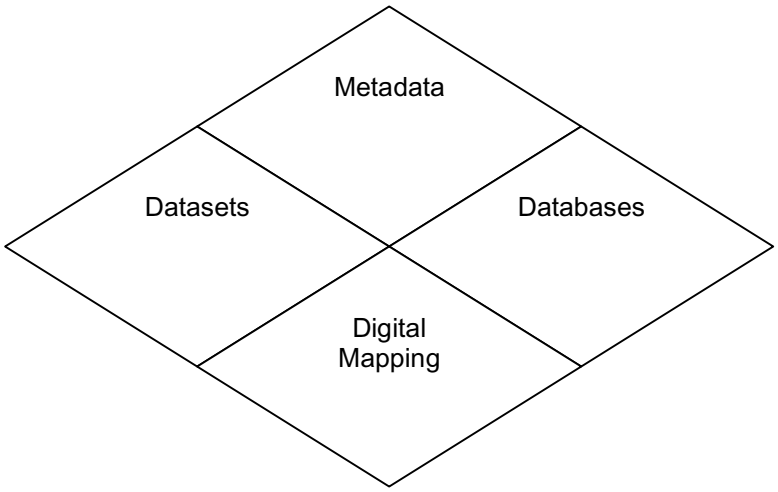
Outputs/Activities	Inputs	No.	Unit Cost	Quarter Year	Budget Component	TOTAL AMOUNT
Activity 1.2.4 Disseminate computer programmes through SIMFOS.	M/M Coordinator	0.65	2500	Q4-Q5, Y1-Y2	11	1625
	M/M Systems expert	2	1800		11	3600
	Programmer	2	1000		13	2000
	M Dedicated line - Loreto	1	680		53	680
SUB-TOTAL 10						7905
Activity 1.3.1 Use the Regional Forest Management Group (GRMB) as a forum for the exchange of information and experiences on sustainable forest management (SFM).	M/M Coordinator	1.82	2500	Q4-Q5-Q6, Y1-Y2	11	4541.665
	M/M Systems expert	5	300		61	1500
	Operational costs	1	150		54	150
SUB-TOTAL 11						6191.7
Activity 1.3.2 Use the SIMFOS system in virtual fora and communities, interest lists and electronic newsletters as a means for the exchange of information and experiences on sustainable forest management.	M/M Coordinator	1.167	2500	Q5-Q6-Y2	11	2917.5
	M/M Systems expert	3	1800		11	5400
	M Dedicated line	2	680		53	1360
SUB-TOTAL 12						9677.5
Activity 2.1.1 Coordinate with universities and select leaders for the implementation of training courses.	M/M Project coordinator	0.9	2 500	Q3-Q4-Y1	11	2250
	Return airfares (Lima)	2	180		34	360
	DSA (days)	10	70		31	700
	Office supplies	1	300		54	300
	Utilities/services	1	100		53	100
SUB-TOTAL 13						3710
Activity 2.1.2 Conduct training seminar/workshop on sustainable forest management plans formulation, implementation and monitoring for 30 professionals.	Subcontract with universities – Course on Sustained Forest Management	1	4000	Q4-Y1	21	4000
	Airfares (return tickets)	26	180		34	4680
	DSA (days) expert	30	30		31	900
	River transport	33	15		33	495
	Rental of premises (including meals and snacks)	264	20		61	5280
	Training materials	30	20		54	600
	M/M Project coordinator	30	50		33	1500
		0.2	2500		11	500
SUB-TOTAL 14						17955
Activity 2.1.3 Conduct training seminar/workshop on low-impact logging techniques for 30 loggers and workers.	Subcontract with universities - Course on low-impact logging	1	4000	Q2-Y1	21	4000
	National airfares (return tickets)	22	180		34	3960
	DSA (days) expert	15	30		31	450
	Days – rental of venue	3	150		53	450
	DSA (days) participants	150	20		31	3000
	Training materials	20	20		54	400
	Students transport	30	50		33	1500
	M/M Project Coordinator	0.2	2500		11	500
SUB-TOTAL 15						14260
Activity 2.2.1 Coordinate with the authorities of the Ministry for Sustainable Development and Environment of Bolivia and select leaders to carry out visits to successful sustainable forest management and low-impact logging experiences.	M/M Project coordinator	1.1	2500	Q3-Q4, Y1	11	2750
	Return airfares (Lima)	2	180		34	360
	DSA (days)	10	70		31	700
	Office supplies	1	300		54	300
	Operational costs	1	200		53	200
SUB-TOTAL 16						4310
Activity 2.2.2 Conduct study and observation visits to successful sustainable forest management experiences in Bolivia (with the participation of 15 trained leaders).	Return aifares (Lima)	15	180	Q4-Y1	34	2700
	International airfares (return tickets)	15	355		32	5325
	Transport costs	15	250		33	3750
	DSA (days)	150	40		31	6000
	M/M Project coordinator	0.2	2500		11	500
SUB-TOTAL 17						18275
Activity 2.3.1 Prepare manuals on formulation, implementation and monitoring of management plans and low-impact logging, and validate manuals in training activities.	M/M Project coordinator	1.03	2500	Q4-Q5,Y1-Y2	11	2583
	Office supplies	1.00	500		54	500
SUB-TOTAL 18						3083

Outputs/Activities	Inputs	No.	Unit Cost	Quarter Year	Budget Component	TOTAL AMOUNT
Activity 2.3.2 Edit and print 2 validated manuals and prepare final technical document.	M/M Project coordinator Editing and printing of 500 copies of training material	1.58 2	2500 2000	Q6-Y2	11 22	3958 4000
SUB-TOTAL 19						7958
TOTAL GLOBAL						**192860**


NODES
Partner node: Active participation
Secondary node: Passive participation
Coordinating node: System Secretariat
Partner Node
Coordinating Node
Other systems
Secondary Node


NETWORK STRUCTURE
Users
(nodes, decision-makers, local communities, universities, researchers & general public)
Consultation process, access and other
NETWORK
Node information
GIS Information
Databases
Other networks or systems

Annex E – System contents



Metadata — Information on datasets origin and content. They can be divided into four basic categories:

- Institutional nodes, e.g.:
  - Basic details (who, where, function)
  - Available resources
  - Strategies with other institutions
- Specialists, e.g.:
  - Fields of competence
  - Curricula
- Other aspects related to *in situ* conservation, e.g.:
  - Institutions
  - Funding organisations for this type of work
  - Other links
- Relevant data, e.g.:
  - Description of datasets (purpose, format, etc.)
  - Coverage (geographic, thematic, time scale, etc.)
  - Access (availability, costs, available formats, etc.)

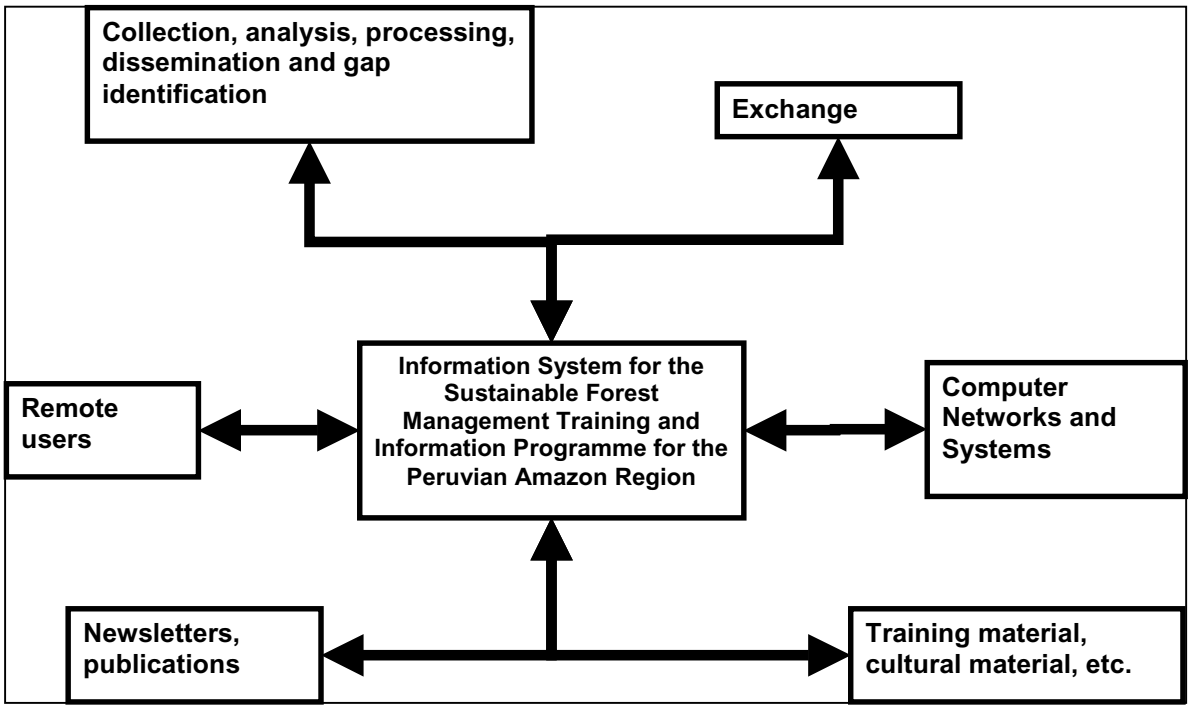
Datasets — Groups of data and their attributes. Not only facilitates application and dissemination of data/information but also ensures the continuity of the collection, storage and dissemination process. Each dataset may contain:

- Data source
- Accuracy and precision
- Expiry date
- Methodology
- Restrictions, etc.

Database — Set of tables containing data and their relationships. Database elements are defined according to design requirements. Databases can include taxonomic information, bibliographic information, etc.

Digital Mapping — Spatial information generated by specialised tools showing an interactive representation of data and their spatial correspondence. Given its characteristics, this type of information needs special reporting and management treatment.

Annex F – Uses and benefits of the information system



ANNEX G

SUMMARY OF AMENDMENTS MADE IN RESPONSE OF THE 24TH EXPERT PANEL'S COMMENTS

Recommendation	Modifications
The Panel considered the timeframe to be too short to achieve its objectives and suggested that it might be extended.	The duration of the project was extended to 18 months (from the original duration of 12 months). This resulted in a slight increase in project costs, particularly regarding the personnel and consumable items components. See: • Project presentation (page 1) • Section 6 – Work Plan (pages 16-17) • Section 7.1 Consolidated yearly budget (page 18) • All budget tables including analytical budget (Annex C – pages 32-34)
Provide precise qualitative and quantitative indicators and means of verification for each of the project's major outputs in the project's logical framework.	Objectively verifiable indicators and means of verification in the logical framework have been qualified and quantified with a greater degree of precision. Quantitative values have been marked in **"bold"**. See: • Section 5 – Logical Framework Worksheets (pages 12-15)
Provide a detailed budget by components and source for the ITTO and counterpart contributions.	A detailed budget by component and funding source has been prepared. See: • Section 7.4 Detailed budget by component and funding source (page 23)
Include an Annex which shows the recommendations of the 24th Panel and the respective modifications in tabular form.	See: • This table.

ANNEX H

SUMMARY OF AMENDMENTS MADE IN RESPONSE OF PREVIOUS OBSERVATIONS

INTRODUCTION

The pre-project "INFORMATION AND TRAINING PROGRAMME FOR SUSTAINABLE FOREST MANAGEMENT IN THE PERUVIAN AMAZON REGION – PPD 42/02 (F)", submitted to ITTO in August 2001, was evaluated by a Panel of Experts, who recommended that the proposal should be reformulated as a small project with a budget of up to US$150,000. It was further suggested that the reformulated proposal should elaborate on the Delphi survey method to refine its objectives and outputs.

A summary of the amendments made in response to the recommendations of the ITTO Expert Panel is given below.

RESPONSE TO COMMENTS AND RECOMMENDATIONS

1. Regarding the question of whether the implementing agency, IIAP, has the mandate to develop a regional training program:

See Annex A – Profile of the executing agency, item 3.1: Expertise of the executing agency.

2. Regarding the project compatibility with the ITTO Action Plan:

The proposal is consistent with the ITTO Action Plan because it contributes to the training of human resources with a view to sustainable tropical forest management (see Part IV: Tropical Timber Framework, Item 2: Compliance with ITTO Action Plan).

3. Regarding the involvement of universities in the implementation of the project:

The active participation of universities is clearly established through coordination of training courses on SFM and through their involvement in the Regional Forest Management Groups (see item 2.3.2 Strategy regarding Objective 2).

4. Regarding the reformulation of the budget to a maximum of US$150,000:

See project budget.

5. Regarding the use of the Delphi survey method for the reformulation of the proposal:

The following experts have been consulted in the reformulation of the proposal:

Ing. Víctor Miyakawa Solís
E-mail: vmiyakawa@iiap.org.pe
Ing. Miyakawa is a local consultant specialised in the design, structuring and implementation of information systems. He participated in the design, structuring and operationalisation of the Information System on Biological and Environmental Diversity of the Peruvian Amazon Region – SIAMAZONIA (http://www.siamazonia.org.pe)

Ing. Mag. Sc. Andreas Schwyzer
E-mail: Andreas.schwyzer@wsl.ch
Ing. Schwyzer is a researcher specialised in silviculture and statistical data processing with experience in the training of forest technicians and workers.

Dr. Daniel Marmillod
E-mail: dmarmill@racsa.co.cr
Dr Marmillod is a consultant in forest management and tropical forest silviculture specialised in forestry measurements. Until recently he was a professor and researcher at the Tropical Agricultural Centre for Research and Education – CATIE. He is currently a member of the Consultative Council of the Jenaro Herrera Research Centre of the Peruvian Amazon Research Institute.

Dr. César Sabogal
c.sabogal@cgiar.org
Dr. Sabogal is the representative of the Centre for International Forest Research – CIFOR in Latin America. He was a CATIE professor and coordinator of the forest management course. He is currently a member of the Consultative Council of the Jenaro Herrera Research Centre of the Peruvian Amazon Research Institute.

6. Include the CVs for the project experts:

Project experts have not yet been identified; however, the terms of reference for the required experts are included in the proposal – See Annex B.

7. Include ITTO programme support costs at 6.0%:

See consolidated yearly project budget and project budget by year and by source.