

**INTERNATIONAL TROPICAL  
TIMBER COUNCIL**

MR – 9  
Distr.  
GENERAL

ITTC(XXXV)/15  
24 October 2003

Original: ENGLISH

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THIRTY-FIFTH SESSION  
3 – 8 November 2003  
Yokohama, Japan

**ACHIEVING THE ITTO OBJECTIVE 2000  
AND SUSTAINABLE FOREST MANAGEMENT IN PERU**

Report submitted to the International Tropical Timber Council  
by the Diagnostic Mission established pursuant to Decision 2(XXIX)

November 2003



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## ACKNOWLEDGEMENTS

The Mission members want to acknowledge the guidance and active participation received from Mr. John Leigh, Conservation Officer/Projects Manager of the ITTO, during the Diagnostic Mission to Peru. The Mission also received valuable assistance from various government agencies and stakeholder groups, including the private sector, civil society and the donor community. It is especially appreciated by the Mission that Dr. Fabiola M. Morales, member of the Congress of Peru and President of the Environment and Ecology Commission, Dr. César Alvarez Falcon, Head of the National Institute of Natural Resources, Mr. Marco Romero Pastor, Forestry and Wildlife Public Administrator, Mr. Gustavo Suárez de Freitas, Public Administrator of Natural Protected Areas, and Mr. José Dancé Caballero, Coordinator of the National Forest Strategy took time from their busy schedules for extensive discussions.

The Executive Director of FONDEBOSQUE, Mr. Enrique Toledo, acted as the national counterpart for the Mission and greatly facilitated the work by handling the logistics, compiling existing information into easily accessible format, providing the Mission with input studies on various themes identified during the inception phase, and in general by making his long experience and detailed knowledge of forestry development in Peru available for the Mission. Also, the work of the local consultants contracted by FONDEBOSQUE for the input studies, Mr. Javier Arce, Ms. Elsa Galarza and Dr. Jessica Hidalgo is highly appreciated by the Mission, as well as that of the Chief of Forestry Information of FONDEBOSQUE Mr. Juan Carlos Guzmán who was in charge of the compilation of the background information.

The members of the Mission want to express their sincere gratitude for all those who contributed to the preparation of this report. The authors alone are responsible for any errors or misinterpretations which may be found.

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**ABBREVIATIONS AND ACRONYMS**

ACOFU	Forest Concessionaires' Association of Ucayali
ADEFOR	Association for Forestry Research and Development
AGROBANCO	Agricultural Bank
APEMIPE	Small-scale Carpenters' Association
APROFU	Forest Producers' Association of Ucayali
BPP	Permanent Production Forests
CAHCF	Ad hoc Commission for Forest Concessions
CDM	Clean Development Mechanism
CEDEFOR-PERU	Centre for Forest Development of Peru
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CNF	National Forest Chamber
CO <sub>2</sub>	carbon dioxide
CONAFOR	National Consultative Council for Forest Policy
CONAM	National Environmental Council
COPRI	Privatisation Commission
CP-CFV	Peruvian Council for Voluntary Forest Certification
DEVIDA	Government Agency for combating the illegal production and use of coca
EC	European Commission
EPA	US Environmental Protection Agency
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FENAMAD	Native Federation of Madre de Dios
FOB	free on board
FONCODES	National Fund for Compensation and Social Development
FONDEBOSQUE	Forest Development Promotion Fund
FSC	Forest Stewardship Council
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GTZ	German Agency for Technical Cooperation
ha	hectare
HDI	Human Development Index
IDB	Inter-American Development Bank
IICA	Inter-American Cooperation Institute for Agriculture
INEI	National Institute for Statistics and Information
INRENA	Natural Resources' Institute
ITTC	International Tropical Timber Council
ITTO	International Tropical Timber Organisation
KFW	German Bank for Reconstruction and Development
Kg	Kilogram
LKS	lesser-known species
m <sup>3</sup>	cubic metre
MDCF	Roundtable for Forest Sector Dialogue
MEF	Ministry of Economy and Finance
MINAG	Ministry of Agriculture
na	not available
NGO	Non-Governmental Organisation
NTFP	Non-timber forest product
OSINFOR	Forest Resources' Supervision Agency
PETT	Special Project for Land-titling
PROFONANPE	Trust Fund for Protected Areas
PROINVERSION	Investment Promotion Agency
PRONAMACHCS	National Programme for Watershed Management and Soil Conservation
PRONATURALEZA	Peruvian nature conservation NGO
SFM	Sustainable Forest Management
SINANPE	National System of Protected Areas under State Protection
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USD	United States Dollar
WWF	World Wide Fund for Nature
ZEE	Ecological-Economic Zoning

## EXECUTIVE SUMMARY

### 1. BACKGROUND TO THE MISSION

The International Tropical Timber Council (ITTC), at its 29th session, adopted Decision 2 (XXIX) entitled "ITTO Objective 2000" which set up a possibility for producer countries to seek specific assistance in their efforts to achieve the Objective 2000 and sustainable forest management (SFM). The Government of Peru requested such assistance from the International Tropical Timber Organization (ITTO). Accordingly, a Diagnostic Mission to Peru was carried out in February and June 2003 and produced this report within the specified terms of reference.

The objective of the Diagnostic Mission was to assist the Government of Peru to identify in the country those factors which most severely limit progress towards achieving Objective 2000 and sustainable forest management, and to formulate an action plan to overcome these constraints. The members of the Diagnostic Mission were Mr. Tapani Oksanen (Team Leader, Indufor, Finland), Dr. Chris Elliott (WWF International) and Dr. Amantino Ramos de Freitas (Private Consultant, Brazil).

The Diagnostic Mission was carried out in two phases:

An **inception Mission** was carried out by the Team Leader to initiate the process for the Diagnostic Mission. The inception Mission was carried out from 22 February to 1 March in Lima, Peru, including a two-day field trip to Pucallpa to interview major groups of concession holders in the Region of Ucayali.

The conclusion of the inception Mission was that in Peru a great deal of analysis on the issues related to sustainable forest management has been carried out and discussed in a broadly participatory process in recent years. This has taken place in the context of the formulation of the newly approved forest legislation and the still on-going National Forest Strategy process. To avoid repeating work that had already been done, and to maximise the usefulness of the Diagnostic Mission, it was suggested that the work of the main Mission be structured on the basis of the instruments of forest policy implementation in Peru defined in the new forest law.

The **main Mission** was carried out from 2 to 17 June, 2003. During the main Mission broad-based consultations were carried out with different groups of actors within and outside of the forest sector. In addition to meetings with Central Government authorities, the scientific community, national NGOs, industrialists and donor representatives in Lima, the Mission also visited Cajamarca, Ucayali and Madre de Dios and met with representatives of the Regional Governments, local producers, indigenous groups and local NGOs.

The recently established forest development promotion agency of Peru, FONDEBOSQUE, acted as the national counterpart organisation for the duration of the Diagnostic Mission.

### 2. POLITICAL, MACROECONOMIC AND SOCIAL CONTEXT

The overall development goals of the country are expressed in the National Governance Agreement promoted by the Government of President Alejandro Toledo. The Agreement aims at institutionalising the dialogue between important actors in the society and finding



commonly agreed solutions to critical social issues. The Government promotes integrated and sustainable development through decentralisation and strategic planning as well as to combat poverty, improve food security and promote equal opportunities and employment creation. The other main thrusts of the Government's policies aim at improving the competitiveness and productivity of the Peruvian economy, and the formalisation of economic activities. A rural development policy, based on these premises, is in the process of being established.

Transfer of authority and responsibilities from the Central Government to the newly established Regional Governments is high on the agenda of the Government. Regional Presidents were elected in November 2002 by popular vote and the Regional Governments are now in the process of setting up their administrative and financial structures. They face an enormous challenge in handling the responsibilities that will be gradually passed from the Central Government to the Regional Governments in a process that will start in 2003. These responsibilities include, among others, the responsibility for the administration of the forest resources, scheduled to take place in the beginning of 2004.

The economic situation of Peru has in 2001 and 2002 moved from a period of contraction of the GDP to a period of growth. In 2002, the GDP increased by 5.2% and the estimate for 2003 is 4%. Inflation is at 1.5%, which is the lowest of the major economies in South America. Despite these improvements in the economy, the provision of employment for the increasing number of people in the economically active age group, and ensuring that the benefits of the economic growth reach the majority of the population, remain formidable challenges. These demands are putting a tremendous pressure on the government to find quick and effective ways to increase employment and reduce poverty.

### **3. STATUS AND TRENDS REGARDING THE FOREST ESTATE**

Considering the natural characteristics of Peru, the country has considerable potential for forestry development. Most of the country (80%) is classified as forestland, whereas only 6% is classified for agricultural use and 14% as grazing-land.

Peru has 78.8 million hectares of natural forests, of which 74.2 million hectares are located in the tropical forest region east of the Andes mountain range (Selva), 3.6 million hectares in the coastal region west of the Andes (Costa), and 1.0 million hectares in the mountain region (Sierra). It is the second most forest-rich country in South America and occupies the eighth place globally. 24.6 million hectares of the forests are classified as permanent production forests, 16.3 million hectares are set aside for protection and conservation, and the rest are reserved for other uses (e.g. as local forest or forests managed by indigenous communities) or kept aside for future production.

In addition to natural forests, according to official statistics, some 700 000 hectares of forest plantations have been established, mainly in the Sierra. It is, however, not certain how much of these plantations actually exist. The rough estimate is that some 400 000 hectares of plantations can be found in relatively good productive conditions.

According to the Natural Resources' Institute (INRENA) of Peru, the annual deforestation is estimated at 261 000 hectares, and the total accumulated deforested area is some 9.5 million hectares, 13% of the total original forest cover of the country. The main driver of deforestation is commonly considered to be rural poverty that is forcing people to carry out

unsustainable agricultural practices in the forest areas, especially in the so-called Selva Alta (higher regions of the Amazonian jungle towards the Andes range). There is a considerable internal migration from the poor areas of the Sierra towards the Selva Alta. The illegal production of coca in these regions has undoubtedly been an additional contributing factor to deforestation, leading to a general state of lawlessness in many of the more remote areas.

Although the forests of the Peruvian Selva show great potential, with commercial volumes up to 20–30 cubic meters per hectare, current logging activities are concentrated heavily on two valuable species, mahogany (*Swietenia macrophylla* King) and cedar (*Cedrela odorata* L.). About 80 other species have been supplied to the national and local markets for many different types of applications but many of these woods are commercialised without much attention given to separating individual species. A significant effort to introduce lesser-known species (LKS) was made a few years ago by the National Forest Chamber (CNF) with the support of the ITTO (project PD 37/88 (I)).

Illegal logging of mahogany and cedar is the most acute problem of the forest sector in Peru. It is estimated that anywhere between 70% and 90% of all timber coming to the market is illegally harvested, although no reliable data is available on this issue. The linkages between illegal logging and other unlawful activities in the forest areas, combined with limited resources and capacity for law-enforcement, make it extremely difficult for the forest authorities to effectively combat this problem. In addition to the permanent production forests, forests belonging to native communities are subject to illegal logging. The pressure on these areas, as well as on the areas belonging to the national protected areas system, is increasing as the availability of commercially valuable species decreases in other forest areas.

#### **4. FOREST INDUSTRY, PRODUCTS AND TRADE**

There are five main wood producing areas in Peru: Pucallpa, Iquitos, Tarapoto-Juanjui-Picota, Satipo and Puerto Maldonado. Lima is the main hub for receiving and distributing wood for the industries located in the central part of the country.

The main products of the Peruvian wood industry include rough sawn lumber, dimension lumber, joinery (doors and windows), structural elements (joists, columns, rafters), rotary cut veneers, sliced veneers, plywood, pre-cut flooring (parquets), mouldings, furniture parts and components, cross ties, truck beds, dowels, and pallets. After reaching a peak of 1.2 million cubic meters (roundwood equivalent - rwe) in 1996, the total volume of production has declined to 600 000 cubic meters (rwe) in 2001, about 80% of which is rough sawnwood. In the last three years there has been a tendency towards an increased production of value-added items. In general, the industrial facilities are quite old and operate with low productivity and less than perfect product quality

Non-timber forest products (NTFPs) play a very important role in the livelihoods of rural communities and people living in the forest by supplying them with food, construction materials, medicines, and textile fibres for their clothing. In addition, some NTFPs are sold as raw materials and contribute to generate jobs and income to local populations.

Some 10% of the wood products produced in Peru are exported. The value of wood products' exports has increased dramatically in the 1990s, reaching some USD 100 million in 2000, however, this still represents only some 1.5% of the total exports of Peru. Due to increasing

imports of paper products, the trade balance in the forest sector has been negative since the mid-1990s. A number of NTFPs are also exported.

## **5. FOREST CONSERVATION AND BIODIVERSITY**

Peru is a treasure house of biodiversity, and the country's forests are particularly rich in this regard. Peru's flora includes over 25 000 flowering plants (10% of the global total) of which 30% are endemic. Peru ranks in the top five countries in the world in terms of faunal biodiversity and is classified as one of the "Megadiverse Countries". The country is also rich in genetic resources of importance for agriculture such as varieties of potato, maize, squash, llama, and vicuna.

Peru has a well-developed protected areas system (National System of Protected Areas under State Protection – SINANPE) covering 13% of the country's territory. Most of these areas are forested and the system covers all major forest types. In addition to national parks and national sanctuaries, the system includes historical sanctuaries, landscape reserves, wildlife refuges, national reserves, community reserves, protection forests, and game reserves.

## **6. CONTRIBUTION OF THE SECTOR TO BROADER OBJECTIVES OF THE PERUVIAN SOCIETY**

The Strategic Plan of the Government of Peru for 2002-2006 emphasises investment, economic growth and employment creation as a means to achieve significant reduction in the levels of poverty. In recent years the forest sector contribution has been estimated at around 1% of the GDP.

In the national accounts, the value for the forest sector is based almost solely on three products: sawn timber, veneer, and parquet. It is argued by the forest sector that the total contribution, including NTFPs, firewood, local construction materials, ecological tourism etc. - which are either registered under other productive sectors or not registered in the formal economy at all - is much higher. Even more so if such indirect benefits as the environmental services of forests, or inputs provided for agriculture (water, soil conservation, etc.) are included. However, these benefits remain invisible in the national accounts.

The direct contribution of the forest sector to social development through employment creation is relatively modest at the national level, but significant in the Selva region. It is estimated that some 75% of the economically active population earn their livelihoods from forest related activities in this region.

Due to its low apparent contribution at the macroeconomic level, the forest sector has never been able to establish itself as an important element in the development strategy of the Government of Peru, with a status comparable to that of such natural resource related sectors as mining, fishing or agriculture. Similarly, the sector has experienced difficulties in dealing with the principal extra-sectoral constraints to sustainable forest management (e.g. coordination of land use planning and land titling).

## 7. FOREST POLICY, STRATEGY AND LEGAL FRAMEWORK: STATUS OF IMPLEMENTATION

Although Peru has no formal forest policy statement, two major documents have been developed and adopted recently which implicitly describe the forest policy of the country.

The new **forest legislation** (Ley Forestal y de Fauna Silvestre 2000, and Reglamento de la Ley Forestal y de Fauna Silvestre, 2001) defines the overall normative framework for the sector including the institutional elements for forest sector governance. This constitutes the main forest policy document of Peru. Its legitimacy is enhanced by the broad participatory process, involving extensive consultations with different stakeholder groups at local and national level that was used in its formulation over a ten-year period. The process was supported by a variety of national and international NGOs and donors, including ITTO.

The forest legislation defines the main principles of the forest policy as follows:

- sustainable management and conservation of all forest products (wood and non-wood) as well as other forest biodiversity,
- participation of a wide range of stakeholders including the central government, private sector, local and regional governments, and the general population in the decision making, financing and benefits of the sector in the context of an overall process of decentralisation,
- efficiency and competitiveness in the management of the forest resources on the basis of environmental, economic and social criteria, and
- simplicity and transparency of administration and access to information by all concerned parties.

Parallel to the forest legislation a **National Forest Strategy** (Estrategia Nacional Forestal, 2002) has been formulated. The forest strategy presents a historic analysis/baseline for the sector, defines a “vision” and strategic principles, strategic objectives, results, and programmes for the development of the sector as well as indicators for their monitoring. The document has been widely discussed in a participatory process. The process has been supported by FAO through a project financed by the Netherlands. However, the Government has not formally adopted the national forest strategy.

The country is a signatory to the Convention on Biological Diversity and has adopted a **National Strategy for Biodiversity Conservation**. This biodiversity strategy is implemented by two main legislative instruments: a 1997 **law on the Protected Areas System** (SINANPE), and a **law on Conservation and Management of Biodiversity**, also from 1997. Biodiversity conservation has been a priority already for previous administrations, and the issue benefits from strong civil society and external support.

The main instruments for forest sector reform and their current status of implementation is summarised in Table 1.

**Table 1 Summary of Main Forest Policy Instruments and Their Implementation**

<b>Instrument</b>	<b>Status of implementation</b>
Revised institutional structure for the forest sector, including a national consultative council for forest policy (CONAFOR), a re-engineered national forestry institution (INRENA), and an independent forest control and supervision agency (OSINFOR)	CONAFOR has not been established. INRENA is in the process of re-organisation based on its new structure and functions defined in the Supreme Decree approved by the President in January 2003. Regarding OSINFOR, a revised proposal has been prepared in December 2002, but no practical measures have been taken to establish the institution.
Institutionalised stakeholder dialogue and consultation in the forest sector through the system of national and regional roundtables (MDCF)	The national-level MDCF holds regular meetings, and has set up a Transition Commission which has defined a proposal for a work-plan for the implementation of various key instruments of the forest policy. Regional MDCFs have been set up in five regions, and additional ones are in the process of being established in six regions. Discussions are on-going to involve a broader set of actors in this dialogue.
A new framework for sustainable forest management and reforestation based on : (i) long-term commercial timber concessions, (ii) sustainable management of forests belonging to indigenous communities, (iii) sustainable management of local forests by local governments and rural populations, and (iv) establishment of reforestation concessions	The system for commercial timber concessions is in implementation and more than 10 million ha of production forests in five departments in the Selva have been allocated for public competition. The process has suffered from considerable delays due to conflicts between major groups of stakeholders and political problems related to the decentralisation process. Considerable political pressure continues to modify the system. Several projects and programmes are working to help native communities to manage their forests; however, these activities are not prioritised by the Government at the moment due to the strong focus on timber concessions. No local forest or reforestation concessions have been established so far.
Creating an independent agency for the promotion of forest-based production and industries and marketing of the environmental services of forests (FONDEBOSQUE).	FONDEBOSQUE initiated its activities in the second half of 2002 and is currently setting up its operations in the major forest production regions of the Selva. With funding from the Government of Netherlands, FONDEBOSQUE has also started to provide technical assistance, training and financial services to the producers. Another major initiative, CEDEFOR-PERU, supported by WWF/USAID, has also been launched to support the concession holders in SFM.
Establishing a FSC accredited system for voluntary certification of forest products.	The Peruvian standards have been endorsed by FSC. No forests have yet been certified but capacity building in this regard is going on with the concession holders.
Strengthening the independent trust fund (PROFONANPE) to support the management of the Protected Areas' System (SINANPE).	PROFONANPE was established in 1992 and has obtained increasing support from GEF, bilateral donors and through debt swaps. Illegal extraction of mahogany is a severe problem in several national parks, and the Government's capacity to monitor and control this is weak.

## 8. KEY ISSUES, CONSTRAINTS AND CHALLENGES

It is no exaggeration to say that the Peruvian forest sector has suffered from almost 20 years of neglect, and that the new Millennium has brought fresh hope with the adoption of a new policy framework in the year 2000. This policy framework has been developed through a broad consultative process with active civil society and private sector involvement, which has lasted over a decade. This gives the framework a strong foundation. However, it also means that to some extent there is a lack of clear priorities and vision on the comparative advantage of the country's forest sector. Intra-sectoral consultations have also resulted in an approach that is not fully integrated with Peru's macroeconomic development goals.

Whatever the strengths and weaknesses of the new framework, two points are clear. It is a significant improvement on the 1975 forest legislation, and it is being implemented under difficult internal and external conditions. There are strong social pressures from the "informal" elements in the forest sector to dilute key aspects of the new framework. It is not clear what the final outcome will be but it is clear that some choices have already been made. Peru has chosen to try to turn informal operators into organised entrepreneurs and add value by vertical integration of small producers, instead of trying to attract large international investors. High expectations have been created by the new policy framework and it will require concerted efforts (including support from beyond the sector) to make the new policy work.

A number of key challenges and constraints can be identified:

- Forest policy implementation takes place in a challenging macroeconomic context, including the ongoing decentralisation process that is beginning to devolve significant responsibilities to regional governments. Most regional governments do not appear to have the capacity to provide the support and control required by the new policy framework. The existence of a large "informal" sector which has functioned on the basis of short-term cutting permits, rather than the long-term concessions required under the new policy, will continue to create pressures against the change.
- Although the ex. Minister of Agriculture, Mr. Alvaro Quijandria (currently Presidential Adviser) has for the past 2 years been deeply involved in forest policy implementation, this type of support from the Ministry of Agriculture has not traditionally been the case. In addition, there is a lack of support and perhaps even interest from other Ministries. This is partly because the forest sector has not articulated a clear vision for its contribution to national development and promoted this effectively. The exception to this is biodiversity conservation which has done this and benefits from strong civil society, governmental and donor support.
- The new forest legislation has created or proposed a set of new institutions. However, mandates and relationships between the institutions have not been fully agreed. OSINFOR has not yet been established. As an autonomous entity under the Prime Ministers' Office it is charged with the supervision of concessionaires. Since some 70% to 90% of timber production is considered illegal, success in this area is vital for the credibility of the new policy.
- Making the new concession system operate effectively will be a key success indicator for the sector, and civil society in general. This implies "formalising" many actors who are now operating "informally", either on the margins of the law, or illegally. For example, currently there is limited access to bank credit for forest management; however, there is a functioning alternative financing system of "habilitadores" for financing the "informal" sector. Some doubts exist in particular whether a critical mass of small informal operators will be able to improve their performance and take over the running of large concessions. Addressing the CITES listing of mahogany and developing technical and managerial capacity of smaller operators are crucial issues in this regard.
- The new forest law does not allow the sale of forest land. However reforestation and afforestation on a large scale may require the possibility of sale of forest land to national or international investors. If this is envisaged, revision of the law in this regard may be needed. The economic viability of plantations in different conditions needs also to be studied in more detail to establish their competitiveness compared to well-established plantations in neighbouring countries.

- The industrial processing park is not particularly modern and its main focus is on primary processing of mahogany and cedar. Numerous other species could potentially have a much more important role in the future.

## 9. RECOMMENDATIONS

The Mission has made the following recommendations to address the constraints and challenges identified:

- Overall, the involvement of civil society in forest policy reform has been beneficial. The government should continue to involve civil society and the private sector in the implementation process through regional and national roundtables, and local forest management committees. The mandates of consultative groups, such as the roundtables, should be clarified and the more informal consultative and advisory bodies (e.g. MDCF) should be clearly differentiated from those with management and decision making responsibilities (e.g. CONAFOR).
- Successful forest policy implementation will require a clear and transparent monitoring of outcomes by civil society and the private sector.
- It is necessary to improve the profile of the forest sector in Peru's macroeconomic landscape. To achieve this the full value of the forest resources should be evaluated and effective strategies established to communicate this to the decision-makers, especially the Congress.
- The National Forest Strategy can play a role here but it should include a clear vision and explicit forest policy statement based on a realistic assessment of future contribution of the sector to economic development. This is necessary to generate the high-level political support which the sector has lacked to date.
- Cross-sectoral coordination should be improved. Longer term and short-term strategies will be needed to address this key issue. Of particular importance is the coordination among agencies responsible for land allocation and infrastructure such as PETT and INRENA to avoid overlaps in designating land for different uses.
- The institutional bottlenecks facing the sector should be addressed. Setting up the concession inspection agency OSINFOR is necessary but not sufficient. Support and capacity building for regional governments is key to making the change work under the new decentralised setting.
- To ensure that the concession system will operate in a socially responsible, ecologically sustainable and economically viable manner, efforts to improve the performance of existing concession holders from the informal sector, need to be intensified. Institutions working with concessionaires such as FONDEBOSQUE and CEDEFOR should coordinate their efforts in this direction, and donor co-ordination is needed at policy level as well as regarding new programmes. Concerning mahogany, Peru's CITES scientific authority needs to be resourced as an urgent matter.
- The opportunity offered by the launching of forest concessions should be used to promote value added processing of larger volumes of wood and larger numbers of species. More secondary processing closer to forests and improved infrastructure, financing and training would bring substantial benefits to the sector, and to the Peruvian economy, particularly in the Selva where alternative economic activities are scarce. Joint efforts with local governments are needed to create conditions for value-added processing.
- Tailored financing mechanisms for the sector need to be developed using a holistic approach, based on a long-term vision of the forest sector. Mechanisms will differ for the

Sierra and Selva. Including forest concessions in the national land register is a key point, as this could remove a current bottleneck to financing.

## 10. IMPLICATIONS TO THE FUTURE ROLE OF ITTO IN PERU

ITTO has over the past decade been one of the few consistent external supporters of the Peruvian forest sector. Currently some 80% of the external support in the forest sector is directed towards the participatory management of the Peruvian protected areas system. This trend is even more pronounced regarding the projects in the pipeline, where some 93% of the financing is directed towards the protected areas, including some 70% of the planned ITTO assistance. While there certainly are valid reasons for supporting forest and biodiversity conservation in Peru, the Mission is of the opinion that given the critical situation in the implementation of the new forest policy instruments for sustainable forest management in the permanent production forests, a larger share of the future assistance should be directed for this purpose in the coming years.

The passing of the new forest law together with the long process of formulating the National Forest Strategy to its current status as a consensus based draft, represent a major breakthrough in the evolution of the Peruvian forest sector towards sustainable forest management. At the same time it is evident that the situation at the moment is very volatile. A major setback in implementation could destroy the credibility of the new model in the eyes of the key actors and the general public. All efforts should be expended to prevent this from happening, as the result would in all likelihood be an irreversible slide of the sector back to illegality and destructive practices. On the other hand, the current model, even with its operational problems and conceptual question marks provides perhaps for the first time in the history of the Peruvian forest sector a coherent framework on which external assistance can be based ensuring improved aid efficiency and effectiveness.

The suggested areas of support for ITTO have been identified based (i) on the assessment of key issues and constraints in putting in place the new framework for the forest sector development in Peru, (ii) other on-going/planned efforts supported by external donors, and (iii) ITTO's mandate and comparative advantage. Priority has been given to issues which, in the opinion of the Mission, need to be urgently addressed to remove key constraints and provide answers to questions which constitute critical underlying assumptions regarding the viability of the Peruvian policy implementation for SFM. An attempt has been made to prioritise these issues based on the views expressed by different stakeholders in Peru. It must, however, be noted that the setting of priorities is very tentative and that the Peruvian authorities need to consult the MCDF in the process of deciding which ones of the proposed areas should be further developed into project proposals for the ITTO.

### *Focal Area 1 Macroeconomic analysis of the forest sector to assess its contribution to social and economic development*

**Linkage to issues/constraints:** The lack of high level support for the sector is identified as one of the principal reasons for the persistent institutional constraints. The forest sector maintains internally that it is, at least potentially, an important factor in the development of the country. To convince the political decision-makers and the high level Government officials (e.g. in the Ministry of Economy) who decide on budgetary allocations on this, the sector needs to develop solid arguments based on macroeconomic assessments of impact.

**Priority:** high



***Focal Area 2 Potential Peruvian application to the ITTO fund for inter-ministerial coordination***

**Linkage to issues/constraints:** Poor intersectoral coordination with other important sectors has been identified by many actors as one of the weaknesses of the Peruvian forest sector process. ITTO has a facility for supporting high-level intersectoral dialogue and coordination which could be drawn from to address this problem.

**Priority:** high

***Focal area 3 Studies on markets and competitiveness to identify specific opportunities for Peruvian forest industries***

**Linkage to issues/constraints:** The concession system established by the new Forest Law requires the sustainable management of the forest resource, which necessarily implies harvesting larger number of species and processing larger volumes of wood per hectare. In order to effectively market this increased production, marketing and competitiveness studies will have to be carried out in Peru and in potential consumer countries. Competitiveness studies should focus on the entire production chain, from tree felling to the manufacture and distribution of final products. Due consideration should be given to the potential role of “wood processing clusters” located near raw material producing regions, as a tool for promoting competitiveness.

**Priority:** Medium

***Focal Area 4 High-standard feasibility studies of on proposed projects (e.g. forestry mega-project)***

**Linkage to issues/constraints:** The “forestry mega-project” being promoted by the Presidents of the five regions of the so-called “Northern Macroregion” is the most ambitious reforestation project contemplated in Peru so far. It is important that a state of the art feasibility study is carried out on the project concept to ensure its economic, social (especially regarding the availability of land) and environmental viability before additional actions are taken on the political level to promote this project.

**Priority:** high

***Focal Area 5 Feasibility studies on regional/national reforestation plans.***

**Linkage to issues/constraints:** There is also considerable political interest in massive reforestation projects in other parts of the country. One of the important arguments is employment creation, which is a political priority for the Regional Governments. However, at the same time there are doubts whether the current law on reforestation concessions (especially the Article 28) permits massive investments by the private sector in such projects. Moreover, there are open issues about the actual availability of sufficient amounts of deforested lands for these types of projects. The competitiveness of Peruvian plantation-based timber compared to imports (especially from Chile) is being questioned as well. As with the mega-project, these issues need to be clarified in the other reforestation projects before political commitments are made.

**Priority:** high

***Focal Area 6 International market studies for new species-developing niche markets***

**Linkage to issues/constraints:** Despite the wide variety of species found in the Peruvian rainforests, until recently, exports were concentrated on two high price woods: mahogany and cedar. Woods of excellent technological properties such as estoraque, tahuari and shihuahuaco that were not valued by the local timber trade, are now being successfully processed into prefinished and semifinished flooring for the export market. International market studies are fundamental in establishing the potential of the increased number of species that will be logged from concessions. Special attention should be given to niche markets, as is the case of durable species that can replace wood treated with CCA-type preservatives, which contain arsenic compounds, now under severe restrictions in the US and Europe.

**Priority:** medium

***Focal Area 7 Training options for middle management forestry professionals operating in field***

**Linkage to issues/constraints:** One of the results of the forest concession system established by the new Forest Law is that many informal operators, who supplied logs to sawmills and plywood manufacturing plants, will now organise themselves as entrepreneurs in order to participate in the system and continue with their logging activities. These operators, and also professionals working for existing wood industries that apply for concessions, need to receive intensive training in all aspects related to sustainable forest management.

**Priority:** high

***Focal Area 8 Assistance to OSINFOR for developing mechanisms for auditing concessions and timber tracking***

**Linkage to issues/constraints:** To implement its mandate OSINFOR will need to develop mechanisms for auditing forest concessions and for timber tracking. In this OSINFOR can draw on models from Bolivia and other countries as well as intensified certification systems. A comprehensive study and the development of a training package are recommended.

**Priority:** high

***Focal Area 9 Study on financing mechanisms for the forest sector in Peru, and removal of structural barriers to access credit***

**Linkage to issues/constraints:** Forest sector financing, including the whole production chain from reforestation and forest management to harvesting, industrial production and marketing of value-added products will require tailor-made financing mechanisms to make the conversion from unsustainable to sustainable practices take place. It is evident that the standard credits provided by the banking system are not suitable as such for forestry financing. Tailor-made solutions need to be established as part of the forest policy implementation framework, including the tapping of such innovative approaches as payments for environmental services. Several issues related to structural barriers to forestry financing need also to be addressed (e.g. land ownership related issues, issues related to using concessions as collateral, etc.) A comprehensive study, drawing also from the experiences of other countries in the region and elsewhere, is suggested to address this constraint.

**Priority:** medium

***Focal Area 10 Support to CITES scientific and management authority***

**Linkage to issues/constraints:** Peru's CITES scientific authority lacks the basic resources necessary to implement its mandate. Urgent assistance is needed for the authority to issue CITES certificates. This will involve field work to collect more information on the distribution and status of mahogany as well as recruitment of staff and consultants to make assessments.

**Priority:** high

## 1. INTRODUCTION

### 1.1 Background to the Mission

The International Tropical Timber Council (ITTC), at its 29th session, adopted Decision 2 (XXIX) entitled "ITTO Objective 2000" which set up a possibility for producer countries to seek specific assistance in their efforts to achieve the Objective 2000 and sustainable forest management (SFM). The Government of Peru requested such assistance from the International Tropical Timber Organization (ITTO). Accordingly, a Diagnostic Mission to Peru was carried out in February and June 2003 and produced this report within the specified terms of reference.

### 1.2 Objectives

The objective of the Diagnostic Mission was to assist the Government of Peru to identify in the country those factors which most severely limit progress towards achieving Objective 2000 and sustainable forest management, and to formulate an action plan to overcome these constraints. More specifically the Mission was to:

- (i) identify the factors that are most critical in preventing the attainment of sustainable forest management in the country,
- (ii) assemble these constraints in order of importance, and
- (iii) recommend a sequence of actions to remove these constraints, providing cost estimates whenever possible.

The Mission was requested to pay special attention to recent developments in the Peruvian forest sector (e.g. the new forest law, illegal logging and forest law enforcement, and the recently initiated new system for forest concessions), and to assess measures taken to facilitate and promote actions related to these developments in support of sustainable forest management.

The detailed terms of reference are reproduced in Annex 1 outlining the tasks that were to be carried out.

### 1.3 Methodology and Conduct of the Mission

The Diagnostic Mission was carried out in two phases:

An **inception Mission** was carried out by the Team Leader, Mr. Tapani Oksanen (Indufor, Finland) to initiate the process for the Diagnostic Mission. The inception Mission was aimed at identifying:

- the main instruments of forest policy towards sustainable forest management in Peru and key issues in their implementation,
- the focus, approach and timeline of the main Mission, and the (tentative) outline of main mission report,
- the relevant existing information, and (based on these)
- the need for specific input studies prior to the main mission to fill gaps in existing information.

The inception Mission was carried out from 22 February to 1 March in Lima, Peru, including a two-day field trip to Pucallpa to interview major groups of concession holders in the Region of Ucayali.

The conclusion of the inception Mission was that in Peru a great deal of analysis on the issues related to sustainable forest management has been carried out and discussed in a broadly participatory process in recent years in the context of the development of the new forest legislation and forest strategy. In this situation, to avoid repeating work that has already been done, and to maximise the usefulness of the Diagnostic Mission, it was suggested that the work of the main Mission be structured on the basis of the instruments of forest policy implementation in Peru defined in the new forest law. The discussions held with different actors during the inception Mission also indicated that the major constraints to sustainable forest management are to be political, institutional and related to conflicts of interest between the various stakeholder groups, rather than technical. Many of the major constraints are due to factors outside of the forest sector. It was therefore suggested that the main Mission be carried out as a series of well-structured sessions of dialogue with both sectoral groups of stakeholders, and decision-makers and influential actors outside of the forest sector as such (e.g. regional authorities, entities responsible for anti-corruption measures, representatives of indigenous groups etc.). The programme and report structure for the main Mission was based on these suggestions.

The **main Mission** was carried out from 2 to 17 June 2003. The Team Leader was joined by two additional specialists, Dr. Chris Elliott (WWF International) and Dr. Amantino Ramos de Freitas (private consultant, Brazil). The work of the main Mission focused on a review of the material and input studies prepared by local consultants on the basis of Terms of Reference established during the inception Mission. During the main Mission broad-based consultations were carried out with different groups of actors within and outside of the forest sector. In addition to meetings with Central Government authorities, the scientific community, national NGOs, industrialists and donor representatives in Lima, the Mission also visited Cajamarca, Ucayali and Madre de Dios and met with representatives of the Regional Governments, local producers, indigenous groups and local NGOs. The programme of the main mission is presented in Annex 2, and the list of persons, organisations and institutions met in Annex 3.

The recently established forest development promotion fund of Peru, FONDEBOSQUE, acted as the national counterpart organisation for the duration of the Diagnostic Mission. FONDEBOSQUE assisted the Mission in collecting and preparing information, making contacts with relevant government institutions (central and regional), NGOs and private sector representatives, setting up meetings and helping with the logistics of the Mission, and participated in the Mission work.

The list of documents consulted during the Diagnostic Mission is presented in Annex 4.

## **2. DESCRIPTION OF THE SECTOR**

### **2.1 Political, Macroeconomic and Social Context for Forest Development in Peru**

The overall development goals of Peru are expressed in the National Governance Agreement promoted by the Government of President Alejandro Toledo which aims at institutionalising the dialogue between important actors in the society and finding commonly agreed solutions to critical social issues. It is also expressed in the Government's policies to promote integrated

and sustainable development through decentralisation and strategic planning as well as to combat poverty, improve food security and promote equal opportunities and employment creation. The other main thrusts of the Government's policies aim at improving the competitiveness and productivity of the Peruvian economy, and the formalisation of economic activities. A rural development policy, based on these premises, is in the process of being established.

Transfer of authority and responsibilities from the Central Government to the newly established Regional Governments is high on the agenda of the Government. Regional Presidents were elected in November 2002 by popular vote, and the Regional Governments are now in the process of setting up their administrative and financial structures. They face an enormous challenge in handling the responsibilities that will be gradually passed from the Central Government to the Regional Governments in a process that will start in 2003. These responsibilities include, among others, the responsibility for the administration of the forest resources<sup>1</sup>, scheduled to take place in the beginning of 2004.

The economic situation of Peru has in 2001 and 2002 moved from a period of contraction of the GDP to a period of growth. In 2002, the GDP increased by 5.2% and the estimate for 2003 is 4%. Inflation is at 1.5%, which is the lowest of the major economies in South America. The public debt is 46.6% of the GDP, a fairly average figure in the regional context. After a period of decrease in private investments in 2001 and 2002, a modest growth has been registered in early 2003. Public investments are also expected to experience some growth after a notable decline in the past two years. Despite these improvements in the economy, the provision of employment for the increasing number of people in the economically active age group, and ensuring that the benefits of the economic growth reach the majority of the population, remain formidable challenges. Although the official figures for unemployment have been around 5-6% in the recent years, the figure for sub-employment is around 50%. Poverty levels in Peru have increased from 42.3% in 1997 to 54.8% in 2001 and extreme poverty from 18.0% to 24.4%. These demands are putting a tremendous pressure on the Government to find quick and effective ways to increase employment and reduce poverty.<sup>2</sup>

At the turn of the millennium Peru has established a new Forest Law and a National Forest Strategy outlining the policies and instruments which will be used to achieve sustainable forest management and the Target 2000 of ITTO. It is against this backdrop of macro-policies, economic trends and social issues that the implementation of this new framework towards sustainable forest management is assessed.

## **2.2 Status and Trends Regarding the Forest Estate**

Considering the natural characteristics of Peru, the country has considerable potential for forestry development. Most of the country (80%) is classified as forestland, whereas only 6% is classified for agricultural use, and 14% as grazing-land<sup>3</sup>.

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<sup>1</sup> The Article 51 Clause q of the "Ley Orgánica de Gobiernos Regionales" establishes as a function of the Regional Governments to "give forest permits, authorizations and concessions in their region as well as to carry out promotion and control in accordance with the national forest policy".

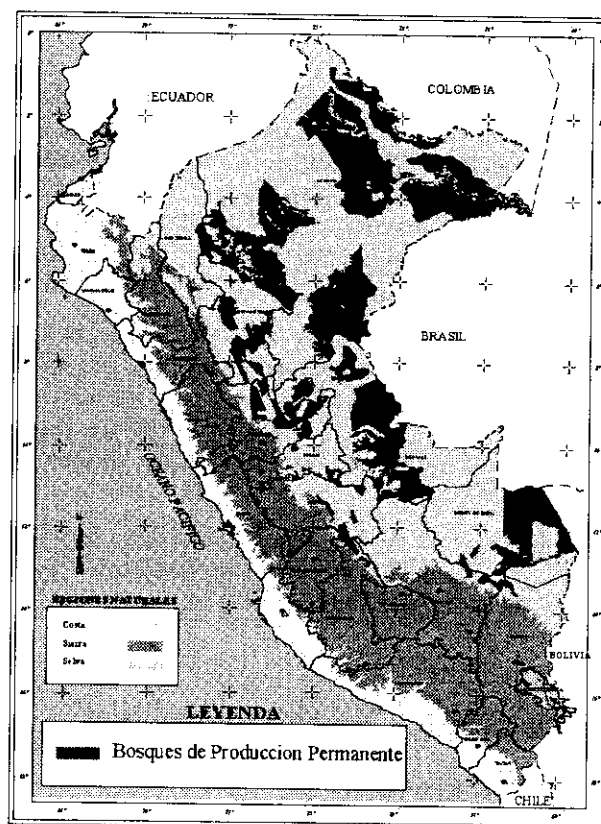
<sup>2</sup> Data from MEF and INEI.

<sup>3</sup> Some caution is needed in the interpretation of these figures, as there is no data available which would permit their comparison with actual land-use.

Peru has 78.8 million hectares of natural forests, of which 74.2 million hectares are located in the tropical forest region east of the Andes mountain range (Selva), 3.6 million hectares in the coastal region west of the Andes (Costa), and 1.0 million hectares in the mountain region (Sierra)<sup>4</sup>. It is the second most forest-rich country in South America and occupies the eighth place globally. 24.6 million hectares of the forests are classified as permanent production forests, 16.3 million hectares are set aside for protection and conservation, and the rest are reserved for other uses (e.g. as local forest or forests managed by indigenous communities) or kept aside for future production. The location of the permanent production forests is shown in Figure 2.1.

In addition to natural forests, according to official statistics, some 700 000 hectares of forest plantations have been established, mainly in the Sierra region. It is, however, not certain how much of these plantations actually exist and how much have either been destroyed or not planted<sup>5</sup>. The rough estimate is that some 400 000 hectares of plantations can be found in relatively good productive conditions. It is also estimated that there are some 10 million hectares of lands that would be suitable for the establishment of forest plantations, of which 7.5 million hectares are in the Sierra, 2.5 million hectares in the Selva, and 0.5 million hectares on the Costa. The actual use (as well as in many cases the ownership and/or tenure of these lands) is, however, not known.

**Figure 2.1 Permanent Production Forests of Peru**



<sup>4</sup> These three major ecoregions, Costa, Sierra and Selva are generally in use in Peru, although they do not correspond with the administrative regions.

<sup>5</sup> The official figures are based on the number of seedlings produced and hence rather theoretical.

According to INRENA, the annual deforestation is estimated at 261 000 hectares, and the total accumulated deforested area is some 9.5 million hectares, 13% of the total original forest cover of the country. The main driver of deforestation is commonly considered to be rural poverty that is forcing people to carry out unsustainable agricultural practices in the forest areas, especially in the so-called Selva Alta (higher regions of the Amazonian jungle towards the Andes range). There is a considerable internal migration from the poor areas of the Sierra towards the Selva Alta. The illegal production of coca in these regions has undoubtedly been an additional contributing factor to deforestation, leading to a general state of lawlessness in many of the more remote areas.

In addition to deforestation and forest degradation, illegal logging is among the most acute problems in the Selva. It is estimated that anywhere between 70% and 90% of all timber coming to the market is illegally harvested, although no reliable data is available on this issue. Illegal activity focuses especially on the commercially valuable timber species, of mahogany (Box 2.1) and cedar. The linkages between illegal logging and other unlawful activities in the forest areas, combined with limited capacity and resources for law-enforcement, make it extremely difficult for the forest authorities to effectively combat this problem. In addition to the permanent production forests, forests belonging to native communities are also subject to illegal logging. The pressure on these areas, as well as on the areas belonging to the national protected areas' system, is increasing as the availability of commercially valuable species decreases in other forest areas.

### **Box 2.1 Notes on Mahogany**

Big leaf mahogany (*Swietenia macrophylla*) is Peru's most important timber species and represents 80% of timber exports. High prices on the international market and decline in supply in other producer countries have fuelled a boom in illegal mahogany extraction in the Peruvian Selva. Peru is now the world's major mahogany exporter with approximately 70 000 cubic meters per year, twice Brazil's exports, valued at 50 million dollars per year. There is no reliable data on the natural dynamics, distribution and stocking rates of mahogany in Peru, but experts have estimated that at current harvesting rates the species will be commercially extinct in the country within 5 to 10 years.

In November 2002, the species was placed on Appendix II of CITES the Convention on International Trade in Endangered Species, against the wishes of the Peruvian industry and Government. Following the provisions of CITES, as of November 2003, all exports of mahogany will have to be accompanied by a certificate issued by Peru's CITES scientific authority (in this case the Forestry Faculty at the National Agrarian University of La Molina) stating that the shipment in question is not detrimental to the conservation of the species.

In the absence of a reliable forest inventory, and data on mahogany in particular, it is unclear how such certificates could be issued, without leading to challenges from importing countries. There is thus a real prospect of a crisis in the mahogany industry before the end of 2003.

## **2.3 Forest Products, Services, Markets and Industry<sup>6</sup>**

### **2.3.1 Timber Species and Products**

#### **Natural Forests:**

Although the forests of the Peruvian Selva region show great potential, with commercial volumes up to 20–30 cubic meters per hectare, current logging activities are concentrated

<sup>6</sup> A more detailed assessment is presented in Annex 5.



heavily on two valuable species, Mahogany (*Swietenia macrophylla* King) and Cedar (*Cedrela odorata* L.). The high prices fetched by these two species on international markets have encouraged extraction of logs from remote areas, even from those not legally open to logging as discussed in the previous chapter.

About 80 other species have been supplied to the national and local markets for many different types of applications. Many of these woods are commercialised as “roble corriente” (“common oak”), without much attention given to separating individual species. A significant effort to introduce lesser-known species (LKS) was made a few years ago by the National Forest Chamber (CNF) with the support of the ITTO (Project PD 37/88 (I)).

The main products produced in Peru include rough sawn lumber, dimension lumber, joinery (doors and windows), structural elements (joists, columns, rafters), rotary cut veneers, sliced veneers, plywood, pre-cut flooring (parquets), mouldings, furniture parts and components, cross ties, truck beds, dowels, and pallets. Although rough sawnwood still leads production in terms of total volume processed, in the last three years there has been a tendency towards an increased production of value-added items. Some companies have also established secondary processing plants to produce value-added products made from heavier woods, such as shihuahuaco (*Coumarouna odorata* Aubl.), estoraque (*Myroxylon balsamum* (L) Harms), tahuari (*Tabebuia ochracea* Standl (*T. serratifolia*)) and capirona (*Calycophyllum spruceanum*) for the export market.

The abundant availability of large logs (0.80 m to 1.20 m in diameter) of two light weight species, Lupuna (*Chorisia insignis* H.B.K and *C. integrifolia* Ulbr.) and Catahua (*Hura crepitans* L.) has encouraged the establishment of plywood mills in the Selva. These mills supply local and international markets with interior grade, decorative face plywood for the furniture and building industry.

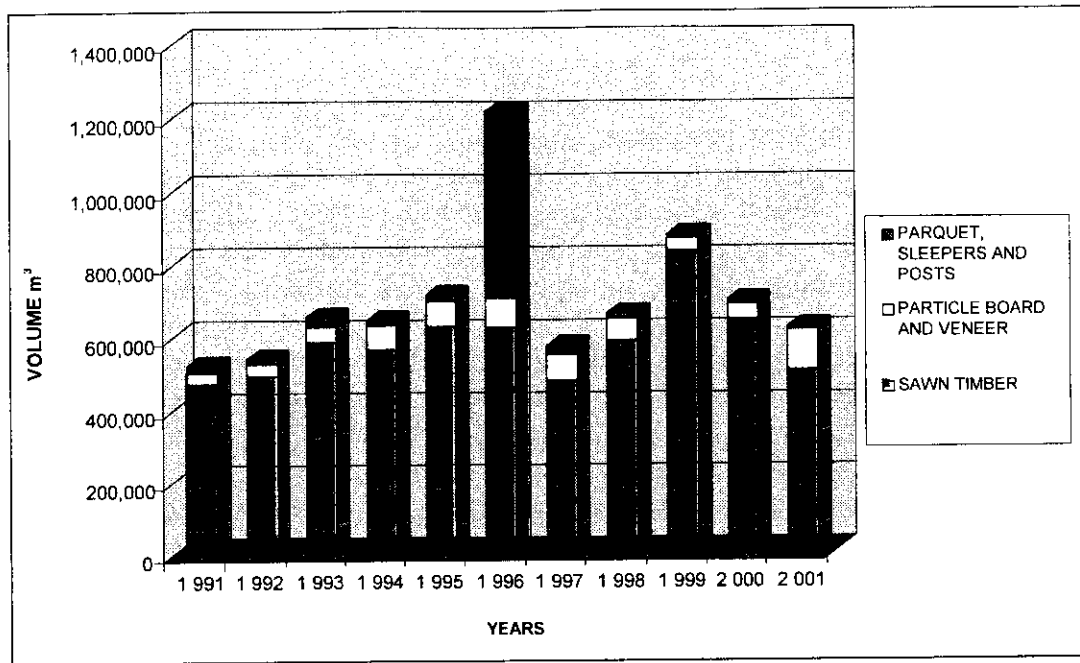
### **Plantations:**

The main species used in forest plantations are eucalypts (about 75%), mainly *E. globulus* planted in the Sierra region and pine, mostly *Pinus patula* and *Pinus radiata*. Plantation timber is mainly used for local constructions (poles and sawn timber), mine props, posts, manufacture of furniture for the local and national markets, firewood, charcoal, household utensils and other local uses. Since 1981 reforestation activities have been developed in the Sierra principally through a special watershed management and soil conservation programme, PRONAMACH, financed by USAID and (since 1997) the World Bank and Japan with increasing focus on agroforestry approaches, aiming at soil and conservation and social objectives.

### **2.3.2 Production and Trade**

After reaching a peak of 1.2 million cubic meters (roundwood equivalent – rwe) in 1996, in 2001 total volume of wood products decreased to 600 000 cubic meters (rwe), about 80% of which is sawnwood (Figure 2.2). The “peak” registered in 1996 was due to an unusually high level of production of posts in that year.

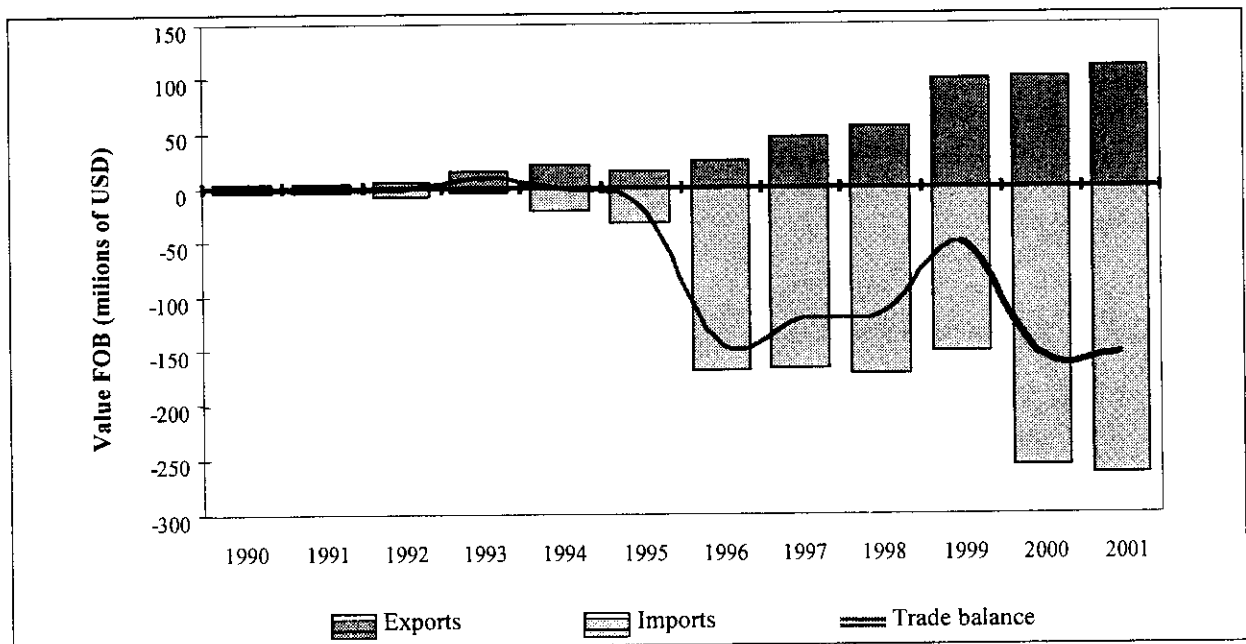
**Figure 2.2 Production of Wood Products in Peru**



Source: *Perú Forestal en Números (1991-2001)*, INRENA

No exact figures are available on how this production is distributed between domestic consumption and exports in terms of volume. The total value of wood product exports was, however, estimated at around 110,5 million USD (FOB) in 2001. The main export markets for wood products from Peru have been the United States, Mexico, the Dominican Republic, Venezuela and Italy. In the last two years there has been increasing trade with Asian countries, especially China and Taiwan. Due to rapidly increasing imports of paper products (80% of the total of forest product imports in 2001) the trade balance in forest products has been deteriorating since the mid-1990s (Figure 2.3).

**Figure 2.3 Trade Balance in Forest Products**



Source: *Cámara Nacional Forestal, 2002*

With the new system of forest concessions (Ch 3.2.2.4) coming into stream in the next year, it is expected that wood production will increase two to three-fold. Since the domestic market will not be able to absorb such additional volumes of wood, serious efforts need to be developed in order to conquer new markets abroad.

### 2.3.3 Wood Industry

There are five main wood producing areas in Peru: Pucallpa, Iquitos, Tarapoto-Juanjui-Picota, Satipo and Puerto Maldonado. Lima is the main hub for receiving and distributing wood for the industries located in the central part of the country.

Peru's forest industries are quite old and operate with low productivity and less than perfect product quality. The industrial park is comprised of some 250 saw mills, 13 plywood and veneer plants, four plants producing decorative face plywood, 50 parquet plants, two plants that produce blockboard and a large number of small enterprises that manufacture joinery, furniture and do general carpentry work. Data obtained in 2002 from Prompex-FAO indicate that saw mills are working well below their nominal capacity, for example at 47% and 14%, respectively in Ucayali and Madre de Dios regions.

Plywood and veneer mills are also operating with low level of activity, with actual production volumes about half of their installed capacity. In recent years two plywood mills have closed their operations in Pucallpa and another two in Iquitos. In the last five years, two veneer plants also went out of business. The only particleboard plant in operation in the country, Tableros Peruanos S.A. – TAPESA, has been operating at 80% of its capacity.

The saw mill industry is normally family-owned and does not have adequate resources for updating or expanding their processing facilities. The great majority of the mills, about 75%, operate disk saws, with an average annual production capacity of 2 900 m<sup>3</sup>. The other 25% use band saws and have an average capacity of 10 000 m<sup>3</sup> per year. Drying kilns are quite rare, they only exist in Lima, Pucallpa and Iquitos.

### 2.3.4 Non-timber Forest Products

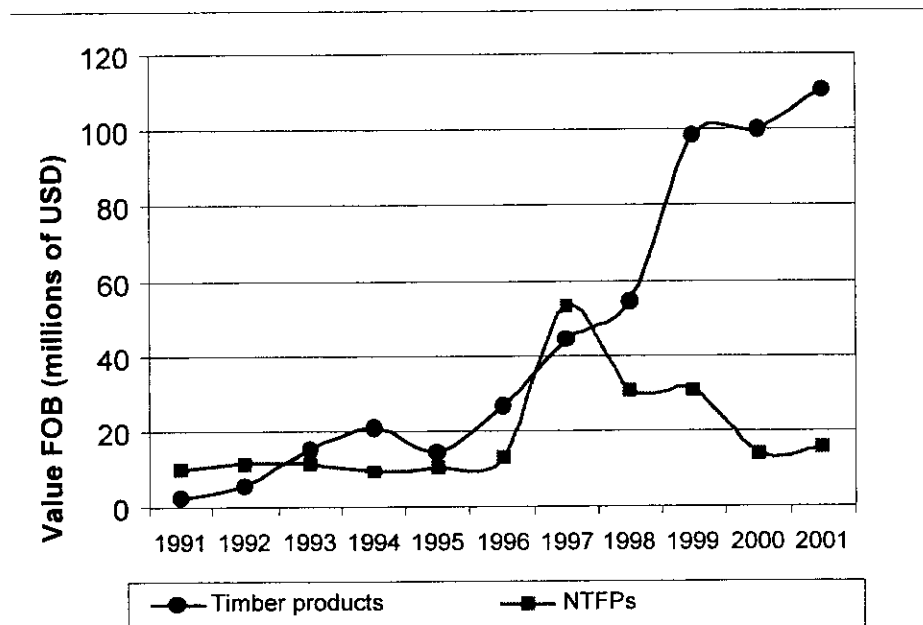
Non-timber forest products (NTFPs) play a very important role in the livelihoods of rural communities and people living in the forest by supplying them with food, construction materials, medicines, and textile fibres for their clothing. In addition, some NTFPs are sold as raw materials and contribute to generate jobs and income to local populations.

Well over a hundred important NTFPs have been identified in Peru. These can be grouped into the following categories: foods, medicines, extractives, protein from plants and animals, and environmental, social and cultural services. NTFPs that are used as food by humans and by animals include: algarrobo (*Prosopis pallida*), Brazil nut (*Bertholletia excelsa*), palm heart (*Euterpe precatoria*), aguaje (*Mauritia vinifera/ M. flexuosa*) and prickly pears (*Opuntia ficus, var. indica*). NTFPs used as source of protein (wild meat) include deer (*Mazama americana*), sajino (*Tayassu tajacu*), huangana (*Tayassu albirostris*) and fish like paiche (*Arapaima gigas*), sábalo (*Brycon sp.*) and gamitana (*Colossoma macropomum*). The medicinal plants include cat's claw (uña de gato – *Uncaria tomentosa*), copaiba oil (*Copaifera sp.*) and sangre de grado (*Croton sp.*), and insecticides and poisons oje (*Ficus anthelmitica*), barbasco (*Lonchocarpus nicou*) and curare (*Chondodrendon tomentosus*).

Forests also produce stimulants, such as ayahuasca (*Banisteriopsis caapi*), coca (*Erythroxylon coca*) planted under forest, and chuchuhuasi (*Heisteria pallida*), and resins, such as rubber (*Hevea brasiliensis*) and chicle (*Couma macrocarpa*), and dyes and tannins, such as tara (*Caesalpinia spinosa*), cochinitilla (*Dactylopius coccus*), achiote (*Bixa orellana*) and palillo (*Curcuma longa*).

Many NTFPs are also important in terms of their export potential. Only recently have timber products exceeded NTFPs in this regard (Figure 2.4).

**Figure 2.4 Evolution of the Exports of Timber Products and NTFPs**



Source: *Perú Forestal en Números (1991-2001)*, INRENA

### 2.3.5 Environmental Services Provided by Forests

As of today, there is no precise quantification of the market potential for the environmental services provided by Peruvian forests, such as soil and watershed protection, carbon fixation, tourism and recreation, conservation of biodiversity and others. A study has recently been elaborated for the National Environmental Council on the current situation and potential of biotrade. This study concludes that some 25% of all Peruvian exports are of biological origin. It lists ecotourism, native fruits, medicinal plants, aquaculture, certified wood products and carbon fixation in forest plantations as the areas of biggest potential. Work is currently ongoing to quantify this potential and to establish commercial forest plantations that will include carbon fixation to benefit from the clean development mechanism (CDM).

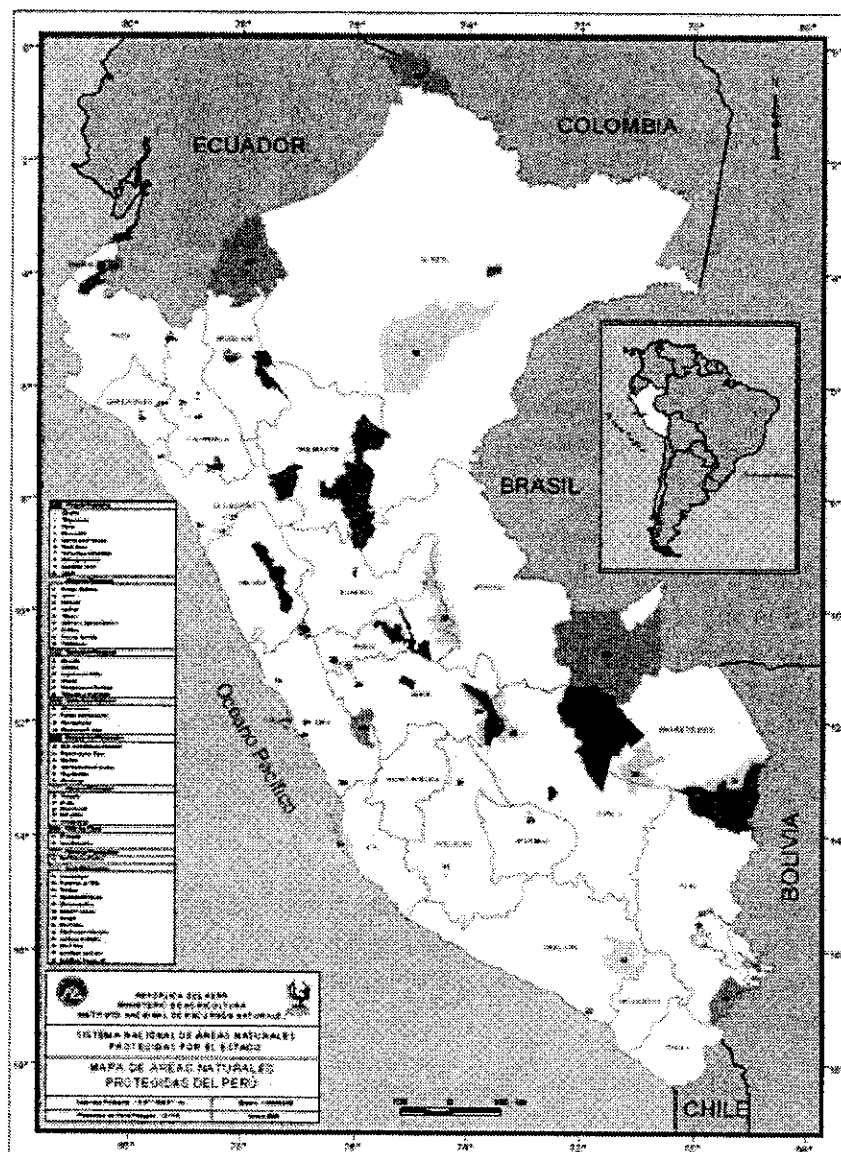
## 2.4 Conservation of Forests and Biodiversity

Peru is a treasure house of biodiversity, and the country's forests are particularly rich in this regard. Peru's flora includes over 25 000 flowering plants (10% of the global total) of which 30% are endemic. Peru ranks in the top five countries in the world in terms of faunal

biodiversity. The country is also rich in genetic resources of importance for agriculture such as varieties of potato, maize, squash, llama, and vicuna.

Peru has a well-developed protected areas system (National System of Protected Areas under State Protection – SINANPE) covering 13% of the country's territory (Figure 2.5). Most of these areas are forested and the system covers all major forest types. In addition to national parks and national sanctuaries, the system includes historical sanctuaries, landscape reserves, wildlife refuges, national reserves, community reserves, protection forests, and game reserves. Due to the relatively low capacity of the Government for the administration of the different classes of protected areas, illegal logging is also a problem in many of these areas. These pressures are likely to increase as the availability of the most valuable species in the areas designated as production forests decreases.

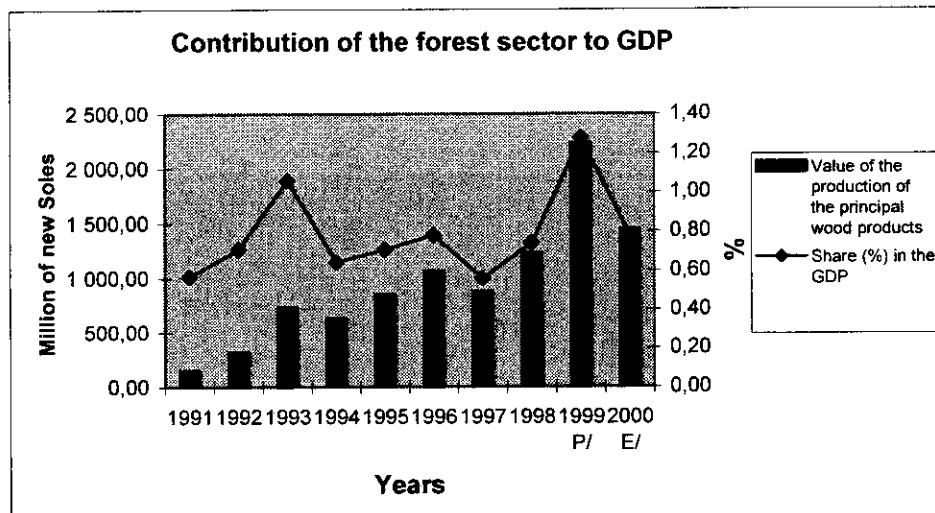
**Figure 2.5 Peruvian Network of Protected Areas**



## 2.5 Contribution of the Sector to Broader Objectives of the Peruvian Society

The Strategic Plan of the Government of Peru for 2002-2006 emphasises investment, economic growth and employment creation as a means to achieve significant reduction in the levels of poverty. In recent years the forest sector contribution has been estimated at around 1% of the GDP. The evolution of the forest sector contribution to GDP since 1991 is presented in Figure 2.6.

**Figure 2.6 Evolution of Forest Sector Production and Its Participation in the GDP**



1 new Sol = USD 3.5, P = Preliminary, E = Estimated

Source: *Galarza Contreras, Contribución del Sector Forestal para los Objetivos Macro de la Sociedad Peruana, 2003*

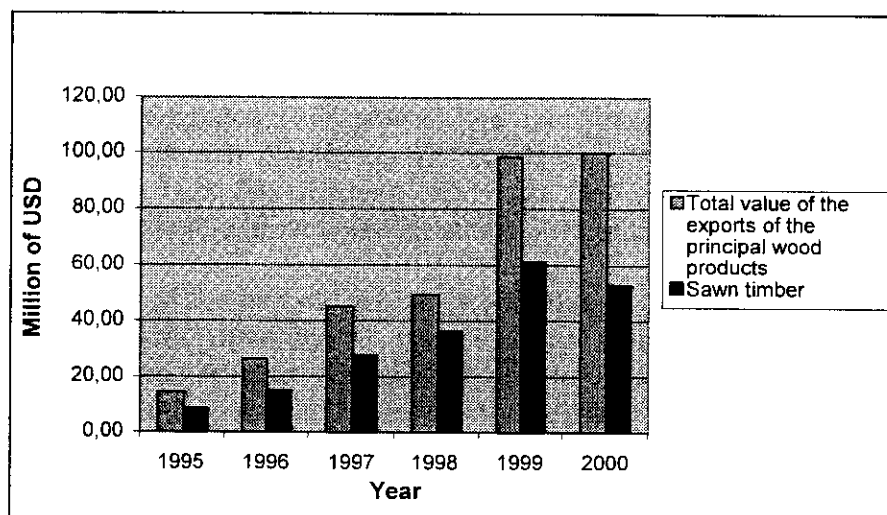
In the national accounts the value for the forest sector is based almost solely on three products: sawn timber, veneer, and parquet. It is argued by the forest sector representatives that the total contribution, including non-wood forest products (medicines, edible plants, etc.), firewood, local construction materials, ecological tourism etc. - which are either registered under other productive sectors or not registered in the formal economy at all - is much higher. Even more so if such indirect benefits as the environmental services of forests, or inputs provided for agriculture (water, soil conservation, etc.) were be included. However, these benefits remain invisible in the national accounts.

Regarding the contribution of the Peruvian forest sector in foreign trade, the picture is similarly bleak. Despite being among the countries with most abundant forest resources in the world, the contribution of the forest sector amounts only to some 1.5% of the total exports of Peru (Figure 2.7).

The direct contribution of the forest sector to social development through employment creation is relatively modest at the national level, but significant in the Selva region. Although no official figures exist on forest sector employment, it is estimated that in this region some 250 000 people earn their livelihoods from forest related activities, representing approximately 75% of the economically active population. This figure, combined with the

estimation that some 70-90% of the timber extraction is from illegal sources and the high indices of poverty and un/sub-employment, explains at least partly why the implementation of the new system for forest concessions and control (Ch. 3.2.2.4) has created a socially controversial situation.

**Figure 2.7 Evolution of Forest Sector Exports**



Source: *Peru Forestal en Números (1995-2000)*, INRENA

Due to its low apparent contribution at the macroeconomic level, the forest sector has never been able to establish itself as an important element in the development strategy of the Government of Peru, with a status comparable to that of such natural resource related sectors as mining, fishing or agriculture. The sector is often seen by outsiders as old-fashioned and paternalistic, and mainly attracts public interest when major cases of illegal logging and related corruption catch the eye of the national media<sup>7</sup>. The lack of importance given to the sector is also shown in its relatively low institutional status within the public administration resulting in low budgetary allocations. Clearly, the forest sector has not succeeded in developing and presenting solid arguments towards the macroeconomic planners and decision-makers on its potential role in the development of the country, and especially on its role in alleviating rural poverty.

The exception to this is forest and biodiversity conservation. This area seems to enjoy support at the highest levels in the Government circles, by the general public and within the donor community.

<sup>7</sup> Three major cases of corruption related to illegal logging in Iquitos (Loreto), Pucallpa (Ucayali) and Puerto Maldonado (Madre de Dios) have recently made headlines at the national-level, and are currently under investigation by INRENA. An intersectoral commission (Comisión Multisectorial de Tala Ilegal) has been established to address this issue, and INRENA has also set up its own internal commission to fight corruption (Comisión Especial de Lucha contra la Corrupción).

## **2.6 Macro Policy and Cross-sectoral Influences**

The enabling conditions for forest sector development in Peru depend in many respects on other sectors. The following macro-policy and cross-sectoral influences are especially important for forest sector development:

### **Land use planning and land titling:**

The Law on the Sustainable Utilisation of Natural Resources (Ley Orgánica para el Aprovechamiento Sostenible de los Recursos Naturales) defines that the use of each major resource (forest, minerals, crude oil, and fisheries) is regulated by its own legislation. It also defines that the sectors should effectively coordinate that the granting of use-rights for different natural resources does not create overlaps and/or conflicts between the users. It furthermore dictates that all of these rights should enter into the public land-use registers.

Overall land-use planning is according to the law carried out by the National Environmental Council (CONAM) through an ecological – economic zoning approach (zonificación económica-ecológica – ZEE). However, relatively little advance has been made with the overall ZEE, and as a result each sector carries out its own land-use planning and maintains its own registers with limited coordination and exchange of information.

A specific case in this regard is the land allocation for Peru's native communities. Although forest areas belonging to native communities are, in principle, excluded from all other uses (including forest concessions), poor definition and marking of the boundaries has led to overlaps and conflicts with other users.

The capacity of the public sector to coordinate land-use related conflicts between sectors and individual resource users remains limited. Coordination takes place mainly through informal mechanisms, and due to political sensitivities there is limited political will at higher levels to improve the situation. Furthermore, there is a rapid rotation of key personnel reflecting political changes, making effective coordination difficult.

### **Transport sector:**

The linkages between the forest sector with infrastructure development, notably road construction centre on two issues. On one hand improvements of rural roads are necessary to make the Peruvian forest sector competitive by reducing transport costs and, on the other hand, road building opens up previously inaccessible forest areas for colonisation. A specific case in this regard is the planned trans-oceanic road, connecting Acre in Brazil through Madre de Dios with the Pacific coast of Peru. Measures need to be taken to ensure that the construction of this road does not lead to increased deforestation, and that the envisaged benefits for the forest sector materialise. The Alternative Development Programmes, carried out in the coca-producing regions in Peru by DEVIDA, are also promoting the expansion of the rural road network. Safeguards need to be put in place to ensure that forest sector interests are duly taken into account in these efforts.

### **Oil/gas exploration:**

PERUPETRO and INRENA have jointly determined that there are some 6 million hectares in the permanent production forests where overlaps between forest concessions and oil/gas



exploration may occur, mainly in Ucayali, Loreto and San Martin. So far there have been no conflicts as oil/gas exploration occupies only minor areas, generally less than two hectares.

**Economic and financial policies:**

The Law on the Promotion of the Agrarian Sector (Ley de Promoción del Sector Agrario) grants certain financial benefits to the agriculture sector, however excluding the forest industry from these benefits. The law on investment promotion in the Amazon-region (Ley de Promoción de la Inversión de la Amazonía) excludes forest operations (although it does include forest industries) in the preferential treatment package. As the policy advocated by the Ministry of Economy and Finance (MEF) is to abolish these types of targeted instruments of economic and finance policy, their future importance is likely to be reduced. What is more important for the forest sector is to convince the MEF on the justification for specific tailor made financing instruments for the forest sector, such as payments for the environmental services of forests. Equally important are public investments in infrastructure improvements in the permanent forest areas.

**2.7 International Cooperation in the Peruvian Forest Sector**

International cooperation in the forest sector declined notably in the 1990s due to the political situation of Peru. This is reflected in the figures for projects that have recently been concluded. ITTO was one of the few international agencies that maintained an important portfolio of projects through this period. Currently an increasing group of international agencies and donor organisations are active in the sector (Table 2.1).

**Table 2.1 International Assistance to the Peruvian Forest Sector****CONCLUDED PROJECTS (1992-2002)**

Agency	000 USD	% of total
ITTO	5,702.45	90.58%
Netherlands	296.12	4.70%
GTZ	297.10	4.72%
<b>TOTAL</b>	<b>6,295.67</b>	<b>100.00%</b>

**PROJECTS IN IMPLEMENTATION (1996-2006)**

Agency	000 USD	% of total
KFW	21,980.00	35.72%
GEF-World Bank	10,000.00	16.25%
GTZ	9,654.00	15.69%
EC	6,500.00	10.56%
Netherlands	5,935.00	9.64%
Italy	2,264.00	3.68%
ITTO	2,104.00	3.42%
USAID	1,701.00	2.76%
IDB	1,400.00	2.28%
<b>TOTAL</b>	<b>61,538.00</b>	<b>100.00%</b>

**PROJECTS IN PIPELINE (2003-2010)**

Agency	000 USD	% of total
GEF-World Bank	14,800.00	80.35%
ITTO	3,619.00	19.65%
<b>TOTAL</b>	<b>18,419.00</b>	<b>100.00%</b>

Source: INRENA, 2003

The major share of the international assistance has been directed to strengthen the Peruvian protected areas network. Of the USD 61.5 million currently in implementation some 80% are used for this purpose. The same tendency is true with the projects in the pipeline, 93% of which focus on the participatory management of protected areas, including 70% of the planned ITTO contributions.

### 3. EVOLUTION OF THE POLICY AND INSTITUTIONAL FRAMEWORK

#### 3.1 Policy and Institutional Framework Prior to Current Reforms

The forest legislation of 1975, which was in place until the approval of the new Forest Law (Ch. 3.2.2.1) in 2000, established a forest classification called “freely available forests” (Bosques de Libre Disponibilidad) which covered the forest areas assigned for industrial exploitation, mainly in the Selva region. Concessions of up to 100 000 hectares for up to 10 years were given in these areas based on a feasibility study and technical proposal. In addition to the large-scale concessions, a modality for forest use for small-scale loggers was established through logging contracts for up to 1 000 hectares which did not require any type of management plan or technical documentation. As a result of the availability of this second option, there have been no serious attempts to establish large-scale concessions based on proper inventories, management plans and technical studies apart from donor supported projects. A serious but failed attempt in this regard was made in 1997 regarding the National Forest of Biabo (Box 3.1).

#### **Box 3.1 Case of the National Forest of Biabo, Cordillera Azul**

In 1997, The National Forest of Biabo was declared as a Permanent Forest Zone through a Supreme Decree. The plan was to establish 50-year concessions for areas up to 40 000 hectares for international bidding, based on sound management plans, annual payments for logging rights, and bank guarantees to ensure implementation of the management plans. The Privatization Commission (COPRI) was put in charge of the process, but despite of vast amounts of money spent in studies and international promotion it was never concluded due to lack of political decisions, and due to institutional and juridical problems. The case of Biabo was indicative of the political and social resistance in Peru in the period of 1994-2000 to the concept of large-scale concessions given to international companies.

The modality of small-scale logging contracts, however, has been extensively used for wood procurement to the detriment of the forest estate. Timber harvesting based on the small-scale logging contracts has evolved into a well organised system involving hundreds of small-scale loggers financed by industrialists or individual middlemen (so called “habilitadores”), specialised in financing and facilitating the activities of resource strapped small-scale forest operators. This system combined with the weak capacity of the public forest authorities for control and supervision<sup>8</sup> has resulted in an almost total lack of control on timber harvesting. Other consequences have been non-existent investment in forest regeneration and management and widespread use of the transport licences and other documentation related to the logging contracts to legalise illegally harvested timber from other areas. In addition, this system has made the small-scale loggers financially dependent on the middlemen who provide the financing, and has separated the industry from forest management and wood procurement operations. It has also created strong vested interests at the local, regional and national level opposing any changes in the forest management regime.

The disorderly situation in the forest sector and the lack of clear and enforceable rules of conduct has led to a lack of confidence in the forest industry, low levels of investment in forest industry development and a general perception of the sector as being one dominated by

<sup>8</sup> In 1990s, the Peruvian forestry administration went through a number of institutional changes resulting in a reduction of its capacity at the field level. The Government attempted to address the situation through suspension of logging contracts and logging bans, but apparently without much impact.

informality and illegality. The implementation of the new forest policies and legislation will need concerted efforts to revert this image and restore the reputation of the sector.

## **3.2 Main Instruments of Forest Sector Reform and Status of Their Implementation**

### **3.2.1 Forest and Biodiversity Conservation**

Biodiversity conservation has been a priority already for previous administrations, and the issue benefits from strong civil society and external support. Consequently, Peru has a well-developed framework for biodiversity conservation. The country is a signatory to the Convention on Biological Diversity and has adopted a National Strategy for Biodiversity Conservation. This biodiversity strategy is implemented by two main legislative instruments: a 1997 law on the Protected Areas System (SINANPE), and a law on Conservation and Management of Biodiversity, also from 1997.

The protected areas system is supported by an independent trust fund (Peruvian Trust Fund for Protected Areas – PROFONANPE, established in 1992) with resources from GEF, bilateral donors and debt swaps. This trust fund currently manages an endowment of over USD 70 million and provides some 70% of the funding for protected area management. The 1997 law provides for this trust fund as well as other innovative mechanisms such as local stakeholder committees and ecotourism. Mechanisms for private and community management of the existing protected areas are now being explored.

The law on biodiversity provides for genetic and ecosystem conservation, benefit sharing, education and training as well as for private sector participation in the sustainable use of biodiversity. Overall, it appears to have been less fully implemented than the protected areas legislation. Most of the genetic resources of direct importance for agriculture (e.g. varieties of potato) are located outside the protected areas system, and their conservation requires collaboration with local communities. Several projects have been developed for this with support from GEF and bilateral donors.

#### **Status:**

The necessary legal and institutional instruments for forest and biodiversity conservation are largely in place. Considerable external financing is also available to support the management of the protected areas' network. Unfortunately, illegal extraction of mahogany is a severe problem in several national parks, and the Government's capacity to monitor and control this is weak.

### **3.2.2 Production Forestry**

#### ***3.2.2.1 Forest Policy, Strategy and Legal Framework***

Although Peru has no formal forest policy statement, two major documents have been developed and adopted recently which implicitly describe the forest policy of the country.

The new **forest legislation** (Ley Forestal y de Fauna Silvestre 2000, and Reglamento de la Ley Forestal y de Fauna Silvestre, 2001) defines the overall normative framework for the sector including the institutional elements for forest sector governance. This constitutes the

main forest policy document of Peru. Its legitimacy is enhanced by the broad participatory process, involving extensive consultations with different stakeholder groups at local and national level that was used in its formulation over a ten-year period. The process was supported by a variety of national and international NGOs and donors, including ITTO.

The forest legislation defines the main principles of the forest policy as follows:

- sustainable management and conservation of all forest products (wood and non-wood) as well as other forest biodiversity,
- participation of a wide range of stakeholders including the central government, private sector, local and regional governments, and the general population in the decision making, financing and benefits of the sector in the context of an overall process of decentralisation,
- efficiency and competitiveness in the management of the forest resources on the basis of environmental, economic and social criteria, and
- simplicity and transparency of administration and access to information by all concerned parties.

Parallel to the forest legislation a **National Forest Strategy** (Estrategia Nacional Forestal, 2002) has been formulated. The forest strategy presents a historic analysis/baseline for the sector, defines a “vision” and strategic principles, strategic objectives, results, and programmes for the development of the sector as well as indicators for their monitoring. The document has been widely discussed in a participatory process, and hence the current version is called “version concerted with institutions and actors of the forest sector”. The process has been supported by FAO through a project financed by the Netherlands. However, the Government has not formally adopted the national forest strategy.

The forest strategy emphasises:

- building a culture and awareness in the general population which promotes the responsible use of the forest resources,
- consolidation of the forest sector institutional framework and its alignment towards the sustainability of the sector,
- generation of benefits through forest management to meet the basic needs of people, and the sharing of these benefits in an equitable manner,
- diversification of forest based production, competitiveness, and use of appropriate clean technologies, and
- permanent up-dating of forest related information and knowledge, including both scientific and traditional knowledge, and the dissemination of this information and knowledge to be used in productive processes.

Both the Forest Law and the National Forest Strategy focus on the forest sector as such, with relatively little assessment of:

- the macro-context in which the sector operates, including such issues as poverty reduction policies, population policies related to internal migration and colonisation of forest areas, policies to combat the illegal production of coca, economic growth related policies, monetary and fiscal policies, decentralisation policies, and policies related to trade liberalisation, privatisation and investment promotion; and
- the impacts of such cross-sectoral influences as agriculture, mining, tourism, energy or other land-use related policies and programmes.

This is easy to understand regarding the forest legislation (but does indicate some of the problems inherent in the approach of defining a policy implicitly through legislation) but less so regarding the forest strategy. The importance of placing the forest sector into the context of the broader development strategies is, however, recognised in the forest strategy, which states that in the past ten years the forest sector has been “marginalised in the plans of the government as an option for sustainable development”.

**Status:**

The forest legislation has been approved but currently amendments are being discussed to certain parts of the legislation and regulation based on experiences in implementation, as well as due to pressures from some groups of stakeholders. The forest strategy does not have a formal status, but due to its participatory formulation process it has a wide ownership shared by a large group of stakeholders. Regional forest strategies are currently drafted in consultation with regional authorities.

The more specific instruments to promote sustainable forest management in Peru which are defined in the forest legislation (and to a degree further elaborated in the forest strategy) are discussed in the following sections.

***3.2.2.2 Institutionalised Stakeholder Dialogue***

An institutionalised roundtable process for stakeholder dialogue (Mesa de Diálogo y Concertación Forestal, MDCF) has been set up during the process of development of the forest legislation and strategy. The MDCF is chaired by the Minister of Agriculture, supported by the Coordinator of the National Forest Strategy. The MDCF participants (more than 30 in total) represent the public sector institutions, private sector associations and organisations, environmental NGOs and organisations of the native and rural communities. The MDCF guides the further refinement and implementation of the key instruments for forest policy implementation and acts as a pressure group towards the political decision-makers<sup>9</sup>. The specific functions of the MDCF are: (i) to resolve concrete problems in forest policy implementation, and (ii) to assist the stakeholders in their efforts and facilitate access to information and communication.

The MDCF process has been exemplary in establishing a good dialogue and communication channel among the various players of the forest sector, including government authorities, industrialists and NGOs. While in other South American countries, many of these actors are entrenched in opposite camps, in Peru there is a good understanding and frank dialogue amongst them.

**Status:**

The national-level MDCF holds regular meetings, and has set up a Transition Commission (Comisión Especial de Gradualidad) which has defined a proposal for a work-plan (Plan de Gradualidad) for the implementation of various key instruments of the forest policy. Regional MDCFs have been set up in five regions, and additional ones are in the process of being

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<sup>9</sup> According to its minutes the MDCF has sought meetings with the President and the members of congress, as well as presented letters to the Minister of Interior.

established in six regions. Discussions are on going to involve a broader set of actors in this dialogue.

### ***3.2.2.3 Forest Administration and Control***

According to the forest legislation the forest sector institutional framework is comprised of the following institutions:

**The National Consultative Council for Forest Policy - CONAFOR.** This entity is the highest level consultative body defined in the forest law. It will be established by the Ministry of Agriculture. Its members will include public sector institutions, scientific organisations, private sector organisations, organisations representing native and rural communities, NGOs and local and regional governments. CONAFOR will be an advisory council to the Minister of Agriculture on issues related to forest policy formulation and implementation, national forest strategy (or plan) and other issues related to the development of the sector.

**The Natural Resources' Institute - INRENA,** a public institution under the Ministry of Agriculture, is the government entity responsible for forest sector administration. INRENA is in charge of the normative functions of the government in the forest sector as well as coordination with other sectors, local government and the civil society. These tasks include the evaluation and control of sustainable forest management including the approval of the management plans required for both timber and non-timber concessions and other forms of forest use and management defined in the forest legislation.

**The Forest Resources' Supervision Agency - OSINFOR** will be set up as an autonomous entity under the Council of Ministers. OSINFOR will be in charge of periodic supervision of the adherence of the concession holders to the concession contracts, approved management plans and annual work plans. OSINFOR has the capacity to apply sanctions and fines for non-compliance with these contracts and plans. It will also maintain a registry of those professionals/entities who are accredited to carry out supervision of the management plans and/or voluntary certification as well as to give instructions to concession holders in its area of competence.

#### **Status:**

**CONAFOR** has not been established. **INRENA** is in the process of reorganisation based on its new organisational structure and functions defined in a Supreme Decree approved by the President in January 2003. It has also undergone a reorganisation of personnel at the highest levels of the institution.

Regarding **OSINFOR** a revised proposal has been prepared in December 2002, but for reasons which are likely to be partly internal to INRENA, partly related to overall resource constraints within the public sector, no practical measures have been taken to establish the institution. The Supreme Decree for the establishment of OSINFOR should have been approved by the Ministry of Agriculture by the end of February, but this has not taken place. Even the MDCF work-plan stops short of defining the practical measures for the establishment of OSINFOR. This is a major risk as the process to allocate concessions is moving on but there are no effective safeguards in place to control illegal logging as evidenced by recent developments. OSINFOR's mandate as currently established is limited to

supervising the compliance of the timber concession holders with contracts and management plans. It will not address the broader issues of illegal logging.

### ***3.2.2.4 Forest Concessions and Other Forms of Authorised Use of Forest Resources***

#### **Forest concessions:**

The new forest legislation establishes a system of long-term forest concessions for wood and non-wood forest products, based, in principle (Ch. 2.6), on integrated land-use plans (zonificación ecológica – económica)<sup>10</sup>, to put an end to illegal and unsustainable logging.

The system defines two basic logging concession types: (i) 10 000–40 000 hectare concessions based on public auctions, and (ii) 5 000–10 000 ha concessions based on a public bidding system; both for a period of 40 years, which can be renewable. There are provisions in the legislation for a transition system for the sale of wood by small-scale loggers who have not qualified for the new concessions. In addition to timber concessions, the forest legislation also establishes non-wood forest concessions. These include concessions both for specific NTFPs (e.g. Brazil nuts, gum arabic, resins etc.) and for ecotourism, conservation and environmental services. The concessions are approved by INRENA based on a technical proposal, and given for a renewable period of up to 40 years. The new forest concession system also provides for the establishment of multi-stakeholder Forest Management Committees (Comités de Gestión de Bosque) for each forest management unit.

The process to allocate timber concessions through a public competition is managed by the *Ad hoc* Commission for Forest Concessions (Comisión Ad hoc de Concesiones Forestales, CAHCF). The first round of concessions to be established will cover some 10 million hectares of the permanent production forests.

#### **Forest belonging to native communities:**

Native communities control approximately 9 million hectares of forest in Peru<sup>11</sup>. The new forest law differentiates clearly between forests designated for industrial use and forests designated to meet local demand for wood and non-wood forest products and services. Communal use of forest products does not require authorisations or permits, but commercial use by local or indigenous communities is subject to same regulations as industrial use, including the formulation of management plans and their approval by INRENA.

#### **Local forests:**

Local forests up to 500 hectares can be established by INRENA based on requests from rural populations and/or local governments to satisfy local needs for forest products. These forests

<sup>10</sup> Significant problems have been encountered in coordinating the planning for forest concessions, done by INRENA, with the land registration process under the responsibility of the Special Project for Land-titling (PETT) created for allocating land for agricultural use. These problems, aggravated by political pressures, poor land registers and lack of resources to verify the plans on the ground, have resulted in land-use conflicts as the same areas may have been allocated for different purposes.

<sup>11</sup> There is some degree of ambivalence regarding what this “ownership” actually means, as legally the communities own the land but not the growing stock on the land, which belongs to the Government.



are handed over to local governments or other recognised local organisations for their management for renewable periods of 20 years.

### Concessions for reforestation:

The forest law also promotes the establishment of forest plantations for the production of timber and environmental services on deforested and bare public lands classified as forest lands. Reforestation concessions are given for a renewable 40-year period.

### Status:

According to the forest law, the new **timber concession** system should have been implemented by 31 July 2001. The target defined in the law is that by 2005, only timber products from managed forests will be marketed internally in Peru or exported. In practice, the process has been slowed down by resistance to the proposed change from different quarters, combined with conflicts between major groups of stakeholders. Currently, the process to establish timber concessions has been initiated in five Departments. The status at the end of August 2003 is as follows (Table 3.1):

**Table 3.1 Status of the Concession Establishment Process**

<b>Department</b>	<b>Total hectares allocated for public competition</b>	<b>Total hectares of concessions given (contracts signed)</b>	
Madre de Dios	1 417 875	1 107 360	78%
Ucayali	3 387 790	2 007 706	59%
San Martín	750 336	472 184	63%
Huanuco	533 133	260 195	49%
Loreto	4 400 000	bidding to be launched in September	0%
<b>Total</b>	<b>10 489 134</b>	<b>3 847 445</b>	<b>37%</b>

Source: *Ad hoc Commission 2003*

A further 817 000 hectares have been reserved for timber concessions in five additional Departments (Pasco, Junín, Ayacucho, Cusco and Puno).

The main reason behind the slow start of the concession allocation process has been the conflicts of interest between the regional authorities and the central government authorities. The concession process has been managed by the central government, namely INRENA, but – especially after the election of Regional Presidents – there has been mounting pressure to increase the role of the regional governments in the process. Pressure to modify the system has also been put on the regional authorities by the existing small and medium size forest contractors, who stand to lose their new access to forests through short-term logging permits when the current system is implemented. Some of the small and medium size operators have opted to participate in the public competition for long-term concessions, but others remain outside of the system.

The political pressure to modify the timber concession system has already resulted in a temporary extension through a Supreme Decree (Sistema Transitorio de Abastecimiento de Madera) of the current logging contracts in Madre de Dios, to allow a smoother landing of the new system. The Transition Commission of the MDCF suggests that the concession holders should collaborate with the small-scale loggers outside the system, by using them as sub-

contractors. The Government should also promote the creation of formal “forest service enterprises” by the small-scale loggers as well as to support their capacity building and modernisation, and to establish alliances between these and the concession holders. The MDCF of Ucayali has developed a proposal for concessions for small-scale loggers, which was included in the second round of public competition. Similar efforts to modify the concession concept are underway in other regions.

The holders of the recently allocated 40-year concessions report that it is difficult for them to get their operations started in the concession areas due to a continued presence of illegal operators resulting in risks to investments and lack of security of personnel. Making the new concessions fully operational will require complementary regulations that will allow the inscription of the concession contracts in the official land register, as well as the implementation of a mechanism to finance the required infrastructure in the concession areas. It will also require considerable investment in building up the technical and management capacity of the concessionaires.

As regards the **Forest Management Committees**, their internal rules have been defined and approved by INRENA and the Transition Commission and the process of setting up the Committees has been initiated in several regions.

The first **conservation concession** was established in 2001 by a non-governmental organisation in the Department of Madre de Dios and there are several concessions managed by groups for the production of Brazil nut (*Berholletia exelsa*) and for agriculture. No concessions have so far been established for ecotourism.

There are also several on-going projects and programmes working with the **native and local communities** to build up their capacity to manage and protect their forest resources. The current strong focus in commercial timber concessions in forest policy implementation has, however, left the communities on the margin of forest sector development. As described earlier, illegal logging and related corrupt practices are a major problem in these areas.

No **local forests** have been established so far, however, there is interest in this concept and some initial steps have been taken in this regard in the regions of Ucayali and Madre de Dios. Neither have any **reforestation concessions** been established so far. Within the sector there are strong doubts about the feasibility of this concept from the point of view of potential investors. It might require modification of the Forest law to allow private ownership of forest plantations. Despite this uncertainty, the five northern regions<sup>12</sup> forming the so-called “Northern Macroregion” are developing a massive reforestation project called the “forestry mega-project”, proposing to reforest some 300 000 hectares.

### ***3.2.2.5 Promotion of Forest-based Production and Industries and Marketing of the Environmental Services of Forests***

Increased contribution of the forest sector towards economic growth, exports, employment creation and fight against poverty, especially in the rural areas, have been declared as explicit objectives for the forest sector by the Minister of Agriculture. The means for this are integrated and sustainable management of the forest resources and increased competitiveness through modernisation of the forest sector.

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<sup>12</sup> Amazonas, Ancash, Cajamarca, La Libertad and Piura.

The new forest legislation establishes several mechanisms for the promotion of forest based production and for forest industry development and modernisation. These include:

- reduction of the concession fees for those concession holders who establish integrated projects of timber extraction and processing in the region where the forest concession is situated, with the aim of adding value to the product,
- use of the financial incentives provided by the Law for Promoting Investments in the Amazon Region (Ch. 2.6),
- prohibition of the exportation of forest products in their natural state, and
- preferential treatment given to timber produced in integrated projects of timber extraction and processing, especially lesser used species, in the programmes implemented by the Government.

In addition to these fiscal and regulatory incentives, the new forest regulation establishes an independent forest promotion agency, FONDEBOSQUE, operating as a private non-profit institution, with the participation of the public and private sector as well as the civil society in its governing structures (Box 3.2).

### **Box 3.2 Forest Development Promotion Fund, FONDEBOSQUE**

In the Forest Regulation and its subsequent modifications FONDEBOSQUE has been given the task to promote (i) forest management, (ii) conservation of the forest resource base, (iii) forest plantations, (iv) reforestation and afforestation, (v) ecotourism, (vi) agroforestry, (vii) wood-based industry, (viii) eco-business, (ix) wildlife management, (x) environmental services (of forests), (xi) recuperation and re-establishment of endangered species, (xii) forest and wildlife research, and (xiii) provide assistance to the actors involved in forest related activities in their efforts to achieve sustainable forest management as described in the forest legislation.

FONDEBOSQUE will channel its assistance through two lines of financing: (i) competitive bidding, and (ii) direct implementation of projects. It has defined as its principal beneficiaries the forest concession holders, small and medium scale forest producers, native and rural communities, private companies and private conservation organisations.

FONDEBOSQUE will be financed through a mix of sources. According to the forest legislation 25% of the fines for illegal activities in forests will be channelled to FONDEBOSQUE. Other potential sources of finance defined in the legislation include debt-swaps, donations and charges levied on agriculture, water, fishing, mining, industry and hydroelectric power generation. The forest legislation also defines that from 2005 onwards there will be a mechanism to channel funding for the forest sector from a compensatory mechanism for the pollution caused by burning fossil fuels to finance forest conservation and rehabilitation. It remains to be defined how this measure will be implemented.

The National Environmental Council (Consejo Nacional del Ambiente – CONAM) has delegated the responsibility for the development of CDM (and possible JI) projects to FONDEBOSQUE.

Parallel to the establishment of FONDEBOSQUE, another major initiative, the Centre for Forest Development of Peru (CEDEFOR-PERU) has been started to assist the forest concession holders to implement environmentally and economically sound forest management. This programme, with a first phase approved for 2002-2007 is implemented by WWF-Peru with financial support from USAID. The objectives of the CEDEFOR-PERU are to promote forest certification, support INRENA and forest stakeholders in forest ecosystem monitoring and combating illegal logging, and provide technical assistance, training and financing for the development of forest-based micro-enterprises, targeting resource-poor loggers, indigenous communities and small and medium sized communities. CEDEFOR-PERU aims also at supporting forest policy development and the further development of complementary regulations and norms. Indirectly the programme is also linked to the USAID

objective to combat the illicit production of coca. The total budget for the first phase is USD 10.8 million. CEDEFOR-PERU plans to evolve into an independent non-governmental organisation.

**Status:**

FONDEBOSQUE initiated its activities in the second half of 2002, and contracted the core personnel and established its office in January 2003. For its first full year of operation it has a budget of USD 2.9 million, comprising a USD 1.5 million donation by the Government of the Netherlands, USD 1 million from the Treasury, and USD 0.4 million from other sources defined in the forest regulations. FONDEBOSQUE has been qualified to receive public funds and donations by the Ministry of Agriculture and by the Peruvian Agency for International Cooperation.

During its initial months of operation FONDEBOSQUE has defined the priority lines of activity for its first year of operation as follows:

- initiating projects related to CDM and other environmental services
- improving the capacity of the concession holders in sustainable forest management, and
- assisting the forest industry in its efforts to increase competitiveness through modernisation

At the central level FONDEBOSQUE has set up its administrative systems and procedures for competitive bidding, developed a document on policies and strategy, and is in the process of establishing its information management system. FONDEBOSQUE has also established local offices in the principal regions where the forest concession process is being implemented (Ucayali and Madre de Dios).

CEDEFOR-PERU is in the start-up phase and has begun to provide support to concessionaires in Ucayali and Madre de Dios provinces. Coordination has been initiated between CEDEFOR-PERU and FONDEBOSQUE and needs to be intensified due to their (partly) similar mandates and potentially overlapping client base.

***3.2.2.6 Voluntary Certification***

Peru has established national forest certification standards for the Selva region through a process supported by WWF, IRG, USAID, GTZ, FAO/Government of Netherlands and FSC, based on the FSC Principles and Criteria. The work was initiated in 1997, and the standards were published in 2002. Four regional working groups have participated in the development of the standard guided by the Peruvian Council for Voluntary Forest Certification (CP-CFV).

The new forest legislation promotes voluntary certification by establishing a reduction on concession fees if the concession area (forest management unit) has been certified. This will provide a direct positive incentive to concessionaires independent of any potential subsequent price premiums or market-access benefits.

**Status:**

The Peruvian standards have been endorsed by FSC and formally submitted to different governmental and non-governmental actors in Peru. Field trials have been conducted in different phases of the development of the standards, but no forests have actually been

certified so far according to the national standards. Due to this situation, one Peruvian furniture manufacturing company based in Lima is currently importing FSC-certified timber from Bolivia to manufacture products aimed at the US market. Supporting concession holders to achieve FSC-accredited certification is a principal objective of CEDEFOR-PERU, and actions in this regard are being initiated.

#### **4. ASSESSMENT OF MAIN CONSTRAINTS TO SFM**

##### **4.1 Overview of Status and Constraints of Policy Implementation**

Overall there have been major advances in setting up a new framework for the forest sector in Peru in terms of the new Forest Law and its instruments. This has been the result of a broad participatory process over a number of years involving many actors, which could well serve as an example for other tropical high-forest countries. On one hand this process has resulted in broad ownership and deep commitment from participants, but on the other hand, the result is a compromise which is not highly focussed. Partly as a result of this, the forest legislation is not informed by a formally approved forest policy clearly linked to macroeconomic development goals, as is the case for biodiversity conservation. It appears to be a forest policy developed by the forest sector, for the forest sector.

Implementing this new framework takes place under very unfavourable political and social conditions, and some “watering down” and even blockages in the implementation of key provisions such as forest concessions can be noted. Locally, civil society is beginning to organise itself, but this is fraught with local conflicts and divisions between actors (e.g. large and small concessionaires, large and small industrial groups). Instead of trying to attract well established corporate investors into the forest sector to operate the new larger concessions, because of social demands INRENA has adopted an approach that tries to turn current informal operators into responsible institutional operators. This is understandable and praiseworthy in terms of social equity, but high expectations are being created and this may backfire and could even cause social unrest if they are not satisfied. There is also a risk in expecting small operators to be able to organise and integrate vertically. Experience suggests that a high failure rate can be anticipated and it is not clear that the sector is fully prepared for this.

The new framework requires the forest sector to move from a status dominated by “informality” to formality in conditions where the rule of law is generally weak. This is a major challenge and there are indications that the situation in some regions may well get worse before it gets better, mainly due to social and consequent political pressures at the local level, but also due to higher-level political and economic interests. A further complicating factor is the issue of CITES and mahogany (Box 2.1), where it is clear that Peru’s scientific authority does not have the resources or information currently available to make reliable “no detriment” findings for mahogany export shipments.

Forest concessions are the focal instrument of the new framework. Their success or failure will be pivotal for the implementation of the whole framework. It is evident that in the regions of Peruvian Selva, as elsewhere in the tropical world, unsustainable logging is and remains more profitable from the point of view of the individual forest operator than sustainable forest management. To bring about the desired change, two important elements of the new forest policy must operate effectively: (i) an incentive system which compensates the forest operators for the wider (regional, national and international) benefits of sustainable forest

management and hence improves the economic viability of SFM, and (ii) a system of control which increases steeply the cost of non-compliance to the individual operator.

## **4.2 Key issues and Challenges**

### **4.2.1 Enabling Conditions**

The enabling conditions for economic and social development in Peru are a major challenge. The UNDP Human Development Index ranks Peru 73rd out of 162 countries assessed in 2002. Peru's HDI has declined regularly since 1975, and there are significant regional differences in the country. Illiteracy levels range from less than 5% in Lima to 45% in some rural areas in the Sierra. According to Transparency International's Corruption Perception Index, Peru ranks as the 45th country in the world, equal with Brazil, in terms of providing a favourable business climate for investors.

The country is just emerging from a long period of civil disturbance and erosion of democratic institutions. Education and training are often deficient, particularly in rural areas. Infrastructure such as roads are generally of poor quality, and this combined with the mountainous topography of the country makes transportation inefficient and expensive (to bring a cubic meter of wood from Pucallpa to Lima can cost USD 52, which is comparable to ocean freight from Lima to New Orleans, in the Gulf of Mexico). Access to credit at reasonable rates is a problem for many businesses, particularly small and medium-sized enterprises. Property rights, particularly for land, are not clear or always enforced especially in the Selva region, partly because of the poor and uncoordinated land-use planning and registration. Currently the Government is highly centralised and facing the challenge of the decentralisation programme. This will place forest resources under Regional Government control in a process which should be completed by January 2004. It is unclear whether Regional Governments will be allocated the resources and capacity to accompany these new responsibilities.

A consequence of these difficult enabling conditions, is the existence of a large informal sector in rural areas, involved in activities such as illegal logging. This sector provides short-term benefits to the local economy, and significant profits to a few actors, but it is severely damaging the resource base that could be used for a more sustainable form of development. It also has an indirect effect in terms of undercutting prices for sustainably produced timber and other forest products, and has a corrupting influence on the social fabric in rural areas. In the face of these difficult enabling conditions, the strategies adopted for forest sector development must be extremely pragmatic and realistic. Transparent, broad-based monitoring must accompany the efforts to open up new areas for sustainable forest management to ensure that the well-intended efforts do not lead to even wider destruction of the resource base.

### **4.2.2 Priority of the Forest Sector in Government Planning and Budgeting**

Despite its potential, the forest sector is not considered in the development plans and policies of the Government of Peru as a sector of major importance for the development of the country. The support given by the Government to moving the forest sector reform agenda forward during the past two years has depended to a high degree on the personal interest and push of the ex. Minister of Agriculture Mr. Alvaro Quijandría (currently Presidential Adviser) during the process, and is hence vulnerable to political changes. INRENA is severely under-

funded and has a weak public image and low capacity to influence cross-sectoral constraints to forestry development. OSINFOR has not been set up.

This situation is commonly perceived as a result of the low capacity of the forest sector to make its case to the national authorities on the potential of the sector to contribute to broader objectives related to macroeconomic development and social goals, such as poverty reduction. There is a lack of an easily communicable "vision" on the role of the sector backed by convincing arguments on the role that the sector can play both at the national and regional levels. The National Forest Strategy, although broadly participatory within the forest sector, has not succeeded in identifying the right arguments in this regard. This is especially the case regarding production forestry. The management of protected areas and biodiversity conservation seem to enjoy broad support by decision-makers, the civil society and the donor community.

#### **4.2.3 Institutional Capacity within the Forest Sector**

Creating an efficient and effective forest sector institutional structure, as established in the Forest Law, is a precondition for the successful implementation of the change process from unsustainable, and to a large extent illegal, forest operations towards sustainable forest management. Given the inherent constraints and weaknesses of public sector institutions in Peru, an effective institutional framework needs to combine public administration with broad-based participation of the civil society to ensure transparency and capacity for conflict resolution. The institutional structures established in the forest law, together with the consultative and participatory structures created during the process of forest legislation reform and the National Forest Strategy process form a good basis for this.

The Forest Law proposes a coherent structure for forest administration and control through the creation of the CONAFOR, the re-engineering of INRENA, the establishment of OSINFOR, and the creation of the multi-stakeholder local Forest Management Committees. The MDCF (national and regional) form an important framework for consultation, conflict resolution, consensus building, coordination and lobbying the common interests of the sectoral actors. These two important but different functions should not be confused or mixed.

#### **4.2.4 Forest Management, Reforestation and Afforestation**

The new Forest Law has provisions for establishing large areas of permanent forest production, which shall be the object of public bidding in the next few years. As far as information is available, no country in South America is mobilising such vast areas for sustainable timber production at such a rapid rate.

The implementation of forest concessions faces a number of challenges, not least of which is the flourishing informal and illegal timber economy in some rural areas, especially in the Selva. Unless it is brought under control, this "informal" sector, with entirely different cost structures, will undercut prices for sustainably produced timber. In addition, because of poor coordination between government departments, and the absence of comprehensive land-use planning there is a risk that concessions may overlap with pre-existing land uses. Even if these problems are resolved, the new concessionaires will face significant challenges in moving from an informal operating style, towards vertically integrated enterprises producing value added products using Lesser Known Species (LKS) and paying concessions fees and

taxes on a regular basis. This will require a change in business culture, access to credit and training and good knowledge of local and international markets.

Concerning reforestation and afforestation, there are a number of significant challenges. The legal obstacles to purchasing land for reforestation concessions, as well as uncertainty concerning the availability of such land, high transport costs, relatively low growth rates and strong competition from other regional producers cast doubt on the financial viability of commercial plantations in the Sierra.

#### **4.2.5 Forest Industry and Markets**

It is estimated that the investment needed to modernise the Peruvian wood processing industry is around USD 400 million. Taking into account the current low level of capitalisation of most industries, creative ways to raise this capital, such as joint ventures and long-term government-backed loans, must be sought. Another constraint faced by wood processing industries, especially those located in remote areas, is inadequate infrastructure, mainly roads and power supply. Product quality and lack of standardisation are other important factors that place the wood industry in Peru at a disadvantage compared to other countries in the region. Lumber is sold by truckloads, without segregation by quality classes or dimensions. This type of arrangement is not conducive to the production of high quality lumber which, in turn, raises cost and presents the buyer with a “non industrial” product. Product quality requires good equipment operated by well-trained workers. Despite the fact that there are some institutions oriented towards technical training and capacity building, the managers in charge of the industries visited in the producing regions pointed out that lack of trained manpower is a serious problem for them.

Since the concession system by law implies the adoption of sustainable management techniques, to be economically feasible, the concessionaire will have to harvest a significantly larger number of species than what is currently done. This will generate large volumes of non-traditional species for which market outlets will need to be found. Certainly some species will be adequate for very exact applications and, for this reason, can fetch high prices; an example of this case are durable woods that can replace chemically treated timber. Other species will be of average quality and will have to be used in applications that consume large volumes of wood and that are “species-tolerant”, i.e., can take various types of wood without affecting product performance. Possible outlets for this type of species would include the manufacture of pre-fabricated houses, where the consumer is much more interested in how the house meets his needs than from what wood it is made. Another possibility is painted furniture, as long the wood is not too heavy or too light; and another still is core material for panel products.

#### **4.2.6 Forest Sector Financing**

There is no consolidated financing mechanism specifically tailored to meet the needs of the forest sector that could effectively support the change process, although a proposal on the promotion of private investments in the forest sector has been developed. There are also structural constraints to investment into sustainable forest management and processing of value-added forest products, such as the lack of an option in the forest law to purchase degraded or deforested land for reforestation purposes. This situation is likely to become a major constraint to implementing the change envisaged in the forest law, and is further aggravated by the fact that a functioning (and therefore competitive) system of financing



illegal and informal logging exists through the system of “habilitadores”. Even such pilot activities as FONDEBOSQUE and CEDEFOR seem to be using somewhat different approaches and financing institutions to channel funding to the concession holders and small- and medium scale industry development, stressing the need for improved coordination and collaboration.

## **5. RECOMMENDATIONS TO PERUVIAN INSTITUTIONS AND ORGANIZATIONS**

### **5.1 Monitoring of Policy Implementation**

Monitoring the impacts (social, economic and ecological) of the new framework for sustainable forest management in Peru should be intensified. This monitoring should be based on transparency of data and information by INRENA and OSINFOR. Important steps in this regard have already been taken by INRENA by making information on illegal logging available on the web. The MDCF (national and regional) as well as the Forest Management Committees, together with civil society organisations, could have an important role in this regard.

Decentralisation and delegation of responsibilities to Regional Governments should be a gradual process accompanied by a continuous assessment, and where necessary strengthening of regional capacities.

### **5.2 Formulation of a National Forest Policy Statement**

It is suggested by the Mission that based on the National Forest Strategy easily communicable forest policy statement should be developed, with focus on the contribution of the forest sector to the broader development objectives of Peruvian society. This “vision” should be backed by a convincing assessment of the potential economic, social and environmental contributions of the sector, as well as an analysis identifying clearly where the comparative advantages of the Peruvian forest sector lie regarding markets and competitiveness. The development of practical strategies linked to regional development planning, well co-ordinated with the efforts in other sectors and broader development programmes (i.e. the emerging policy and strategy for rural development as well as poverty reduction related policies and strategies), should be continued and strengthened to make maximum use of the opportunities presented by the decentralisation process and to minimise potential negative influences. The MDCF (both national and regional) provides a good platform for this work and for building a broad-based ownership to protect this national “vision” and regional strategies against political changes.

The forest sector should also intensify its efforts to work with the entities responsible for national statistics to ensure that the different forest sector contributions are better reflected in the national accounting system, including the environmental services of forests.

### **5.3 Improved Cross-sectoral Coordination and Collaboration**

Improved cross-sectoral coordination will only take place when the stability of the Government institutions is improved, political and special-interest pressures are formalised

and turnover of key staff is reduced. In the shorter term, partial solutions include strengthening of civil society institutions, particularly at local level, effective coordination among agencies involved in land allocation, the planning and construction of rural roads and other infrastructure such as PETA and INRENA, and better and more forceful donor coordination by the Government. Improved dialogue needs also to be developed between the forest sector and the Ministry of Economy and Finance to enable the establishment of financing systems conducive to sustainable forest management and the establishment of forest plantations. The well-functioning consultative structures established by the forest sector at the national and regional levels could be expanded to include representatives from other sectors, including the financial sector, private sector and others, to promote better cross-sectoral coordination and collaboration.

#### **5.4 Resolving Key Institutional Bottlenecks**

The Government of Peru should urgently establish OSINFOR and ensure that it is fully functional and has budgetary allocations in accordance with its mandate and functions. The culture of work of OSINFOR should be transparent (e.g. by making information on the inspections and other operations available on the web) and the key personnel should be nominated in a way that insulates them from political pressures and changes (e.g. appointed by the President of the Republic, as is the case with some other key institutions). The implementation of OSINFOR should be started in critical pilot areas following the process of concession allocation. All actors should actively promote the establishment of the multi-stakeholder Forest Management Committees, with priority in the areas that are affected by illegal logging and/or where there are overlaps of concessions with other land-uses (indigenous communities, agricultural lands).

CONAFOR should also be established to provide overall guidance to forest policy implementation, and the roles of the MDCF (central and regional) clarified in relation to the institutions with a mandate for decision making.

#### **5.5 Setting the Basis for Sustainable Forest Management, Afforestation and Reforestation**

To ensure that the concession system will operate as planned, i.e. in a socially responsible, ecologically sustainable and economically viable manner, efforts to improve the capacity and performance of the concession holders need to be intensified. The strategy chosen by the Government to work with the existing forest operators requires that a “quantum leap” be achieved in terms of their performance. It will be particularly important not to allow the creation of a dual system of forest management under which 1000-hectare concessions continue to be allocated in some areas due to political pressures. There should be no future allocation of 1000-hectare concessions and the new concessions should be allocated in a transparent and fair manner. In addition to the creation of an efficient OSINFOR, this will require that the projects and institutions working to promote the concessions, such as FONDEBOSQUE, CEDEFOR and the local Forest Management Committees will intensify and coordinate their efforts and avoid undercutting and competing with each other. The Mission notes that there are encouraging signs in this direction.

Before large-scale plantations are planned, a clear understanding of the potential of plantation forestry in Peru, based on competitive advantages in the foreign and domestic markets, needs

to be developed. In these assessments the social and environmental impacts and benefits should be carefully considered. Payments for social and environmental services may be the only way to make these plantations viable but it is not clear whether Peruvian citizens are willing or able to pay for these services and to what extent external financing is forthcoming.

## **5.6 Promoting Investment and Industrial Development**

The opportunity offered by the launching of forest concessions should be used to promote industrialisation of larger volumes of wood and larger number of species. One model could be the establishment of industrial parks, with favourable credit lines for equipment acquisition, specifically geared to wood processing (“wood processing clusters”) near the main production regions. These parks could provide needed industrial infrastructure, such as roads, electricity and communications, as well as centralised services for drying and specific secondary processing operations. In addition, facilities could be set up to offer financial services, training and capacity building for industry workers as well as to professionals operating in the forest, and technical assistance to the processing industries. Promoting industrialisation would ensure expanding markets for increasing volumes of wood coming out of concessions.

Since it is recognised that financial resources are scarce, both for working capital and investments, the possibility of establishing joint ventures with foreign corporations that master wood processing technologies and also have good access to markets should be carefully evaluated. In establishing this type of associations, Peruvian business executives could benefit from the official support and orientation of specialised government agencies (such as PROINVERSION).

Sustainable management necessarily implies costs that are significantly higher than those observed in the current model of selective cutting a very small number of species. There is a strong need to increase the number of species taken out of the forest in order to minimise unit costs. Although not widely known in the timber trade, some Peruvian LKS have a pleasant figure and/or aroma and good physical and mechanical properties and could be processed to supply specific niches in the domestic and international market. As is already the case for some companies, production of pre-dimensioned flooring and furniture parts and components could prove highly profitable. Other species, which are abundant but present no special feature in terms of grain figure or texture, could be used in other types of applications where these attributes are not important, such as house construction, painted furniture, boxes, crates and pallets. The producers could be helped in their efforts to find niche markets for these types of products through market research and the development of specific marketing strategies.

## **5.7 Establishing a Mechanism for Forest Sector Financing**

In the short term, improved coordination in the development of financing mechanisms for the concession holders and small- small and medium-scale forest enterprises is needed between FONDEBOSQUE and CEDEFOR to ensure the development of a functioning and uniform system for forest financing which will not create market distortions. A comprehensive approach to forest financing should be developed, including the removal of structural constraints e.g. related to land ownership. This may require the reconsideration of Article 28 of the Forest Law defining reforestation concessions but excluding the possibility of land ownership. The situation in the Sierra and Selva should be examined separately as both

present very particular issues and concerns. Specific actions (such as tax audits) may be needed to cut off or at least reduce financing for the illegal forest operators. The proposed law on forest investments needs to be discussed in the MDCF and actively promoted to ensure that a sound legal basis for a comprehensive approach to forest financing is established.

## **6. IMPLICATIONS TO THE FUTURE ROLE OF ITTO IN PERU**

### **6.1 Overview**

ITTO has over the past decade been one of the few consistent external supporters of the Peruvian forest sector. As reviewed in Chapter 2.7 currently some 80% of the external support in the forest sector is directed towards the participatory management of the Peruvian protected areas system. This trend is even more pronounced regarding the projects in the pipeline, where some 93% of the financing is directed towards the protected areas, including some 70% of the planned ITTO assistance. While there certainly are valid reasons for supporting forest and biodiversity conservation in Peru, the Mission is of the opinion that given the critical situation in the implementation of the new forest policy instruments for sustainable forest management in the permanent production forests, a larger share of the future assistance should be directed for this purpose in the coming years.

The passing of the new forest law together with the long process of formulating the National Forest Strategy to its current status as a consensus based draft, represent a major breakthrough in the evolution of the Peruvian forest sector towards sustainable forest management. At the same time it is evident that the situation at the moment is very volatile. A major setback in implementation could destroy the credibility of the new model in the eyes of the key actors and the general public. All efforts should be expended to prevent this from happening, as the result would in all likelihood be an irreversible slide of the sector back to illegality and destructive practices. On the other hand, the current model, even with its operational problems and conceptual question marks provides perhaps for the first time in the history of the Peruvian forest sector a coherent framework on which external assistance can be based ensuring improved aid efficiency and effectiveness.

### **6.2 Potential New Focal Areas for ITTO Support**

The areas of potential support for ITTO have been identified based (i) on the assessment of key issues and constraints in putting in place the new framework for the forest sector development in Peru, (ii) other on-going/planned efforts supported by external donors, and (iii) ITTO's mandate and comparative advantage. Priority has been given to issues which, in the opinion of the Mission, need to be urgently addressed to remove key constraints and provide answers to questions which constitute critical underlying assumptions regarding the viability of the Peruvian policy implementation for SFM. An attempt has been made to prioritise these issues based on the views expressed by different stakeholders in Peru. It must, however, be noted that the setting of priorities is very tentative and that the Peruvian authorities need to consult the MDCF in the process of deciding which ones of the proposed areas should be further developed into project proposals for the ITTO.

***Focal Area 1 Macroeconomic analysis of the forest sector to assess its contribution to social and economic development***

**Linkage to issues/constraints:** The lack of high level support for the sector is identified as one of the principal reasons for the persistent institutional constraints. The forest sector maintains internally that it is, at least potentially, an important factor in the development of the country. To convince the political decision-makers and the high level Government officials (e.g. in the Ministry of Economy) who decide on budgetary allocations on this, the sector needs to develop solid arguments based on macroeconomic assessments of impact.

**Priority:** high

***Focal Area 2 Potential Peruvian application to the ITTO fund for inter-ministerial coordination***

**Linkage to issues/constraints:** Poor intersectoral coordination with other important sectors has been identified by many actors as one of the weaknesses of the Peruvian forest sector process. ITTO has a facility for supporting high-level intersectoral dialogue and coordination which could be drawn from to address this problem.

**Priority:** high

***Focal area 3 Studies on markets and competitiveness to identify specific opportunities for Peruvian forest industries***

**Linkage to issues/constraints:** The concession system established by the new Forest Law requires the sustainable management of the forest resource, which necessarily implies harvesting larger number of species and processing larger volumes of wood per hectare. In order to effectively market this increased production, marketing and competitiveness studies will have to be carried out in Peru and in potential consumer countries. Competitiveness studies should focus on the entire production chain, from tree felling to the manufacture and distribution of final products. Due consideration should be given to the potential role of “wood processing clusters” located near raw material producing regions, as a tool for promoting competitiveness.

**Priority:** Medium

***Focal Area 4 High-standard feasibility studies of on proposed projects (e.g. forestry mega-project)***

**Linkage to issues/constraints:** The “forestry mega-project” being promoted by the Presidents of the five regions of the so-called “Northern Macroregion” is the most ambitious reforestation project contemplated in Peru so far. It is important that a state of the art feasibility study is carried out on the project concept to ensure its economic, social (especially regarding the availability of land) and environmental viability before additional actions are taken on the political level to promote this project.

**Priority:** high

***Focal Area 5 Feasibility studies on regional/national reforestation plans.***

**Linkage to issues/constraints:** There is also considerable political interest in massive reforestation projects in other parts of the country. One of the important arguments is employment creation, which is a political priority for the Regional Governments. However, at the same time there are doubts whether the current law on reforestation concessions

(especially the Article 28) permits massive investments by the private sector in such projects. Moreover, there are open issues about the actual availability of sufficient amounts of deforested lands for these types of projects. The competitiveness of Peruvian plantation-based timber compared to imports (especially from Chile) is being questioned as well. As with the mega-project, these issues need to be clarified in the other reforestation projects before political commitments are made.

**Priority:** high

***Focal Area 6 International market studies for new species-developing niche markets***

**Linkage to issues/constraints:** Despite the wide variety of species found in the Peruvian rainforests, until recently, exports were concentrated on two high price woods: mahogany and cedar. Woods of excellent technological properties such as storaque, tahuari and shihuahuaco that were not valued by the local timber trade, are now being successfully processed into prefinished and semifinished flooring for the export market. International market studies are fundamental in establishing the potential of the increased number of species that will be logged from concessions. Special attention should be given to niche markets, as is the case of durable species that can replace wood treated with CCA-type preservatives, which contain arsenic compounds, now under severe restrictions in the US and Europe.

**Priority:** medium

***Focal Area 7 Training options for middle management forestry professionals operating in field***

**Linkage to issues/constraints:** One of the results of the forest concession system established by the new Forest Law is that many informal operators, who supplied logs to sawmills and plywood manufacturing plants, will now organise themselves as entrepreneurs in order to participate in the system and continue with their logging activities. These operators, and also professionals working for existing wood industries that apply for concessions, need to receive intensive training in all aspects related to sustainable forest management.

**Priority:** high

***Focal Area 8 Assistance to OSINFOR for developing mechanisms for auditing concessions and timber tracking***

**Linkage to issues/constraints:** To implement its mandate OSINFOR will need to develop mechanisms for auditing forest concessions and for timber tracking. In this OSINFOR can draw on models from Bolivia and other countries as well as intensified certification systems. A comprehensive study and the development of a training package are recommended.

**Priority:** high

***Focal Area 9 Study on financing mechanisms for the forest sector in Peru, and removal of structural barriers to access credit***

**Linkage to issues/constraints:** Forest sector financing, including the whole production chain from reforestation and forest management to harvesting, industrial production and marketing of value-added products will require tailor-made financing mechanisms to make the conversion from unsustainable to sustainable practices take place. It is evident that the standard credits provided by the banking system are not suitable as such for forestry financing. Tailor-made solutions need to be established as part of the forest policy implementation framework, including the tapping of such innovative approaches as payments

for environmental services. Several issues related to structural barriers to forestry financing need also to be addressed (e.g. land ownership related issues, issues related to using concessions as collateral, etc.) A comprehensive study, drawing also from the experiences of other countries in the region and elsewhere, is suggested to address this constraint.

**Priority:** medium

***Focal Area 10 Support to CITES scientific and management authority***

**Linkage to issues/constraints:** Peru's CITES scientific authority lacks the basic resources necessary to implement its mandate. Urgent assistance is needed for the authority to issue CITES certificates. This will involve field work to collect more information on the distribution and status of mahogany as well as recruitment of staff and consultants to make assessments.

**Priority:** high

## TERMS OF REFERENCE FOR DIAGNOSTIC MISSIONS

The Terms of Reference of a Diagnostic Mission to any country will be to:

1. Identify the factors that are most critical in preventing the attainment of sustainable for management in that country.
2. Assemble these constraints in order of importance.
3. Recommend a sequence of actions to remove the constraints, providing cost estimates whenever possible.

The Mission will also pay special attention to recent developments in Peru (e.g. new forest law, illegal logging/forest law enforcement, programme of forest concessions) and to measures to facilitate and promote actions related to these developments in support of sustainable forest management.

### Notes of Guidance

The principles underlying the Diagnostic Missions are these:

1. In any situation, there is usually one factor that is most crucial in preventing progress. Until this constraint is removed, no progress is possible on any other front. But, once this first constraint removed, there may be another that, in its turn, limits progress, etc.
2. The objective of the Diagnostic Mission is to identify these constraints, to arrange them in a sequence and recommend appropriate action.
3. The exact procedures for the Mission will depend upon the circumstances in the country concerned. It should, however, include:
  - Discussion with government ministers and senior members of the department responsible for forests, land use and trade.
  - Discussion with forest managers and representatives of the timber trade.
  - Discussion with the principal NGOs concerned with forest questions.
  - Examination of the National Forestry Action Plan.
  - Visits to selected forest areas and forest industries that illustrate particular problems opportunities.
4. The important constraints are likely to lie in Criterion 1 of the National Level Criteria and Indicator and particularly in the subjects dealt with in Indicators 1.1 to 1.5.
5. The following questions may be found helpful in defining the subject areas in which constraints may be found. It is NOT intended that the Mission should provide answers to all these questions.

*Policy.* Is there a national land use policy? Is there a national policy for the sustainable management of a permanent forest estate? If not, why?

*Extent.* What area of natural forest is managed for the sustainable production of timber?

*Allocation.* Is there a satisfactory system for choosing, demarcating and protecting those areas that will be used as production forest? If not, why?

Is there a satisfactory system for choosing, demarcating and protecting those areas that will be used as protection/conservation forest? If not, why?

Are there pressures from other sectors or interests to remove productive forest from forest use? What measures are being taken to counter or divert these pressures?

*Sociological and economic conditions.* In what ways do the various people who have an interest in or are affected by the management of the forest, benefit from this management or suffer from mismanagement (people dwelling in or near the forest, loggers, middlemen, wood processors, small industries, the Forest Authority, consumers generally, other government



revenues)? Are the benefits adequate to provide an incentive to good management? Is there equitable distribution of these benefits? If not, why?

*Management.* Are there any management plans guiding timber production? Are the objectives of management conducive to sustainable production? Are the management prescriptions appropriate for the particular forest type? Are they rigorously applied and reviewed? If not, why?

*Pre-exploitation survey.* How comprehensive and adequate is the pre-exploitation survey: choice and marking of trees for felling; analysis of trees to remain unfelled; existing regeneration; environmental conditions; routing of extraction roads? If inadequate, why is this so?

*Choice of exploiters.* Does the choice take into account the best long-term interests of the forest? How?

*Conditions of exploitation.* Do these bring reasonable benefits to the various parties concerned: government revenues, any reforestation fund, the logging companies, local contractors, logging labour, those with customary rights in the land?

Are the conditions of exploitation such as to encourage long-term investment in the sustainable management of the forest? Are there reasonable incentives to encourage good management? What proportion of revenues are returned to forest management? If these conditions are not met, what prevents it?

*Quality of exploitation.* Are there guidelines for the siting, construction and maintenance of extraction roads, weather in which exploitation should not take place, equipment to be used, directional felling, cutting of lianes, etc.? Are such guidelines followed? If not, why? Are the above conditions monitored during and after exploitation? How? How well?

*Post-exploitation survey and treatment.* Are there guidelines? Are they sensitive to different forest types? Are they adhered to? Is later performance monitored? How? If not, why?

*Control.* Is there effective control of operations at all stages? If not, why?

*Follow-up.* Are there arrangements for monitoring and reviewing prescriptions? If not, why?

*Research.* Is research designed to support sustainable timber production from natural forest? Is it adequate to provide the necessary information to answer the questions set out above? Are there permanent sample plots to provide the data upon which sustainable yield can be calculated? Are the data processed and made available to management within a reasonable time?

*Education and training.* Are sufficient trained staff at all levels being produced with qualifications in the skills needed in natural forest management?

**PROGRAMME OF THE MAIN MISSION**

<b>Date</b>	<b>Time</b>	<b>Programme</b>
Sunday, 1 June, 2003		Arrival of the Mission members
Monday, 2 June, 2003	9 am 1 pm 3 pm 4 pm	Meeting with FONDEBOSQUE and local consultants Lunch in FONDEBOSQUE with Mr. Marco Romero, Forest Intendent of INRENA, and with his team members Internal work meeting discussing the problems, dividing the tasks and finalising the work schedule Meeting with Forest Sector Consultative Forum
Tuesday, 3 June, 2003	8 am 9 am 11 am 1 pm 5 pm	Arrival and briefing for Dr. Christopher Elliot Meeting with Mr. Kees Konstapel, Embassy of the Netherlands Meeting with NGOs: <ul style="list-style-type: none"> <li>• Ms. Micha Torres/PRONATURALEZA</li> <li>• Mr. Carlos Soria/Foro Ecológico</li> </ul> Lunch with Ms. Fabiola Morales, President of the Environmental and Ecological Commission of the Congress of Peru Meeting with the directors and management team of FONDEBOSQUE
Wednesday, 4 June, 2003	8.30 am 9.50 am 10.30 am 1 pm 3 pm 5 pm	Revision of information Meeting with Mr. Jorge Elgegren, USAID Meeting with Mr. Teddy Peñaherrera and Mr. Jorge Malleux, WWF Lunch Meeting with <ul style="list-style-type: none"> <li>• Mr. Gustavo Suarez de Freitas, Intendent of Protected Natural Areas, INRENA</li> <li>• Mr. Carlos Ponce, Conservation International</li> <li>• Mr. Pedro Solano, SPDA</li> <li>• Mr. Jorge Ugaz, PRONATURALEZA</li> <li>• Mr. Alberto Paniagua, PROFONANPE</li> </ul> Meeting with forest strategy group: <ul style="list-style-type: none"> <li>• Mr. José Dancé, Coordinator</li> <li>• Mr. Hugo Carrillo</li> </ul>
Thursday, 5 June, 2003	6 am	Travel to Cajamarca <ul style="list-style-type: none"> <li>• Visits to potential reforestation areas/Workers' Cooperative, Atahualpa, Jerusalén (Granja Porcón)</li> <li>• Discussion with different acting groups: ADEFOR, local communities, local government, governmental authorities, INRENA and NGOs</li> </ul>
Friday, 6 June, 2003	8 am 12.30 pm 15.15 pm 17.30 pm	Return from Cajamarca to Lima Travel to Pucallpa <ul style="list-style-type: none"> <li>• Discussions with forest concessionaires and their associations</li> <li>• Discussions with regional/local government authorities</li> <li>• Discussions with local NGOs</li> <li>• Discussions with Forest Sector Consultative Forum of Ucayali</li> </ul> Meeting with ACOFU in FONDEBOSQUE Meeting with the representatives of Forest Sector Consultative Forum/NGOs in FONDEBOSQUE
Saturday, 7 June, 2003	8.30 am 10.15 am 11.45 am 1.30 pm 5 pm	Visit to Alpirosa sawmill Visit to Anaconda sawmill Visit to Triplay Amazónico Lunch with industrialists/sawmillers Returning to Lima (Note: Mr. Amantito Ramos de Freitas stayed in Pucallpa for further discussions with forest, industrial and commercial concessionaires, returning to Lima on Monday, 9 June, 2003)
Sunday, 8 June, 2003		Open day for first discussions in Lima

Date	Time	Programme
Monday, 9 June, 2003	9 am	Travel to Puerto Maldonado
	12.30 pm	Meeting with Mr. Wilson Miranda Pacheco, President, FEPEFMAD
	2.30 pm	Lunch
	3.30 pm	Meeting with FONCONDES and Tambopata Carpenters (APEMIPE), Mr. Manuel Calloquispe, President
	4.45 pm	Meeting with Mr. Victor Pesha, President, FENAMAD
	6.30 pm	Meeting with Mr. Héctor Cardicel Pérez, President, FEDECAM
		Meeting with possible operators: WWF, PRONATURALEZA, CI, ACCA, CESVI, etc.
Tuesday, 10 June, 2003	7 am	Breakfast with Local Authorities, INRENA and FONCODES
	8.30 am	Meeting with Mr. Aurelio Eduardo Zavala Cancho, Mayor of Tambopata
	10 am	Meeting with Regional President of Ucayalí, Mr. Rafael Ríos Lopez
	11.30 am	Return to Lima
		<ul style="list-style-type: none"> <li>• Mission meetings in Lima: discussing mission continuation, initial conclusions and agreements of following meetings for every mission member</li> </ul>
Wednesday, 11 June, 2003	9 am	Individual meetings for further clarifications and report writing
Thursday, 12 June, 2003	8 pm	Individual meetings for further clarifications and report writing
		Dinner –meeting with INRENA officials:
		<ul style="list-style-type: none"> <li>• Dr. César Alvarez Falcón, Director</li> <li>• Mr. Félix Rivera Lecaros, President</li> <li>• Mr. Enrique Serrano Niño, Vice President</li> <li>• Mr. Marco Romero Pastor, Forest Intendent</li> </ul>
Friday, 13 June, 2003	9 am	Meeting with Mr. Luis Valderrama, Consultant/INRENA and Coordinator/INRENA-PETT
	11 am	Meeting with Mr. Milton von Hesse, Ministry of Economy and Finance
	3 pm	Meeting with national consultants
		<ul style="list-style-type: none"> <li>• Dr. Jessica Hidalgo</li> <li>• Mr. Javier Arce and Mr. José Dancé of National Forest Strategy</li> </ul>
Saturday, 14 June, 2003		Internal work of the mission
Sunday, 15 June, 2003		Internal work of the mission
Monday, 16 June, 2003	11 am	Meeting with Ambassador Kimmo Pulkkinen, Embassy of Finland, and Mr. Julio Ocaña and Mr. Luis Flores, representatives of DEVIDA
	4 pm	Final debriefing meeting with Forest Sector Consultative Forum

**LIST OF PERSONS, ORGANISATION AND INSTITUTIONS MET**

<b>Persons/stakeholder groups met</b>	
Mr. Javier Arce	Consultant
Mr. Alfonso Lopez Mestanza	Executive Director, ADEFOR
Mr. Roberto Saveri	Managing Director, Alpi Rosa
Mr. Manuel Calloquispe Flores	President, APEMIPE
Mr. Wilson Miranda	President, Association of Timber Concession Holders
Mr. Glesny Nishida Ventura	Manager, Madera Catahua S.A.C
Ms. Vanesa Cuenca Cruz	Assistant, CEF ERL
Mr. Julio Cusurichi Palacios	Vice President, FENEMAD
Ms. Juana Payaba	President, CCNN Tres Islas
Mr. José Armando Flores Alcazar	Director, Centre of Technical Wood Innovation
Mr. Nelson Khol Kohel	Project Assistant, CESVI
Dr. César Sabogal	Regional Coordinator, CIFOR – Embrapa
Mr. Carlos F. Ponce	Vice President, Conservation International Peru
Mr. Luis Flores	Forestry Advisor, DEVIDA
Mr. Julio Ocaña	Forestry Consultant, DEVIDA
Ms. Nila Gamarra Rivera	Director, Ecobosque SRL
Mr. Carlos Trujillo Girona	Technical Advisor, PRA Project, Economic Services Centre, Pucallpa (USAID/Chemonic International)
Mr. Kees Konstapel	First Secretary, Embassy of the Netherlands
Ms. Karen Cordova Aguilar	Director, EMPIA
Dr. Giovanni Forno Flórez	Advisor, Environment and Ecology Commission Congress of Peru
Dr. Fabiola M. Morales	President, Environment and Ecology Commission, Congresswoman of Peru
Mr. Victor Pasha Baca	President, FENAMAD
Ms. Elvira Gomila Gotto	Secretary, Federation of Brazil Nut Farmers
Ms. Ninoska Diaz Gonzales	Coordinator of Environmental Services, FONDEBOSQUE
Mr. Xavier Gordillo Carrillo	Promotion and Development Manager, FONDEBOSQUE
Mr. Juan Carlos Guzmán Carlin	Chief of Forest Information, FONDEBOSQUE
Mr. Emilio Pinedo Arévalo	Business Advisor, FONDEBOSQUE
Mr. Roger Tarazona Reyes	Regional Coordinator of Ucayali, FONDEBOSQUE
Mr. Enrique Toledo G.P.	Executive Director, FONDEBOSQUE
Mr. Roberto Zapata Ugstad	Head of Projects, FONDEBOSQUE
Dr. Carlos Soria	Coordinator of Environmental Law and Politics, Foro Ecológico FE
Mr. Klian Baumeler	Chairman of the Board, GEA S.A.
Mr. Koichi Suzuki	Managing Director, Goshu Trading PTY. Ltd
Mr. José Chacaltana Garcia	Commercialisation, Industria de Madera y Afines El Sol S.A.C.
Dr. César Alvarez Falcon	Head of INRENA
Mr. José Dancé Caballero	Coordinator, National Strategy for Forestry Development
Mr. Mikel Manrique Rivero	PNM, INRENA
Ms. Georgina Rodriguez Baca	Catastro Forestal, INRENA
Mr. Marco Romero Pastor	Forestry and Wildlife Public Administrator, INRENA
Mr. Gustavo Suárez de Freitas C.	Public Administrator of Protected Natural Areas, INRENA
Mr. Luis Valderrama	Consultant/INRENA and Coordinator/INRENA-PETT
Mr. Hugo Carrillo Vargas	Consultant, National Forest Strategy for Forestry Development
Mr. Sergio Chulla	Director, Instituto Superior Técnico
Mr. Giacomo Franchini M.	Operational Manager, Maderas Peruanas S.A.C.
Mr. Moises Lazo Pizango	Manager, Maderera Boleo S.A.C (MADEBOL)
Ms. Margarita Peri Mamani	Manager, Maderera Boleo S.A.C (MADEBOL)
Mr. Rafael Edwin Rios López	President, Regional Government of Madre de Dios
Mr. Walter H. Diaz Puma	Manager, Maproin SAC
Mr. Milton von Hesse	Consultant, Ministry of Economics and Finance
Mr. Wilfredo Ojeda O.	President, National Forestry Chamber
Mr. John J. Leigh	Conservation Officer/ Projects Manager, ITTO
Mr. Miguel Planas Morelli	Executive President, Partes y Piezas S.A.C. – P y P
Mr. Rafale Tolmos T.	Manager, Peru Timber S.A.C., Pucallpa

<b>Persons/stakeholder groups met</b>	
Mr. Alberto Paniagua V.	Executive Director, PROFONANPE
Mr. Favio Rios Bermudez	Director, PRONATURALEZA
Ms. Micha Torres	Director of Conservation Policy and Interinstitutional Relations, PRO-NATURALEZA
Mr. Wilson Miranda P.	Manager, Shihuahuaco
Mr. Antonio Brack	Environmental Advisor, UNDP
Mr. Hugo Dueñas Linares	Director, UNAMAD
Mr. Ignacio R. Lombardi	Faculty of Forest Sciences, University of La Molina
Mr. David Gonzalez G.	Coordinator, UNSAAL
Mr. Raúl Dancé	Trade Officer, Peru Programme Office, WWF
Mr. Jorge Malleux	Consultant, Peru Programme Office, WWF
Mr. Teddi Peñaherrera	Manager of Program and Sustainable Development, WWF Peru
Consejo Consultivo de INRENA (participation in the initial meeting of the Council)	
Forest Concessionaires' Association of Ucayali, ACOFU	
Forest Producers' Association of Ucayali, APROFU	

**LIST OF DOCUMENTS CONSULTED DURING THE DIAGNOSTIC MISSION**

2002. Estándares de Certificación del Manejo Forestal para Productos maderables en Bosques de la Amazonía. Consejo Peruano para la Certificación Forestal Voluntaria.
- Anduaga, J. 2002. Sistematización de algunos Indicadores Forestales de Impacto Económico Social y Ambiental.
- Arce, J. 2001. Manejo de Bosques y Estándares de Certificación. September 2001.
- Arce, J. 2003. Evaluación de las Principales Limitantes para el Manejo Forestal Sostenible. May 2003.
- Banco Central de Reserva del Perú. 2003. Reporte de Inflación: Evolución y Perspectivas. May 2003.
- Brack, A. 2002. Perú Biodiversidad y Biocomercio Situación Actual y Potencial. December 2002
- Callister, D. J. 1999. Corrupt and Illegal Activities in the Forestry Sector: Current Understandings, and Implications for World Bank Forest Policy. May 1999.
- Cano, J. 2001. Bases para una Estrategia para Uso y Consumo de Madera en la Industria de Construcción. Proyecto FAO GCP/PER/035/NET. Lima. Typescript, 49 pp.
- Cano, J. 2002. Bases para una Estrategia para Uso y Consumo de Madera en la Industria de la Construcción. September 2002.
- Dancé, J. 2001. Algunas Consideraciones para la Elaboración de Planes de Manejo en Concesiones Forestales. September 2001.
- El Clarín. 2003. Se inauguró II Junta de Coordinación Interregional de Presidentes Regionales. April 2003.
- Estrategia Nacional Forestal (Documento Preliminar). Proyecto FAO GCP/PER/035/NET. December 2002.
- Estrategia Nacional para las Areas Naturales Protegidas. Plan Director.
- FAO. 2002. Evaluación de los Recursos Forestales Mundiales 2000. Informe Principal. Serie Estudio FAO Montes N. 140. Roma. 468 pp.
- Flores, A. C. 2001. Visión General de la Reforestación en el Perú. September 2001.
- Fondebosque. 2003. Bases del Fondo Concursable para Negocios Forestales. May 2003.
- Fondebosque. 2003. Concesiones Forestales con Fines Maderables en el Perú. May 2003.
- Fondebosque. 2003. Diagnóstico de la Industria Forestal. Typescript, 9 pp.
- Fondebosque. 2003. Lineamientos para el Planeamiento Estratégico de Fondebosque. January 2003.
- Fondebosque. 2003. Manual de Organización Administrativa y Control Interno. January 2003.
- Fondebosque. 2003. Mesa de Diálogo y Concertación Forestal. May 2003.
- Fondebosque. 2003. Oferta Exportable de Productos Forestales Maderables. March 2003.
- Fondebosque. 2003. Plan Operativo Anual 2003. January 2003.
- Fondebosque. 2003. Políticas Forestales En El Perú. March 2003.
- Fondebosque. 2003. Recursos Forestales Peruanos. March 2003.
- Fondebosque. 2003. Sistema de Fondo Concursable, Monitoreo y Seguimiento. January 2003.
- Galarza, E. C. 2003. Contribución del Sector Forestal para los Objetivos Macro de la Sociedad Peruana. Fondebosque, Lima. Typescript 21 pp.

- Gobierno Peruano. 2002. Decreto Supremo N° 052-2002-AG: Crean Comisión Multisectorial de lucha contra la Tala Ilegal. October 2002.
- Gobierno Peruano. 2002-2003. Ley Orgánica de Gobiernos Regionales y su Modificatoria. December 2002. January 2003.
- Guerrero, A. & G. Pajares. 2001. Aportes para una Estrategia Nacional de Manejo Sostenible de los Ecosistemas de Montaña en el Perú. December 2001.
- Guerrero, A. Lineamientos y Estructura para el Diseño de la Estrategia Nacional Forestal. December 2001.
- Guzman, J.C. 2003. Descripción del Sector Forestal. Fondebosque, Lima Typescript, 35 pp.
- Hidalgo, J. 2003. Evolución de las Políticas y Marco Institucional. May 2003.
- Hidalgo, J. & J. Arce. 2003. Conflictos entre la Actividad Forestal y Otros Sectores. Informe de Consultoría. FONDEBOSQUE. July 2003.
- INRENA & Sociedad Peruana de Derecho Ambiental. 2002. Compendio de Legislación de Areas Naturales Protegidas.
- INRENA. 1999. Informe del Perú sobre el Progreso Alcanzado para el Logro del Objetivo del Año 2000. December 1999.
- INRENA. 2002. Propuesta de Reglamento Interno de Comités de Gestión de Bosque. October 2002.
- INRENA. 2002. Proyecto de Decreto Supremo para la Venta de Vuelo Forestal en Madre de Dios y comentarios de la Comisión de Gradualidad de la MDCF. October 2002.
- INRENA. 2003. Artículo Periodístico: Comisión Especial de Lucha contra la Corrupción del Instituto Nacional de Recursos Naturales – INRENA. February 2003.
- INRENA. 2003. Informe de la Estrategia de Comunicaciones relacionada al proceso de Concesiones.
- INRENA. 2003. Informe Nacional Sobre los Criterios e Indicadores para la Ordenación Sostenible de los Bosques Tropicales Naturales 2002. March 2003.
- INRENA. 2003. Ley Forestal y de Fauna Silvestre, Reglamento de la Ley y Legislación que modifica el Reglamento. March 2003.
- INRENA. 2003. Principales Proyectos de Cooperación Técnica Internacional concluidos, en ejecución y por ejecutarse.
- INRENA. 2003. Reglamento de Organización y Funciones del INRENA. January 2003.
- ITTO Tropical Timber Market Report, 16-31 January, 2003, p. 4.
- ITTO Tropical Timber Market Report. 1-15 March, 2002, p. 17.
- ITTO Tropical Timber Market Report. 16-28 February, 2002, p. 18.
- Linares, C. 2001. Diagnóstico y Propuesta de la Investigación Forestal en el Perú. December 2001.
- Lombardi, I. 2001. Identificación y Diagnóstico de Áreas Forestales Degradadas. September 2001
- MDCF. 2002. Concesiones para Forestación y Reforestación. Comisión de Gradualidad de la MDCF.
- MDCF. 2002. Propuesta de Plan de Gradualidad. Mesa de Diálogo y Concertación Forestal (MDCF). December 2002.
- MEF. 2001. Lineamientos Básicos del Plan Estratégico Nacional 2002-2006. Ministerio de Economía y Finanzas (MEF).

- MEF. 2002. El Desempeño Macroeconómico del Actual Gobierno. Informe. Ministerio de Economía y Finanzas (MEF).
- Núñez, M. 2003. Estudio de Costos y Rentabilidad de las Plantaciones de Eucalipto y Pino en la Costa y Sierra del Perú. February 2003.
- Oregón, R. 2001. Taller de Elaboración de la Visión del Sector Forestal. September 2001.
- Palomares, B. Identificación de Indicadores de Servicios Ambientales, Manejo de Cuencas y Ecoturismo. December 2001.
- Párraga, R. 2001. Diagnóstico Preliminar de la Investigación Forestal en el Perú. September 2001.
- PROFONANPE. 1995-2000: El Primer Fondo Ambiental del Perú (Peru's First Environmental Fund).
- Propuesta de Unidades de Aprovechamiento para Pequeños Extractores. 2003. Mesa de Concertación para el Desarrollo Forestal Sostenible de la Región de Ucayali. February 2003.
- Pulgar Vidal, M. 2002. Propuesta del Reglamento de OSINFOR. December 2002.
- Ríos, M. T. 2001. Colección, Análisis y Presentación de Información Socioeconómica del Sector Forestal en el Perú.
- Ríos, M. T. 2001. Compilación y Análisis sobre Productos Forestales No Madereros (PFNM) en el Perú. Proyecto GCP/RLA/133/EC. Oficina Regional de la FAO para A. Latina. Santiago. Typescript, 50 pp.
- Ríos, M. T. & G. Delgado. 2002. Plan de Identificación, Estandarización y adaptación de la Oferta de Productos de Madera Tropical para Atender la Demanda de la Industria de la Construcción Nacional y de Exportación. November 2002.
- Shell/WWF. 1993. Adapted from "Tree Plantation Review, Study No 12 – Guidelines". London. 31 pp.
- Silva Ruete, J. 2003. Perú: Situación Económica y Perspectivas. La Región y el Perú ante Nuevos Desafíos. Conferencia Internacional del Ministerio de Economía y Finanzas (MEF). May 2003.
- Siqueira, J. 2001. Visión General del Manejo de Bosques en el Perú. September 2001.
- Soria, C. 2002. Aportes para el Análisis de la Normatividad para el Desarrollo Sostenible de la Amazonía en la Década Fujimori.
- Soria, C. 2003. ¿Adiós a los Bosques Amazónicos? March 2003.
- Toledo, E. 1999. Estudio de la Competitividad de la Industria Maderera Peruana y de las Exportaciones en el Mercado Internacional. Doc. Técnico Pre-Proyecto OIMT PPD 5/98 Rev. 1. Lima. Typescript 93 pp.
- Toledo, E. 2001. Elaboración de la Propuesta Técnica y Legal para la Promoción de las Inversiones Privadas en el Sector Forestal. Informe de Consultoría. July 2001.
- Toledo, E. 2001. Informe del Mercado Forestal Peruano (Versión Inglés). June 2001.
- Toledo, E. 2002. Análisis para la Implementación de un Mecanismo de Countertrade en el Sector Maderero de Perú. March 2002.
- Toledo, E. 2003. Análisis para la Implementación de un Mecanismo de Countertrade en el Sector Maderero de Perú. Informe Final. Fondebosque, Lima. 34 pp.
- Toledo, E. & C. Rincón. 1996. Utilización Industrial de Nuevas Especies Forestales en el Perú. ITTO/CNF/ Inrena. Lima. 240 pp.



## THE PERUVIAN FOREST INDUSTRY IN THE REGIONAL CONTEXT

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## 1. BACKGROUND

Table 1 presents some basic data for Peru and for four other South American countries: Bolivia, Brazil, Chile and Ecuador. These countries have been selected in order to provide a basis for comparison for the wood industry sector of Peru.

**Table 1 Data Profile for Some South American Countries - 2001**

Country	Population (1 000)	Population growth (%/year)	GNI USD 1 000	GNI per capita USD	Exports of goods & serv. USD 1 000	Imports of goods & serv. USD 1 000
Peru	26 300	1.5	52.200.000	1 980	8 530	9 340
Bolivia	8 500	2.1	8 100 000	950	1 465	1 960
Brazil	172 400	1.2	528 900 000	3 070	67 335	72 360
Chile	15 400	1.1	70 600 000	4 590	23 075	21 745
Ecuador	12 900	1.8	14 000 000	1 080	5 615	6 155

Source: World Bank, 2003

Despite its great potential, the forest sector of Peru does not make a significant contribution to the national economy: estimates vary from 0.6 to 1.3 of the GDP<sup>13</sup>. In fact, according to data published by the National Institute for Natural Resources – INRENA, after reaching a peak of 1.2 million cubic meters (roundwood equivalent – rwe) in 1996, in 2001 the total volume of wood products decreased to 600 000 cubic meters (rwe), about 80% of which is sawnwood. Since 1995, imports have exceeded exports of forest products. Table 2 presents information on forests and forest products trade for Peru and the four South American countries already mentioned. Although Peru has about 2% of the world forests, its exports of forest products in 2001 was less than 0.1% of the world total.

**Table 2 Forest Area and Forest Products Trade for Some South American Countries – 2001**

Region/Country	Land area	Forest area	Imports	Exports
	1 000 ha		USD 1 000	
World	13 063 900 (100%)	3 869 455 (100%)	140 879 699 (100%)	132 157 346 (100%)
S. America	1 754 741 (13.5%)	885 618 (22.9%)	2 852 390 (2.0%)	4 967 018 (3.8%)
Peru	128 000 (1.0%)	65 215 (1.7%)	273 637 (0.2%)	95 053 (0.07%)
Bolivia	108 438 (0.8%)	53 068 (1.4%)	30 497 (0.02%)	23 030 (0.02%)
Brazil	845 561 (6.5%)	543 905 (14.1%)	780 428 (0.6%)	2 640 859 (2.0%)
Chile	74 881 (0.6%)	15 536 (0.4%)	234 270 (0.2%)	1 586 325 (1.2%)
Ecuador	27 684 (0.2%)	10 557 (0.3%)	119 314 (0.08%)	58 561 (0.04%)

Source: FAO, 2003

## 2. MAIN SPECIES

### 2.1 Native Species

Although forests of the Peruvian Amazon region show great potential, with commercial volumes up to 20–30 cubic meters per hectare, current logging activities are concentrated mainly on two valuable species, mahogany (*Swietenia macrophylla* King) and cedar (*Cedrela odorata* L. and *Cedrela fissilis* Vell.). The high prices fetched by these two species on

<sup>13</sup> Galarza, E. C. 2003. Contribución del Sector Forestal para los Objetivos Macro de la Sociedad Peruana. Fondebosque, Lima. Typescript 21 pp.

international markets has encouraged extraction of logs from remote areas, even from those not open to logging, without much control by forest authorities.

Usually the logs are cut during the dry season and brought near water bodies for transportation during the rainy season. Some companies also use barges to carry these logs, but at significantly higher prices. Band-saw mills are normally used to cut boards and planks, 1" to 4" thick and 6' length and longer, which are graded according to the NHLA rules and shipped to North and Central America. In recent years some companies have established secondary processing plants to produce value-added products made from heavier woods, such as shihuahuaco (*Coumarouna odorata* Aubl.), estoraque (*Myroxylon balsamum* (L.) Harms), tahuari (*Tabebuia ochracea* (Cham.) Standl and *T. serratifolia* (Vahl) Nichols. ) and capirona (*Calycophyllum spruceanum* Benth.) for the export market. Since these products require kiln-dried wood, companies involved in their production have bought new dry kilns or retrofitted old ones.

The abundant availability of large logs, e.g. 0.80 m to 1.00 m in diameter, of two light weight species, Lupuna (*Chorisia insignis* H.B.K. and *C. integrifolia* Ulbr.) and Catahua (*Hura crepitans* L.) has encouraged the establishment of plywood mills in the region. These mills supply local and international markets with interior grade, decorative face plywood for the furniture and the building industry.

About 80 other species<sup>14</sup> have been supplied to the national and local markets for many different types of applications. Many of these woods are commercialized as "roble corriente" ("common oak"), without much attention given to separating individual species.

A significant effort to introduce lesser known species, or LKS as normally referred to in the wood trade, was made a few years ago by the National Forest Chamber - CNF, with assistance from ITTO by means of Project PD 37/88 (I) Rev.3<sup>15</sup>. This project studied 41 new species with potential to supply national and international markets and selected 20 of them to be tested abroad for various applications. A number of them received favorable ratings from importers in Europe, United States and Japan and are now being exported as added-value products with good profit margins. Some of these woods, such as capirona, estoraque, tahuari and shihuahuaco, have been used for a long time in Brazil where their excellent properties are much appreciated. It must be mentioned that estoraque has become a very precious wood for the export market, mainly as pre-finished and semi-finished flooring, reaching prices near the range of mahogany. Some market analysts predict that, when Appendix II of the CITES convention becomes applicable to mahogany next November, estoraque will become the most important species for Peruvian exporters<sup>16</sup>.

It is interesting to note regarding the 27 species processed in Pucallpa during the initial stages of the ITTO project that five of them (shihuahuaco, capirona, manchinga, yacushapana, cachimbo) accounted for about 50% of the total volume and 13 for 83% of the volume of lumber produced. For the 14 species processed in Iquitos, three (cedrillo, quillosisa, mari mari) corresponded to 57.4% of the total volume and seven to 85%. For the 27 species processed in Pucallpa during the final phase of the project, four (utucuro, capirona, cachimbo, copaiba) corresponded to about 52% of the total volume of lumber produced and 14 to 89%.

<sup>14</sup> Guzman, J.C. 2003. Descripción del Sector Forestal. Fondebosque, Lima Typescript, 35 pp.

<sup>15</sup> Toledo, E. & C. Rincón. 1996. Utilización Industrial de Nuevas Especies Forestales en el Perú. ITTO/CNF/ Inrena. Lima. 240 pp.

<sup>16</sup> ITTO Tropical Timber Market Report, 16-31 January, 2003, p. 4.

One conclusion that could be drawn from these figures is that, although the rain forest may present a very high number of species, industrial production will be based on relatively few of them. Another observation is that, although quite heterogeneous, different areas of the rain forest may present surprisingly high concentrations of a few species that can be directed to special market niches, like the capirona for flooring, and the quinilla (*Manilkara bidentata*) for pallets. These facts reinforce the importance of carrying out a careful forest inventory for the forest management plan and the annual operational plans.

Special importance can be given to durable species, which can replace chemically treated non-durable woods, since there is a growing concern by environmentalists and consumers in general about the hazards presented by the utilization and disposal of wood preserved with CCA, a product containing arsenic compounds. On February 12, 2002, US Environmental Protection Agency (EPA) announced that beginning January 2004 it would ban wood preservatives containing arsenic. The EU Commission is also considering restriction of the use of this type of product, informing that the use of CCA-treated wood has fallen approximately 50% in the period 1989-1996, to about 11 000 tons per year<sup>17</sup>. Although the wood preservation industry is certain to introduce new, less hazardous products their cost will probably be significantly higher than that of CCA. This will be a good opportunity to introduce lesser known species that can perform well in applications with exposure conditions that favor decay and/or insect attack, such as outdoor construction, garden furniture, fences etc.

## 2.2 Plantation Species

A forest plantation is an area planted with trees of one or more species, usually for the production of wood, but not exclusively. The special attribute of plantations, in contrast to native forests, is their ability to produce high and uniform volumes of selected products under somewhat controlled conditions<sup>18</sup>. Forest plantations, especially in tropical regions, can become a powerful tool in promoting socio-economic development of areas that, otherwise, would remain marginal to the national economy.

In comparison with native forests, plantations offer some significant advantages:

- accessibility: plantations can be established near consumption centers, thus reducing transportation costs which, many times, can exceed the price of the wood at its production site;
- productivity: depending on local conditions of soil and climate, forest plantations can produce one of the highest yields of biomass on the planet, up to 50 tons per hectare per year. For industrial plantations in the tropics, it is reasonable to expect yields of around 15–25 m<sup>3</sup>/ha/year. For eucalypt plantations established in Brazil in the last decade by the pulp and paper sector, average yield is around 45 m<sup>3</sup>/ha/year;
- homogeneous material: normally only a few species are used in plantations and, sometimes, only the best clones of a single species are used. For this reason, raw material obtained from plantations has uniform properties that simplify processing and improve product yield and quality;

<sup>17</sup> ITTO Tropical Timber Market Report, 16-28 February, 2002, p. 18 and 1-15 March, 2002, p. 17

<sup>18</sup> Adapted from "Tree Plantation Review, Study N<sup>o</sup> 12 – Guidelines". 1993. Shell/WWF. London. 31pp.

- environmental services: in addition to protecting watersheds and minimizing soil erosion, forest plantations due to their rapid growth can function as important carbon sinks;
- social benefits: establishing plantations require large inputs of relatively unskilled labor. As they grow, plantations become less labor intensive but workers can be trained to carry out activities, such as the manufacture of wood products, which utilize the raw material they produce. In remote areas, plantation-based forest industries can act as promoters of socio-economic development, by providing local populations with basic services as health and education and also transportation and communication infrastructure.

According to data published by FAO<sup>19</sup>, in 2000 forest plantations covered a total area of about 187 million hectares, 62% in Asia and 27% in South America. About half of forest plantations are established for industrial purposes and, although they cover less than 3% of the forest area of the globe, they contribute to 35% of the total production of industrial roundwood. Plantations in the tropical and subtropical regions, which constitute 44.7% of the resource, are dominated by two genera: *Eucalyptus* and *Pinus*. Other common plantation woods in the tropics include: *Tectona grandis*, *Gmelina arborea*, *Hevea brasiliensis*, *Leucaena leucophala*, *Acacia spp*, *Terminalia spp*, *Cordia spp*, *Albizia spp* and others. Table 3 presents data on plantations for Peru and other selected South American countries.

**Table 3 Plantation Areas for Some South American Countries  
(year 2000 – 1 000 ha)**

Region/Country	Total (%)	Eucalypt (%)	Pine (%)	Other spp.
World	187 086 (100)	17 860 (100)	37 391 (100)	131 835
S. America	10 455 (5.6)	4 836 (27.1)	4 699 (12.6)	920
Peru	640 (0.34)	480 (2.7)	32* (0.9)	128
Bolivia	46 (0.02)	41 (0.23)	-	5
Brazil	4 982 (2.7)	2 964 (16.6)	1 769 (4.7)	249
Chile	2 017 (1.1)	343 (1.9)	1 525 (4.1)	149
Ecuador	167 (0.09)	81 (0.45)	69 (0.2)	17

\*cited as other coniferous

Source: FAO

Total area of plantations in Peru is estimated to be around 640 000 hectares, of which about 75% is eucalypt, mainly *E. globulus* planted in the sierra region, which provides wood for rural construction and for energy purposes. In the region of Cajamarca, approximately 800 km north of Lima, there are around 10 000 hectares of pine plantations, mostly *P. patula* and *P. radiata*, established in the last three decades as a joint initiative of the Peruvian government and Cooperativa Atahualpa Jerusalén, also known as Granja Porcón. These plantations have shown good development, with estimated growth increments of 15–25 cubic meters per year, and are being harvested at the rate of 250 hectares/year to supply local and regional markets.

The good results obtained from these plantations have encouraged forestry professionals and government officials of five states of the Macro Northern Region of Peru – Amazonas, Ancash, Cajamarca, La Libertad and Piura - to propose a large reforestation project, dubbed “mega proyecto de reforestación”, which would occupy over one million hectares of land that

<sup>19</sup> Evaluación de los recursos forestales mundiales 2000. Informe Principal. Serie Estudio FAO Montes N. 140, publicado en año 2002. Roma. 468 pp.

is not being used for agricultural purposes. Such a project, to be developed in collaboration with local populations who own the land and at an estimated cost of USD 700 per hectare, would need to overcome the problem of land ownership since, according to Article 28 of the new Peruvian Forest Law (Law N. 27308), forestlands cannot become private property; they can only become available to entrepreneurs through long-term concessions.

### 3. MAIN PRODUCTS

#### 3.1 Timber Products

The 80 species mentioned earlier are used in the manufacture of a range of products such as rough sawn lumber, dimensioned lumber, joinery (doors and windows), structural elements (joists, columns, rafters), rotary cut veneers, sliced veneers, plywood, pre-cut flooring (parquets), moldings, furniture parts and components, cross ties, truck beds, dowels, pallets and many others.

Although rough sawnwood still leads production in terms of total volume processed, in the last three years there has been a tendency to an increased production and export of value-added items.

#### 3.2 Non-timber Forest Products (NTFPs)

In Peru, non-timber forest products play a very important role in rural communities and people living in the forest by supplying them with food, construction materials, medicines, and textile fibers for their clothing. In addition, some NTFPs are sold as raw materials and contribute to the generation of jobs and income for local populations. Tables 5<sup>20</sup> and 6 give an idea of the importance of NTFPs in Peru.

Rios<sup>7</sup> has identified the 131 most important NTFPs in Peru, which can be grouped into the following categories: food, medicines, extractives, protein from plants and animals and 31 environmental, social and cultural services. NTFPs that are used as food by humans and by animals include: algarrobo (*Prosopis pallida*), Brazil nut (*Bertholletia excelsa*), palm heart (*Euterpe precatoria*), aguaje (*Mauritia vinifera* / *M. flexuosa*) and prickly pears (*Opuntia ficus*, var. *indica*). NTFPs used as a source of protein (wild meat): deer (*Mazama americana*), sajino (*Tayassu tajacu*), huangana (*Tayassu albirostris*) and fish like paiche (*Arapaima gigas*), sábalo (*Brycon sp.*) and gamitana (*Colossoma macropomum*). As medicinal plants: cat's claw (uña de gato – *Uncaria tomentosa*), copaiba oil (*Copaifera sp.*) and sangre de grado (*Croton sp.*). As insecticides and poisons: oje (*Ficus anthelmitica*), barbasco (*Lonchocarpus nicou*) and curare (*Chondodrendon tomentosus*). As stimulants: ayahuasca (*Banisteriopsis caapi*), coca (*Erythroxylon coca*), planted, and chuchuhuasi (*Heisteria pallida*). As resins: rubber (*Hevea brasiliensis*.) and chicle (*Couma macrocarpa*). As dyes and tannins: tara (*Caesalpinia spinosa*), cochinitilla (*Dactylopius coccus*)<sup>21</sup>, achiote (*Bixa orellana*) and palillo (*Curcuma longa*).

<sup>20</sup> Rios, M.T. 2001. Compilación y Análisis sobre Productos Forestales No Madereros (PFNM) en el Perú. Proyecto GCP/RLA/133/EC. Oficina Regional de la FAO para A. Latina. Santiago. Typescript, 50 pp.

<sup>21</sup> The inclusion of cochinitilla as a NTFP can be debated as it is an insect that breeds on the "tuna" cactus.

**Table 4 Information on the Five Most Important NTFPs in Peru**

Product characteristics, quantities and value						
Type	Commercial name	Species	Part utilized	Destination: N - National I - International	Quantity (Kg - 1999)	Value (USD - 1999)
Animal feed	Algarrobo	<i>Prosopis pallida</i>	Fruit (pod)	N	1 747 548	na
Food	Brazil nut	<i>Bertholletia excelsa</i>	Fruit (nut)	I	2 169 805	7 571 540
Medicine	Uña de Gato	<i>Uncaria tomentosa</i>	Latex	N,	535 887	na
Tannins	Tara	<i>Caesalpinia spinosa</i>	Fruit (pod)	N, I	2 905 511	2 544 310
Dye	Cochinilla	<i>Dactylopius coccus</i>	Insect	N, I	34 227	13 355 800

Adapted from Rios, 2001

**Table 5 Trade of NTFPs in Peru**

Year	Imports (USD)	Exports (USD)
1995	16 565 320	39 234 250.00
1996	19 078 770	51 969 410.00
1997	15 369 120	53 363 650.00
1998	15 379 360	31 083 230.00
1999	9 247 633	30 987 910.00
2000	12 082 954	21 870 700.00

Source: Rios 2001

It is important to note that, in most cases, harvesting and gathering of NTFPs does not cause the destruction of the forest resource. For this reason, the organization of local populations with the objective of providing a steady supply of good quality products and the development of adequate markets for these products is a good way to promote the sustainable use of the forest resource with positive socio-economic effects. In the lowland forests of the Madre de Dios Department, for example, the gatherers of Brazil nuts (castañeros) organized themselves into an association in order to request government support in price stabilization and ensure adequate sales of their production.

However, it is believed that, because of the priority given to logging, in Peru NTFPs are not being utilized to their full potential. There is a need for market development for a wide range of NTFPs, since only a few species are known and demanded by consumers.

#### 4. SERVICES PROVIDED BY FORESTS

As of today, there is no precise quantification or compensation for services provided by Peruvian forests such as soil and watershed protection, carbon fixation, tourism and recreation, conservation of biodiversity and others. Rios (*opus cit*) lists eight national parks and four national reserves as especially important for biodiversity conservation; five national forests with the role of protecting water quality and production, and two projects established with the purpose of soil protection. He also lists four national forest reserves and the planted forests of Porcón as important from a climate change point of view.

The Supreme Decree N° 004-2003-AG, which replaced Articles 344 to 348 of the Forest Law in order to establish the competence and scope of FONDEBOSQUE activities as a private non-profit organization in charge of promoting forest development in Peru, defines its sources

of financial resources. These sources include, among others, part of the funds to be paid by forest concessionaires, part of the tax to be paid by users of water and electricity in retribution of services provided by forest in water protection and energy generation. They also include part of the funds to be collected from fossil fuel users from 2005 onwards and compensation fees due by enterprises such as mining, oil exploration etc. that must clear the forest to carry out their activities.

FONDEBOSQUE has been requested by CONAM – National Council for the Environment to develop a pilot CDM project to be financed by the Italian Ministry for the Environment. This project is to be carried out in two phases: the first phase will involve an area of 2 000 hectares and the second, 30 000 hectares of forest plantations. Since there are approximately 10.5 million hectares of land considered adequate for plantations (7.5 in the sierra, 2.5 in the Amazon region and 0.5 million hectares on the coast), this pilot project could initiate an excellent way of financing large-scale forest plantations in Peru.

On the basis of the average chemical composition of the wood substance, which can be taken approximately as 50% cellulose, 25% lignin and 25% hemicellulose, it can be demonstrated that one ton of dry wood represents the sequestration of about 1.8 tons of CO<sub>2</sub> and the liberation of 1.3 tons of O<sub>2</sub> to the atmosphere. Taking into account that the average price for a ton of CO<sub>2</sub>-equivalent has been negotiated on the international market for about USD 3, one hectare of forest that grows at the rate of 30 cubic meters per year will represent the generation of an annual capital of USD 45, considering a species with a basic density of 0.5 t/m<sup>3</sup> and disregarding crown and root biomass. Since reforestation projects generate many jobs with relatively small investments, financial resources originating from carbon sequestration schemes could greatly benefit the population living in areas considered apt for forest plantations.

## **5. MARKETS**

### **5.1 Local Markets**

In contrast with the situation found in many countries with a well established tradition of wood construction, such as the United States, Canada, Japan and countries from Northern Europe, the large majority of Latin American nations use very little wood in construction. The housing industry of Brazil, Peru, Colombia, Mexico and Ecuador, for example – countries with abundant forest resources, is based on masonry and adobe-type construction. The reason for this paradox is partly cultural and partly due to the fact that, in these countries, wood did not yet reach the status of “an industrialized construction material”. Normally wood available at the local lumberyards is green, or just air-dried, of insufficient quality and variable dimensions. More often than not, a well-built wooden house may result in higher costs than a traditional house of equivalent quality.

For the above reason, in Peru as well in other Latin American nations, housing does not represent a large market for wood, although it consumes many types of wood products such as joists and rafters for roofing, doors and windows, flooring etc. Of course, the furniture that goes inside the house is almost always made of wood. Other important local markets are pallets, industrial packaging, distribution poles and cross ties.



There are five main wood producing areas in Peru<sup>22</sup>: Pucallpa, Iquitos, Tarapoto-Juanjui-Picota, Satipo and Puerto Maldonado. Lima is the main hub for receiving and distributing wood. The industries are located in the central part of the country. Total log extraction is around 1.5 million cubic meters per year; about 80-90% of this volume is produced by two centers located in the Amazon region: Iquitos and Pucallpa. Of the approximately 750 000 cubic meters of sawnwood produced annually, only about 50 000–60 000 are exported; the largest part remains in the country, generating sales of close to USD 150 million.

Despite strong fiscal incentives for establishing wood processing industries in the Amazon region (e.g., through a promotional 18% IGV instead of 25%, and 10% income tax instead of 30%) very few secondary processing plants have moved from greater Lima to Pucallpa or Iquitos and even less to Puerto Maldonado. Considering the high freight costs from the producing areas to the central coast, and that these costs must cover the transportation of rough green lumber, manufacturing companies would gain a significant degree of competitiveness if they moved closer to their source of raw material, away from Lima. Due to its lower production costs, Industria de Madera El Sol SAC, a pallet manufacturer and apparently the only company to relocate in Pucallpa, has enjoyed a 50% annual growth in sales since it left Lima. It produces approximately 2 500 pallets per month, a sharp increase from the 700 produced in Lima three years ago. According to the owner of this company, the market for pallets in Peru could become one of main consumers of the wood produced in Iquitos and Pucallpa. Pallets do not require dry wood and can be manufactured with medium and high-density woods, which constitute about 80% of the volumes available in the Amazon rain forest.

Finally, it is interesting to note that in Villa Salvador, a furniture manufacturing center located on the outskirts of Lima, there is a growing demand for dimensioned lumber of *P. radiata* coming from Chile, in substitution of local hardwoods. This preference is explained by the fact that, although containing knots and other defects, the Chilean pine has stable quality and the supplies are guaranteed.

## 5.2 International Markets

The main importing markets for wood produced in Peru have been the United States, Mexico, the Dominican Republic, Venezuela and Italy. However, in the last two years there has been increasing trade with Asian countries, especially China and Taiwan. Tables 8 to 11 show data on the production, import and export of forest products for Peru and four other South American countries: Bolivia, Brazil, Chile and Ecuador. These data confirm the statement previously made that forest production in Peru is low in comparison with the potential of its forest resources.

With the new system of forest concessions coming into stream next year, it is expected that wood production will increase two to three-fold. Since the domestic market will not be able to absorb additional volumes of wood, serious efforts should be developed to conquer new markets abroad. Forest certification can be a powerful tool in providing access to new markets, especially in the United States and in Europe. Although Peru does not yet have certified forests, there is an FSC national initiative already recognized by FSC international in Bonn. This initiative already prepared the national standards for the certification of wood in

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<sup>22</sup> Cano, J. 2001. Bases para una Estrategia para Uso y Consumo de Madera en la Industria de Construcción. Proyecto FAO GCP/PER/035/NET. Lima. Typescript, 49 pp.

the Amazon region and there are high hopes that there will a number of FSC-certified forests in the near future.

**Table 6 Wood Products Exports in the Period 1999 – 2001**

Products	Export value in USD 1 000 (FOB)		
	1999 (%)	2000 (%)	2001 (%)
Sawnwood	50 762.3 (70.6)	52 425.0 (67.1)	52 157.2 (60.4)
Plywood & dec. faced plywood	6 290.5 (8.8)	8 943.3 (11.5)	10 470.8 (12.1)
Furniture & furniture parts	5 293.4 (7.4)	7 699.9 (9.9)	8 526.4 (9.9)
Rotary & sliced veneer	5 506.1 (7.7)	3 520.7 (4.5)	3 653.3 (4.2)
Semi manufactured wood	2 196.4 (3.1)	3 101.4 (4.0)	5 596.3 (6.5)
Manufactured wood prod.	1 842.6 (2.6)	2 385.5 (3.1)	5 908.5 (6.8)
Reconstituted panels	6.6 (0.01)	35.7 (0.05)	80.8 (0.09)
Firewood & charcoal	11.4 (0.02)	31.1 (0.04)	--
<b>Total</b>	<b>71 909.4 (100)</b>	<b>78 114.7 (100)</b>	<b>86 393.2 (100)</b>

*Adapted from Fondebosque<sup>23</sup>*

**Table 7 Sawnwood Production and Trade for Some South American Countries - 2001**

Region / Country	Production (1 000) m <sup>3</sup> (%)	Imports		Exports	
		(1 000) m <sup>3</sup> (%)	USD 1 000	(1 000) m <sup>3</sup>	USD 1 000
World	377 570 (100)	112 854.5 (100)	23 080 221 (100)	109 703.4 (100)	21 720 600 (100)
S. America	33 721 (8.9)	411.4 (0.37)	118 238 (0.51)	4 006.8 (3.65)	833 119 (3.84)
Peru	494 (0.13)	1.2 (0.001)	2 549 (0.01)	84.0 (0.077)	52 156 (0.24)
Bolivia	308 (0.08)	1.0 (0.001)	255 (0.001)	43.0 (0.039)	20 951 (0.10)
Brazil	23 100 (6.1)	162.5 (0.144)	62 930 (0.27)	2 161.6 (1.97)	512 163 (2.36)
Chile	5 872 (1.6)	-	-	1 367.0 (1.25)	178 847 (0.82)
Ecuador	1 455 (0.4)	-	-	22.9 (0.021)	17 663 (0.08)

*Source: FAO*

<sup>23</sup> Diagnóstico de la Industria Forestal. 2003. Fondebosque, Typescript 9 pp.

**Table 8 Wood-based Panels Production and Trade for Some South American Countries - 2001**

Region / Country	Production 1 000 m <sup>3</sup> (%)	Imports		Exports	
		1 000 m <sup>3</sup> (%)	USD 1 000 (%)	1 000 m <sup>3</sup> (%)	USD 1 000 (%)
World	180 589.2 (100)	61 519.6 (100)	16 410 365 (100)	59 530.0 (100)	16 351 637 (100)
S. America	8 873 (4.91)	383.7 (0.62)	120 824 (0.74)	2 661.7 (4.47)	739 413 (4.52)
Peru	81 (0.04)	47.3 (0.08)	13 011 (0.08)	24.2 (0.04)	13 454 (0.08)
Bolivia	14.8 (0.01)	13.1 (0.02)	1 989 (0.01)	2 (0.003)	2 058 (0.01)
Brazil	5 853 (3.24)	135.7 (0.22)	34 529 (0.21)	1 689 (2.84)	468 719 (2.87)
Chile	1 327 (0.73)	-	-	528 (0.89)	144 500 (0.88)
Ecuador	289 (0.16)	7.1 (0.01)	1 641 (0.01)	85.5 (0.14)	28 878 (0.18)

Source: FAO

**Table 9 Paper and Paperboard Production and Trade for Some South American Countries - 2001**

Region / Country	Production 1 000 Mt (%)	Imports		Exports	
		1 000 Mt (%)	USD 1 000	1 000 Mt (%)	USD 1 000
World	320 255.5 (100)	96 345 (100)	68 032 588	94 557.2 (100)	65 707 607
S. America	12 015.4 (3.75)	2 676.7 (2.78)	2 096 771	1 413.2 (1.49)	853 468
Peru	63 (0.2)	233.5 (0.24)	229 939	48 (0.05)	29 134
Bolivia	-	53.1 (0.06)	26 853	-	-
Brazil	7 354 (2.30)	598.5 (0.62)	498 776	680.1 (0.72)	346 418
Chile	1 668 (0.52)	365 (0.38)	219 813	346.2 (0.37)	222 669
Ecuador	91.4 (0.03)	137 (0.14)	100 094	5.3 (0.006)	3 239

Source: FAO

**Table 10 Pulp for Paper Production: Amount Produced and Traded for Some South American Countries - 2001**

Region / Country	Production 1 000 Mt (%)	Imports		Exports	
		1 000 Mt (%)	USD 1 000	1 000 Mt (%)	USD 1 000
World	183 501.7 (100)	37 528.4 (100)	17 003 253	37 074.1 (100)	15 337 031
S. America	12 280.2 (6.69)	747.4 (1.99)	420 164	5 672.1 (15.3)	2 167 717
Peru	17 (0.01)	26 (0.07)	14 873	-	-
Bolivia	-	1.6 (0.004)	896	-	-
Brazil	7 390 (4.03)	305.1 (0.81)	164 904	3 253.8 (8.78)	1 200 841
Chile	2 668 (1.45)	37 (0.10)	13 822	2 173 (5.86)	863 220
Ecuador	2.2 (0.001)	18.3 (0.05)	9 374	-	-

Source: FAO

## 6. THE PERUVIAN FOREST INDUSTRY

### 6.1 Current Situation

Despite its immense forest resources, by and large Peru's forest industries are quite old and operate with low productivity and less than perfect product quality. According to Toledo<sup>24</sup>,

<sup>24</sup> Toledo, E. 1999. Estudio de la Competitividad de la Industria Maderera Peruana y de las Exportaciones en el Mercado Internacional. Doc. Técnico Pre-Proyecto OIMT PPD 5/98 Rev. 1. Lima. Typescript 93 pp.

there are 250 sawmills, 13 plywood and veneer plants, four plants producing decorative face plywood, 50 parquet plants, two plants that produce blockboard and a large number of small enterprises that manufacture joinery, furniture and do general carpentry work. Data obtained in 2002 from Prompex-FAO<sup>10</sup> indicate that saw mills are working well below their nominal capacity, for example at 47% and 14%, respectively in Ucayali and Madre de Dios regions.

Plywood and veneer mills are also operating with low level of activity, with actual production volumes about half of their installed capacity. In recent years two plywood mills closed their doors in Pucallpa and another two in Iquitos. In the last five years, two veneer plants also went out of business. The only particleboard plant in operation in the country, Tableros Peruanos S.A. – TAPESA, has been operating at 80% of its capacity.

The sawmill industry normally family-owned and with few employees, does not have adequate resources for updating/expanding their processing facilities. The great majority of them, about 75% operate disk saws, with an average annual production capacity of 2 900 cubic meters. The other 25% use band saws and have an average capacity of 10 000 cubic meters per year. Dry kilns are quite rare - they only exist in Lima, Pucallpa and Iquitos.

## **6.2 Main Constraints to the Development of the Wood Industry**

In the last three decades a number of factors have contributed to the stagnation of the wood industry in Peru. Political instability and runaway inflation in the 1980s and early 1990s have discouraged capital investment; as a result, plant equipment has become old with consequent losses in productivity and product quality. It is estimated that the investment needed to modernize the wood processing industry is around 400 million dollars<sup>25</sup>. Taking into account the current low level of capitalization of most industries, creative ways to raise this capital, such as joint venture and long-term government-backed loans, must be sought.

Another constraint faced until a few years ago by the wood industry is that the types of contract envisaged by the old Forest and Wildlife Law (approved by Official Decree N. 21147, of July 15, 1975) that allowed private entrepreneurs to have access to forest resources ended up favoring logging in concessions of 1,000 hectares or less. For these areas there were no feasibility study requirements, as opposed to contracts for larger areas, up to 100 000 hectares. Although the objective was to offer an opportunity to small loggers, the final result was a proliferation of individual operators who did not have the necessary conditions to promote the rational and sustainable use of the forest raw material.

Furthermore, since these independent operators did not have formal links with the processing industries, log supplies became controlled by the intermediaries that financed them. Due to the high cost of this type of log extraction, only valuable species such as mahogany and cedar were harvested in significant volumes and processed for the export market.

The recently approved Forest and Wildlife Law N. 27308 establishes areas for permanent forest production (Bosques de Producción Permanente – BBP) where concessions are given for a period of 40 years, renewable. Two types of incentives have been established as discount on stumpage fees: a) for concessionaires that set up their processing plants within the concession and manufacture added-value products, and b) concessionaires that join voluntary

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<sup>25</sup> Toledo, E. 2003. Análisis para la Implementación de un Mecanismo de Countertrade en el Sector Maderero de Perú. Informe Final. Fondebosque, Lima. 34 pp.

certification schemes. It is hoped that this concession system, which has already allocated over one million hectares to concessionaires in the department of Madre de Dios and over two million in Ucayali, will bring a boom to the wood industry in Peru.

Another constraint faced by wood processing industries, especially those located in remote areas, is inadequate infrastructure, mainly roads and power supply. Due to poor road conditions, transportation costs can be very high. For example, to bring a cubic meter of wood from Pucallpa to Lima can cost USD 52, which is comparable to ocean freight from Lima to New Orleans, in the Gulf of Mexico.

Product quality and lack of standardization are other important factors that place the wood industry in Peru at a disadvantage, as compared to other countries. Product quality requires good equipment operated by well-trained workers. Despite the fact that there are some institutions oriented towards technical training and capacity building, the managers in charge of the industries visited in the producing regions pointed out that lack of trained manpower is a serious problem for them. Commercial timbers are cut with 2", 3" and 4" thickness and width 6" and wider; commercial lengths are 6' and longer. Lumber is sold in closed truckloads, without segregation by quality classes or dimensions. This type of arrangement is not conducive to the production of high quality lumber which, in turn, raises cost and presents the buyer with a "non industrial" product.

### **6.3 Possible Comparative Advantages of the Peruvian Forest Industries as Compared to Other South American Countries**

The new Peruvian Forest Law has provisions for establishing large areas of permanent forest production (BPPs), about 12 million hectares, which shall be the object of public bidding in the next few years. As far as information is available, no country in South America is mobilizing such vast areas for timber production on a sustainable basis. Since the concession system necessarily implies the adoption of sustainable management techniques, to be economically feasible, the concessionaire will have to harvest a significantly larger number of species than it is currently done, generating large volumes of non-traditional species. If properly processed, these species supply the market for a variety of end uses.

Certainly some species will be adequate for very exact applications and, for this reason, can fetch high prices; an example of this are durable woods that can replace chemically treated timber, as mentioned earlier. Other species will be of "just average" quality and will have to be used in applications that consume large volumes of wood and that are "species-tolerant", i. e., can take various types of wood without affecting product performance. One such case is the manufacture of pre-fabricated houses, where the consumer is much more interested in how the house meets his needs than from what wood it is made. Another is painted furniture, as long the wood is not too heavy or too light; another still is core material for panel products.

Another comparative advantage presented in Peru is good dialogue and communications among the various players of the forest sector, including government organizations, represented by the "Mesa de Dialogo y Concertación Forestal" (MDCF). In other South American countries government and industrialists are entrenched in opposite camps. In Peru there is a good understanding among entrepreneurs, NGOs, environmentalists, academia and government officials. Although it has taken a long time to develop, this type of arrangement enormously facilitates the relationship between government and the private sector.