ITTO

TROPICAL FOREST U·P·D·A·T·E

A Newsletter from the International Tropical Timber Organization to Promote Conservation and Sustainable Development of Tropical Forests

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Year 2000 Objective: The Progress Made

How close have ITTO members come to achieving the Year 2000 Objective? In May 2000, the International Tropical Timber Council began the process of answering this critical question.

The Year 2000 Objective is the goal that through international collaboration and national policies and programs, ITTO members will progress towards achieving sustainable management of tropical forests and trade from sustainably managed resources by the year 2000.

We are now mid way through the year 2000. Last year the Council commissioned a review – based on reports submitted by members – analysing the progress made by member countries towards the objective and ITTO's contribution to such progress. Dr Duncan Poore and Mr Thang Hooi Chiew were engaged to undertake the review with the assistance of regional experts.

Poore and Thang found that a great deal has been achieved – perhaps more than most expected (see pages 5–6). Advances in policy have been made: the report finds, for example, that "significant progress has been made in policy and legislative reform in almost all producer countries in all three continents". Most countries have been able to establish a permanent forest estate and have increased the area of forest lands dedicated to conservation, soil and water protection and other environmental purposes. Many new initiatives in participatory forestry are offering local people the chance to help determine how the resource is managed. And while implementation in the forest is still largely lacking, six countries "appear to be managing some of their forests sustainably at the forest management unit level".

Will international initiatives like the Year 2000 Objective lead to more direct improvements in the lives of people such as these settlers in the Peruvian Amazon? *Photo: C. Prebble*

Such progress is remarkable. As ITTO's Executive Director, Dr Sobral, noted in a speech to the Council, the investments estimated to be needed to achieve ITTO's priority actions are in many cases beyond the means of producer member countries – and only a fraction has been made available by donors. Yet countries have set about the task regardless. Sustainable forest management will only happen when each country has the will to make it happen: the Poore and Thang review demonstrates that the will is now there in many ITTO member countries.

But it cautions that much more needs to be done. The policies, laws and administrative arrangements are in place: the next step is to translate them into improvements in the forest.

ITTO will play a crucial role here. Poore and Thang say the Organization has been an effective agent of change in tropical forest policy, but it could do more. For example, it could facilitate changes in the forest through a renewed focus on training in all aspects of forest management and harvesting. It could encourage a sustainable approach to forest management by assisting the development of in-country downstream processing. It could do more in raising public awareness about tropical forests and the potentially positive role of the tropical timber trade. It could play a greater role in certification. And it could strengthen efforts to improve trade data.

Debate on how ITTO should address these issues is likely to continue at the Council's next session in November. Re-defining the Year 2000 Objective and setting achievable, medium-term goals are possible first steps. Certainly, the achievements made so far should give members heart as they plan the Organization's next moves.

Alastair Sarre
Editor

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Executive Director Tours West Africa

Dr Sobral recently visited three African ITTO member countries to meet government officials and inspect ITTO-financed projects

Dr Sobral meets villagers near the So'o Lala National Forest in Cameroon. *Photo: ONADEF*

ITTO's promotion of tropical forest conservation through the establishment of trans-boundary conservation reserves could expand in Africa if discussions between ITTO's Executive Director Dr Manoel Sobral Filho and Cameroon's Prime Minister come to fruition.

The discussions were held during a tour of Côte d'Ivoire, Ghana and Cameroon by Dr Sobral last March. He met with a number of government ministers and visited several ITTO-funded projects.

In his short stay in Côte d'Ivoire, Dr Sobral met Mr Jean Claude Anoh, Director-General of the forestry agency SODEFOR, and Mrs Henriette Dagri Diabate, Minister of Culture and Francophonie, acting on behalf of the Minister of Construction and Environment. During the meeting Dr Sobral and Mr Anoh signed an agreement for the commencement of a $400,000 ITTO project to develop volume tables for natural forests and plantations in four of the country's biogeographical regions.

In Ghana, Dr Sobral met the Honourable Dr Christina Amoako-Nuama, Minister of Lands and Forestry, to discuss several matters high on the international forests agenda, particularly those relating to ITTO. He also visited Ghana's Forestry Research Institute (FORIG) in Kumasi, where local scientists briefed him on a wide range of research activities, including those being conducted under two ITTO projects. During the visit, Dr Sobral officially inaugurated the biotechnology laboratory facilities established under ITTO project PD 3/95 Rev. 2 (F) in the presence of FORIG's director Dr Joseph Cobbinah.

Dr Sobral had a hectic schedule during his three-day visit to Cameroon, which was facilitated by Cameroon's forestry agency ONADEF and its Director-General Mr Jean-Williams Sollo. Dr Sobral met with Prime Minister Peter Mafany Musonge to brief him on ITTO's project work and the Organization's role in forest policy development. During the discussion the Prime Minister raised the possibility of ITTO's involvement in

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$2 m Boost for Transboundary Reserves

The International Tropical Timber Council recently convened its 28th session

Dr Sobral addresses the Council flanked by the Council's Chairman, Mr Rae-Kwon Chung (left), and the Indonesian Minister of Forestry and Estate Crops, H.E. Dr Nur Mahmudi Ismail (right). *Photo: C. Mayura*

A conservation reserve straddling the border of Peru and Ecuador in the Condor Mountain Range will receive US$1.4 million for the establishment of a participatory environmental management model in the region.

This was one outcome of the 28th Session of the International Tropical Timber Council, ITTO's governing body, which was convened in Lima, Peru from 24–30 May 2000. Another transboundary reserve, between Thailand, Cambodia and Laos, will receive US$630,000, while biodiversity and conservation in a forest concession adjacent to the Nouabale-Ndoki National Park in the Republic of Congo will be promoted through a project worth US$1 million.

The Council meets every six months to discuss its project program and to develop intergovernmental forest policy. This session was attended by about 220 people representing 43 countries, the European Union and about 40 environmental and trade non-governmental organizations. ITTO currently has about 150 projects in the field worth some US$100 million.

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establishing trans-boundary conservation reserves in Cameroon's border regions with Gabon and Congo. Malaysia and Indonesia have pioneered the concept of trans-boundary conservation reserves under long-running ITTO projects in Borneo, and other countries such as Thailand and Cambodia, and Peru and Ecuador, have also been investigating the idea (see story above). Dr Sobral welcomed Cameroon's interest and pledged to inform ITTO's Council of it.

The Prime Minister also expressed keen interest in the concept of an ITTO-sponsored reduced impact logging training centre. Dr Sobral had earlier raised this possibility during the 27th Session of the International Tropical Timber Council and also in these pages (see *TFU* 9/4 p 4). Mr Musonge further proposed the involvement of ITTO in the on-going restructuring of Cameroon's Wood Promotion Centre.

In a meeting with the Minister of Environment and Forests, Mr Sylvestre Naah Ondoua, Dr Sobral and the Minister signed an agreement for the second phase of a US$1.3 million ITTO project in the Si-Kop Forest Area. This project aims to promote management, community involvement and sustainable use in and adjacent to the forest.

Dr Sobral had the opportunity to visit a pilot project in the sustainable management of Cameroon's So'o Lala National Forest. There he met project staff and discussed the project with local villagers. He was particularly impressed by the degree of involvement of villagers in the decision-making process – they have, for example, been active participants in the selection of contractors to conduct harvesting of the National Forest and will share in the revenues generated. This, in turn, should encourage further local support for sustainable forest management. The project is also introducing agroforestry and other agricultural practices aimed at providing food and generating income for the 10,000 families in the project area and reducing encroachment on the natural forest. ■

Indonesian Minister Proposes New Trans-boundary Reserve

ITTO is assisting in the development of a proposal to establish a second trans-boundary reserve between Indonesia and Malaysia. This was the result of a visit in March by the Indonesian Minister of Forestry and Estate Crops, H.E. Dr Nur Mahmudi Ismail to ITTO headquarters.

In a meeting with ITTO's Executive Director, Dr Sobral, Dr Nur Mahmudi requested that ITTO help develop a project proposal for consideration by the International Tropical Timber Council to place about 1.3 million hectares of forest in East Kalimantan in a conservation reserve. The area adjoins a similar reserve in the Malaysian state of Sabah, and the two countries have already held preliminary discussions on the establishment of a trans-boundary reserve similar to the Lanjak-Entimau/Betung Kerihun Nature Reserve between Sarawak and Indonesia.

Dr Nur Mahmudi also raised the possibility of assigning a large area of logged-over forest in Kalimantan to ITTO for use as a demonstration forest. Among other things, it could serve as a training ground in rehabilitation and reduced impact logging techniques.

At this session, a further US$7.5 million was pledged for about 20 new projects and activities.

Year 2000 Objective

Also at this session, the Council considered a report on the progress achieved by member countries towards the Year 2000 Objective (see pages 5–6). This objective states that all tropical timber entering international trade should originate from sustainably managed forests by the year 2000. The report found that despite a lack of resources, member countries had made significant progress. Nevertheless, the objective had not been achieved by the deadline, and much more work needed to be done.

The Council affirmed its "full commitment to moving as rapidly as possible towards achieving exports of tropical timber and timber products from sustainably managed sources". However, despite considerable debate, it was unable to reach agreement on many of the substantial issues related to accelerating progress towards this objective. These included proposals for the development of a comprehensive framework and practical manuals on all relevant aspects of sustainable tropical forest management, a strategic communication and outreach framework, certification, and the role of ITTO in the forest and forest products-related international agenda. It decided to continue its debate at its next meeting, which will held in Yokohama, Japan in November.

Participation by Civil Society Encouraged

The Council took steps to further encourage the active participation of members of civil society by making ITTO documents freely available. In addition, it invited trade and industry representatives and environmental organisations to establish open-ended advisory groups to contribute to the work of the Council.

Framework for Auditing System

The Council recognised the importance of market access opportunities in assisting countries to generate financial resources to help implement sustainable forest management. It also recognised the growing market for certified timber and the need to promote and assist initiatives by members to implement ITTO's criteria and indicators and to build capacity to assess sustainable forest management. It therefore decided to develop guidelines to provide "the essential elements for a framework of adequate auditing systems for sustainable forest management". It authorised the Executive Director to engage two consultants to prepare a working document for consideration by an Expert Panel. The Expert Panel, in turn, will report its findings to the 29th Session of the Council.

More Ex-post Evaluation

The Council decided to increase the ex-post evaluation of ITTO projects, which should lead to improvements in future project design and implementation. The Council requested the committees of Reforestation and Forest Management, Economic Information and Market Intelligence, Forest Industry, and Finance and Administration, to consider as candidates for ex-post evaluation all individual projects or groups of projects that meets certain criteria. These are:

- the ITTO budget for individual projects or groups of projects is above US$400,000;
- clear benefits can be derived from learning more about the facts, achievements and difficulties during project implementation and completion;
- there is potential for the wider application of lessons learned; and
- there are other factors considered appropriate by the Committees.

The Council authorised the Executive Director to seek agreement from contributors to create a separate pool of funds within each Committee for financing ex-post evaluations using remaining ITTO monitoring and evaluation funds. Funds are to be transferred from the pooled sub-accounts of completed, audited and closed projects.

Extension of the ITTA, 1994

The Council decided to extend the International Tropical Timber Agreement, under which the Organization operates, for a period of three years to the end of 2003. This is subject to confirmation by those members needing further time to finalise their internal legal procedures. ■

Indonesia Announces Re-distribution of Timber Revenues

The Indonesian Government recently announced a new approach to improve the institutional capacity for sustainable forest management.

Speaking at the May 2000 Session of the International Tropical Timber Council, the Minister for Forestry and Estate Crops, Dr Nur Mahmudi Isma'il, foreshadowed the establishment of an autonomous, state-owned enterprise that would redistribute forestry revenues to local government and communities. He said that 30 per cent of revenues would be retained by the central government, while the remaining 70 per cent would be distributed to provincial government (30 per cent), district government (30 per cent) and development programs for local communities (ten per cent).

"Consequently, this body will lead people to have a stronger sense of belonging and commitment to conservation, as well as a wider range of control," said Dr Isma'il. This, in turn, would help reduce the problem of illegal logging, which is currently a major issue affecting sustainable forest management in the country. Other measures, such as strengthening relevant human resources, were also being pursued.

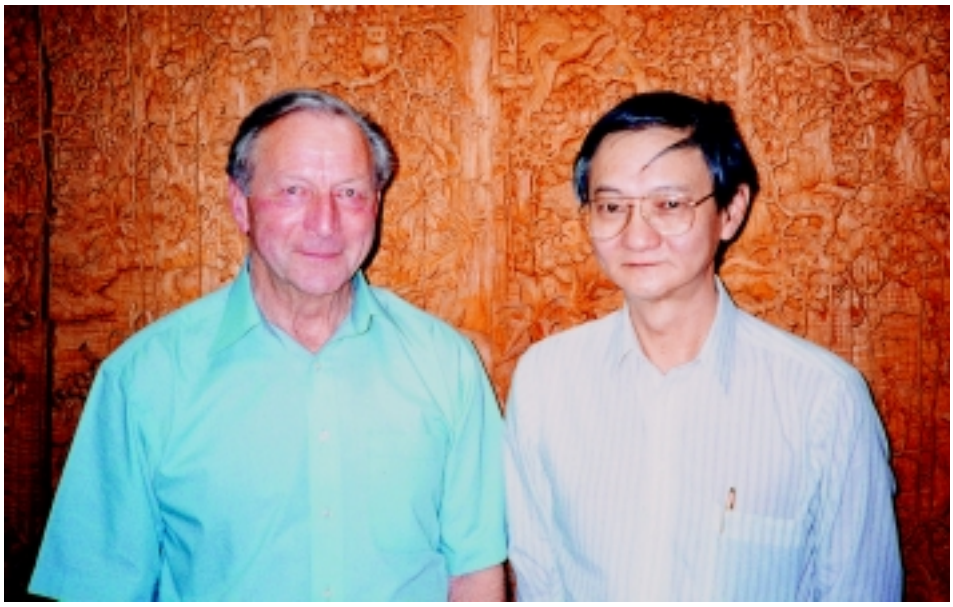
Dr Isma'il called on ITTO to complement Indonesia's efforts in this regard.

"Although we believe that combating illegal cutting will have to rely heavily on our own national effort, ITTO nonetheless should have a role to discourage such illegal timber entering the international market," he said. "This forest crime is totally counter-productive to all invested efforts in promoting sustainable forest management and the year 2000 Objective."

Dr Isma'il said that timber production from natural forests would be reduced over the next five years, which would be partly compensated by the accelerated development of plantation forests. In addition, those wood-processing industries with high non-performing debts would reduce capacity or be closed down.

ITTO Receives Report Card

An ITTO-commissioned review has assessed the progress made towards the Year 2000 Objective



Authors of *Review of progress towards the Year 2000 Objective* Dr Duncan Poore and Mr Thang Hooi Chiew at ITTO headquarters. *Photo: A. Sarre*

ITTO member countries have gone a considerable way to achieving the Year 2000 Objective and we now have a clearer idea of what more needs to be done.

This is the message from the *Review of progress towards the Year 2000 Objective*, a report by Dr Duncan Poore and Mr Thang Hooi Chiew considered by the International Tropical Timber Council last May. Based on information submitted by member countries, the report notes the considerable progress made and makes a wide range of recommendations aimed at speeding the work of ITTO and its members to fully achieve the Objective.

ITTO first set itself the Year 2000 Objective when the Council decided that "total exports of tropical timber products should come from sustainably managed forests by the Year 2000". This followed a 1989 report, *No timber without trees*, also coordinated by Dr Poore, which found that less than a million hectares of tropical rainforest were under 'sustainable' forest management for timber production in 1988. In 1991, the Council reaffirmed its commitment to the Year 2000 Objective when it defined it as a "strategy by which, through international collaboration and national policies and programmes, ITTO Members will progress towards achieving sustainable management of tropical forests and trade in tropical timber from sustainably managed resources by the Year 2000". A mid-term review of progress was conducted in 1995.

How far have we come in the last decade? At its 26th Session in Chiang Mai (May 1999), the Council requested the Executive Director to engage two consultants to prepare an analytical report on progress made by ITTO member countries towards achieving the Year 2000 Objective based on country overviews provided by members and other relevant information. This request was followed up at the Council's 27th Session in Yokohama (November 1999), when the Executive Director was authorised to engage additional consultants to provide analytical reports of progress in each producer region to assist the task of the two main consultants.

In their summary report, Poore and Thang found "very considerable improvement over the situation recorded in 1988 or in the Mid-term Review. … It is possible to affirm that significant progress has been made in policy and legislative reform in almost all producer countries in all three continents."

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They also noted that such reform has been followed in many countries by a re-organisation of administrative arrangements and a restructuring of ministries and government departments. This has often included the establishment of ministries responsible for the environment, the rationalisation of responsibilities and the treatment of sustainable forest management in the wider context of national land use. There have also been moves to devolve responsibility for implementation to regional or local authorities.

Poore and Thang remark that "considerable progress has been made in most countries in establishing a permanent forest estate". This has been mostly on State land, but on private land the same end has been achieved "by providing more security of tenure, by financial incentives and, sometimes, by legislation". A greater degree of consultation with local communities "is having some effect in gaining local support for sustainable forest management and reducing encroachment and damage." Nevertheless, "illegal logging and poaching" remain problems in many countries.

Many producer countries have reported "a substantial and welcome increase in forest lands dedicated to conservation, soil and water protection and other environmental purposes" as part of their permanent forest estates. Many countries have also engaged in innovative approaches to harmonising protection with the interests of local people. However, according to Poore and Thang, many of the protected areas are still not adequately managed.

Poore and Thang also note an encouraging trend in many countries to produce more value added exports through improved and expanded secondary and tertiary wood processing. While all consumer countries reported a reduction or phased reduction in import tariffs on timber and timber products, several still apply higher tariffs and duties for processed products. "This is not helpful," say Poore and Thang, "for those producer members who are striving to develop secondary and tertiary processing".

Despite the improvements noted in many countries and efforts to devise new strategies for sustainable forest management, "there is not yet strong evidence that the strategies are being acted upon". Almost all country reports advanced the lack of trained personnel and of finance as the main reasons for this. The impression, say Poore and Thang, "is that the will to implement is there [but] the means are lacking."

The Super Six

The consultants found that six countries appeared "to be managing some of their forests sustainably at the forest management unit level to achieve the Year 2000 Objective". However, all of them, still have some problems "of full implementation in the forest". The six are described below.

Cameroon has a defined permanent forest estate, "arrangements are being made" to respect the interests of local people, and a management plan is compulsory. Knowledge of growth and yield of the principal tree species and of their regeneration potential "needs to be strengthened" to ensure sustainable forest management.

The permanent forest estate in **Ghana** is now established and secure; specifications for sustainable forest management are incorporated in management plans, which "will be enforced"; there is a package of incentives for sustainable forest management and arrangements for a proportion of profits to be reinvested in forest management; a process for certification is being developed; and the profitability of the industry has increased through tertiary processing. "The prospects are good, but they have yet to be realised."

Guyana has a secure permanent forest estate; forest concessions are awarded under "stringent conditions" and by a process requiring a management plan, an environmental impact assessment and an environment management plan. "The standard of implementation still needs to be confirmed."

In **Indonesia**, "all the key sustainable forest management elements are now in place". These include a secure permanent forest estate based on land use priorities identified through local consultative processes, and national forestry standards, a certification body and supporting activities have been institutionalised. The wider application of sustainable forest management practices to the permanent forest estate, supported by improved capability and enforcement and expanded capacity "still need to be addressed".

Malaysia has a demarcated permanent forest estate complemented by well-managed networks of totally protected areas and virgin jungle reserves. Silviculture is adequately funded backed by improving knowledge on forest dynamics. Management plans are implemented and annual allowable cuts followed. There needs to be "greater involvement of interested parties", but the country "has a clear strategy towards achieving the Year 2000 Objective".

"ITTO has probably done more in the 15 years of its existence than any other organisation to advance the idea of sustainable tropical forest management."

Myanmar has a permanent forest estate "that is managed under approved working plans". Criteria and indicators for sustainable forest management have been drafted, two demonstration sites have been established and key steps have been take to develop a certification procedure. "More attention to the sustainable forest management of the non-teak hardwood resource is required, and specific technical assistance".

ITTO's Role

One of the tasks of the consultancy team was to assess ITTO's contribution towards enhancing the capacity of member countries to achieve the Year 2000 Objective. Poore and Thang conclude that "ITTO has probably done more in the 15 years of its existence than any other organisation to advance the idea of sustainable tropical forest management". They list a number of success stories: for example, the 1988 study alluded to earlier played an important role in alerting forest authorities, the trade and the general public to the dire state of the official management of tropical forests. ITTO followed this up "with a logical sequence of steps", including an action plan for itself, a series of guidelines on forest management and a sequence of work on incentives. The development of criteria and indicators and the notion of forest resource accounting, note Poore and Thang, were also first developed in ITTO.

Balancing these successes, though, were a number of lost opportunities. The first set of criteria and indicators, for example, "were a dilute version of those proposed by the consultants at the time. If a more definite version had been accepted then, more rapid progress might have been made sooner." Poore and Thang also criticise ITTO for failing to engage more in timber and forest certification and for failing to publicise its achievements and to help producer countries publicise theirs.

More Needs to be Done

Poore and Thang make a large number of recommendations to improve ITTO's work in assisting member countries to achieve the Year 2000 Objective. The task has been started but is far from done. The first step, they say, is to revitalise the Objective itself. "The Year 2000 Objective was a stimulating concept which has been allowed to languish. It needs to be reinterpreted as a growing and powerful movement in all countries with forests and forest industries to manage their forest better." At its 28th Session in May, the Council started the process for this when it affirmed its full commitment to moving as rapidly as possible towards achieving exports of tropical timber and timber products from sustainably managed sources. The debate on this issue will continue at the Council's 29th Session this November. ■

IFF Recommends New Forum

The Intergovernmental Forum on Forests has delivered its final report to the United Nations

The Intergovernmental Forum on Forests (IFF) met for the fourth and final time in New York from 31 January to 11 February this year. It recommended that a new forum be established to continue the international dialogue on forest policy.

The IFF was formed in 1997 by a decision of a Special Session of the United Nations General Assembly. Its purpose was to continue the process of intergovernmental forest policy dialogue mediated previously by the Intergovernmental Panel on Forests (IPF), which itself was initiated by the UN Commission on Sustainable Development (UNCSD) in 1995.

The IFF was monitored closely by many forest-related organisations – intergovernmental, national, non-governmental and private – and there was considerable speculation that it might lead to a global convention on forests. The IFF did indeed consider the desirability or otherwise of such a convention. However, at its final meeting it decided instead to recommend that an international "arrangement" on forests be instituted (see box).

ITTO has been involved in both the IPF and IFF processes, particularly with what was known in the IFF as Programme Element II B: Trade and Environment. At its final meeting, the IFF concluded, among other things, that "mutually supportive trade and environment policies can effectively promote the achievement of the management, conservation and sustainable development of all types of forests". It also found that trade liberalisation "adds value to the resource and has the potential to promote economic development, contribute to poverty alleviation and reduce environmental degradation, provided it is accompanied by sound environmental and social policies". In its proposal for action for this element, the IFF:

a) "urged countries … to contribute to achieving trade in wood and non-wood products and services from sustainably managed forests and implement policies and actions, in particular avoiding policies that have adverse effects, either on trade or on sustainable forest management;

b) "urged countries, international organisations … and other interested parties to undertake as appropriate, further cooperative work on voluntary certification and/or labelling schemes … while seeking to enhance their international comparability and considering their equivalence … and to ensure adequate transparency and non-discrimination in the design and operation of such schemes, and are consistent with international obligations, so as to promote sustainable forest management and not to lead to unjustifiable obstacles to market access;

c) "urged countries to undertake analyses of the implications of full-cost internalization on forest management and economic development and implement full-cost internalization strategies for forest products and services and their substitutes;

d) "requested countries, international organizations and other interested parties to undertake further work on full life-cycle analysis of the environmental impacts of forest products and their substitutes;

e) "called upon all interested parties to take action to improve market transparency, taking into account the role of the private sector, to help promote responsible producer and consumer choices in the supply and demand for forest products, forest services and their substitutes;

f) "called upon countries to consider appropriate national-level actions and promote international cooperation to reduce the illegal trade in wood and non-wood forest products including forest related biological resources, with the aim of its elimination;

g) "urged countries to develop strategies for sustainable forest management with a long-

UNCSD Adopts New Forest Arrangement

At its 8th Session last April/May, the UNCSD endorsed the IFF recommendation that an "international arrangement on forests" be adopted. Such an arrangement would take the form of an intergovernmental body to be called the United Nations Forum on Forests (UNFF). Its objective would be:

"to promote the implementation of internationally agreed actions on forests, at the national, regional and global levels, to provide a coherent, transparent and participatory global framework for policy implementation, coordination and development, and to carry out principal functions, based on the Rio Declaration, the Forest Principles, Chapter 11 of Agenda 21 and the outcomes of the IPF/IFF process, in a manner consistent with and complementary to existing international legally binding instruments relevant to forests."

One of its functions would be to monitor and assess progress at national, regional and global levels through reporting by governments, regional and international organizations, institutions and instruments. On the basis of this assessment, within five years it would "consider with a view to recommending the parameters of a mandate for developing a legal framework on all types of forests". It would have a small secretariat and would be based at United Nations headquarters in New York, USA.

The UNCSD has forwarded the IFF report to the Economic and Social Council of the United Nations (ECOSOC), which meets in July to consider, among other things, the establishment of the UNFF. If it endorses the idea it will be put to a vote in the United Nations General Assembly later this year.

Japanese Companies Give Support to ITTO

Two Japanese retail chains make regular financial contributions to ITTO's project work

It is perhaps little known that ITTO projects are open for funding by the private sector. A Japanese company, Ito-Yokado, has taken advantage of this opportunity to support two community-based reforestation projects.

Ito-Yokado is a supermarket chain with more than 150 stores throughout Japan selling a wide range of products, including clothing, household goods, sporting equipment and groceries. It has raised part of its contribution to ITTO through a customer-participation scheme whereby the company pledges to donate money to ITTO whenever customers refuse plastic bags while shopping at Ito-Yokado stores. Funds are also raised through the sale of reusable shopping bags. The company's donation to ITTO of US$65,000 earlier this year brings its total contribution so far to US$971,000.

York Mart is another retail chain in Japan and a sister-company to Ito-Yokado (see box). A relative newcomer to ITTO, it has already donated about US$174,000, although it has not yet allocated any funds to projects.

The first project to which Ito-Yokado contributed funds aimed to promote community reforestation in the Peruvian province of Rioja. It commenced in 1992 and was completed on schedule in 1994. It had three objectives: to establish forest plantations to demonstrate reforestation techniques; to establish a foundation for promoting reforestation in Rioja Province and the implementation of a participatory forest development program; and to strengthen the institutional capacity for promoting reforestation in the region.

These objectives were largely achieved. A total of 282 hectares of forest plantation were established over the two years, a number of extension activities were carried out and two forest protection committees were formed in the region. A two-phase project has since been approved and funded by the International Tropical Timber Council to build upon the achievements of the project and is currently under way.

The second project funded by Ito-Yokado is in the Philippines; it aims to develop tropical forest resources through community-based management. It commenced in 1998 and builds upon an earlier ITTO project in the Magat Watershed Forest Reserve, an important river basin in northern Luzon. The project is encouraging reforestation by strengthening the participation of upland communities in the management of forest lands for timber production and the conservation of biodiversity.

The approach taken by the project involves the formation of people's organisations, which are associations of farmers designed to facilitate the flow of information and resources between the project and local people. For example, the project is providing training to the people's organisations in such things as agroforestry development, farm planning and bookkeeping. A planning team involving project staff and representatives of the people's organisations has been established.

There has also been progress on the ground, with 71 hectares of the target 100 hectares of new plantation established. Importantly, a Community-based Forest Management Agreement was awarded last year to the people's organisations in the area by the Philippines' Department of Environment and Natural Resources, which is managing the project. This gives local people secure access to the land and its resources and provides incentives for sustainable forest management, thereby lending support to the project's reforestation and forest management initiatives. ■

More on Ito-Yokado

The Ito-Yokado department store chain and York Mart are both part of the Ito-Yokado group of companies, which had an annual turnover in 1998 of over ¥5,100 billion (around US$51 billion). The group comprises 58 distribution-related companies, including Seven Eleven, which has more than 7,000 stores in Japan alone.

Ito-Yokado began modestly in 1920 as a menswear shop in Tokyo. Its founder, Toshio Yoshikawa, was the uncle of current Ito-Yokado group honorary chairman Masotoshi Ito. Mr Ito visited the USA and Europe in 1961, where his observations of distribution industries there led him to implement a similar 'chain' strategy on his return to Japan. In 1965, the company changed its name to Ito-Yokado.

The Ito-Yokado department store chain has a well-developed environmental policy. It has established environmental guidelines and an environmental code of ethics and is undertaking many activities aimed at reducing the company's environmental impact. For more information visit: www.itoyokado.iyg.co.jp

term perspective so that the negative effects of short-term market changes, such as the recent regional financial crises, can be minimized; and

h) "urged countries to recognize the special importance of imports of forest products for countries with low forest cover and fragile forest ecosystems, and small island developing States to satisfy their needs for forest products and services to assist them in expanding and rehabilitating their forest cover".

The Forum also discussed but did not reach consensus on a proposal to: "support continued efforts by countries and the World Trade Organization towards trade liberalization giving special attention to removing remaining and emerging trade restrictions which constrain market access, particularly for value added forest products."

A copy of the full report can be obtained at: http://www.un.org/esa/sustdev/ecn17iff2000-sprep.htm ■

Forest Certification: Fiji's Way to Chain of Custody

An ITTO-funded project is enabling Fiji's Forestry Department to track timber from the forest to the port

by Osea Tuinivanua

Deputy Conservator of Forests, Fiji Forestry Department, Fiji

More than 50 per cent (940,000 hectares) of Fiji's landmass is covered by forests, of which 90 per cent is natural. Since the 1950s the country has also pursued a strategy of plantation expansion with pine (*Pinus caribea*) and hardwood, especially mahogany (*Swietenia macrophylla*), to relieve the demand on natural forests.

Fiji has been self-sufficient in timber products since the mid 1970s, with its export earnings from forest products – US$62 million in 1998 – ranked fifth among all exports. About 10,000 hectares of native forest are selectively logged each year, yielding an average 140,000 m^3 to sustain the timber demands of 20 local sawmills.

The Fijian Forestry Department is involved in every aspect of natural forest management, from logging, sawmilling and further timber processing to the export of finished products. Among other things, the Department monitors the compliance of forest operations with the National Code of Logging Practice.

Forest Product Quality Label

One of the Department's long-term objectives is to increase the contribution of value added products to Fiji's exports. Part of the strategy for this is to ensure that Fiji's forest products are identified by the international market and by consumers as being of high quality and derived from well-managed forests. To do this, a quality label and a certified chain of custody is required.

In 1997, ITTO funded Project PD 3/97 Rev.1 (M) to be carried out by the Forestry Department in collaboration with the South Pacific Applied Geoscience Commission (SOPAC). This project developed a timber-flow monitoring system for natural forests to clearly identify the flow of timber from the point of origin to the point of export. Fiji is also applying for sustainable forest management certification under the principles and criteria of the Forest Stewardship Council for three different areas on the main islands of Viti Levu and Vanua Levu. This strategy will enable the country to:

- reach new markets for its forest products;
- utilise species not exported before; and
- create value adding of timber products in the country through additional processing levels, which will not only produce more income for Fiji but also generate employment.

Timber Flow Monitoring System

The Timber Flow Monitoring System uses a wide-area network that links computers at the Forestry Department's three divisional offices in the northern, southern and western regions of Fiji. The system allows divisional offices to connect to a central database at Forestry Department headquarters, which contains the information necessary for recording and tracking the flow of timber from point of origin through processing to the point of export.

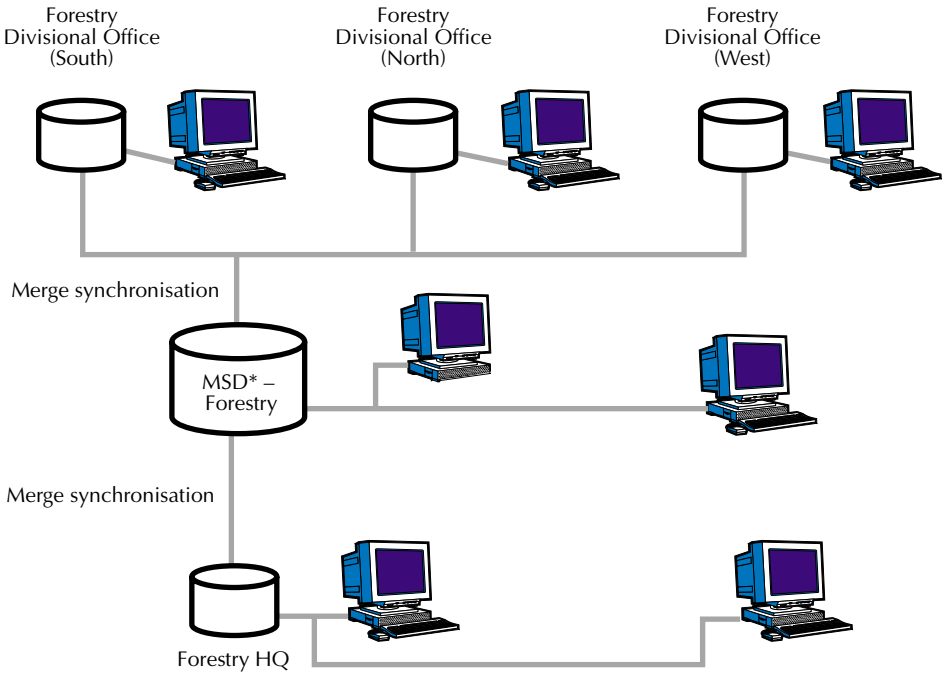
For such a system to be operational and sustainable in Fiji, it needs to be low-cost, low-maintenance and easy to use. It was determined that the system needed:

- personal computer (PC)-based hardware that could be maintained by local suppliers;
- recognised standard software that could be developed and maintained by the Forestry Department;
- a user-friendly interface for data entry by Forestry Department staff; and
- a robust central database system that allows simultaneous two-way updating ('synchronisation') with the divisional offices.

Microsoft SQL Server was selected as the database software to allow the data tables stored in the central server and those stored on the PCs at the three divisional offices and at Forestry headquarters to be synchronised. Telephone lines link the PCs and the central server and allow the tables to be synchronised daily.

The user-friendly interface has been developed in Microsoft Access, which is a component of Microsoft Office 97 Professional. The Microsoft Access interface and tables are linked to the SQL Server at each client PC, allowing for synchronisation with the central SQL Server database as shown in Figure 1. The central database receives information from all links in the timber processing chain (Figure 2).

Figure 1: The wide area network of the log monitoring system



**Management Services Division*

The Chain of Custody

The development of the Timber Flow Monitoring System has enabled the Department to monitor the chain of custody from point of origin, where the stem is felled in a sustainably managed forest, through processing to the point of export.

Point of origin

Prior to this project and for the last four decades, extracted native sawlogs were traceable to forest owners or landowning units through scaling and log numbering carried out by Forestry Department staff at the landing site. The new system employs log and stump identification using plastic barcode tags fixed directly after felling and during crosscutting at the landing. Currently, the Forestry Department is paying the labour cost of the labelling of stumps and butt logs and of logs during crosscutting. Eventually, labelling in the forest will be carried out by the landowners themselves.

Point of processing

There are 22 registered sawmills processing natural forest logs in Fiji. Logs are delivered to the sawmills with the details recorded on timber statements and the Removal Licence. In addition, the logs are recorded when they enter the mill gate and on arrival at the log yard. The new system enables the data from the timber statements and Removal Licence together with the barcode label data to be entered daily at the divisional offices and used to update the central database. This provides Forestry Department headquarters with accurate and timely information on the raw materials that have entered the sawmill gate. In addition, each sawmill provides data on the dimension, volume and species of its daily production, enabling Forestry Department headquarters to trace the sawn timber back to the stump.

'… the Timber Flow Monitoring System has enabled the Department to monitor the chain of custody from point of origin where the stem is felled in a sustainably managed forest, through processing to the point of export'

Point of export

Every timber product exported from Fiji requires a licence from the Forestry Department. The licence information is also stored in the central database, which allows Forestry Department headquarters to trace each export product back to the stump.

Information on Export Markets

The wide-area network is also used to transfer information from Forestry Department headquarters to divisional offices and to sawmills. For example, international timber product market prices supplied through ITTO's Tropical Timber Market Information Service are distributed fortnightly to assist marketing. In addition, a 'virtual' library at the central server maintains articles related to sustainable forest management certification and chain of custody. All such articles are converted to PDF files, which can then be distributed as small email attachments. Sawmills and divisional offices are also able to request information of interest via email.

The Spatial Data Front-end

Data provided by remote stations are used to continually update the central database. This database can be queried to provide a country-wide overview or details at the level of a forest unit, which can be viewed or printed. To provide a rapid overview of the quantity and species of logs at various processing points in different locations, the information is displayed in a geographic information system (GIS) environment called MapInfo. This allows raster images such as aerial photographs, satellite images or scanned paper maps to be included as an image backdrop or underlay to dramatically enhance the visualisation of information.

Tabular back-end databases such as Oracle, Informix and SQL Server can be linked to MapInfo to provide such features as thematic maps, where changes in the tabular data are immediately reflected on the map. For example, the location of a sawmill depicted on one such map can be clicked by the user to bring up a pie chart showing the raw-product logs by the five major species available in the timber yard. In addition, the user can click on the centre of a pie chart and the corresponding record of the table showing all data for that mill will be displayed in a pop-up window.

Future Enhancements

Within the monitoring system, tracking speed could be improved if data input is further

decentralised to timber production offices. The remotely based timber production offices would update the databases at the three divisional forest offices.

Updated information can be readily provided to the Management Services Division of the Forestry Department by equipping timber production officers with hand-held global positioning system (GPS) units; such officers could then acquire spatial information for logging sites. This would enable the Forestry Department to monitor logging progress in even greater detail.

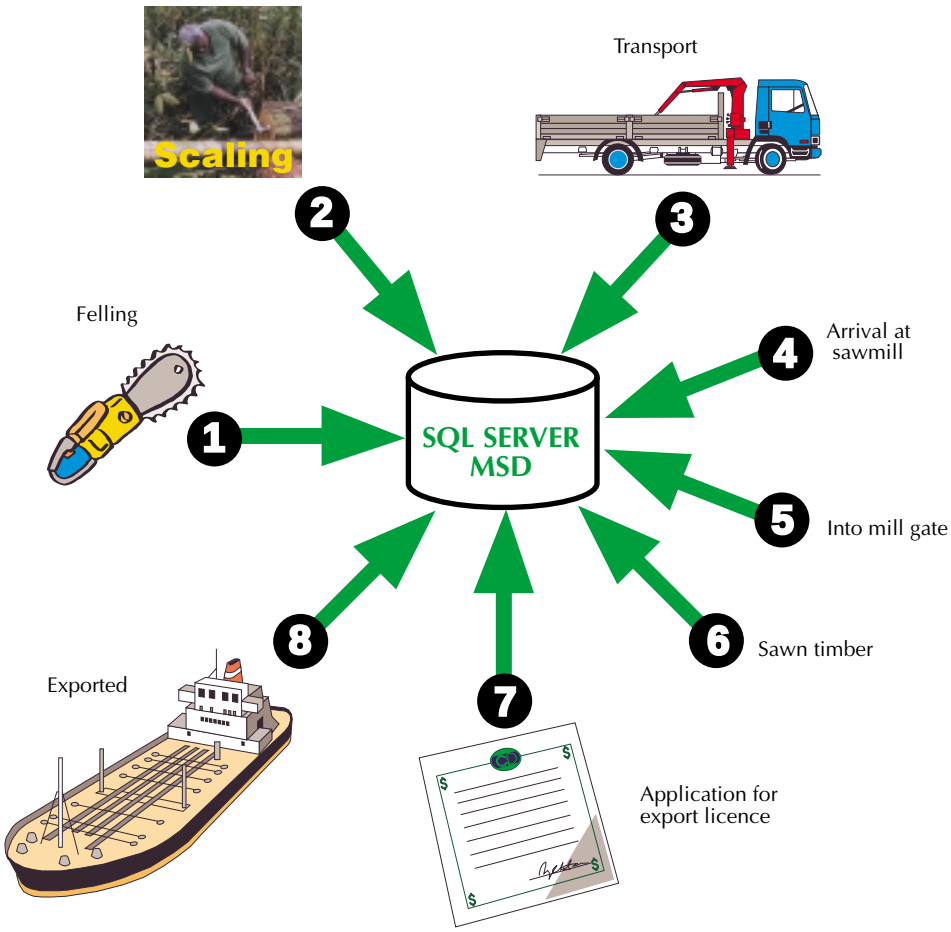
A further improvement in logging control would be to instigate nationwide forest cover monitoring using satellite imagery at a 1:50,000 scale and the monitoring of those areas where logging actually takes place at a 1:10,000 scale. The new generation of satellite data would allow mapping at regular intervals at these two levels and customers could be provided with verifiable information about Fiji's forest situation.

Besides export products, the local consumption of timber products such as sawn timber, veneer, plywood and blockboard will be fully included in the system. This will provide an even better picture of wood flow.

Conclusion

The certification of Fiji's forest operations and the chain of custody will provide customers worldwide with proof of the high-quality environmental performance of Fiji's timber products. Recognition in the market place will encourage investment in value adding, bringing financial benefits to Fiji and creating employment. Such certification need not be limited to timber: bamboo and other renewable forest resources could be included if a market and production line could be established. ■

Figure 2: Information input for tracking the flow of timber



A Natural Resources Management Framework for Palawan

Planners are embracing geographic information systems to assist resource management planning on this Philippine island

by Rey Ofren

Palawan Tropical Forestry Protection Programme, PO Box 270, Puerto Princesa, Palawan, Philippines;
Email rsofren@hotmail.com

The Strategic Environment Plan is a legislative Act intended to support and promote sustainable development goals for the Philippines' province of Palawan through the proper conservation, use and development of its natural resources. It is a comprehensive framework plan that embraces the protection and enhancement of this island province's endangered environment and valuable natural resources.

During development of the plan it was concluded that a network of protected areas would not be sufficient to prevent environmental degradation, mainly because it would not receive the support of local communities. Instead, a graded system of protection and developmental control was proposed. This would ensure that no developments took place that would cause irreversible harm to Palwan's natural resources, including the province's rich biological diversity, or the loss of their productive capacity.

One approach to adopting such a system is through an environmentally critical areas network (ECAN). ECAN involves processes for delineating and marking boundaries of the different zones in both land and sea and the identification of prescribed activities and resource use. The terrestrial component is subdivided into smaller management zones for more efficient supervision. These zones are described below and illustrated in Figure 1.

Core zone or maximum protection area

– Fully and strictly protected and maintained free of human disruption. It generally encompasses the dense growth of forest located on steep gradients and preferably above 1000 m elevation;

Buffer zones

– **Restricted use area**: Limited and non-consumptive activities are permitted and might include the gathering of wild honey, almaciga tapping, soft-impact recreational activities, and research. This area surrounds the Core Zone, usually in the elevation range of 500–1000 m with slopes ranging between 36–50 per cent;

– **Controlled use area**: Controlled forest extraction activities such as the collection of minor forest products and strictly controlled logging and mining are permitted. This area is normally situated on 19–35 per cent slopes and at elevations of 100–500 m; and

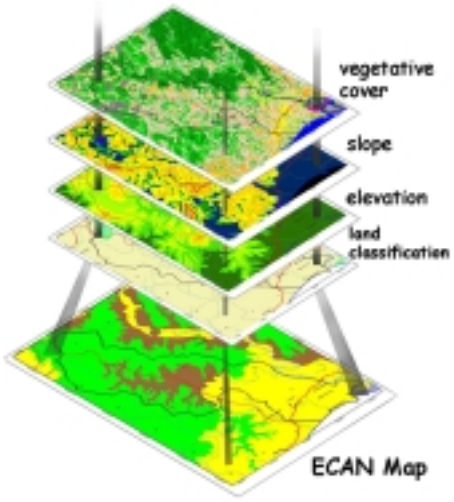
– **Traditional use area**: activities such as hillside farming, reforestation, integrated social forestry, industrial tree plantations and community-based forest management are permitted. Such areas are usually open brushland or grassland located above 16 per cent slope but below 100 m elevation.

Multiple/manipulative use area

– Uses in this zone include, but are not limited to, timber extraction with community-based management, grazing and pastures, agriculture, infrastructure and industrial development, mariculture, recreation, the rehabilitation of small islands, and mangrove ecosystem education and research.

Figure 1: The terrestrial component of ECAN

Figure 2: Map overlay and factor combination of ECAN zoning



The Role of GIS

The allocation of any area of land to a zone is done by overlaying interacting biophysical (eg vegetation, slope, elevation) and socio-economic (eg land ownership, intended land use) factors (see Figure 2). In modern resource management, a geographic information system (GIS) can play a major role in the compilation, manipulation and presentation of spatial data.

Continued

The Potential of Pando

An ITTO project is attempting sustainable forest management in Pando, a rapidly developing Bolivian department in the Amazon Basin

by Rodolfo Peralta, John Nittler and Darío Eduardo

BOLFOR, Ministerio de Desarrollo Sostenible y Planificatión, Cuarto anillo esq. Av. 2 de Agosto, Casilla 6204, Santa Cruz, Bolivia;
Fax 591–3–480 854;
Email bolfor@bibosi.scz. entelnet.bo; Web http://bolfor.chemonics.net

The BOLFOR Project is being implemented jointly by the governments of Bolivia and the United States with the aim of reducing the degradation of forest, water and soil resources in the Bolivian lowland forests and protecting biodiversity. It is doing this by strengthening the institutional capacity of the nation's public and private sectors.

A towering Brazil nut tree in Pando. *Photo: BOLFOR*

Since becoming operational in 1994, the BOLFOR Project has contributed significantly to the establishment of a new forestry model in Bolivia. This includes:

- the promulgation of a new forestry law and its relevant regulations and technical standards;
- the provision of key support for the formal forest sector in the field of sustainable forest management;
- a considerable increase in value-added processing and exports of products from managed forests; and
- the development of an independent and apolitical public institution in charge of granting and monitoring forest concessions and fees.

In 1996, the Government of Bolivia, through the Ministry for Sustainable Development and Planning, requested the BOLFOR Project to extend its activities to the Department of Pando – before then, BOLFOR focused its activities in the Department of Santa Cruz. In response to this request, the Project opened an office in the city of Riberalta in order to work with the companies operating in the northeastern region of Pando and in northern Beni, a department bordering Pando to the east. BOLFOR activities focused on the development of forest management plans in collaboration with three companies for the harvesting of timber and non-

Continued ☛

For instance, it can be linked to a land use planning system that allocates competing land uses to particular areas of land according to the inherent qualities of the land itself.

ECAN is a generalised land use capability map. The procedure involving GIS identifies homogenous parcels of land and suggests zoning based on the ECAN zoning guidelines.

Under ECAN mapping rules, the line of existing forest cover separates the general protective zones (Core, Restricted and Controlled Use) from those set aside for development (Traditional and Multiple Use). Within the forested areas, allocation into Core, Restricted and Controlled Use is based on slope and elevation, although any forest on steep slope is allocated as a Core Zone irrespective of elevation. On the other hand, the delineation of slopes below 16 per cent establishes the boundary between the Traditional Use and Multiple Use zones.

The ECAN zoning approach is part of the Province's overall management planning strategy. It combines biophysical and socio-economic data to produce maps that can be used in the design and enumeration of specific sustainable development objectives and strategies. Though Palawan Island still contains one of the largest intact forests in the Philippines, such resource planning is vital if we are to avert environmental degradation and the impoverishment of the island's people. ■

timber products, particularly Brazil nut (*Bertholletia excelsa*).

BOLFOR is aware of the significant role of Pando's forests in the conservation of biodiversity and of the need for a forest industry in the Department. It decided to develop, in cooperation with the Pando Prefecture, a series of proposals to attract an increased level of financial resources to the region. This effort resulted in the approval of ITTO Project PD 24/97 Rev.1 (F) 'Sustainable Forest Management Project for Pando – PANFOR' in May 1997 and its corresponding funding in 1998.

The Work Area

The Department of Pando, which covers an area of 63,800 km^2, is located in the Amazonian northeast of Bolivia, bordering Brazil to the north and east, Peru to the west, and the departments of Beni and La Paz to the south. It has a flat to undulating topography and a humid tropical lowland climate, with an average annual rainfall of up to 1,800 mm. It contains most of the moist forests of the Bolivian Amazon region and is arguably the largest reservoir of biodiversity in the country.

Pando's socio-economic development has been associated historically with the harvesting of rubber (*Hevea brasiliensis*) and Brazil nut, and more recently with the extraction of native *Euterpe precatoria* for the production of palm hearts for export. The current population of the Department is approximately 60,000, with 50 per cent living in its capital of Cobija and other semi-urban centres, bringing the effective population density of almost the entire Department to just under 0.5 inhabitants per km^2 (Pacheco 1998). Moreover, the Department's road infrastructure is very limited, with only about 800 km of roads, just five per cent of which are paved. One of the major limitations in Pando's development has been its great distance to ports for the marketing of products. Its river network – although extensive – flows into the Brazilian Amazon region and does not offer a fast or efficient route to markets. These circumstances have helped to keep the forest cover in the Department almost intact over 90 per cent of the territory.

'The Department of Pando … contains most of the moist forests of the Bolivian Amazon region and is arguably the largest reservoir of biodiversity in the country.'

Nevertheless, Pando is experiencing a period of increasing agricultural expansion and forest resource utilisation. According to the Forestry Commission (Superintendencia Forestal – SF), the government has granted more than 1.56 million hectares of timber harvesting concessions. Furthermore, two factors have brought recent hardship to local communities: the removal of rubber subsidies in the Brazilian market during the mid 1980s, which led to the stagnation of the rubber-producing industry (Pacheco 1998); and, more recently, the discontinuation of native palm heart exports to Brazil due to container contamination problems. In response, both the *barraqueros* (holders of utilisation rights over non-timber products, particularly Brazil nut and rubber, in a specific area) and rural and indigenous communities are increasingly exploiting timber forest resources or replacing forest uses with cattle-raising activities.

'The project aims to make a significant contribution to the establishment of the legal, technical, institutional and socio-economic framework needed in Pando to achieve the sustainable management of its forests.'

Sustainable Harvesting Opportunity

The Technical Office of Land-Use Planning in the Department has classified 93 per cent of the lands in Pando as suitable for forest protection and management activities. Thus, excluding legally established protected natural areas, 79 per cent of the lands in the Department – 5.06 million hectares – have been declared suitable for the sustainable harvesting of both timber and non-timber forest products (ZONISIG/DHV 1996). The harvestable volume of these forests is estimated at 26.7 m^3/hectare (SF 1999). Considering that 87 per cent of the area, or 4.4 million hectares, could be covered by high production forests, the harvestable potential volume of the Department could amount to 117 million m^3. Under a sustainable production scheme, these resources could generate an annual harvestable volume of approximately 4.7 million m^3 of roundwood within the first 20 years and 3.5 million m^3 of roundwood annually in subsequent felling cycles. This log volume could in turn generate gross revenue levels of over US$600 million[1] per year in sawnwood exports if the necessary investments in industrial timber processing were made. This figure does not include the potential earnings that could be generated through the production of Brazil nut, estimated at US$70 million[2] per annum.

Forestry Law No. 1700 and the National Land Reform Service Law, both promulgated in 1996, provide the necessary legal basis for

Key Points in the New Forestry Legislation

- 40-year forest concessions to be renewed every five years and subjected to external technical audits.
- Payment of forest fees for the total forest concession area on government lands.
- Payment of a maximum of five per cent of payable forest fees in private forests as a forest management incentive to forest owners.
- Establishment of biodiversity conservation and municipal reserves and incentives to facilitate the participation of local stakeholders in the management of these reserves.
- Establishment of a Forestry Commission with no political orientation, independent from the Executive and with its own separate budget.
- Wide participation of the civil society and greater transparency in the sector.

[1] This estimate is based on sawmilling recovery rates of 60 per cent and FOB values of US$230/m^3 for sawnwood.

[2] Brazil nut exports are currently worth US$30 million per year (SIFOR/BOL, CFB 1999), which is estimated to be 30 per cent of the total production potential. Technical management plans for Brazil nut production propose the harvesting of 70 per cent of existing resources in production units.

facilitating the sustainable utilisation of this enormous forest production potential (see box).

A Sustainable Forest Management Project in Pando

The PANFOR Project was established through an agreement between ITTO, the Government of Bolivia and the Prefecture of the Department of Pando. Funding of US$1.8 million includes the contribution of the BOLFOR Project, which supports PANFOR on the basis of an agreement concluded with the Prefecture of Pando. PANFOR also receives institutional support from local universities, including the Amazon University of Pando and the Technical University of Beni, with which it has also established cooperation agreements in the fields of forest management and ecological research. The first stage of the PANFOR Project will last for two years. It is based in Cobija, with a support office in Riberalta.

The Project aims to make a significant contribution to the establishment of the legal, technical, institutional and socio-economic framework needed in Pando to achieve the sustainable management of its forests, reduce environmental deterioration, protect biodiversity and develop the local economy. PANFOR's enthusiastic technical team comprises nine professionals, most of whom are foresters, with technical and administrative support from the BOLFOR Project.

Institutional strengthening

The PANFOR action plan envisages the centralisation of Pando's basic forest information and the formulation of a departmental forest development plan. This would be carried out in coordination with the Prefecture's Forestry Unit and in consultation with the various forest sector stakeholders so that they may assume concrete responsibilities in the implementation of the plan. The forest development plan includes an applied research program. The PANFOR action plan also includes the provision of technical assistance to the Forestry Commission in the consolidation of the National Forest Regime, as well as a strong training component for forest companies, municipalities, community associations, the Forestry Commission and indigenous groups.

Technical support in forest management

The PANFOR action plan seeks to implement research projects designed to meet information needs for decision-making in regional forest management. The production of technical manuals on sustainable forest management issues in Pando is envisaged. Direct technical support will also be provided for at least four groups or companies covering an area of approximately 400,000 hectares. This will assist the development of forest management plans and surveys, the establishment of permanent sample plots, market identification for forest products, the utilisation of alternative species, and planning and supervision of controlled logging operations, among others.

The research to be carried out through PANFOR will focus on improving our understanding of relevant socio-economic and ecological issues to ensure good forest management practices that contribute to sustainable development. Priority studies include forest structure and composition, growth and regeneration of species to be managed, acceptable physical impact levels, appropriate harvesting methods and techniques, acceptable ecological impact levels, the utilisation potential of species suitable for management, possibilities for industrial diversification, and social and economic conditions.

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Translated from the Spanish by Claudia Adan.

■

Prices for African timbers have withstood the Asian financial crisis and demand remains strong

By Michael Adams

ITTO Secretariat
Yokohama, Japan

Log export restrictions in Cameroon have clearly reduced the availability for export of logs of some African redwood species. Despite this, buyers still seem to be both able to secure supplies and willing to pay higher prices for African timber. It would appear that other west and central African countries are stepping in to take up the slack caused by the Cameroon restrictions to meet a recently increased demand for African logs and sawn timber in Europe. According to some reports, further increases in this demand are likely.

Prices are increasing for most species and qualities; nevertheless, European importers appear satisfied with current trends in demand in their own markets and with the supply situation. Table 1 presents data for the production and export of tropical timber for some major African producers. It shows that overall exports of processed wood increased between 1998 and 1999 – although volumes still represent a small proportion of the global tropical timber trade – while log exports declined significantly.

Export Ban Takes Effect

In Cameroon, the export of tropical logs has been restricted since the introduction in 1999 of export controls for sipo, sapele, and iroko logs. However, Douala port remains busy; it is the major point for trans-shipment of timber from Africa. Cameroon still harvests some species for export, including ayous, frake and azobe.

In view of the restrictions on harvest volumes and log exports, Cameroon-based companies are attempting to do more business in central Africa. In addition, some companies are considering expanding processing capacity within Cameroon, which would increase the availability of African sawnwood.

Recent reports from Côte d'Ivoire tell of lower log availability after the change of government last year. It seems that policies are favouring the export of coffee, cacao and cotton, which are considered more profitable than timber. Importers are saying that there are almost no shipments of timber and timber products or, at best, that these are making very slow progress. Reports about an export ban on air-seasoned sawn timber in Côte d'Ivoire have not yet been confirmed.

Stabilisation in the Republic of Congo

Importers doing business in the Republic of Congo report that the political situation there seems to be easing. In the southern part of the country the local economy is recovering and a growing number of small lots of limba and okoume are available from this region. Encouragingly, the government is forecasting a relatively low inflation rate and economic growth of 6.5 per cent in real terms for 2000. One of the major spurs for a strengthened recovery is the planned re-start of rail traffic between the Atlantic port of Pointe-Noire and Brazzaville.

Higher Log Exports from Liberia

In Liberia, a similar revitalisation of log transport by rail would result in a clear improvement in exports of tropical timber. For the time being, however, analysts say it is hard to predict when rail operations for log transport will re-open.

Nevertheless, some reports tell of improving conditions for log exports. According to some market players, the situation in Liberia has stabilised to such an extent that exports have become possible again. They point to an increase in activity by Malaysian companies operating in the country and suggest that already some logs have been shipped to Asia as well as to Europe.

Ghana, being furnished with one of the most advanced timber-processing industries in West Africa, is currently strengthening its efforts on timber certification to expand timber export opportunities. Ghana intends to introduce a national certification scheme and at the same time is working to secure compatibility with

Table 1: Production and export volumes ('000 m³) of tropical timber for selected African countries, 1998 and 1999

Country	Product	Production		Exports		
		1998	*1999*	*1998*	*1999*	*% change*
Cameroon	Logs	2895	2135	1604	900	-40
	Sawn	588	600	353	345	-2
	Veneer	59	53	41	30	-24
	Plywood	90	85	41	65	61
Central African Republic	Logs	530	600	117	135	15
	Sawn	91	119	72	108	50
	Veneer	0	0	0	0	–
	Plywood	1	2	0	0	–
Republic of Congo	Logs	1056	1191	710	862	21
	Sawn	78	120	47	92	95
	Veneer	55	60	46	52	13
	Plywood	2	2	2	2	0
Côte d'Ivoire	Logs	2245	2500	93	70	-25
	Sawn	623	600	508	500	-2
	Veneer	274	285	156	157	0
	Plywood	67	70	14	15	1
Gabon	Logs	2100	2200	1679	1800	7
	Sawn	90	100	30	60	50
	Veneer	35	40	22	30	36
	Plywood	54	60	11	20	81
Ghana	Logs	1138	1200	0	0	–
	Sawn	590	600	253	250	-1
	Veneer	90	115	84	108	29
	Plywood	71	70	12	10	-16
TOTAL	***Logs***	***9964***	***9826***	***4203***	***3767***	***-10***
	Sawn	***2060***	***2139***	***1263***	***1355***	***7***
	Veneer	***513***	***553***	***349***	***377***	***8***
	Plywood	***285***	***289***	***80***	***112***	***40***

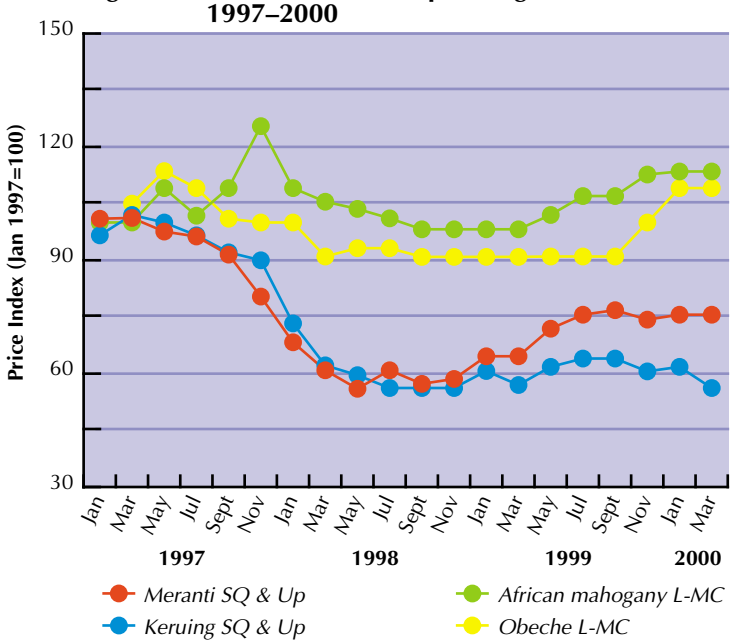
Source: ITTO (2000)

other schemes internationally.

African Timber Price Trends

African timbers are having a remarkable bull run at present and prices continue to firm. This is encouraging more of the countries that were once major export players to re-enter the trade.

Figure 1: Price trends for tropical logs, 1997–2000



Log prices

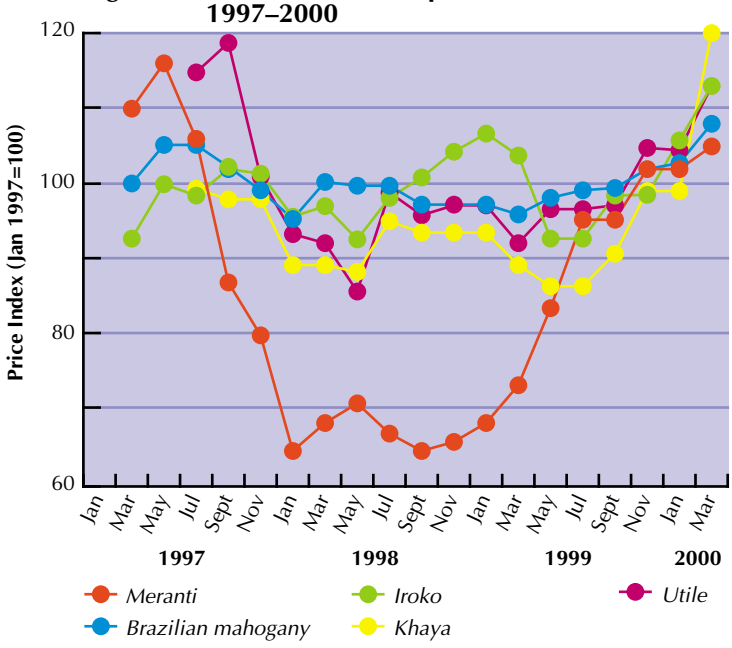
The Asian economic crisis had a marked affect on export prices for Southeast Asian timbers but the impact on prices for African timber exports was much more muted. Figure 1 presents price trends for commonly traded African and Southeast Asian logs. It shows that while prices for African logs were depressed and stagnant for much of 1998, they never fell as far as Asian log prices, recovered faster and have now surpassed the level of early 1997. On the other hand, Asian log prices (eg for meranti and keruing) are still 25–40 points below their levels in January 1997 and have a long way to go to match the recovery seen for African logs.

Why is this? The answer lies in the different markets serviced by African and Southeast Asian exporters. Africa exports timber primarily to Europe and China, where the impact of the '97 crisis was not so deep and was shorter lived than in the Japanese, Korean and Thai markets, which are serviced mainly by Southeast Asian exporters. The current strength of European demand is fuelling the acceptance of higher prices for the popular African logs.

Tropical sawnwood prices

Price trends for tropical sawnwood mirror the dramatic dip seen for tropical log prices. The big difference shown in Figure 2 is that sawnwood prices across the three tropical regions are mostly stronger now than they were prior to the crisis. The meranti sawnwood price in particular was savaged in the immediate aftermath of the crisis but even this has regained most of the lost ground. It should be noted that the market developed in Southeast Asia for Brazilian lesser-used species completely collapsed in 1998–99; talk of a price decline is not relevant because the market just disappeared. Only now are we receiving reports of a revival of demand, notably in Thailand, for such species.

Figure 2: Price trends for tropical sawnwood, 1997–2000



Concluding Comments

If the International Monetary Fund global forecasts can be relied upon, 2000 will be a good year for the world's economies. The US is still booming despite a volatile stock market. Things are looking much brighter in Europe, where there is much ground to be made up in terms of growth rates, and the economic recovery in Asia is on solid ground. Even in Japan, analysts are suggesting that perhaps the worst is over; the focus of policy can now be on stimulating domestic consumption, the engine of growth in this economy – should the engine finally start working it will led to greater trade in tropical timber.

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Late Filings

News update, 21 June 2000:

- Log stocks in some Ghanaian mills are said to be so low they are only covering one week of production
- Economies in the Asia-Pacific region are projected to grow an average 4.6 percent in 2000, surpassing forecasts
- High freight costs force Japanese buyers to look for cheaper logs
- China's stocks of imported logs now exceed one million m^3 and this is driving prices down

ITTO Publishes Latest Data on Timber Trade

The 1999 Annual Review and Assessment of the World Timber Situation *explores trends in tropical timber production and trade*

by the ITTO Secretariat

Yokohama, Japan

Each year, ITTO publishes data on the production and trade of tropical forest products and the status of tropical forests in ITTO member countries, as well as overview statistics for all timber products in these countries. In May this year it published the most recent available data, including estimates for 1999. These clearly show the devastating impact on tropical timber production and trade of the economic crisis that swept the globe in 1997–98, and the incipient recovery under way in 1999.

Production

Table 1 presents data comparing tropical to all timber production and trade for all ITTO members in 1998. Production of tropical saw and veneer logs in ITTO producer countries was 113 million m^3 in 1998, an eleven per cent drop from production in 1997. Log production increased slightly in 1999, to 113.4 million m^3, due to improving economies in all regions but particularly in Asia. Tropical log production in consumer countries (China and Australia) was stable over 1997–99 at about 300,000 m^3.

The proportion of logs processed domestically in Africa fell from almost 70 per cent in the early 1990s to an average of 57 per cent in the 1997–99 period, due to increased log exports to Asia. The Asian figure for domestic processing averaged 91 per cent over the same period. This reflects increasing populations, growing economies and the emphasis on exporting value-added products in this region. Latin American countries processed virtually all tropical logs harvested in 1997–99.

Sawnwood production by ITTO producers totaled 33.2 million m^3 in 1998, down eight per cent from 1997 levels. This decrease was due to falls in production throughout Asia, which masked continuing production increases in Latin America and Africa. Sawnwood production increased to 34 million m^3 in 1999.

Tropical hardwood veneer production decreased 20 per cent to 1.8 million m^3 in 1998, due to drops in Asian and Latin American veneer production, and increased to over 1.9 million m^3 in 1999. Consumer countries produced 1.9 million m^3 of sawnwood in 1998.

Plywood production in ITTO producer countries decreased in 1998 to 14.2 million m^3, an eleven per cent drop from 1997 levels. Indonesia's plywood production declined by eleven per cent and Malaysia's by twelve per cent. Plywood production in producer countries was stable in 1999. Consumer countries produced 4.2 million m^3 of tropical plywood in 1998. In contrast to other products (for which production levels fell or were at best stable), tropical plywood production in consumer countries jumped sharply (by 28 per cent) in 1999 due to a large increase in Chinese production.

Exports

ITTO producer countries exported 12.6 million m^3 of logs in 1998, with Malaysia providing 44 per cent of this volume. Total ITTO log exports in 1998 dropped 20 per cent from 1997 levels, but increased to 12.8 million m^3 in 1999, still well under half the level at the beginning of the 1990s. Sawnwood exports by producer members were stable at 6.1 million m^3 in 1998, but dropped four per cent in 1999. Falling Brazilian sawnwood exports accounted for most of the decrease in 1999.

Veneer exports from ITTO producer countries were also stable in 1998 at just over 1.3 million m^3, increasing by eight per cent in 1999. Tropical plywood exports by producer members in 1998 dipped eleven per cent to 11.8 million m^3, with Indonesia (7.4 million m^3) and Malaysia (3.6 million m^3) accounting for 94 per cent of this total. Exports were stable in 1999.

ITTO consumer countries also exported or re-exported substantial quantities of tropical timber in 1998, led by sawnwood and plywood exports. Exports of sawnwood and plywood by consumer countries decreased in 1999. This reflected decreased trade between countries in Europe, where the majority of the trade in tropical timber products between consumer countries is conducted.

Imports

Tropical hardwood log imports by ITTO consumer countries dropped by 19 per cent in 1998, to 10.8 million m^3. If imports by producing members are taken into account, total 1998 tropical log imports by ITTO members were just under 12.8 million m^3, 21 per cent less than in 1997.

Table 1: ITTO summary statistics, all members (1998, millions)

	Logs			Sawnwood			Veneer			Plywood		
	All	*Tropical*	*%*	*All*	*Tropical*	*%*	*All*	*Tropical*	*%*	*All*	*Tropical*	*%*
Production (m^3)	775.8	113.3	*(15)*	345.9	35.1	*(10)*	5.1	2.2	*(43)*	48.4	18.3	*(38)*
Exports (m^3)	42.6	12.8	*(30)*	93.0	6.4	*(7)*	2.6	1.4	*(54)*	16.6	12.3	*(74)*
Exports ($)	4279.6	1381.3	*(32)*	19615.9	2323.1	*(12)*	1948.2	520.8	*(27)*	4970.0	3067.9	*(62)*
Imports (m^3)	79.5	12.8	*(16)*	103.2	7.0	*(7)*	2.3	1.2	*(52)*	15.3	9.9	*(65)*
Imports ($)	7163.2	1884.8	*(26)*	20645.8	2717.9	*(13)*	2033.0	595.7	*(29)*	5560.0	3064.0	*(55)*

The gap between tropical log imports and exports by ITTO members increased to over three million m^3 in 1999, indicating an increase in the volume of timber traded by non-ITTO log suppliers, although under-reporting of log exports, misclassification of imports and/or statistical errors were also contributing factors. Non-ITTO tropical log suppliers include the Solomon Islands and Laos, together with several relatively minor African log exporters. Japan remained the dominant importer of tropical logs in 1998, accounting for 32 per cent of all consumer country log imports, despite a sharp decline from 1997 levels to 3.4 million m^3. Japanese tropical log imports increased twelve per cent to 3.9 million m^3 in 1999.

India, Thailand and the Philippines were the major ITTO producing country log importers in 1998, at about 1.4, 0.3 and 0.2 million m^3 respectively. Imports by Thailand collapsed to 211,000 m^3 in 1999, while those of the Philippines increased to just over 0.5 million m^3, more than double its import levels in the early 1990s.

Thailand's imports of tropical sawnwood decreased 34 per cent to 0.9 million m^3 in 1998 and kept falling to a reported 0.4 million m^3 in 1999. Thailand was ITTO's largest tropical sawnwood importer in 1998 but was overtaken by Japan, China and several European countries in 1999. Japan's imports of tropical sawnwood decreased 33 per cent to 0.8 million m^3 in 1998 but rebounded to almost 1.2 million m^3 in 1999. Imports of tropical sawnwood by consumer countries rose four per cent in 1998 to 5.3 million m^3, and further to 5.9 million m^3 in 1999. The five per cent decrease in total ITTO tropical sawnwood imports to 7.0 million m^3 in 1998 (where they remained in 1999) was attributable primarily to the large decrease in Thai and Japanese imports.

Total ITTO tropical veneer imports decreased by 15 per cent in 1998 to 1.2 million m^3. This decrease was due largely to a 78 per cent drop in imports by Korea (to 59 000 m^3). Imports in 1999 were up 13 per cent to 1.4 million m^3. The European Union (EU) absorbed 245,000 and 262,000 m^3 of tropical veneer in 1998 and 1999, one-fifth of total ITTO imports. Japan imported 52 000 m^3 of tropical veneer in 1998, 44 per cent less than in 1997. Japan, with substantial restructuring under way in its wood panels industry, saw tropical veneer imports drop further to 48,000 m^3 in 1999.

Tropical plywood imports continue to be led by Japan, although the 3.6 million m^3 imported in 1998 was down 26 per cent from a year earlier. Tropical plywood imports by ITTO members increased by five per cent to 10.4 million m^3 in 1999. In contrast to all other primary products, total ITTO exports of tropical plywood have regularly exceeded total ITTO imports, showing the dominance of ITTO tropical plywood exporters in global markets.

Prices of Primary Products

Real prices for most primary tropical timber products and species exhibited declining or at best stable trends during 1998–99. The sharp economic downturn in Asia that began in mid-1997 resulted in strong downward pressure on prices for most products through 1998 and the first half of 1999. The decline in prices was much more severe for tropical primary products (logs, sawnwood and plywood) than for secondary processed wood products. Asian log and sawnwood exporters were more affected by the falling prices than were their African competitors, whose main market in Europe remained relatively strong (see article on pages 16–17). Prices for African and Asian logs and sawnwood rose in late 1999 as the currencies of major Asian importers such as Thailand, Japan and the Republic of Korea strengthened and imports rose in some EU countries.

Prices for Latin American mahogany sawnwood exports rose steadily during 1998–99 due to strong demand in US and European markets and the total ban on logging imposed in Brazil's Para State in 1998. Indonesian and Malaysian plywood export prices firmed in late 1998 and continued an upward trend in 1999 due to a stronger yen and increased demand from Japan and Korea. Brazilian plywood prices, however, remained relatively flat during this period.

Secondary Products

Exports of secondary processed wood products (SPWP) by ITTO producers continued to expand through 1997 before stabilising with the economic crisis in 1998. ITTO producer countries had a 33 and 18 per cent share of the Japanese and USA markets for SPWP respectively in 1998, although these shares have declined by about five per cent each since 1994.

ITTO producer countries had only a ten per cent share of the EU market for SPWP in 1998. However, the magnitude of this huge market means that the value of this share (at almost $1.58 billion) was more than double the value of their Japanese market share and almost equal to the value of their share of the US market. Imports of SPWP by ITTO consumers from ITTO producers exceeded $4.3 billion in 1997, equivalent to 40 per cent of the value of their imports of primary tropical timber products from these countries. The top ITTO producer country exporters of SPWP in 1997–98 were Indonesia, Malaysia, Thailand, Brazil and the Philippines. ■

Country Profile – Germany

by the ITTO Secretariat

Germany is located in western Europe, bordered by the Netherlands, Belgium, Luxembourg and France to the west, the Czech Republic and Poland to the east, and Denmark and the Baltic and North seas to the north. It occupies 35.7 million hectares and its population of 82.1 million in 1997 is growing at a rate of 0.2 per cent per year.

Germany's gross domestic product (GDP) was US$1,877 billion (using purchasing power parities – PPP – which correct for the differences in price levels between countries) in 1998, having grown at an average of 2.1 per cent since 1988. Its GDP per capita was US$22,800 (PPP), which is above average for OECD (Organization for Economic Cooperation and Development) countries (OECD 2000).

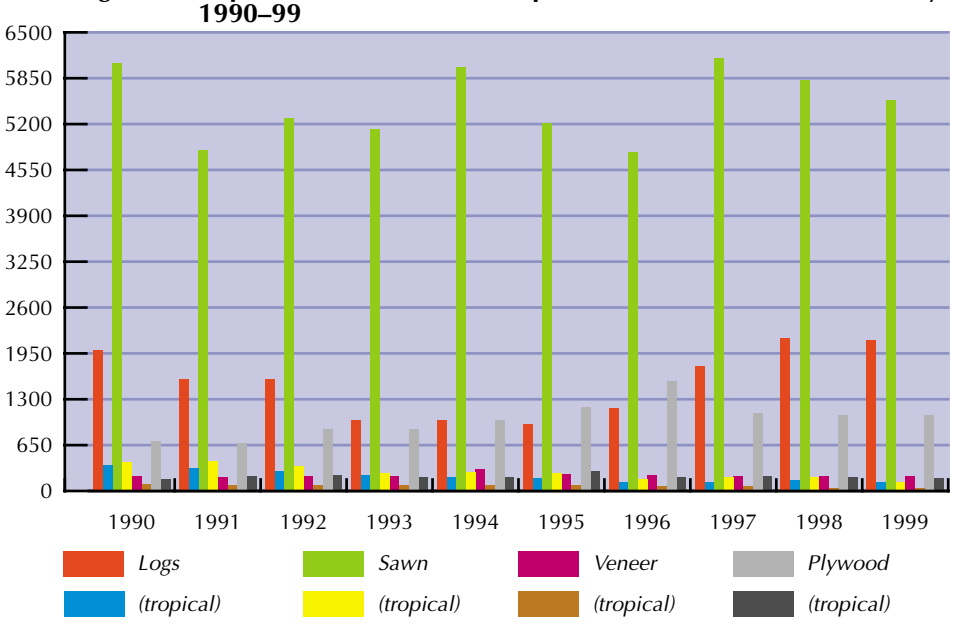
Forests

FAO (1999) estimated the forest area of Germany at around 31 per cent (10.7 million hectares) in 1995 and recorded no net change over the period 1990–95 (FAO 1999). The World Conservation Monitoring Centre puts the forested area at 10.4 million hectares, of which 2.6 million hectares is 'protected'. It classifies Germany's forests into deciduous broadleaf (3.0 million hectares) and evergreen needleleaf (7.4 million hectares; WCMC 2000).

Tropical Forestry

Forestry concepts such as sustained yield are said to have originated in Germany, where forest management has been treated as a science for centuries. The reputation of German forestry was such that 19th century British and Dutch colonial governments often appointed Germans to senior forest management roles. Names like Brandis, Schlich and Ribbentrop still resonate in the tropics today: Brandis, for example, wrote the first manual for teak management in Burma, developed the *taungya* system of reforestation and instituted an inventory system for teak-bearing forests that operated successfully in Burma for more than a century. Germany had colonial interests of its own and introduced German-style forestry to German West Africa (Togo and Cameroon) between the late 1800s and the First World War, mainly to supply timber to German industry (Heindrichs and Schreckenberg 1999).

Figure 1: Imports of all timber and tropical timber ('000m³) for Germany, 1990–99



Tropical Timber

Figure 1 shows that import volumes of tropical timber have declined over the last decade for all the primary products monitored by ITTO except plywood, which fluctuated but was slightly above 1990 levels in 1999. Imports of all timber in 1999 were slightly higher than those reported in 1990 for logs and plywood, while veneer import volumes were virtually identical and sawnwood saw a slight decline. Figure 2 shows that annual tropical timber export volumes declined over the period for logs, sawnwood and veneer but increased from zero to 4,000 m³ for plywood.

Overseas Development Aid

In 1997, Germany provided official development assistance (ODA) of some US$5.86 billion. The German ODA/GNP (gross national product) ratio was 0.28 per cent in that year, which was above the average of 0.22 per cent for OECD DAC (Development Assistance Committee) countries but below that of the European Union (EU; OECD 2000). This aid has declined in recent years: the annual average change in ODA volume between 1991 and 1997 was -3.9 per cent. Nevertheless, in absolute terms Germany is still ranked fourth in the world as an aid donor behind Japan, the USA and France. ITTO member countries that received German ODA in 1998 included China (US$432 m), Indonesia (US$293 m), Egypt (US$284 m), India (US$229 m), Brazil (US$95 m) and Peru (US$81 m; ibid.). Bilateral aid delivery is coordinated by the Federal Ministry for Economic Cooperation and Development (BMZ) via the German Development Bank (KfW) for financial cooperation and the German Agency for Technical Cooperation (GTZ) for technical cooperation.

Tropical Forest Assistance

Germany provides assistance in the tropical forests sector both multilaterally and bilaterally.

Continued ☞

Committee for International Cooperation in Forestry and Forest Industries

The German Forestry Association's Committee for International Cooperation in Forestry and Forest Industries was formed in 1973 by a group of German foresters with experience in international cooperation. The German Forestry Association itself celebrated its 100th anniversary last year and recognises the importance of international relations in forestry.

The Committee for International Cooperation in Forestry and Forest Industries is directed by a chairman who concurrently serves as the Country Vice President of the International Society of Tropical Foresters. The chairman is assisted by a coordinating group elected every four years during the general assemblies of the German Forestry Association. The current membership of the committee stands at about 350, mainly but not exclusively German members and mostly foresters. It is the largest committee of the German Forestry Association. Its main objectives are to:

- evaluate and communicate experiences gained in development cooperation projects in the fields of tropical forestry, forest industry and nature conservation;
- contribute to the debate about basic questions of tropical forestry and nature protection;
- host foreign scholars during their advanced training in Germany; and
- provide professional assistance to foresters overseas.

In recent decades the Committee has been lobbying actively for and counselling the protection, sustainable management and rational use of the world's tropical and subtropical forests. These problems have been discussed with and papers have been published and directed to members of the German Bundestag. Expert reports have been published by the Committee on themes such as agroforestry, wildlife management, the wise use of tropical lands, conservation and sustainable use of tropical rainforests, the protection of tropical forests, and guidelines for the implementation of sustainable management in tropical forests. A critique was also published recently on the proposed international convention on forests.

Between 1991 and 1997 the chairman of the Committee simultaneously acted as chairman of the Initiative Tropenwald. This initiative of German tropical timber importers and the Woodworkers Union was established with the intention of developing criteria and indicators for the certification of sustainable tropical forest management. Several members of the Committee have also participated in other initiatives on criteria and indicators and activities in preparation for the Intergovernmental Panel on Forests.

In Germany, the Committee participates in the working group 'Forests', which is part of the non-governmental forum 'Environment and Development'. It is also a consulting organisation of the German Ministry of Economic Cooperation and Development. The Committee recently decided to extend its activities to the eastern and southeastern 'transformation' countries of Europe.

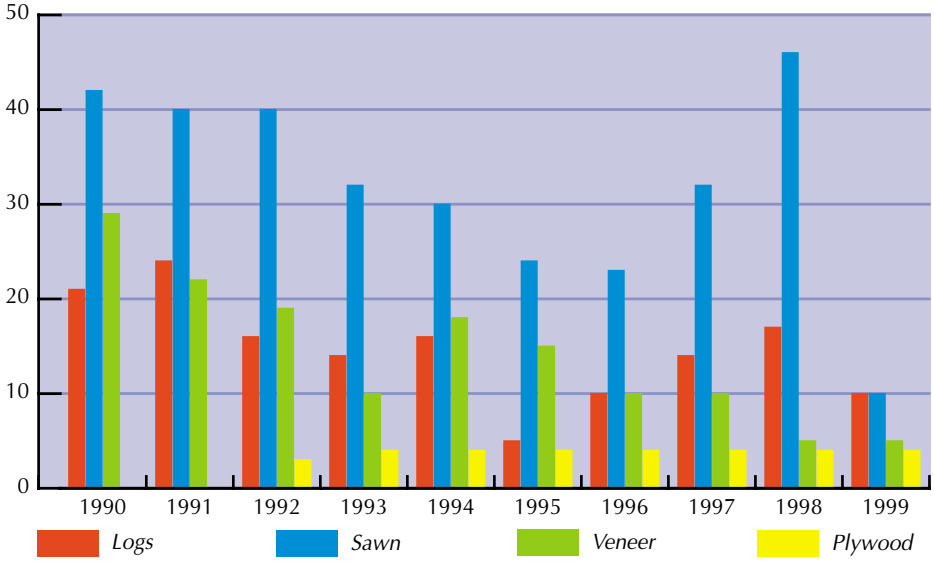
For more information contact: Deutscher Forstverein e. V., Büsgenweg 1, D–37077, Göttingen, Germany; Fax 49–551–379 6237; Email info@forstverein.de; http://www.forstverein.de ■

In 1988 the federal government increased the budget available for tropical forest conservation and development programs to around DM300 million (currently about US$144 million), a target that was probably exceeded, particularly in the early 1990s. According to Heindrichs and Schreckenberg (1998), this makes Germany the most important bilateral donor in the field of tropical forest conservation. Funds are directed primarily towards natural forest management, afforestation, agroforestry, institution strengthening, rural development, combating desertification, and the protection of watersheds.

Germany and ITTO

Germany has been a member of ITTO since the mid 1980s, both in its own right and as part of the EU. As of November 1999, it had contributed around US$600,000 towards ITTO projects, pre-projects and activities, on its own and as part of the EU.

Figure 2: Exports of tropical timber ('000m³) for Germany, 1990–99



Sources: ITTO Annual Reviews 1994–2000

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OECD 1999. Organization for Economic Cooperation and Development: http://www.oecd.org/

WCMC 2000. World Conservation Monitoring Centre: http://www.wcmc.org/ ■

Fellowship Report

An ITTO Fellowship facilitated the presentation at an international conference of a paper on the role of ecotourism in a remote group of Indonesian islands

By Jana Halida Uno

Sekber Togean, Consortium Togean, Palu, Central Sulawesi, Indonesia;
Email togean@palu.wasantara.net.id

Consortium Togean is a joint project by Conservation International and local non-governmental organisation YABSHI (Indonesian Foundation for the Advancement of Biological Sciences). It is being implemented in the field by Sekber Togean, the Consortium's implementing agency.

Since 1996 the project has focused on ways of integrating conservation and development in the remote Togean Islands near Sulawesi. In May 1999, I received an ITTO Fellowship to attend the Global Biodiversity Forum for South and Southeast Asia in Colombo, Sri Lanka on 24–26 October 1999. At this conference I presented a paper co-written with YABSHI's Christoverius Hutabarat titled 'Using ecotourism to conserve biodiversity in Togean Islands, Central Sulawesi: An approach to community-based natural resource management'. This paper is summarised below.

The Togean Islands

The Togean Islands is an archipelago of some 50 small islands in Tomini Bay with a total land area of 60,000 hectares and a marine area of 100,000 hectares. The archipelago supports some 37 villages containing 27,000 people of great ethnic diversity; most are farmers or fishermen.

The Togean Islands are rich in both marine and terrestrial biodiversity. They contain lowland tropical rainforest, which supports such species as the seperti deer-pig, the hornill, the tarsier, and the endemic Togean macaque and Togean lizard. Togean people make use of many products from the rainforest, including rattan, fig and many other plant species. The marine habitats are equally diverse, featuring coral reef, sea-grass beds and mangrove ecosystems. A 1998 survey found at least 400 coral species, including 26 previously unknown to science. The coral ecosystem supports many species consumed or exported by Togean people, including grouper, clam, tuna, shrimp, lobster and sea cucumber.

Threats to Biodiversity

Activities such as unsustainable logging, fish bombing and poisoning and oyster farming could threaten both the islands' biodiversity and the livelihoods of inhabitants. For this reason, in 1996 Consortium Togean began working in three villages to develop sustainable development alternatives.

Ecotourism

One such alternative is ecotourism. Our goal in ecotourism development is to promote an environmentally friendly business and to generate local income. Any such development must also protect cultural values and the rights of local people. Ecotourism is one of the Consortium's priority activities because:

ITTO Fellowships Offered

ITTO offers fellowships through the Freezailah Fellowship Fund to promote human resource development and to strengthen professional expertise in member countries in tropical forestry and related disciplines. The goal is to promote sustainable management of tropical forests, the efficient use and processing of tropical timber, and better economic information on the international trade in tropical timber.

Eligible activities include:

- participation in short-term training courses, training internships, study tours, lecture/demonstration tours and international/regional conferences;
- technical document preparation, publication and dissemination, such as manuals and mongraphs; and
- post-graduate studies.

Priority areas: eligible activities aim to develop human resources and professional expertise in one or more of the following areas:

- improving the transparency of the tropical timber market;
- improving the marketing and distribution of tropical timber species from sustainably managed sources;
- improving market access for tropical timber exports from sustainably managed sources;
- securing the tropical timber resource base;
- improving the tropical timber resource base, including through the application of criteria and indicators for sustainable forest management;
- enhancing technical, financial and human capacities to manage the tropical timber resource base;
- promoting increased and further processing of tropical timber from sustainably managed sources;
- improving the marketing and standardisation of tropical timber exports; and
- improving the efficiency of tropical timber processing.

In any of the above, the following are relevant:

- enhancing public relations, awareness and education;
- improving statistics;
- research and development; and
- sharing information, knowledge and technology.

Selection criteria: Fellowship applications will be assessed against the following selection criteria (in no priority order):

- consistency of the proposed activity with the Program's objective and priority areas;
- qualifications of the applicant to undertake the proposed fellowship activity;
- the potential of the skills and knowledge acquired or advanced under the fellowship activity to lead to wider applications and benefits nationally and internationally; and
- reasonableness of costs in relation to the proposed fellowship activity.

The maximum amount for a fellowship grant is US$10,000. Only nationals of ITTO member countries are eligible to apply. The next deadline for applications is **30 August 2000** for activities that will begin no sooner than December 2000. Applications are appraised in May and November each year.

Further details and application forms (in English, French or Spanish) are available from Dr Chisato Aoki, Fellowship Program, ITTO; Fax 81–45–223 1111; Email itto@mail.itto-unet.ocn.ne.jp (see page 31 for ITTO's mailing address).

- it embodies sustainable development by making use of a resource while ensuring its protection; and
- tourism is already an established industry, so local people are familiar with it – the task is to improve it so that it protects the natural and cultural environments.

The Consortium's support of ecotourism is being implemented through four steps:

1) information was gathered on both the attractions and the tourists and a feasibility study was conducted;
2) a process of community development and empowerment has been important. It involves holding community meetings and training to improve local awareness of ecotourism possibilities. Meetings between tourists and locals are facilitated – this gives the locals further insight into the needs, wishes and expectations of modern tourists;
3) product development: the first and second steps are giving a clearer picture of how to develop marketable products – what needs to be done in terms of environmental protection and education, community participation and monitoring and evaluation. A step towards product development has already been taken by a small group in Lembanato village, which has developed a 375-metre boardwalk in a mangrove forest without cutting or destroying a single mangrove; and
4) marketing: the Consortium plans to assist locals to develop a marketing program that links local and international tour operators.

The impetus for the ecotourism project has actually arisen from the Togean people themselves, who were complaining about their small role in tourism activities. Often, they can only watch as tourists flock to the islands, handled by outsiders who distribute very little money locally.

Thus, local people are working together to capture more of the benefits from tourism. Inspired by a local fishing technique that uses a net called *bapukat* to catch small and big fish alike, a group of Togeans have formed the Togean Ecotourism Network (TEN), through which they hope to retain more of the tourist dollars on-shore. Membership is open to all villagers with a willingness to participate in ecotourism activities. For example, early members included *losmen* (accommodation) owners, vegetable farmers, traders in salted fish, fishermen and tourism guides. Linkages between such a variety of occupations will help capture the ecotourism market: for example, the tour operator will bring tourists to the *losmen*, the *losmen* owner will provide information on other activities, and fishermen will supply high quality foods.

With the support of the Consortium, TEN is now implementing eight activities in accordance with ecotourism principles. These are:

- developing a community-based ecotourism model;
- increasing community awareness towards conservation;
- minimising the environmental impacts of tourism activities;
- optimising the generation of income from ecotourism businesses;
- providing job opportunities;
- building capacity for ecotourism operators;
- promoting ecotourism to the wider Togean community; and
- enhancing cooperation between locals and the local and regional governments. ■

Fellowship Websites Available

Two websites developed by recipients of ITTO fellowships are now on-line.

The first, China's Forestry Information Center, contains a large amount of information on China's forest resources and policy, timber production, imports and exports, and tariff structures. This site has been developed by Zhuang Zuofeng of the State Forestry Administration's Natural Forest Conservation Programme Center. You can visit it at **www.forestry.eazier.com/**

The second site was developed by Dr Yushun Zhai. The International Tropical Timber Information System provides information on the production, consumption and trade of world tropical timber products using data provided by ITTO's Annual Review of the World Tropical Timber Situation. Its creator hopes to update the site periodically. The address is: **www.geocities.com/ittis_1999**

Both sites are in English.

Fellowship Awards Granted

Thirty fellowships were awarded at the 28th Session of International Tropical Timber Council in May 2000 under ITTO's newly revamped Fellowship Program. A total of 154 applications were received, giving an award success rate of about 20 per cent. The following candidates were successful:

Ms Evelyn Ahulu (Ghana); **Ms Giana Almeida** (Brazil); **Mr Ayih Atayi-Agbobly** (Togo); **Dr Kanthila Mahabala Bhat** (India); **Mr Charles Boamah** (Ghana); **Mr Eric Buduan** (Philippines); **Dr Suchitra Changtragoon** (Thailand); **Mr Tuck Yuan Chin** (Malaysia); **Dr Mohanan Choran** (India); **Ms Ana Margarida Castro Euler** (Brazil); **Mr Octavio Francisco Galván Gildemeister** (Peru); **Ing. Juan Vicente Guadalupe Gallardo** (Ecuador); **Ing. Rudy Alberto Guzmán-Gutierrez** (Bolivia); **Ms Krishna Karkee** (Nepal); **Mr Faustin Kouadio** (Côte I'Ivoire); **Ms Clayfield Lanquaye** (Ghana); **Ms Marie-Hortange Epouse Onana Mekongo** (Cameroon); **Mr Arnaldo Privado Mosteiro** (Philippines); **Dr Naresworor Nugroho** (Indonesia); **Ms Gloria A.Oanes** (Philippines); **Ms Joan Teresa Pereira** (Malaysia); **Mr Timothy Rayden** (UK); **Ing. Martha Serrano** (Bolivia); **Mr Diwakar Sinha** (India); **Ms Ignasia Sulastiningsih** (Indonesia); **Ms Lailan Syaufina** (Indonesia); **Ms Arlete Taty-Boumba** (Republic of Congo); **Ms Aiying Tian** (China); **Mr Robert Touzbe** (Central African Republic); **Mr Vivek Krishna Varma** (India).

Seventy per cent of fellowships were awarded in the field of reforestation and forest management, 17 per cent in the field of forest industry, and 13 per cent in economic information and market intelligence. Twenty-one fellowships will enable awardees to attend training courses or conferences, seven will contribute towards postgraduate programs, one will fund a study tour, and another will enable the awardee to prepare a monograph promoting the use of ITTO's manual on criteria and indicators of sustainable forest management.

Supporting Certification in the Pacific Islands

Sustainable Forest Management and Certification in the Pacific Region

29 November–2 December 1999
Deuba, Fiji

Report by Douglas Pattie

ITTO Secretariat

This workshop, organised jointly by the Secretariat of the Pacific Community and the German Technical Cooperation Agency (GTZ), was aimed at supporting the process of forest certification in Pacific Island communities (PICs). Participants included representatives of government, the forest industry, non-governmental organisations and the private furniture export sector from the PICs of Fiji, Solomon Islands, Samoa, Papua New Guinea and Vanuatu. Participants from New Zealand, Australia, the Philippines, Germany, Japan and ITTO were also among the 40 or more people at the five-day workshop.

In his keynote address, Stefan Schardt, President of Germany's Initiative for the Promotion of Sustainable Forest Management, highlighted the process of certification as an opportunity to balance economic, social and ecological needs. It starts with the development and implementation of criteria for sustainable forest management and the application of those criteria to forest certification. Certification is not meant to be an end in itself, but an important instrument in forest policy for the implementation of sustainable forest management.

During the first part of the week, participants discussed the kinds of mechanisms that need to be in place to guarantee that certification will meet the objective of sustainable forest management in a Pacific Island context. For example, participants debated what might happen to the certification of a forest management operation when the concession licence expired and the resource was returned to customary land ownership. This was noted as a fundamental issue in the Melanesian context. The issue of land use planning dominated several of the discussions in the breakout subgroups. It was recognised that land use planning and the concept of customary rights is a sensitive issue, particularly in PNG and the Solomon Islands where it is difficult to prescribe land use plans. There was a recognised need to move faster toward sound land management practices in most PICs before a certification process could be embarked upon.

Presentations on the national development of certification were made by participants from Australia, New Zealand and several PICs. Case-studies of current forest certification programs were presented (see, for example, the box). The Fiji Forestry Department also presented results from its ITTO-funded project to develop a chain of custody for timber products (see article on pages 9–11). Throughout these presentations, participants expressed apprehensions that disparate development could lead to confusion and even the exclusion of some PIC-certified timber products from markets. It was suggested that governments should establish internationally agreed mechanisms to ensure the orderly and harmonious growth of certification schemes.

The workshop discussion moved toward the concept of instituting a broader certification process, perhaps at the national level, instead of certifying each small harvesting operation. If the national policy, institutional capacity, forest data and local guidelines of a country are adequate, would it be reasonable to consider all operations that come under the system to be suitable for certification? The participants urged that this concept be tested and discussions presented at the South Pacific Heads of Forestry Meeting in May. Such an approach could reduce the cost to individual small-scale operations.

The point was made at the workshop that smaller PICs don't need certification because they have little timber to export. Bigger PICs see certification as a tool for sustainable forest management but essentially a process that the private sector should implement. It was felt that governments needed to facilitate timber certification through establishment of accepted criteria and indicators for sustainable forest management, community forestry programs, commercial plantations and natural forest management. Some local furniture exporters suggested that government should be the main stakeholder and should be highly involved in the certification process. The possible reduction in costs through regional accreditation was discussed.

The workshop agreed on the following:

- the implications for countries in the South Pacific are both direct in terms of the impact of certification activities themselves, and indirect in terms of the broader policy and market environment generated by certification;
- certification has little relevance for countries with low levels of production and/or low

Profile of a Certified Forest in the Solomon Islands

Company: Kolombangara Forest Products Ltd (KFPL)

Owners: UK-based Commonwealth Development Corporation (CDC), the Solomon Island Government through its Investment Corporation, and the landowners of Kolombangara Island

Objectives:

(1) Sustainable forest plantation through conversion of secondary forest on logged over land

(2) Harvest and market plantation trees

(3) Manage the estate in accordance with the Woodmark Forestry Standards

Land area: 39,402 hectares

Reserves: 15, 087 hectares

Protected: 5, 478 hectares

Established plantation: 14,500 hectares

Unsurveyed: 4,337 hectares

Species: *Gmelina, Eucalyptus, Campnosperma*

Certifier: FSC through Woodmark, the label of the Soil Association of the UK

The players: Woodmark, KFPL, stakeholders, local government and NGOs

Results: Good rapport building; access to European markets for sawn timber; premium price yet to be realised; fulfilled initial FSC requirements, but changes in FSC rules presents current problems

Cost breakdown of certification: FSC scoping visit – US$1,500; initial certification visit – US$25,000; Re-inspection – US$13,500 (annual)

Corporate goals: keep certified status in order to propel further on-shore processing; expand into natural forest management

levels of export to markets demanding certified products. Samoa is an example of a country for which certification is of little relevance;

- some export markets are demanding certified products (eg from Fiji's mahogany (*Swietenia macrophylla*) plantation of 6,831 hectares). Plantation certification is very relevant for this highly marketable species;
- the limited resources available mean that PIC governments are unlikely to be capable of directly funding certification activities. As a market instrument, the private sector may have to fund certification as part of its business strategy;
- governments should play more of a facilitating role, particularly in relation to the development of criteria and indicators for sustainable forest management and the implementation of national codes of logging practice. These codes offer an example of what could be achieved in cooperation towards a regional certification framework. The approach of PICs to certification will be conditioned by their policies towards sustainable forest management and factors which are unique to the region;
- the FSC certification process was the first on the international scene. However, forest industries in many countries were initially reluctant to subscribe to FSC certification, mainly because it was seen as a process driven largely by NGOs; and
- with a plethora of certification schemes developing throughout the world, managing them to achieve harmonious growth will depend on equivalence and mutual recognition by importers and exporters of different schemes. In the PICs, future emphasis is likely to be in this area. ■

Workshop participants visit FORRU's restoration research plots near Chiang Mai, Thailand. *Photo: J. Kirby*

Restoring Forest for Wildlife

Forest Restoration for Wildlife Conservation: A Scientific and Technical Workshop for South East Asia

30 January–4 February 2000
Chiang Mai, Thailand

Report by Janice Kerby

University of Chiang Mai, Thailand

This workshop was organised by the Forest Restoration Research Unit (FORRU) at the Department of Biology, Chiang Mai University in conjunction with the Thai Royal Forest Department. Funding support was gratefully received from ITTO, the International Union of Forestry Research Organizations (IUFRO), the Biodiversity Research and Training Programme, the British Council and Shell Forestry Limited.

The workshop focused on the scientific and technical aspects of restoration forestry in the seasonally dry forest ecosystems of Southeast Asia. The aim was to address the urgent need for more information on how to establish and maintain biodiverse forest plantations utilising native species, both for wildlife conservation and for sustainable forest management. Losses of biodiversity, the unsustainable extraction of timber, reduced watershed and soil protection, and the resultant community impoverishment are all problems whose resolution could be helped by the results of this workshop.

The workshop brought together 55 participants from 14 countries across the region and elsewhere, where relevant research and practice is currently under way. A further 30 participants attended the first day, which was open to junior researchers and practitioners in associated fields such as agroforestry and social forestry.

The workshop was opened by Associate Professor Sampan Sisoowan, Vice-President of Chiang Mai University, with Associate Professor Kittichai Watananikorn, Dean of the Faculty of Science, and ITTO's Dr Efransjah. A fascinating array of papers was presented that encompassed a review of the current status of forest restoration in the region and the technical issues of species selection, seed collection, nursery care, planting, aftercare and the silviculture of native trees. In addition, the effectiveness of these techniques for attracting wildlife to restored sites and the interactions with community forestry were explored. Projects described were as diverse as restoring forests to recreate habitat for Asiatic lions in western India, to community tree-planting schemes for wildlife and watershed protection in the mountains of northern Thailand.

Various essential techniques were discussed, such as cost-effective methods to control invasive weeds in plantations, direct seeding, soil inoculation with mycorrhizae, and the harnessing of natural ecological processes to

augment native tree-planting. There were exciting exchanges of information between disciplines and countries and many innovative ideas were shared.

This was a working event with a busy timetable of presentations and carefully targeted discussion groups. The major output was a coordinated research agenda containing 136 proposals, of which 14 were prioritised by consensus amongst the participants. The following topics were identified as most critical for increasing the success of forest restoration:

- *Improvements to plantation design*
  - methods of assessing the potential for assisted natural regeneration on a particular site
  - assessment of optimal tree species, size, species mix and effects of plot distance from remnant forest
  - techniques to improve structural and niche diversity in new plantations
  - relationship between plantation design and successful colonisation by native wildlife
- *Species selection, nurseries and planting*
  - maintenance of genetic diversity
  - site-species matching on local and bioregional scales
  - effectiveness of direct seeding
- *Seed dispersal*
  - effects of perch trees on seedling establishment in degraded sites
  - how to harness the effectiveness of bats as tree-seed dispersers
  - identification of tree species that are attractive to mammalian dispersers
  - identification of key seed dispersers that augment restoration techniques
- *Fire*
  - resistance of different tree species to fire
  - feasibility and effects of controlled burning as a method of wildfire prevention
- *Social and community issues*
  - effects of restoration on watersheds and water flow
  - motivating factors for involving villagers in forest restoration
  - threshold capacity of restored areas

The above will lead to beneficial research culminating in substantive impact on the ground and will have direct effects on forest restoration and management.

A second output of the workshop was an agreement to establish a regional network for information exchange on forest restoration for wildlife conservation. The participants felt strongly that more effective communication is needed so that research results can be shared more quickly and the risks of duplicating work can be minimised. A voluntary coordinator was appointed and several in-country representatives identified who will circulate information.

A proceedings will be published in July containing all papers presented, details of the research agenda, draft research proposals, and the plan for a regional network.

For further information about the workshop or to order a copy of the proceedings, please contact:

Dr Steve Elliott or Dr Vilaiwan Anusarnsunthorn, FORRU, Department of Biology, Faculty of Science, Chiang Mai University, Thailand 50200; Tel 66–(0)53–043358; Fax 66–(0)53–892259; Email scopplrn @chiangmai.ac.th ■

Sustainablity Assessments Discussed

International Experts Meeting on Sustainability Assessment of Trade Liberalisation

6–8 March 2000
Quito, Ecuador

This meeting was attended by about 100 people from 30 countries, representing governments, international organisations, NGOs and academia, and from the trade, environment and development communities. It was co-organised by the World Wide Fund for Nature (WWF) and Fundación Futuro Lantinamericano (FFLA).

The meeting was held as part of the response to decisions made in 1994 at the Commission on Sustainable Development on the importance of developing a framework to facilitate the assessment of the environmental impacts of trade policies within the overall framework of promoting sustainable development. It was felt that this meeting could provide a valuable input to the CSD deliberations.

Its objective was to explore and discuss the purpose, characteristics, policy relevance and effectiveness of sustainability assessments (SAs). It was divided into plenary sessions with formal presentations and sessions in working groups. A background document produced by WWF and FFLA was provided to participants beforehand.

The meeting was a unique opportunity for an open exchange of views and experiences among a wide range of stakeholders. The discussions addressed the role and utility of SAs, concerns and potential obstacles. There was a general recognition that SAs can be important tools for improving the quality of political decision-making by enhancing the understanding of the complex relationships between trade and sustainable development. It was concluded that SAs should not be limited to trade liberalisation but extended more broadly to trade policy. It was also agreed that the development of SAs is still at an early stage and that there is a need to further elaborate the definition, purpose and scope of such assessments. The meeting stressed the need for international cooperation in this field. In addition, this elaboration requires the building of trust, which critically depends upon SAs not being used as a prerequisite for countries to participate in trade liberalisation and upon countries being free to choose their own (tailor-made) approach to assessments.

Based on the conclusions of the Chair.

Copies of background material and other associated documents can be obtained from: Mireille Perrin, Officer, Trade and Investment Unit, WWF International, Ave Mt Blanc, 1196 Gland, Switzerland; Fax 41–22–364 0640; Email mperrin@wwfnet.org (English versions); and Nicolás Lucas, Fundación Futuro Latinamericano, Av. Atahualpa y Juan Gonzalez, 2do piso, Quito, Ecuador; Fax 593–2–463 503; Email ffla@interactive.net.ec (Spanish versions). ■

Topical and Tropical

Edited by Alastair Sarre

Will Certification Cause Better Forest Management?

Ewald Rametsteiner, a researcher at the Institute of Forest Sector Policy and Economics at Vienna's University of Agricultural Sciences, conducted an economic impact analysis on the likely ability of forest certification to promote improved forest management in Europe. He concluded that certification could lead to improved forest management, but such improvements would be limited, partly because certification is most attractive when a potential applicant is required to make few changes to current practices. In addition, concludes Rametsteiner: "the low level of economic benefits that the markets seem to promise make certification even more attractive for those who find low-cost solutions".

The 200-page report Sustainable forest management certification: frame conditions, system designs and impact assessment *is available from the Ministerial Conference on the Protection of Forests in Europe, Liaison Unit Vienna, Marxergasse 2, A-1030 Vienna, Austria; Fax 43–1–710–770213; Email liaison.unit@lu-vienna.at; http://www.minconf-forests.net*

Ghana Tests Standards

The Ghanaian Department of Forestry field-tested its forest management standards over a two-week period in March this year. These standards had earlier been published as *The quality management of the forests of Ghana: forest standards, principles and specifications* in March 1999. Four teams comprising 4–5 members were recruited locally to conduct the tests; international experts led two of the teams and local experts the other two. The evaluation of 8 principles, 37 criteria and 127 indicators identified a number of changes that will make the standards easier to use and understand. These will be fed into the process of developing a final set of standards suitable as a workable and credible basis for a national forest management certification scheme.

Global Forest-watching

Global Forest Watch is an initiative of the US-based World Resources Institute. It is an information service with a mandate to provide "objective, credible, peer-reviewed data, and making that information widely available". According to WRI's president, Jonathan Lash, Global Forest Watch "links satellite imagery with on-the-ground investigation by local groups to assemble powerful information about risks to the world's great forests". It recently published two reports: *A first look at logging in Gabon*, and *Canada's forests at a crossroads: an assessment in the year 2000*. Key findings in the first report are that: Gabon's forests are rapidly being developed by the logging industry; Gabon's forest industry may be vulnerable to market swings because of lack of diversification; current laws designed to manage and protect forests in Gabon have been poorly applied and enforced; and the proposed reform of Gabon's forestry policy provides an opportunity to help rectify these problems by setting new standards for better natural resource management. The Canada report found, among other things, that Canada's most species-rich and productive forests have been extensively modified by development activities. Under current management practices, says the report, harvesting rates appear to be unsustainable.

You can contact Global Forest Watch at 10 G Street NE, Washington, DC 20002, USA; www.globalforestwatch.org

Why Poor Logging Persists

In an article to be published in *Conservation Biology* in August, reduced impact logging gurus Francis Putz, Dennis Dykstra and Rudolf Heinrich address the question of why destructive logging persists in the tropics, despite evidence that reduced impact logging (RIL) can be both cheaper and better for the forest. They put forward six common reasons cited by loggers for not implementing RIL, and add a seventh of their own. In particular, they say, RIL may actually be more expensive than conventional logging in cases "where compliance with logging guidelines restricts access to steep slopes or prohibits ground-based timber yarding on wet ground". They suggest that widespread adoption of RIL might require financial incentives such as those that "could be provided in the name of enhanced carbon sequestration in forests logged carefully relative to forests subjected to conventional logging".

Propagation Technique for Forest Trees

The Plant Cell Culture Technology Group at the Bhabha Atomic Research Centre in Mumbai, India, is promoting the use of a tissue culture technique called somatic embryogenesis for the reproduction of precious forest trees. According to a note submitted to the *TFU* by the Group's Dr V.A. Bapat and two co-authors, somatic embryogenesis is a process by which embryos are produced from somatic, or non-reproductive, cells in the presence of certain hormones. It is particularly useful for trees that are difficult to cultivate by other vegetative means and facilitates the rapid genetic improvement of plantation stock. Somatic embryos lack the seed coat and endosperm of normal seeds and can therefore be difficult to cultivate unless coated synthetically. Dr Bapat and his colleagues have successfully applied the somatic embryogenesis technique to sandalwood (*Santalum album*), which is not amenable to most vegetative propagation techniques. They have developed synthetic seeds for their sandalwood embryos, paving the way for the establishment of sandalwood plantations using genetically improved stock.

Dr Bapat can be contacted at: Nuclear Agriculture and Biotechnology Division, Bhapha Atomic Research Centre, Trombay, Mumbai 400 085, India; Fax 91–22–550 5151; Email vabapat@magnum.barc.ernet.in ■

Current Literature

Mayers, J. and Bass, S. 1999.* Policy That Works for Forests and People. *Policy That Works for Forests and People Series No. 7: Series Overview. International Institute for Environment and Development, London. 324 pages, including annex.

Available from: Publications, International Institute for Environment and Development, 3 Endsleigh St, London WC1H 0DD, UK; Tel 44–171–388 2117; Fax 44–171–388 2826; Email bookshop@iied.org

Review by A. Sarre

ITTO Secretariat

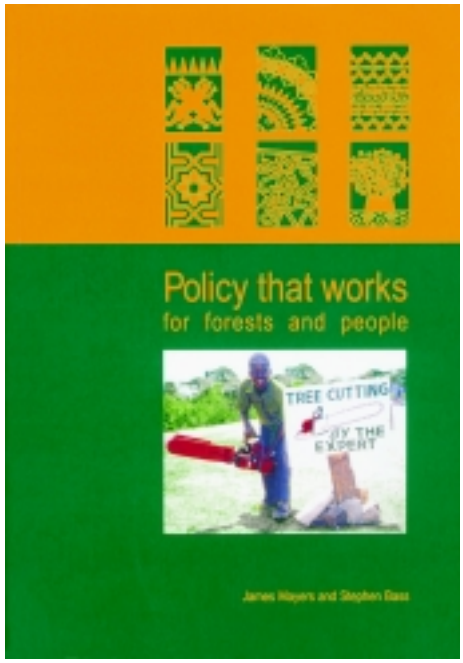
Any one who has followed, or been involved in, the development of forest policy over the last decade could be forgiven for suffering from policy fatigue. At the international level, for example, the number of forest-related initiatives, working groups, fora and processes has ballooned in recent years, but they have produced few visible effects in the world's forests.

This book will act as therapy to jaded participants in forest policy development. It is a major output of a five-year project by the International Institute for Environment and Development, which aimed to improve the understanding and practice of policy processes so that they in turn could be improved in the pursuit of sustainable forest management and the optimisation of stakeholder benefits. The project involved consultative, multi-disciplinary country studies led by local professional teams in six developing countries – Zimbabwe, Ghana, India, Pakistan, Costa Rica and Papua New Guinea – and some additional, smaller-scale studies in Sweden, Scotland, Portugal, China and Australia. Reports were published on each of the major studies; one of these, on Costa Rica, has already been reviewed in this newsletter (*TFU* 9/4).

Underlying the project was the observation that forest policy is confronted by two seemingly contradictory trends – 'globalisation' and 'localisation'. On the one hand, the influence of the private sector and of international conventions and bodies increasingly transcends national boundaries. On the other, the desire of communities to have more control over their own destiny is leading to the 'devolution' of decision-making to local levels.

According to the thesis of this study, national policies must provide the link between these two irresistible forces and "are crucial in addressing the tensions between them". Good national policy, say the authors, allows local experimentation and initiative to thrive and aggregate at the national and international levels. For this reason, much of the book is devoted to analysing national forest policy processes in the case-study countries, identifying what has and has not worked. The key to all successful attempts at policy appears to be the process itself: policy development should not be static and linear but, rather, iterative and cyclical. The report identifies a number of policy instruments, or "power tools", which "both implement policy and increase its information base and reliability, by providing feedback. In so doing, they are instruments of change, helping to unblock situations of entrenched excessive power and stifled creativity." Examples include:

- *research and extension brokering*: in Sweden, the main role of the forest authority is to provide information and guidance on policy, while a different body acts as a brokering agency between forest owners and users and researchers. These "tools for democratising information" have facilitated the engagement of forest owners and users in policy;
- *collaborative management experiments feeding back into policy change*: in Ghana, a special unit in the Forestry Department was set up to develop an understanding of local capabilities in forest management and to undertake experiments which modified the role of foresters in relation to other stakeholders. This unit was effective in attracting the interest and support of senior ministerial and departmental staff for innovative approaches;
- *legal, finance and information mechanisms for increasing local negotiating capacity*: the state can help facilitate local participation in decisions. Experience in Papua New Guinea suggests that state agencies "should take the lead to: scrutinise the plans of developers; publish model contact provisions; legislate for court review of manifestly unfair contacts; and create finance arrangements where landowners can borrow against future income to pay for professional advice";
- *property rights changes*: experience in PNG has also shown that local resource tenure is not sufficient in itself to guarantee sustainable forest management. "When customary tenure is not backed up by sufficient local institutional strength … the long term management of any piece of forest land cannot be guaranteed. But it can be done!" Legislation in Ghana, China and Scotland "is tipping the balance in favour of more control of trees and forests by local farmers and communities"; and
- *progressive land taxation*: progressive land taxes may help in land redistribution and in reducing pressure on forests. If levied and managed by local government, "it may also provide institutional linkages to, and locally-controlled resources for, better land use".



The authors are refreshingly clinical in their analysis, avoiding both sentimentality and cynicism. They see room for a variety of approaches, but propose four steps to make the

Continued

Letter to the Editor

Why Not Cable?

Sir

An element in the recent article by Alf Leslie ('For whom the bell tolls', *TFU* 9:4) disturbs me greatly. Mr Leslie states that "Somehow, tropical forestry must, fairly quickly, take a route in which … near-zero impact (helicopter) logging is the standard practice." I would like to know how he came to this conclusion.

There appears to be a determined effort by ITTO and other organisations to look only at helicopter logging as the ultimate in reduced impact logging, but it is getting a lot of criticism from timber companies because of the cost. What I would like to know is why hasn't cable logging been considered as a system to be evaluated in the reduced impact logging program?

In the early 1990s there was a brief effort in Sabah to look at cable systems. You reported these attempts in December 1992 (*TFU* 2:6). However, although applicable in some situations, this standard European system of standing skylines is somewhat out-of-date in production levels, primarily due to lengthy set-up time with the present planning techniques and equipment available.

Since 1992, when the Indonesian government recognised that cable logging had a place in natural as well as plantation forests, the live skyline on a mobile carrier technique has had an effect on reduced impact harvesting activities. However, we continue to read articles looking only at the application of better techniques of tractor logging or the ultimate 'salvation', helicopters. Reduced impact logging research programs that I have observed do not even consider the many cable systems now available.

As you may be aware, we, Forest Engineering Inc., have been working with PT Sumalindo Lestari Jaya in East Kalimantan to improve their production and reduce harvesting impact. To a limited degree we have been successful, but we still have a long way to go. However, an example of our operations in comparison to other practices is in looking at sedimentation resulting from operations. The table shows a comparison of NTUs (nephelometric turbidity units) from tractor and helicopter logging in Sarawak (Chua, *Asian Timber*, December 1996) and from our cable logging area in the natural forests in the upper Mahakam River Basin.

NTUs for tractor and helicopter logging (Sarawak) and for cable logging (Mahakam River Basin)
(tonnes/hectares/year)

System	Wet	Dry
Tractor	287	35
Helicopter	21	2.9
Cable	14	1.9

A relatively large machine, the Thunderbird TTY 70, was used in the Mahakam River Basin and is still working at that location. Since an initial purchase of one small training machine, the Koller K-300, Sumalindo has acquired two more cable machines for the plantations. They also have 11 monocable units that have been used primarily for thinning operations in the plantations.

I understand there is a big effort to establish reduced impact logging training schools and I commend this effort. It most certainly is one that must be made. However, I doubt whether this will be possible at any level other than planning when helicopter logging is the method of choice.

In conclusion, I would like to know why cable logging isn't being considered as a reduced impact logging method in tropical harvesting operations and training. I will be giving a talk on this subject at the IUFRO World Congress in August. Perhaps I will get an answer to my question there.

Ed Aulerich

Forest Engineering Inc.
17 February 2000

transition to an effective forest policy process. These are:

Step one: recognise multiple valid perspectives and the political game. This step is based on the recognition that differences between stakeholders will not necessarily be resolved by better information, training and awareness-raising.

Step two: get people to the negotiating table. To do this successfully, stakeholders must have a comparable ability to influence outcomes. Agreed solutions will require that "some people need to be empowered to make positive contributions, and others need to be restrained from making destructive contributions."

Step three: make space to disagree and experiment. Consensus may not always be possible or desirable. The policy process must allow disagreement so that stakeholders can be heard; it could even lead to innovative solutions. The policy process must therefore be capable of sustaining disagreement without self-destructing.

Step four: Learn from experience, get organised and fire up policy communities. Improved information is a key part of forest policy processes, but the authors advocate moving away from the 'banking' approach, where knowledge is deposited in people's heads, towards approaches that facilitate 'learning by doing'. Forest stakeholders are therefore encouraged to become involved in policy debates and projects as a way of positioning themselves for real engagement in the policy process.

This book has grappled with a vast and complex subject and brought clarity to it. Nor was it entirely an academic exercise: by engaging with stakeholders, the country teams became constructively involved in policy processes, "which in turn led to key opportunities to improve policies." Extension of the project's outcomes continues, with IIED and its collaborators using them in forest policy work in "an increasing number of countries". The writing style is engaging and the text well informed by tables, figures and boxes: one of the book's many fine attributes is its deconstruction, in asides, of some of the policy community's favourite clichés and buzzwords. There is also an 80-page annex, which is a sort of handbook for doing policy work. ■

Noticeboard

Useful sites on the internet

Tropical forest library

The University of Minnesota's tropical forestry website contains a bibliography on tropical forest conservation and development containing selected publications from 1992 to the present. Indexed subjects include: tropical forest resources; deforestation; conservation; indigenous peoples; management; policy; trade and industrial development; nontimber forest products; research; education and training; and history. It can be searched for free, and photocopies of most publications cited can be obtained for US$10–20.

http://www.lib.umn.edu/for/bib/trps.html

Language: English

Japan's Ministry of Forests

The website of the Japanese Ministry of Agriculture, Forestry and Fisheries provides a weekly update on activities related to the Ministry. It includes a list of statistics available from its Statistics and Information Department.

http://www.maff.go.jp

Language: English

FAO

FAO's website contains a large amount of useful forest-related information, including country-by-country statistics from the 1999 *State of the World's Forests* report and its forestry journal *Unasylva* (in English, French and Spanish).

http://www.fao.org

Languages: English, French, Spanish, Chinese, Arabic

Indigenous alliance

The International Alliance of the Indigenous and Tribal Peoples of the Tropical Forests, a worldwide network of the organisations of Indigenous and Tribal peoples living in tropical forest countries, was founded in 1992. The Alliance's charter and other information can be found at:

http://www.gn.apc.org/iaip

Languages: English, French and Spanish

ITTO on-line

And don't forget ITTO's website: it contains many key ITTO documents, including the *TFU* in English, Spanish and French.

http://www.itto.or.jp

China Report Available

The article 'China market ascending', which appeared in *TFU* 10:1, has generated plenty of interest. One of its authors, Shi Kunshan, has written to advise us that the full report on which the article is based is now available at: www.forestry.ac.cn/yjg/Major.htm

TFU Email Service

The *Tropical Forest Update* has been available on the web for some time. Now, as part of efforts to provide a timely information service, we are commencing an email bulletin to advise readers whenever a new edition is posted on the web. *Tropical Forests On-line* will highlight the contents of each new edition and will also provide recent updates on ITTO-related events. It will be brief, so it won't clog your systems.

If you would like to receive Tropical Forests On-line *at no charge, please send a short request to the editor at itto@mail.itto-unet.ocn.ne.jp*

Commonwealth Review goes International

The *Commonwealth Forestry Review*, a high-quality peer-reviewed forestry journal edited by A.J. Grayson, changed its name to the *International Forestry Review* in 1999. It publishes papers from around the world on a wide range of forestry-related issues and carries an excellent book review section. According to Mr Grayson, the name-change "reflects the worldwide coverage and global appeal of the journal and is in harmony with recent editorial policy".

For subscription inquiries, contact: Commonwealth Forestry Association, c/o Oxford Forestry Institute, South Parks Road, Oxford OX1 3RB, UK; Fax 44–1865–271 037; Email cfa@plants.ox.ac.uk

FSC Article Unavailable

The previous edition of the *TFU* carried a notice that an article by the Forest Stewardship Council on certification as a non-tariff barrier to trade would be featured in this current edition. Unfortunately, due to a hectic work schedule, the FSC is currently unable to provide this article. But watch this space in the future!

Seeds Available

The New Forests Project, a US-based 'direct-aid' organisation, is offering packets of tree seeds, technical information and training materials free of charge to groups worldwide interested in starting reforestation projects with fast-growing nitrogen-fixing trees. A press release from the Project says that "high-quality seeds" of species such as *Acacia mearnsii*, *A. nilotica*, *A. tortilis*, *Albizia lebbeck*, *Cajanus cajan*, *Cassia siamea*, *Dalbergia sissoo*, *Grevillea robusta*, *Glircidia sepium* and others are available for immediate distribution under its World Seed Program 2000.

For more information contact: New Forests Project, 731 Eighth Street, SE, Washington DC 20003, USA; Tel 1–202–547 3800; Fax 1–202–546 4784; Email icnfp@erols.com

Making Contact

I would like to make contact with researchers or organisations dealing with carbon sequestration in tropical forests.

Preferred language: Spanish

Emmanuel Lieder Ceijas Toribo, Faculty of Forest Science, National University of Ucayali, Pucallpa, Peru; Email: emanuel_ceijas@LatinMail.com

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I would like to establish contact with professionals and institutions involved in the development of management plans for buffer zones around protected areas and the investigation of alternative land uses that improve the economic situation of people in such buffer zones.

Preferred language: Spanish

Wéninger Gonzales Astoquilca, Corporación Integral de Desarrollo Rural Andino Amazónico (CIDRAA), Parque Ramón Castilla No 284, Tongo María, Huánuco, Peru; Tel 51–64–561 376; Email weningas@yahoo.com

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I would like to make contact with persons/institutions working on forestry training and education programs.

Preferred language: English or Bahasa

Muh. Akhyar Rizki, Forestry Job Training, PT Arara Abadi, Jl. Teuku umar No.51, PO Box 1135, Pekanbaru28141–Riau, Indonesia; Tel 62–(0)761–91088 Ext. 1140/1141; Fax 62–(0)761–91230; Email akhyar@eudoramail.com

Course Calendar

◆ **Sustainable NTFP Management for Rural Development**

6–24 November 2000

Bhopal, India Cost: US$2,000

The objectives of this course are to:

- increase understanding of sustainable non-timber forest product (NTFP) management, including NTFP production, assessment, value adding and marketing;
- develop skills identifying opportunities for NTFP-based enterprise development through innovation and tested tools and techniques; and
- provide a forum for learning and experience-sharing to facilitation application of strategies and approaches learned in the course back in the participants' own work situation.

Contact: Dr Ram Prasad, Director, Indian Institute of Forest Management, Nehru Nagar, PO Box 357, Bhopal 452 003, Madhya Pradesh, India; Tel 91–755–775 716; Fax 91–755–772 878; Email ramprasad@iifm.org; Web www.iifm.org

◆ **Local Level Management of Trees and Forests for Sustainable Land Use**

9 September–8 December 2001

Wageningen, the Netherlands

Cost: NLG10,000

The objective of the course is to provide participants with the instruments and skills that will enable them to deal effectively with community forestry issues. It offers:

- insight into and skills in conflict management and decision-making in the diverse environment of community forestry;
- understanding of the various approaches, models and technologies of community forestry, including their opportunities and constraints, and also including cost-benefit analysis;
- perception of the issues influencing the performance of community forestry programs, such as participation and power relations, access to resources, tenure, government policies, local knowledge and empowerment, equity and gender, roles of local organisations, government and NGOs; and
- analytical skills in the assessment of participants' own institutional and organisational environment with respect to management, effectiveness and impact, and to propose scenarios for change.

The program is structured in five main blocks, each devoted to different aspects of community forestry. The first four blocks – listed below – can be taken as stand-alone modules.

- ***Highlights of Community Forestry (Module 32/10)***

  9 September–22 September 2001
  Cost: NLG3,000

- ***Policy Issues in Community Forestry (Module 32/20)***

  23 September–6 October 2001
  Cost: NLG3,000

- ***Planning Issues in Community Forestry (Module 32/30)***

  7 October–7 November 2001
  Cost: NLG5,000

- ***Management and Organization in Community Forestry (Module 32/40)***

  7 November–24 November 2001
  Cost: NLG3,500

For all the above modules contact: Nan van Leeuwen, IAC – International Agricultural Centre, Lawickse Allee 11, 6701 AN Wageningen, P.O. Box 88, NL 6700 AB Wageningen, the Netherlands; Tel 31–(0)317–495 495; Fax 31–(0)317–495 395; Email w.j.vanleeuwen@iac.agro.nl

Fellowships from the Netherlands Fellowship Programme are available for nationals of developing countries for the full course program only. Applicants should submit their application to the Netherlands Diplomatic Representative (Embassy/Consulate) in their home country. Details about the procedure may be obtained from the Netherlands Diplomatic Representative. It is advisable to make a request for a fellowship as early as possible.

◆ **Economic and Financial Identification, Formulation and Evaluation of Forestry and Environmental Projects**

18–29 October 2000

Costa Rica Cost: US$1,200

Language: Spanish

This course aims to develop the capacity of participants to identify, formulate and evaluate, economically and financially, public and private projects and investments in the forestry and environmental sectors. It is targeted at graduates of forest sciences, agricultural economics, economics and/or agronomy who are currently employed by organisations associated with the exploitation of natural resources.

Contact: Contact: Gabriel Robles, Course coordinator, CATIE 7170, Turrialba, Costa Rica; Fax 506–556 7730; http://www.catie.ac.cr/education

◆ **Rural Development Based on the Management of Tropical Natural Ecosystems**

30 October–24 November 2000

Turrialba, Costa Rica
Cost: US$2,000 (excl. food and accommodation)

Language: Spanish

The objective of this course is to ensure that participants are capable of identifying ecological, economic, social/organisational and legal opportunities and limits in order to promote sustainable rural development in natural ecosystems.

Contact: Gabriel Robles, Course coordinator, CATIE 7170, Turrialba, Costa Rica; Fax 506–556 7730; http://www.catie.ac.cr/education

◆ **Cable Logging Workshops**

9–12 October 2000
Auckland, New Zealand
Cost: $1400 NZD or $640 USD

16–19 October 2000
Melbourne, Australia
Cost: $1140 AUD or $640 USD

The purpose of these workshops is to present: 1) the advantages and disadvantages of cable logging systems and 2) the requirements in engineering design, technique, and equipment systems that make cable logging productive.

Contact: Forest Engineering Inc., 620 SW 4th Street, Corvallis OR 97333 USA; Tel 1–541–754 7558; Fax 1–541–754 7559; Email office@forestengineer.com; Web www.forestengineer.com

◆ **(1) Social Forestry, (2) Commercial Forestry, (3) Protected Area Management and (4) Natural Resources Management**

8 January– 9 March 2001

Velp, The Netherlands Cost US$1500 (approx.)

These courses are open to anyone holding a BSc in tropical forestry or natural resources management and with a good command of the English language.

Contact: Larenstein Transfer, Larenstein International Agricultural College, Box 9001, 6880G, Velp, The Netherlands; Fax 31–26–361 5287; Email masters@iahlvlp.agro.nl

All courses are in English unless otherwise stated.

Disclaimer

By featuring these courses, ITTO does not necessarily endorse them. Potential applicants are advised to obtain as much information as possible about the course of interest and about the institution offering it.

ITTO Tropical Forest Update

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Other enquiries to ITTO should be sent to the same postal address above or to the general ITTO email address: itto@mail.itto-unet. ocn.ne.jp

The **ITTO homepage** can be found at http://www.itto.or.jp

Forthcoming Meetings

◆ 16–23 July 2000. Amsterdam, the Netherlands. **Geoinformation for All.** Contact: S. Tempelman, c/o ITC, PO Box 6, 7500 AA Enschede, Netherlands; Tel 31–53–487 4358; Fax 31–53–487 4335; Email isprs@itc.nl; http://www.itc.nl/~isprs

◆ 31 July–4 August 2000. Chiayi, China. **Forest Protection in Northeast Asia.** IUFRO 7.03.08. Contact: Ming-Jen Lee, Professor, Department of Forestry, National Chiayi Institute of Technology, Chiayi, China; Tel 886–5–271 7170; Fax 886–5–271 7178; Email mjlee@rice.cit.edu.tw

◆ 2–4 August 2000. **Tropical Forestry Research: Challenges in the New Millennium.** Peechi, India. Contact: Dr J.K. Sharma, Kerala Forest Research Institute, Peechi - 680 653, Kerala, India; Tel 91–487–782 061; Fax 91–487–782 249; Email libkfri@md2.vsnl.net.in

◆ 2–4 August 2000. **Bamboo 2000 International Symposium.** Chiang Mai, Thailand. Contact: Bamboo 2000 Secretariat, Faculty of Forestry, Kasetsart University, Bangkok 10900 Thailand; Tel 66–2–579 0171; Fax 66–2–942 8112; Email fforlwp@nontri.ku.ac.th

◆ 7–12 August 2000. Kuala Lumpur, Malaysia. **The Effect of Nursery and Silvicultural Operations on the Environment and Society.** IUFRO 3.02.00 at the XXI IUFRO World Congress. Contact: Mike Menzies, New Zealand Forest Research Institute Ltd, Biotechnology Division, Private Bag 3020, Rotorua, New Zealand; Tel 64–7–3475899; Fax 64–7–3479380; Email menziesm@tawa.fri.cri.nz

◆ 7–12 August 2000. **XXI IUFRO World Congress 2000.** Kuala Lumpur, Malaysia. Contact: XXI IUFRO World Congress Organizing Committee, Forest Research Institute Malaysia, Kepong, 52109 Kuala Lumpur, Malaysia; Fax 60–3–636 7753; Email iufroxxi@frim.gov.my; http://frim.gov.my/iufro.html

◆ 7–12 August 2000. Kuala Lumpur, Malaysia. **Data Collection in the Tropics.** IUFRO 4.02.01 at the IUFRO World Congress. Contact: Mohammed Ellatifi, Service des Eaux et Forêts, PB 12507 Casablanca, Morocco; Fax 212–2–982428; Email m.ellatifi@mailcity.com

◆ 15–21 August 2000. **Forest Ecosystems – Ecology, Conservation and Sustainable Management.** Chengdu, Sichuan, China. IUFRO 1.14.00. Contact: Dr Shi Zuomin & Ms Dong Na, Institute of Forest Ecology, Environment & Protection, Chinese Academy of Forestry, Wanshoushan, Beijing, 100091 China; Tel 86–10–6288 8308 or 6288 9513; Fax 86–10–6288 4972; Email Shizm@fee.forestry.ac.cn

◆ 20–26 August 2000. **21st International Congress of Entomology.** Iguaçu Falls, Brazil. Contact: Dr Décio Luiz Gazzoni, PO Box 231, 86001-970 Londrina – PR Brazil; Fax 55–43–371 6100; Email iceweb@cnpso.embrapa.br; www.embrapa.br/ice

◆ 18–20 September 2000. **Modelling and Experimental Research on Genetic Processes in Tropical and Temperate Forests.** Cayenne, French Guyana. Contact: Bernd Degen, INRA Station de Recherches Forestières Guyane, Campus agronomique, BP 709, 97387 – Kourou cedex, French Guyana; Tel 594–329 290; Fax 594–326 914; Email degen_b@kourou.cirad.fr; http://kourou.cirad.fr/genetique/

◆ 25–27 September 2000. **Wood Biomass as an Energy Source.** Joensuu, Finland. Contact: Ms Brita Pajari, Seminar Coordinator, European Forest Institute, Torikatu 34, FIN-80100 Joensuu, Finland; Tel 358–13–252 0223; Fax 358–13–124 393; Email brita.pajari@efi.fi; http://www.efi.fi/events/

◆ 27–29 September 2000. **International Symposium on Wood Machining**. Vienna, Austria. Contact: Christian Doppler Laboratory for Fundamentals of Wood Machining, Institute of Meteorology and Physics, University of Agricultural Sciences, Türkenschanzstr. 18, A-1180 Vienna, Austria; Tel 43–1–4705820–12; Fax 43–1–4705820–60; Email woodmachining@mail.boku.ac.at; Web http://www.boku.ac.at/imp/woodmachining

◆ 2–8 October 2000. **Harvesting of Non-wood Forest Products.** Ismir, Turkey. Contact: Dr R. Heinrich, Forest Harvesting, Trade and Marketing Branch, Forest Products Division FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy; Fax 39–(0)6–5705 5137; Email rudolph.heinrich@fao.org

◆ 8–13 October 2000. **Forest Genetics for the Next Millennium.** Durban, South Africa. IUFRO 2.08.01. Contact: Colin Dyer, IUFRO Conference Organiser, PO Box 11636, Dorpspruit 3206, South Africa; Tel 27–331–425 779; Fax 27–331–944 842; Email iufro@icfr.unp.ac.za

◆ 10–13 October 2000. Syracuse, New York, USA. **3rd Biennial Conference of Short Rotation Woody Crops.** IUFRO 1.09.00. Contact: Tel. 1–315–470 6891; Fax 1–315–4706890; Email ce@esf.edu; Web: http://www.esf.edu/willow

◆ 10–15 October 2000. **Congreso de la Asociacion Latinoamericana de Estudiantes de Ciencias Forestales.** Mexico. Contact: Rafael Aranda, Facultad de Ciencias Forestales de la Universidad Autonoma de Nuevo Leon, Carretera Nacional Km 145, Apartado Postal No. 41, Linares, Nuevo Leon, Mexico 67700; Tel: 52–821–2–4895 and 6142; Fax 821–2–4251; Email raranda@ccr.dsi.uanl.mx

◆ 12–13 October 2000. **The Value of Forests: International Conference on Forests and Sustainable Development.** Tokyo, Japan. Contact: Motoyuki Suzuki, United Nations University, 53–70, Jingumae 5-chome, Shibuya-ku, Tokyo 150–8925, Japan; Tel 81–3–3499 2811; Fax 81–3–3499 2828; Email suzuki@hq.unu.edu

◆ 25–28 October 2000. **Enviro Latin America 2000.** São Paulo, Brazil. Contact: BIOSFERA, Av Presidente Vargas, 435 Gr. 1104/110 Centro, 20077-900 Rio de Janeiro, Brazil; Tel 55–21-221 0155; Fax 55–21–262 5946; Email biosfera@biosfera.com.br; http://www.biosfera.com.br/port/envirol.htm

◆ 30 October–4 November 2000. **29th Session of the International Tropical Timber Council and Associated Sessions of the Committees.** Yokohama, Japan.

◆ November 2000. **7th Meeting of the Latin American and Caribbean Forest Information Systems Network.** Mérida, Venezuela. Contact: Osvaldo Encinas, Centro de Información y Divulgación, Laboratorio Nacional de Productos Forestales, Universidad de Los Andes, Apartado 220 Mérida 5101-A, Venezuela; Fax 58–74–442606; Email oencinas@bolivar.funmrd.gov.ve

◆ 7–9 November 2000. **International Conference on Timber Plantation Development.** Manila, Philippines. Sponsored by ITTO. Contact: Ms Mayumi Ma Quintos, ICTPD Project Leader, Forest Economics Division, Forest Management Bureau, Visayas Avenue, Diliman, Quezon City, 1100 Philippines; Tel 63–2926 2141; Fax 63–2920 8650; Email fmbdenr@wtouch.net

◆ 8–12 November 2000. **Expomaderas 2000: 3rd International Exhibition of the Timber Industry**. Lima, Peru. Contact: CORMADERA/Confederación Nacional de la Madera, Av. Diagonal 550 Oficina 501, Miraflores, Lima, Peru; Tel 51–1–242 9179; Fax 51–1–242 9180; Email cmm@infoweb.com.pe; Web www.madeweb.net

◆ 13–24 November 2000. **6th Conference of the Parties to the Framework Convention on Climate Change.** Amsterdam, Netherlands. http://www. unfccc.de

◆ 4–8 December 2000. **Integrated Management of Neotropical Rain Forests by Industries and Communities.** Belém, Brazil. IUFRO 1.07.05. Contact: Dr Natalino Silva; Brazilian Agricultural Research Corp, CP 48, CEP 66240 Belem, Para, Brazil; Tel 55–91–2266622; Fax 55–91–2269845; Email natalino@cpatu.embrapa.br

◆ 10–13 December 2000. **5th Pacific Rim Bio-based Composites Symposium.** Canberra, Australia. Contact: Philip Evans, Department of Forestry, Australian National University, Canberra ACT 0200 Australia; Tel 61–2–6249 3628; Fax 61–2–6249 0746; Email Bio.symposium@anu.edu.au; http://online. anu.edu.au/Forestry/wood/bio/bio.html

◆ 18–25 April 2001. Fremantle, Australia. **16th Commonwealth Forestry Conference.** Contact: Libby Jones, UK Forestry Commission, 231 Corstorphine Road, Edinburgh EH 12 7AT, UK; Tel 44–(0)–131–314 6137; Fax 44–(0)–131–334 0442; Email libby.jones@forestry.gov.uk

◆ 28 May–2 June 2001. **30th Session of the International Tropical Timber Council and Associated Sessions of the Committees.** Abidjan, Côte d'Ivoire.

◆ June 2001. **FAO/ECE/ILO Workshop on New Developments of Wood Harvesting with Cable Systems.** Austria. Contact: R. Heinrich, Forest Harvesting, Trade and Marketing Branch, Forest Products Division, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy; Fax 39–06–5705 5137; Email Forest-Harvesting@FAO.org

◆ 11–13 June 2001. **International Conference on ex situ and in situ Conservation of Commercial Tropical Trees.** Yogyakarta, Indonesia. Sponsored by ITTO. Contact: Ms Soetitah S. Soedojo, ITTO Project PD 16/96 Rev.4 (F), Faculty of Forestry, Gadjah Mada University, Bulaksumur, Yogyakarta 55281, Indonesia; Fax 62–274–902 220; Email itto-gmu@yogya.wasantara.net.id

◆ 11–19 July 2001. Portland, OR and Corvallis, OR, USA. **Travelling Workshop on Linking the Complexity of Forest Canopies to Ecosystems and Landscape Function.** IUFRO 2.01.12. Contact: Michael G. Ryan, USDA/FS Rocky Mountain Research Station, 240 West Prospect RD, Fort Collins, CO 80526-2098, USA; Tel 1–970–498 1012; Fax 1–970–498 1027; Email mryan@lamar.colostate.edu

◆ 22–27 July 2001. **Tree Biotechnology: the Next Millennium.** Skamania Lodge, Stevenson, Washington, USA. Contact: Contact: Dr Steven Strauss, Forestry Sciences Lab. 020, Department of Forest Science; Oregon State University; Corvallis Oregon 97331-7501; USA; Tel 1–541–737 6558; Fax 1–541–737 1393; Email strauss@fsl.orst.edu; Web http://www.cof.orst.edu/cof/extended/conferen/treebio/

◆ 12–14 September 2001. **Dynamics of Forest Insect Populations.** Aberdeen, Scotland . IUFRO 7.03.07. Contact: Dr Andrew Liebhold, USDA Forest Service, Northeastern Forest Experiment Station, Forestry Sciences Laboratory, 180 Canfield St., Morgantown West Virginia 26505, USA; Tel 1–304–285 1609; Fax 1–304–285 1505; Email sandy@gypsy.fsl. wvnet.edu; http://iufro.boku.ac.at/iufro/iufronet/d7/wu70307/aberdeen_firstannounce.htm

◆ 9–14 September 2001. **5th International Flora Malesiana Symposium.** Sydney, Australia. Contact: Dr Barry Conn, Royal Botanic Gardens Sydney, Mrs Macquaries Road, Sydney NSW 2000, Australia; fmv@rbgsyd.gov.au; http://plantnet.rbgsyd.gov.au/fm/fm.html

◆ October 2001. Valdivia, Chile. **Improvement and Culture of Eucalypts.** IUFRO 2.08.03. Contact: Dr. Roberto Ipinza, Universidad Austral de Chile, PO Box 1241, Valdivia, Chile; Tel 56–63–216 186; Fax 56–63–224 677; Email ripinza@valdivia.uca.uach.cl