

ITTO Tropical Forest UPDATE

A newsletter from the International Tropical Timber Organization to promote the conservation and sustainable development of tropical forests



Difficult people

NO forest-related decision can be made these days, it seems, without some sort of 'participatory process' involving 'all relevant stakeholders'—local residents, indigenous people, farmers, loggers, traders, settlers and others. It can't be any other way: decisions made without such involvement may be unfair, unwise and ultimately unenforceable.

But forest managers are not always well equipped to embark on participatory processes, which can be cumbersome, expensive and long-winded. Stakeholders can be difficult people with a litany of demands—for remuneration, employment, equity, improved infrastructure, secure tenure, and so on.

How can forest owners, managers and users cope with such demands? Articles presented in this edition of the *TFU* suggest some strategies that might have a good chance of success.

Emmanuel Ze Meka and Lawani Adêchessi (page 3) describe an ITTO project in Togo that is helping about 5000 people improve their lives by harvesting, expanding and managing an old, neglected teak plantation.

In the process, these people have improved their local water supplies, restored ▶



ITTO

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Cover image Photo: A. Sarre

a medical clinic and established other income-generating industries. They have also protected remnant natural forest and initiated a process of restoration. One of the project's most important contributions, according to the authors, has been its role in community organisation and the fostering of participatory decision-making processes.

A second article, by CIFOR's Eva Wollenberg and several co-authors (page 6), looks at inter-village conflicts in Malinau, Indonesia, through research conducted under another ITTO project. They say that village-to-village coordination is a subject that has received little attention from researchers yet is fundamental to multistakeholder land use agreements. In Malinau, decentralisation is creating new economic opportunities as outside parties offer compensatory payments to landholders in return for access to their resources. Such payments, though, increase the intensity of conflicts over competing land claims. The research team employed, with some success, a process called 'participatory mapping', in which village teams mapped negotiated inter-village boundaries.

ITTO has funded over 400 projects worth more than US\$220 million since it commenced operations in 1987; at its most recent session, the International Tropical Timber Council approved the spending of an additional US\$8.1 million in projects and activities (page 19). Such projects have benefited many stakeholders in the forests and have often had a significant positive effect on forest management and local livelihoods.

But not all of them have been so successful. The Organization has set up a process for reviewing completed projects to assess their value and, importantly, to seek ways of improving the project program in the future. Intercooperation's James Gasana (page 10) presents an ex-post evaluation of two projects in Gabon: one on the preparation of a management plan for the Bokoué Forest and another on the mapping and inventorying of Gabon's First Forest Zone. Dr Gasana concludes that while both projects were implemented successfully in technical, managerial and financial terms, they will probably have

little long-term impact, partly because of institutional obstacles and partly because of faults in project design. For example, says Dr Gasana, the project for the Bokoué Forest management plan "did not give an adequate description of methodological tools, particularly those regarding the mobilisation of stakeholders and local community participation". Those difficult stakeholders again; mechanisms for accommodating them must be integral to project design. By publishing the results of ex-post evaluations—both the good and the bad—in coming years we hope to help improve the quality of projects funded by ITTO and other organisations.

Forest industrialists constitute another group of difficult stakeholders. Sometimes reviled as despoilers of ecosystems and renderers of social fabrics, they nonetheless can and often do play a constructive role in development. Dick McCarthy of the Papua New Guinea Forest Industries Association (page 32) puts the case for policy reforms in PNG that would remove obstacles to the development of a sustainable forest industry there.

Of course, characterising these forest stakeholders as 'difficult' is mischievous; none is particularly more difficult than another. People want to use the forest—and the land it occupies—for different purposes. Bringing them together in the search for equitable and sustainable solutions is an essential part of forest management, and the forest manager—who is really just another (sometimes difficult) stakeholder—must learn to do it effectively.

But there is another group of stakeholders who cannot be let off so lightly: those of us in the richer countries who are calling for tropical forest conservation. Arguably we are the most difficult stakeholders of all; we want to participate in decisions on the fate of the tropical forests but bring little to the negotiating table apart from strongly held opinions. What we want is a service: tropical forest conservation. Our role as a stakeholder will be more influential when we pay our fair share for that service.

Alastair Sarre
Editor

Forestry in development

An ITTO project gives new hope to the populations of Haho-Baloé in Togo

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Green fingers: Workers admire their handiwork in one of several nurseries that produce seedlings for sale to the project and other buyers.

IN 1907, the High Chief of Notsé donated an area of about 4000 hectares to Togo's German colonial administration for the purpose of establishing forest plantations. Later, in 1947, this area was declared a 'gazetted area' according to a flexible procedure that implied negotiations with the populations and their departure with compensation, thus giving the area the character of a reserved forest. However, subsequent plantation activities within the site were only minimal and various settlers gradually moved into the forest. An inventory carried out in the Haho-Baloé forest in 1995 showed that about 400 hectares were planted with various species—mostly teak (*Tectona grandis*), *Gmelina* and *Cassia*—during the period between the colonial administration and ITTO's intervention in 1995. These plantations were between 30 and 78 years old and silvicultural follow-up operations had never been carried out.

About 1400 people now live in the 4000-hectare Haho-Baloé forest and another 3800 live in the immediate vicinity. They are grouped into eight villages, or enclaves. To survive, these people rely mainly on shifting subsistence agriculture (maize, manioc, niébé), and some cash crops (cotton and oil palm), and practice small-animal breeding, charcoal production and firewood trade. Household incomes are very low, at around 225 000 Central African francs (CFAF; about US\$300) per year, all activities included, and cotton accounts for about 64% of this revenue. The population is mainly young, nearly 50% being under 15 years of age, and basic infrastructure such as schools, medical clinics, drinking water and roads are sorely lacking.

In 1991, the Government of Togo requested ITTO to undertake a feasibility study for the establishment of a 2500-hectare plantation in the reserved forest. A financing agreement was

signed to that effect in 1993 (ITTO PROJECT PD 204/91 REV.1 (F)) and various studies initiated, including:

- a socio-economic study in the project area;
- an environmental impact study;
- forestry studies relating in particular to the planning and evaluation of afforestation operations, forest management and the institutional framework to be set up;
- a study of associated social measures to be taken;
- a land tenure study;
- a review and analysis of Togo's existing forestry projects;
- a study on the selection of planting stock; and
- a technical-financial analysis of the plantation project.

All these studies, carried out within the general framework of the project feasibility study, led to the formulation of ITTO PROJECT PD 30/96 REV.3 (F): *Project for a 2500-hectare timber production plantation in the reserved forest of Haho-Baloé (Plateaux Region)*, for which a financing agreement was signed in 1998. This project represents a total investment of US\$1 255 336, financed partly by ITTO and partly by the revenues generated by the sale of products from the established teak plantations. The project includes the conduct of various forestry activities, such as the harvesting and re-establishment of the plantations, the production of seedlings, the establishment of new plantations, and the protection, restoration and management of residual natural forests. Moreover, the project is also repairing and developing the social infrastructure (roads, dispensaries, schools, water points, etc) and supporting the creation of other income-generating activities by the local communities.



Life-blood: A woman pumps water from a newly rehabilitated well in the village of Tsinigan.

The project strategy is to enable the participation of the local communities in the various activities of the project, whether they are in forestry or of social interest. To that end, a major effort is being devoted to organising the community through a local steering committee comprising village leaders and other interested people from the community and outside agencies. The mandate of this steering committee is to: organise the populations of the project area; plan the management of the enclaved villages (660 hectares); oversee the management of the natural forest stands (940 hectares); and oversee and monitor the social measures to be taken.

The steering committee follows the day-to-day activities of the communities, in particular as regards such sensitive activities as the demarcation of enclaves, the removal of crops established by villagers outside the enclaves, the management of community infrastructure, the relocation of some houses to inside enclave boundaries, and so on.

The participative management of the Haho-Baloé reserved forest is supported by INADES-Formation Togo, a local NGO, and is strengthened through the training of project managers in participative methods by an international specialist in community forestry recruited by the project and funded by ITTO.

The other strategic element of the project is its role in attracting other investments, in particular from official agencies represented within the local steering committee. It does this by improving communication on investment opportunities and, where necessary, by carrying out small studies. Lastly, project activities are sub-contracted as far as possible to local enterprises in order to ensure that maximum economic benefits are enjoyed locally.

Afforestation and harvesting

The northern part of the reserve comprises degraded forest land; land preparation for plantation establishment on this land is mostly sub-contracted out to a local company. In the southern part, the harvesting of the old teak plantations, the yarding, cross-cutting and stacking of timber, and the regeneration of the plantation by coppicing are all sub-contracted to local operators using local labour. Windrowing is sub-contracted to villagers according to fixed agreed rates, as are the breaking up of stumps and incineration of residues.

The timber (logs and utility timber) extracted from the old plantations is sold into local timber markets. Other wood harvested from the sites is carbonised by the villagers; the project provides them with packaging material, buys the charcoal from them at 800 CFAF per 39-kg bag and re-sells it on the markets of Notsé and Lome. The villagers also produce and re-sell fuelwood from species that are not used to produce charcoal. Since the beginning of the project, 9400 bags of charcoal have been purchased from the community at a total value of 7 520 000 CFAF (about US\$10 000), and villagers have sold 14 664 steres of fuelwood worth 9 666 667 CFAF, or US\$12 900.

Nursery work

The project maintains a central nursery close to the water supply at the village of Fawukpé, but most of the seedlings are produced by villagers trained and organised into groups of nursery workers. During 2000, two such groups produced a total of 168 000 teak seedlings in containers under the coordination of an association of nursery worker groups for the production of forest seedlings (AGPPPF). The project provided nursery equipment, a motor-driven pump and fuel. The seedlings were sold to the project at a price of 20 CFAF/seedling, giving a total revenue to the nurseries of 3 360 000 CFAF (US\$6109). During 2001, AGPPPF was able to operate independently of the project. Its 297 400 seedlings were sold to the project for a total of 10 409 000 CFAF (US\$18 925). AGPPPF also produced 255 000 teak stumps sold to private clients and NGOs at a price of 15 CFAF a piece, earning it 3 825 000 CFAF (US\$5100). Its members are also engaged in market gardening to supply the market of the Notsé urban centre 15 km away and, potentially, Lome.

Plantation and maintenance work

The establishment of new plantations and maintenance work is carried out by the Office de Développement et d'Exploitation des Forêts (ODEF), which recruits and employs local labour directly. Part of the work is carried out by the taungya method, under which the villagers grow crops between the forest seedlings, which thus benefit from regular tending. To encourage the survival of seedlings, the project negotiated and signed contracts with villagers whereby the project paid 15 000–20 000 CFAF per hectare in cases where at least 90% of seedlings survived the first year of growth undamaged.

Management of natural stands

A total of 940 hectares of natural forest in forest reserve have been earmarked for management. Some of this forest is degraded; one of the key tasks of the project is to initiate a process of restoration to ensure that the forest is able to provide the protective functions desired of it, such as the production of clean water. All restoration and management activities are being carried out by and for the local populations under the guidance of the project's management staff. A list of the indigenous species to be re-

introduced has been drawn up through a consultative process; seeds are collected by villagers and entrusted to the nursery worker groups for the production of seedlings. To date, some 13 000 seedlings have been produced and planted in about 30 hectares of natural forest.

Management of the Fawukpé Water Reserve

A 70 000-cubic metre water reservoir has been built close to Fawukpé under the project and filled from the Haho River during periods of high water; one objective is to provide a permanent water supply for the project's central nursery. This development has been vitally important to the people of Fawukpé, who have suffered from chronic water shortages in the past. In addition to supplying the nursery, reservoir water is being used for the full range of domestic purposes, including consumption. ITTO has requested that health authorities closely monitor the water level and quality so as to detect and prevent disease, and laboratory technicians at the Notsé hospital have recommended the construction of a filter bed downstream of the reservoir. A reservoir management committee has been set up, the tasks of which include the maintenance of the reservoir and the use of its water to promote fish-farming.

One of the problems facing the project is how to manage the success enjoyed by the people in Fawukpé, where life has been totally transformed by the existence of a reliable water supply. Understandably, other villages wish to benefit from similar initiatives. Indeed, the lack of reliable, safe drinking water is a major problem in the project area. In the Tsinigan enclave, the project has assisted villagers to restore two wells that had been abandoned due to mismanagement; a village-level management committee has been created to manage and maintain the wells. In the Yokou village, onchocerciasis—a disease that can paralyse—is prevalent; the project is assisting the construction of two large-diameter wells to help overcome this problem.

Other related measures

The project is implementing other improvements. For example, trails are being established and upgraded to improve communication between the various villages in the project area, and access roads are being built to the various parts of the plantations. By the end of a three-year period, 20 km of old tracks had been repaired and 30 km of new tracks built. Other project work includes the construction and equipping of a village school at Fawukpé where the many children living in the project area can now take lessons in an environment conducive to learning.

Before commencement of the project, the medical clinic in the village of Tsinigan—the only medical facility in the project area—had virtually closed down due to a lack of funds. Under the project it has now been restored and supplied and a nurse has been recruited; the first baby delivered at the restored clinic was born in January 2000. A management committee has been set up to ensure the clinic's maintenance, continued upgrading and eventual self-financing.

The project has organised 63 volunteers from villages in the project area into five groups of beekeepers and helped equip them with 50 hives installed in the forest. The main objective of this work is to establish honey production as a natural-forest-dependent income-generating activity.

The future

The ITTO project has brought a new dynamism and much hope to the populations of the project area. Not only does it bring tangible solutions



Patients are a virtue: The first baby born at Tsinigan's medical clinic since its restoration by the project takes a well-earned rest.

to some of the problems undermining them, it also offers development opportunities.

The creation of the project steering committee acting in conjunction with the people and with the assistance of specialised NGOs is an important project outcome and the committee has become a significant agent of change, adding capacity to the community in the analysis of problems and the search for solutions. It has also increased the ability of the community to organise itself and to implement such solutions.

The question remains as to whether the hope thus created will be sustained; it depends very much on the sustainability of the activities initiated by the project. As far as the community is concerned, the continued development of the area is predicated on the continuation of the project, and they have expressed a strong wish for a second phase of the project, which will establish 600 hectares of new plantations, harvest 150 hectares of mature trees and initiate a second rotation at the same site. Under a third phase, 700 hectares of new plantations would be created and another 100 hectares of mature teak plantation harvested and replaced. Thus, should phases II and III be financed and implemented, the activities carried out by the populations during the first phase should be able to continue for a few more years, probably with even more success because they would build on the knowledge and experiences gained during Phase I.

However, beyond these different phases, questions of long-term sustainability remain unanswered. What happens to local development initiatives once the expansion of teak plantations is complete and before the new plantations mature? What other development alternatives are open to the populations? What contribution should the products of the plantations make to the development of the communities concerned, and to finance which activities? Such are the many questions that all the partners in the project should start to address, so that the hope raised by the project does not wither away.

Building agreements among stakeholders

An ITTO project implemented by CIFOR found that resolving village-level conflicts over resource use in Indonesia is a long and difficult process

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Getting the measure of it: Men from the village of Long Loreh receive training in participatory mapping. Photo: © E. Wollenberg

WHERE different groups compete for the same forest, escalated social conflicts, increasing social injustice, and even the willful destruction of forest resources can occur. Stakeholders typically negotiate agreements to overcome these problems. Facilitators of multistakeholder processes focus on factors that will lead groups to reach agreement.

Yet a focus on agreements can lead to inequitable outcomes and waste resources on what are often temporary arrangements. We report here on action research conducted by the Center for International Forestry Research (CIFOR) in East Kalimantan, Indonesia that indicates the need to understand agreements in the context of their longer-term political relationships and to emphasise better stakeholder coordination through the strengthened representation of interests, transparency and legitimacy of negotiations. This research was part of ITTO PROJECT PD 12/97 REV.1(F): *Forest, science and sustainability: Bulungan Model Forest* (also partly funded by the International Fund for Agricultural Development) which aimed to understand how to integrate social and silvicultural aspects of long-term forest management. A report on other components of the project appeared in an earlier issue of the *TFU* (11/2: 10–11).

Building a supportive political constituency through consultation and transparent decision-making was key to achieving and keeping an agreement.

Village-to-village coordination

Village-to-village coordination is a subject that has received little attention by researchers, yet is fundamental to multistakeholder land use agreements. We were interested to know whether the principles guiding more formal and

complex multistakeholder processes were relevant to inter-village coordination where there were fewer people involved, a greater familiarity among them, a deeper ethic of social interdependence, and stronger kin obligations. We directed our study at the process of inter-village boundary demarcation among 27 Dayak (primarily Merap, Punan and Kenyah ethnic groups) villages in the upper Malinau River watershed. The research was conducted over three years, during which time the project's resident field staff observed and documented the development of local conflict, facilitated participatory mapping by villagers, and monitored negotiations.

East Kalimantan provides an interesting case because of recent political reforms in Indonesia. As elsewhere in Indonesia, people are making a transition between the more top-down, authoritarian coordination by forest departments in the 1970s to 1990s, when conflict was rarely acknowledged openly, to coordination based more on dialogue, self-organisation, transparency, conflict management and higher citizen participation (diZerega 2000, Anderson et al. 1999). Decentralisation reforms are creating a high risk of rapid deforestation, disenfranchisement of the Punan, and ultimately the loss of opportunities for long-term economic gain by most local groups (Barr et al. 2001). As one of Asia's largest remaining expanses of continuous forest and home to the largest group of Punan in Borneo, it is vital that action is taken quickly. Decisions made in the next few years will determine who controls the land and how that land will be used in the medium term.

The nature of village negotiations and agreements

In Malinau, decentralisation has created new economic opportunities through compensation payments to villagers

(for timber harvested by concessions) and new small-scale logging (Barr et al. 2001). With 95% of the district designated as state forest land, the potential benefits are considerable. Yet Kenyah and Merap swidden farmers, Punan hunter-gatherers, timber companies, mining companies and the local government all seek to claim forest and forest land for their own benefit. The possibility of earning significant income has made people determined to protect or expand their claims. Consequently, conflict over village boundaries and access to these benefits has escalated rapidly since 1999, when Indonesia's political reforms began.

We found that most village conflicts centred around claims to agricultural lands (swidden fields, wet rice fields and perennial gardens), which, according to customary rules, rightfully 'belonged' to the household establishing the plot, even if they fell within the territory of another village (note, though, that no land formally belongs to villagers according to Indonesian law, although villagers contest this on the basis of customary law and recent policies acknowledging customary land rights). Other sources of conflict included access to timber and valuable non-timber products like gaharu or birds' nests, and land containing coal deposits. Although conflicts had existed formerly, villagers noted that the intensity of the conflict increased when outside parties began offering compensation in exchange for resources.

Participatory mapping

It was in this context that the project facilitated participatory mapping among villages between November 1998 and November 2000. Villages negotiated boundaries with neighbouring villages. A team of villagers facilitated by the project then identified and mapped village boundaries. Twenty-one villages completed negotiations and the mapping of their territories by July 2000.

We found that five aspects of inter-village relations were most important in reaching agreement: prior consultation, shared family relations, high financial incentives for both parties, benefit-sharing possibilities, and similar institutional capacities and power status¹. More powerful villages often attempted to dominate a weaker neighbour, while weaker villages often passively resisted decisions by the more aggressive villages by refusing to acknowledge the boundary or attend meetings (Table 1). Punan villages were consistently disadvantaged in negotiations because of weak or no representation in meetings, a reluctance to negotiate with more powerful groups, and the lack of organised preparation within their villages. Village representatives who built a supportive constituency within their village and

with neighbouring villages were more likely to reach and maintain agreements.

Negotiations conducted transparently with written agreements were more stable than those that were not. However, by December 2000 nearly all villages requested to make changes even to previously stable boundaries. We attribute these demands to the increasing economic opportunities arising from timber during the latter half of 2000. The lack of a clear higher third-party institution with the authority to provide formal recognition of boundaries and control ad hoc revisions also made it possible for this fluidity to occur.

Towards improved coordination

Boundary negotiations in Malinau highlighted the problematic nature of agreements as a focus of negotiations. The study suggests the need to instead focus on the longer-term coordination of different interests, especially the political base of coordination efforts and the skewedness of power relations underlying them, even among seemingly (to an outsider) homogenous community groups.

Although we initially encouraged parties to reach agreement about the location of their boundary quickly and described this as a 'successful' negotiation, we soon learned that many such agreements were short-lived and partial in their support. An agreement reached quickly enabled communities to conduct the mapping of their territory, but we fear this occurred too often at the expense of a more socially inclusive process that could have resulted in more stable results. We learned that we should have evaluated the process underlying how a village reached their agreement as a basis for proceeding with the mapping, not just whether an agreement had been reached.

Power plays

Table 1: Difference in capacities and power status between two negotiating villages and nature of agreements reached.

Difference in capacity/power scores between two villages*	Agreement reached?		Stability of decision**	
	No	Yes	Stable	Not stable
0	0	6	5	1
0.5	1	7	6	1
1	2	2	1	1
1.5	1	5	2	3
2	1	1	0	1

*0 = no difference, 1 = moderate difference; 2 = large difference **Stability was only counted in cases where agreement was reached.

Our work supports the current pluralist position (Anderson et al. 1999) that stakeholder agreements are best thought of as partial and temporary. We found that the more intense the underlying struggle, the more fluid interests, agreements and coordination were likely to be. Building a supportive political constituency through consultation and transparent decision-making was key to achieving and keeping an agreement. A third party with authority and legitimacy above the level of the village would have

¹We used *strength of leadership* (economic status of leader, eg food surpluses, quality of home construction, access to significant or regular cash income, possession of productive assets like rice mills or luxury items like parabolas; alliances with powerful external groups; support of leader by community; and level of leader's education), *cohesiveness of community* (economic status of community, eg see above; internal loyalties and mutual supportiveness; alliances with powerful external groups; skills and education levels; support of leader by community; and level of leader's education) and *access to information* (transparency of mapping process within village; and knowledge of their territory) as indicators of a village's institutional capacities and power.



Top-down approach: Villagers use overhead satellites and a global positioning system to pinpoint their location while surveying village boundaries.

Photo: © M. Van Heist

been helpful for setting criteria for the resolution of conflicts and for validating and enforcing legitimate agreements. A focus on managing conflict constructively would have been more productive than forcing an agreement.

In Malinau, only a handful of people in each village were involved in negotiating boundary decisions and these representatives, if the label is even apt, were weakly, if at all, accountable to their communities. Networks, communication and trust were frequently strong among selected leaders, or between leaders and companies, but often less strong between leaders and their constituencies. Decisions were usually made without consultation. A number of villages attempted to map their boundaries without even consulting their neighbours. These conditions made it difficult for conflict to be managed in transparent ways, which kept disagreements from being acknowledged and agreements from being implemented. Non-accountable decision-making is common in many village settings elsewhere (Ribot 2002) and abuses of power are likely to persist unless checks are put in place. Central among these checks is the need for better representation and transparent decision-making to negotiate decisions that constituencies will accept and support. In Malinau, decisions were less frequently challenged where community representatives were more accountable to their constituencies and had built a strong political base of support.

Conventional multistakeholder theory seeks to establish neutral conditions that enable fair negotiation. We agree that special effort is needed to encourage effective participation and the representation of weaker or disadvantaged groups (Edmunds & Wollenberg 2001). We suggest that, at a minimum, facilitators of coordination efforts pay attention to these power differences among stakeholders and assist weaker groups by distributing information to them earlier, giving them priority access to resources, and

facilitating their preparations for negotiations. More significant measures for longer-term empowerment could include community organising, assisting the mobilisation of resources and helping the development of strategic alliances between stakeholders. However, facilitators need to take care not to alienate more powerful groups while doing so.

Beginning of a process?

Our experience in facilitating boundary demarcation in Malinau marked only the beginning of a long and multi-stranded process for achieving better coordination among the very diverse stakeholders interested in Malinau's forests. The research demonstrated the nature of coordination and agreement-making in Malinau and its current vulnerabilities. The base of political support for coordination is fluid and often fragile and there are few safeguards to ensure fair negotiations for weaker groups. The authorities for supporting and endorsing these processes are unclear. Very real gains have been made, however, in empowering local communities to begin the process of asserting claims to their territories and of establishing debate about rights associated with those claims. A process has been started that communities, government and companies are now keen to complete.

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The good and bad of projects

The ex-post evaluation of two ITTO projects in Gabon reveals many lessons that can be used to improve future work

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No plan: A logging company has been given a long-term permit to log in the Bakoué Forest without presenting an operational logging plan. *Photo: J. Gasana*

FOLLOWING a decision of the International Tropical Timber Council at its 29th Session, ITTO undertook the ex-post evaluation of two completed projects in Gabon in the area of reforestation and forest management. They were:

- ITTO PROJECT PD 37/92 REV. 1 (F): *Preliminary studies and preparation of a management plan for the Bokoué Forest;*
- ITTO PROJECT PD 8/95 REV. 1 (F): *Multiple resource stratification, mapping and inventory for the management of the First Forest Zone in Gabon—Phase 1.*

These projects were part of efforts to assist ITTO members in achieving the Year 2000 Objective. This objective is a long-term endeavour that requires planning data and, for some countries, a way of validating and demonstrating management systems. In this context, PD 37/92 REV.1 (F) was formulated to assist in the integrated landscape-scale management of the Bokoué natural forest, plantations and agricultural areas. In its specific objective, the project aimed to collect the necessary data and to formulate a management plan for the Bokoué Forest, which covers an area of about 100 000 hectares. PD 8/95 REV. 1 (F) aimed to draw up a proposal for the allocation of land for the whole of the First Forest Zone of Gabon, which covers 4.9 million hectares.

The purposes of the evaluations were to assess the projects' effects and impacts, draw lessons from the experiences, and recommend follow-up measures for the sustainability of those effects and impacts. In April 2001 I conducted interviews with stakeholders and visited the projects' areas of influence. The reports subsequently presented to the Council provided in each case a number of findings, outlined the lessons learnt, and made recommendations

for policy, project design, implementation and post-project follow-up. This article makes a short summary of these reports with an emphasis on findings, lessons learnt and recommendations.

The Bokoué Forest management plan

Both projects were implemented by the Directorate of Forest Inventory, Management and Regeneration (DIARF), of the Ministry of Forests, Water and Reforestation. The Director of DIARF was directly in charge of their implementation, under the authority of the Director General of Forests and Water (DGEF).

Overall, both projects were implemented successfully in technical, managerial and financial terms, and their outputs were cost-effective. The training of staff in the use of modern forest inventory and mapping techniques contributed to strengthening the capacities of DIARF in conducting forest management activities. PROJECT PD 37/92 REV. 1 (F) produced the 'Bokoué Forest Management Plan', which is the first ever forest management plan in Gabon to be written on the basis of data from a forest inventory. This plan provides a good general model for the country's other forests. However, it was not developed through a consultative process involving key stakeholders, and the project failed to use such a process to build an implementation coalition with these stakeholders. In addition, the relevant authority has not yet officially approved the plan, and it is therefore not yet implementable.

As far as its content is concerned, the Bokoué Forest Management Plan cannot be deemed a comprehensive and integrated document. It emphasises almost exclusively one technical aspect, timber inventory. There is a lack of depth in the treatment of basic scientific information (eg

soils, biodiversity, habitat types). The socioeconomic and cultural analyses are insufficient, and the linkage between forest management and environmental and socioeconomic dimensions is not adequately established.

The implementation of this plan remains hampered by the lack of operational management plans. Furthermore, a logging company has been given a long-term permit to exploit the Bokoué Forest without complying with the good practices that the project sought to establish, namely the prior presentation of an operational management plan. As this permit was allocated outside the usual channel, which involves referring to the DGEF authority, it can be stated that the management planning initiated by the project has had a limited impact, as it failed to enhance accountable resource use procedures.

Mapping and inventory

PD 8/95 REV. 1 (F) was successful in establishing current and potential features of the First Forest Zone and providing thematic maps, conducting activities for land use zoning, installing a geographic information system (GIS) unit at DIARF headquarters, and developing the skills of the staff of the GIS laboratory. As a result, DIARF's mapping capabilities for forest management needs were significantly improved. In addition, with the outputs of the GIS laboratory DIARF was able to contribute to the decision-making process because of its better knowledge of regional forest resources. At the DGEF level, the allocation of logging permits can be planned in a more rational way than before. The location of production forests is more precise and former gross errors in the allocation of inappropriate areas to logging companies, or in the issuing of overlapping logging permits, can be avoided.

However, the GIS laboratory appears as a project within DIARF, and its institutional integration is incomplete. It is not therefore allocated the necessary budget to cover its maintenance and upgrading. In the longer term, its status as far as its location in DIARF is concerned is not clear. Indeed, DGEF also runs a mapping unit that provides information on the activities of the forest concessions. The question that arises here is why DGEF's mapping unit has not been reinforced by the project to enable it to meet DIARF's needs, instead of creating an additional project structure.

In purely technical terms, PROJECT PD 8/95 REV. 1 (F) was efficiently implemented and it provided several significant outputs. But it did not fully accomplish its prime aim of adoption of a land use plan proposed for the First Forest Zone, because the final decision by the relevant authority has been delayed. The institutional framework for implementing land use zoning was not well established. For example, the government did not set up an inter-institutional working group to advise it on land use zoning issues. The whole zoning task was given to one directorate, DIARF, of a relatively low rank in the Government apparatus, and which does not bear any responsibility in multi-sectoral regional planning and development programs. It can therefore be

stated that the project missed an important opportunity to show the nation that although forest management is often a local concern, decisions on forests and their utilisation must be placed in the context of national land use planning.

The successful implementation of these projects was due to the attention of the Director of DIARF, to the experience of the international consultants and to the guidance given by the project steering committees. However, the success was significantly limited by the low involvement of the other DGEF directorates and other stakeholders. Furthermore, the implementation arrangements created institutional bottlenecks due to the lack of effective, operational inter-institutional coordination.

Lessons learnt

PD 37/92 REV. 1 (F) ('Bokoué Forest Management Plan') suffered the problem of under-design. The project document did not give an adequate description of methodological tools, particularly those regarding the mobilisation of stakeholders and local community participation. Furthermore, inadequate preparation for the continuation of project activities in the post-project period remains its major weakness. The focus seems to have been limited to those technical outputs that were easy to accomplish.

While the forest inventory is an extremely important aspect of forest management, the project looked very much like a pilot inventory project. This shortcoming led to the loss of project momentum and to the termination of all the processes it helped to initiate. As a first lesson learnt, it is obvious that projects that must develop processes do not fit the model of intensive investments for mere technology transfer, whose perpetuation is possible only if external financial assistance is maintained. A connected lesson is that sustainability should be a preoccupation when a project proposal is being elaborated, and an exit strategy for continuing activities with appropriate partners in the absence of external funding should be developed. The aim should be to establish institutional entities that fit in well with existing structures and are not too much beyond foreseeable budget possibilities at the end of the project.

A third lesson that can be drawn from this project is the necessity of clarifying the amount and sources of recurrent budgets for the post-project phase. And a fourth lesson for field projects is the need to have a project manager separate from the government implementing authority and operating from a base that is close to and integrated with field activities.

Additional lessons learnt from PD 8/95 REV. 1 (F) ('Mapping and inventory') are as follows:

- for success in the implementation of complex land use zoning projects, inter-institutional coordination and arrangements must be established in order to facilitate decision-making by the relevant authority and to ensure enduring and positive impacts;

- heavy reliance on international expertise for most conceptual and operational support weakens the potential contribution of the project to institutional learning and building;
- when preparing for the purchase and installation of GIS hardware and software, it is important to anticipate the growing influx of data to be handled in order not to make mistakes in the specification of the equipment; and
- projects that introduce innovative practices should plan activities of capitalisation and dissemination of their results in order to achieve maximum impact on the development of policy and good practices, and to perpetuate the gains.

Recommendations

Based on the above findings, several recommendations can be made for both the Government of Gabon and ITTO. These fall into the categories of follow-up action, policy development and governance. The last two categories in particular have broader implications for project formulation and implementation, and are reported here.

Policy development

- For the long-term sustainability of impacts, ITTO should require that project proposals incorporate plans of how to continue key activities after project completion;
- ITTO and countries implementing projects should always carefully consider the repercussions of the heavy use of international consultants on project sustainability and institutional learning in the beneficiary country;
- the purpose of Bokoué Forest as a pilot management forest should be clarified. Such pilot forests (also known as demonstration or model forests) should aim to use the ITTO *Guidelines for the sustainable management of tropical forests* together with state-of-the-art techniques and technologies, adapting experiences gained elsewhere in tropical forest management, to demonstrate how Gabon's forests should be managed and to link field lessons with policy processes;
- in addition to the previous recommendation, the Government of Gabon should review its approach to the siting of pilot management projects and defining their objectives, and consider establishing at most one project per forest zone. Partnerships with the relevant logging companies should be developed in the implementation of such projects;
- for model forest projects, the planners need to consider, in addition to their sustainability, aspects concerning transferability of experiences as far as costs, process development, and management and silvicultural systems are concerned;
- the Government of Gabon should develop a financial mechanism that ensures a non-fluctuating source of finance to fund the administration, control and monitoring of sustainable forest management. For this,

a National Sustainable Forest Management Fund is recommended;

- there is a need for the systematisation of the experience of the project and publication of this systematisation;
- the Government of Gabon should make only strategic use of international consultants to develop internal capabilities, in order to allow national capacity building and institutional learning;
- the Government of Gabon and ITTO should explore how ITTO's contribution can be coordinated with the contributions of other donors in the development of the forest sector. This would require the development of a new forest action master plan, which is justified given that a new forest law is in the final stages of adoption; and
- the Government of Gabon should use the lessons learnt from PD 8/95 REV. 1 (F) to better conduct land use zoning of the Second Forest Zone.

Governance

- ITTO should use a program approach to ensure that its projects in Gabon are chosen in a way that optimises synergies among them and with projects funded by other donors;
- the Government of Gabon should delegate certain functions to other specialised partners, including national and international NGOs, in the implementation of activities such as biodiversity conservation studies and plans, local community development and mobilisation;
- for the continuation of land use zoning operations, the Government of Gabon should designate which service will play the lead institutional role in land use zoning, and set up an inter-ministerial working group to advise it; and
- the Government of Gabon should review the way ITTO projects are managed with the aim of reducing the excessive centralisation of activities in DIARF and enhancing their contribution to institutional learning and building, not only in DIARF but also in other DGEF directorates.

Acknowledgements

The author acknowledges with sincere thanks the assistance given by M. Athanase Boussengué, director of DIARF, the staff of DIARF, and M. P. Samson of TecSult. He wishes also to thank all the interviewees for their contributions, in particular: M. Gabriel Azizet, Director General of DGEF, M. Alphonse Owelé, Deputy Director General of DGEF, M. Paul Koumba Zaou, Coordinator of Project 'Forêt Environnement'; M. Emile Mamfoumbi-Kombila, Director of Fauna and Hunting, M. Félicien Messie Ndong, Director of Forest Production, and M. Pierre Ngavoura, Director of Industry Development and Timber Trade.

A further look at further processing

ITTO producers are increasing their share of the secondary processed wood products export market

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INTERNATIONAL trade of further processed tropical timber has grown rapidly in the last decade while, simultaneously, the trade of primary tropical timber products—logs, sawnwood, plywood and veneer—has started to decline. The growth of further processed tropical timber products is therefore a phenomenon of immense importance for the tropical timber trade and warrants close monitoring.

This article discusses current trends in the trade of tropical secondary processed wood products (SPWP), updating and complementing an article that appeared in *TFU* 11/1 some 18 months ago (Tissari 2001) with data from ITTO's *Annual Review and Assessment of the World Timber Situation*. The primary categories of tropical SPWPs considered here are wooden furniture and parts, builders' woodwork (doors, windows and their frames) and other processed products (for domestic/decorative use, packaging/pallets, coopers' products and other manufactured products such as tools, handles and brooms). Cane and bamboo furniture and parts are included as a fourth category given their growing importance in the exports of many ITTO member countries.

The pace of trade growth in ITTO producers

Figure 1 shows that the value of exports of further processed tropical timber by ITTO producer countries grew more than three-fold in the last decade to just under US\$5.9 billion in 2001, while the value of their exports of primary tropical timber products declined by 18% after 1993 to an estimated US\$9.6 billion in 2001. Much of this growth has been driven by multi-fold increases in exports in Malaysia (up 1368%), Brazil (up 726%) and Indonesia (up 579%). The upward trend in SPWP exports from ITTO producer countries is reflected in an increased share in the global market, up from 9% in 1992 to 16% in 2001.

Apart from a larger contribution to foreign exchange earnings, a greater focus on added value products also pays off in times of market turbulence. During the 1997–98 Asian financial crisis, prices of value-added timber products were much less severely affected than prices of primary timber

products and recovered more quickly. Forest sectors in countries such as Indonesia and Malaysia, whose export strategies aim at downstream processing, fared better than countries exporting only primary products.

Figure 2 shows the breakdown of SPWP exports of the top ITTO producer exporters in 1999, the reference year for SPWP in ITTO's 2001 *Annual Review*. The figure shows that four of the top five ITTO producer exporters of SPWP are Asia-Pacific countries. The top five accounted for almost 97% of total ITTO producers' SPWP exports in 1999, with Asia-Pacific countries making up 85% of the total; Latin America, led by Brazil, accounted for most of the balance (14%). Brazil has developed a large-volume industry based on further processing located largely in the temperate zone of the country (where the domestic markets and the plantation estate are concentrated). Downstream timber processing is still minimal in Africa, due largely to a lack of capital and infrastructure. Nevertheless, countries such as Ghana, Cameroon and Gabon are making the development of secondary processing a priority. Practically all the export-oriented further processing industries in Ghana are foreign-owned and many produce components for the captive markets of their overseas owners.

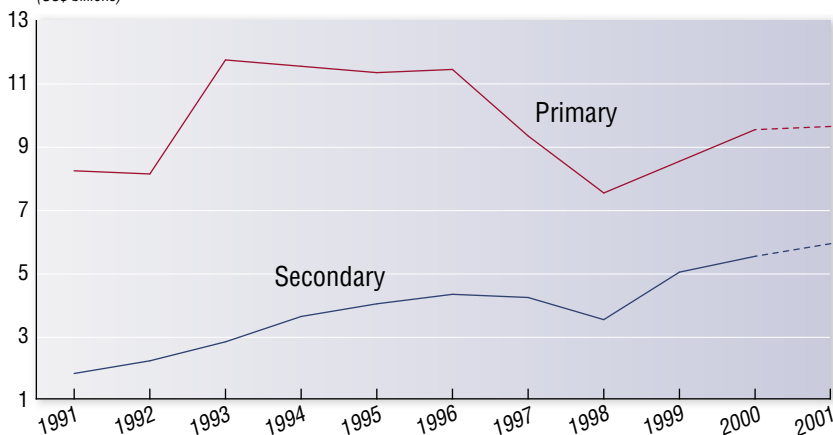
Figure 2 also shows that furniture is the mainstay of exports, accounting for over 55% of total value. Malaysia is by far the largest supplier of furniture among ITTO producers, with exports of products in that category worth over US\$1 billion; Indonesia shows a more balanced portfolio of export products. Most Malaysian exports of further processed products originate in Peninsular Malaysia, while exports of primary products come primarily from Sarawak. In Brazil, furniture—mostly aimed at the exterior furniture market—has been gaining a larger share of total exports at the expense of builders' joinery.

Malaysia's main trading partners in 1999 were USA (35%), the European Union (EU; 18%) and Japan (13%). Indonesia shipped nearly three-quarters of its SPWP to these three destinations, the EU accounting for 34%, the USA 22% and Japan 16%. Thailand's main trading partners were the USA (38%) and Japan (33%) in that year. Thailand was the main supplier of furniture to Japan in 1999, capturing 20% of Japan's US\$1.2 billion market for this product. Malaysia and Thailand have demonstrated the possibilities offered by plantation wood by using plantation rubberwood for 80% of their furniture exports. Brazil's SPWP exports go predominantly to the EU (45%) and the USA (37%). Brazil's SPWP production is based mainly on pine and, to a lesser extent, eucalypt plantations in the southeast.

Figure 3 shows that, overall, most SPWP exports from ITTO producer countries go to the USA (37%), the EU (32%, led by the UK, Germany, France and Netherlands) and Japan (14%). In terms of market share, these figures represent one-fifth, one-tenth and one-third respectively of the markets in those countries. The market shares held by ITTO producer

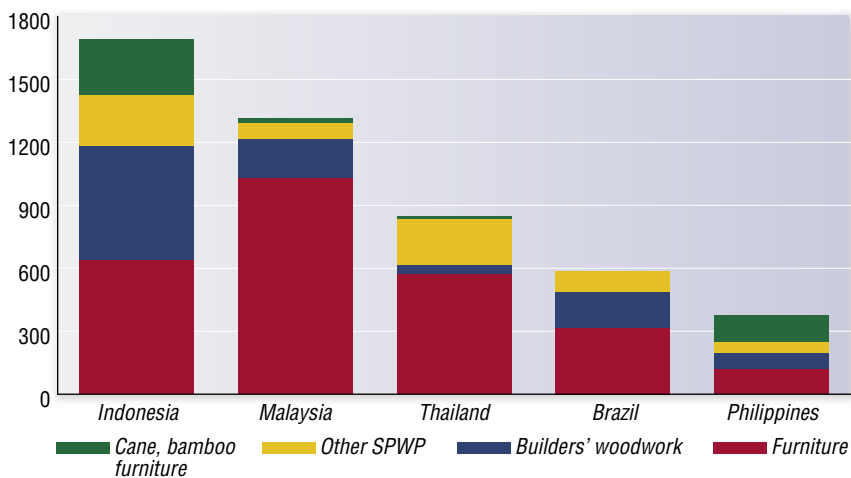
The rough and the relatively smooth

Figure 1: The value of ITTO producer exports of primary and secondary tropical timber products (US\$ billions)



Five of the best

Figure 2: Top ITTO producer SPWP exporters in 1999 (million US\$)



countries are gradually declining in the USA and increasing in the EU, while the Japanese market share is relatively stable. Transportation costs, tariff levels and regional marketing relationships play a role in the differences in market share held by ITTO producers in the major markets for SPWP, but there is clearly a substantial opportunity for all producing countries to continue increasing their market share, particularly in the enormous European market.

ITTO consumers still lead the trade

Although SPWP trade is a growing source of foreign revenue for ITTO producer countries, ITTO consumer countries still dominate the SPWP export marketplace. The combined value of all SPWP exports from ITTO producer countries fell short by 15% of Italy's SPWP exports in 1999, though this gap narrowed in 2000-01. Figure 4 shows the breakdown of the world's top five SPWP exporters in 1999, which collectively accounted for around two-thirds of total ITTO consumer SPWP exports; EU countries made up 69% of the consumers' total. Italy is by far the world's largest exporter of SPWP, comprising about one-third of the US\$19.6 billion of EU SPWP exports. Furniture is the dominant product, accounting for over 69% of total value and 89% of Italy's SPWP exports. The bulk of Italy's SPWP shipments go to other EU countries (54%) and the USA (15%). Italy is particularly successful in furniture markets because of its high-quality, fashionable designs, skilful labour, state-of-the-art technology, good service and exceptional access to high-value markets.

Canada, Germany and China are other major SPWP exporters. While Germany's exports have been stable or declining over the last decade, Canada and China experienced phenomenal growth in SPWP trade, with exports growing four-fold and three-fold respectively in the same period. Virtually all Canada's SPWP exports are absorbed by the USA.

China: the new competitor

China is by far the top exporter of SPWP in the developing world and is expected to soon overtake Germany as the third-

largest exporter globally. Most of China's SPWP exports in 1999 went to the USA (39%), Japan (19%) and the EU (14%).

The economic growth seen in China in the last few years has attracted foreign investment in the SPWP sector, mainly from the USA and Taiwan but also from other traditional Asian producers. This has been facilitated by low wages and a policy towards encouraging downstream

timber processing. SPWP manufacturers based in China have been successful in penetrating high-value markets such as Japan and, particularly, the USA with their furniture. China has developed a special ability to provide products well suited to changing fashions in the USA at highly competitive prices.

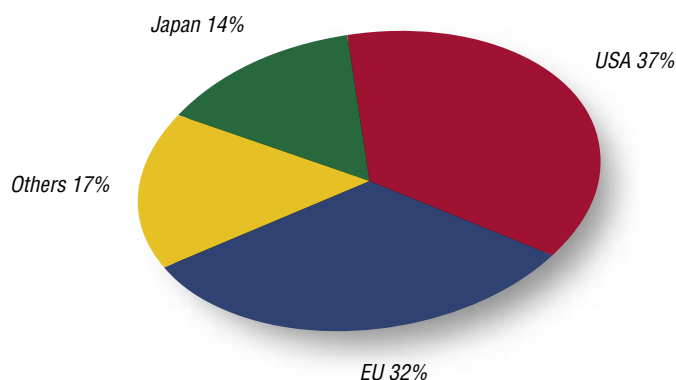
US imports of Chinese wood furniture have increased three-fold since 1992; China is expected to soon overtake Canada as the largest supplier of furniture to the US. The impact of this on the US domestic industry is being seen in the closing or restructuring of furniture plants. Over the next few years, many US furniture companies will more than likely shift their production to the Far East and focus on marketing and distribution at home. From the point of view of ITTO producers, China is a major competitor in its main export outlets; in fact, China overtook Thailand in 2000 as Japan's largest supplier of furniture.

Future outlook

It is apparent that developing countries have been able to expand their participation in the international trade of SPWP at the expense of industrialised countries and this trend is expected to continue. For example, Malaysia is moving from OEM (original equipment manufacturing) to ODM (original design manufacturing) and aggressively

The SPWP pie

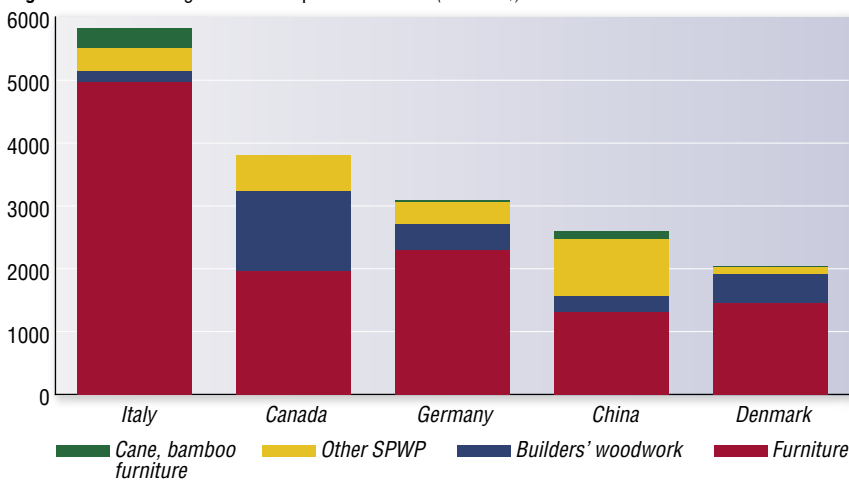
Figure 3: Major markets of ITTO producer SPWP exports in 1999 (% of US\$4.98 billion)



seeks new market outlets for its higher-value products. The driving forces behind the expansion of developing countries in international SPWP trade include the widening availability of good-quality plantation timbers, lower wage costs, improved technical and managerial skills and technologies, systematic market promotion efforts and supportive institutions and rational policies. The growth of the SPWP sector in China presents a significant challenge to the sectors in ITTO producer countries: China has the potential to greatly erode the market share of tropical producers as its production continues to grow.

Tall timbers

Figure 4: World's largest SPWP exporters in 1999 (million US\$)



The benefits of downstream processing

Downstream timber processing and trade in producer countries are important earners of revenue and sources of local employment. These are, in turn, key multipliers that contribute to the economic growth of countries. Trade strengthens the capacity of developing countries to generate foreign exchange, which empowers them, in particular, to alleviate poverty and to address pressing development challenges. If appropriate domestic forest policies are in place, the timber trade and the processing industry on which it is based bestow value to forests, which would otherwise be vulnerable to conversion to competing land-uses that generate more immediate income.

Although SPWP trade is growing in developing countries, it is still well below its potential. Tariff differentials are one reason for this. Most developed countries apply higher import tariffs to SPWP than they do to most primary timber products. Tariffs for wood-based panels, builders' woodwork items (windows, doors, frames), furniture, other value-added products and various types of paper products are in the range of 10–15% in many countries (particularly the EU) but less than 5% for products such as logs and sawnwood. These tariffs become particularly burdensome for distant suppliers since duties are usually charged on the cost-and-freight (CIF) price. Tariff escalation discourages the development of domestic value-added wood processing and encourages the export of less processed forms.

However, the USA, Canada, the EU and Japan are all expected to de-escalate tariffs on some SPWP products by 2005 under the General Agreement on Tariffs and Trade, and this will likely lead to further boosts in SPWP exports from ITTO producer countries. A gradual tariff de-escalation is expected to primarily benefit countries such as Malaysia, China, Thailand, Indonesia, the Philippines and Brazil that have established policies for encouraging the expansion of downstream processing capacity and export.

Another element that restrains further growth of SPWP exports for ITTO producers is product design. With few exceptions, most of the further processed products currently exported by ITTO producers are made-to-order, with little innovation or design input, which is often provided by the buyer. There is a growing need to infuse technical and design know-how into these industries and to create larger and stronger units capable of capturing international markets.

The further processing sector will continue to expand, partly because of the eventual de-escalation of import tariffs and continual improvement in product design. However, given the declining availability of large-sized timber, the sustainability of this growth will depend on new end-uses being found for lesser used species, new techniques to meet the technical and aesthetic appearance requirements of markets, and on new technologies to make efficient use of smaller dimension logs from fast-growing plantations.

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The African timber-processing sector grew little over the 1990s. It remains a key, though, to sustainable development on the continent

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IN analysing trends in the production and trade of tropical timber, market evolution can be distinguished at two scales:

- 1) at the 'immediate' level, where changes take place in the market as a result of short-term market decisions. Such decisions can be facilitated by permanent market intelligence systems that give almost-real-time market information: in this respect, ITTO provides detailed and up-to-date information through its *Tropical Timber Market Information Service*; and
- 2) at a structural level, which is mostly related to the state of the resource and to socio-economic conditions at the national and international levels.

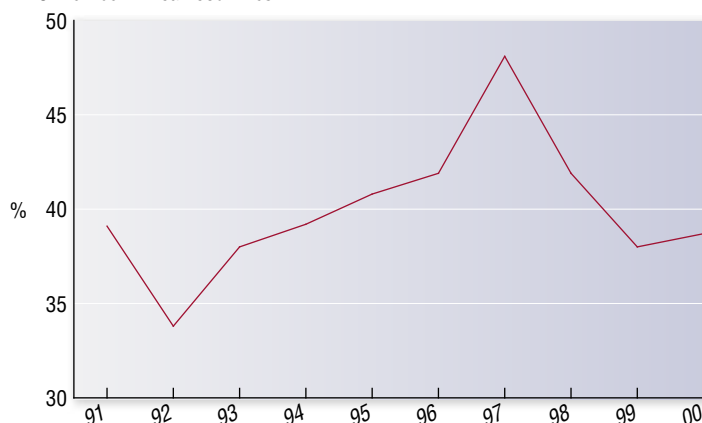
Both scales can play an important role in the sustainability of timber production and trade, and indirectly in the sustainability of the resource itself. For African producers, the need for an in-depth analysis of the long-term structural trends in the production and trade of forest products is essential for the pursuit of sustainable forest management and sustainable development.

For this reason the Laboratory of Forest Policy at the National Institute of Forestry, Agricultural and Environmental Engineering (ENGREF) in Nancy, France has developed software for analysing long-term trends in the production and trade of tropical timber products in the main African producing countries. The information used for this purpose is derived from ITTO data (ie the *ITTO Annual Review of the World Timber Situation*), which are amended where possible with: 1) additional national data collected from various public and private sources; and 2) some rectifying calculations concerning mainly the stocks and conversion rates. Nevertheless, we realise that the data on which our analysis is based is often flawed and more efforts are needed to improve production and trade statistics (*see box*).

This article presents the results of our analysis of trends in the African timber economy during the 1990s.

Raw figures

Figure 1: Percentage of timber exported as unprocessed logs from net export ITTO member African countries



Slow progress in processing

The rate of timber processing—into sawnwood, plywood and other added-value products—remained lower in Africa during the 1990s than elsewhere in the tropical world; more than 38% of tropical timber produced on the continent was still exported as logs at the end of the decade (*Figure 1*). Of course, this percentage varies from country to country; nevertheless, the main producers—those from the central part of Africa, the so-called Congo Basin countries—are characterised by a particularly low rate of processing.

Ghana (not strictly a Congo Basin country) and C te d'Ivoire are notable exceptions: both countries have a long history of processing industries and now process more than 95% of their timber production. In C te d'Ivoire, only plantation teak is exported as logs, while Ghana has been processing 100% of its log production since 1996, when log exports were banned. In other African countries, however, the processing industries grew little over the decade (*Figure 2*). Indeed, in many countries the percentage of local processing declined in the mid 1990s as log exports boomed (particularly to Asia) and only began to increase again towards the end of the decade. In Gabon, in-country timber processing was higher in 1999 than it was in 1990; in Cameroon and Congo, though, in-country timber processing had not returned to 1990 levels by 1999. In the case of Congo, the civil war undoubtedly had an impact on the development of processing activities. It is harder to fathom

A need for improved statistics

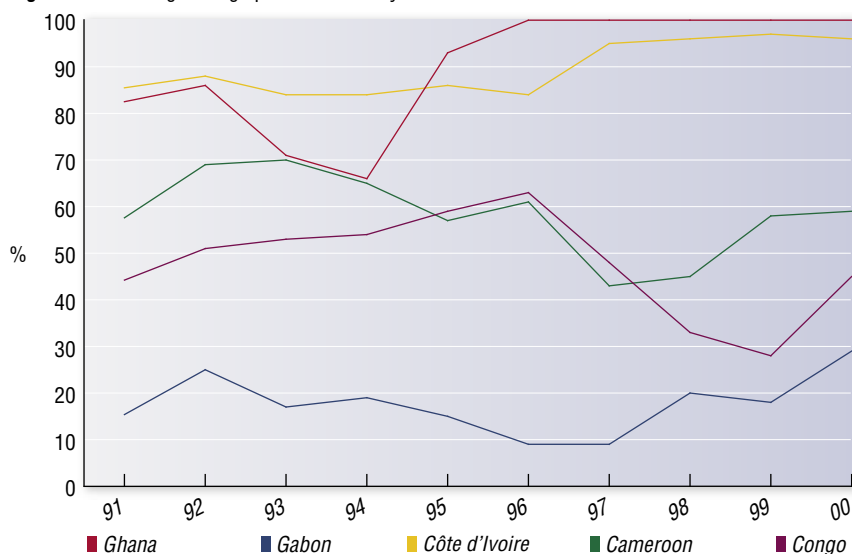
A deeper analysis of the trends in African timber economy than that given here requires good statistical data. These are generally not available, despite major efforts to improve statistical capacity with ITTO assistance.

Some important improvements are still needed in the procedures for data collection in the following areas: (i) data on international trade, especially in places where customs services are not performing, and where containerisation has been developed with no change in statistical formulae and procedures; (ii) data on illegal logging, which is becoming increasingly significant and may account for up to 60% of total declared production in some countries (especially Congo and Cameroon, which may partly explain aberrant trends related to some economic indicators in those countries); (iii) data on conversion factors, to be revised from the official ones to take into account the real technical situation of processing units at the local level; and (iv) data on constituted stocks at various points in the timber chain.

ITTO should play the leading role in improving production and trade statistics, in collaboration with the African Timber Association and the Inter-African Forest Industries Association. Good policy decisions—both public and private—can only be made on the basis of good information. Improving the statistics is therefore crucial for sustainable development in ITTO's African member countries.

Thinking locally

Figure 2: Percentage of logs processed locally in selected African countries



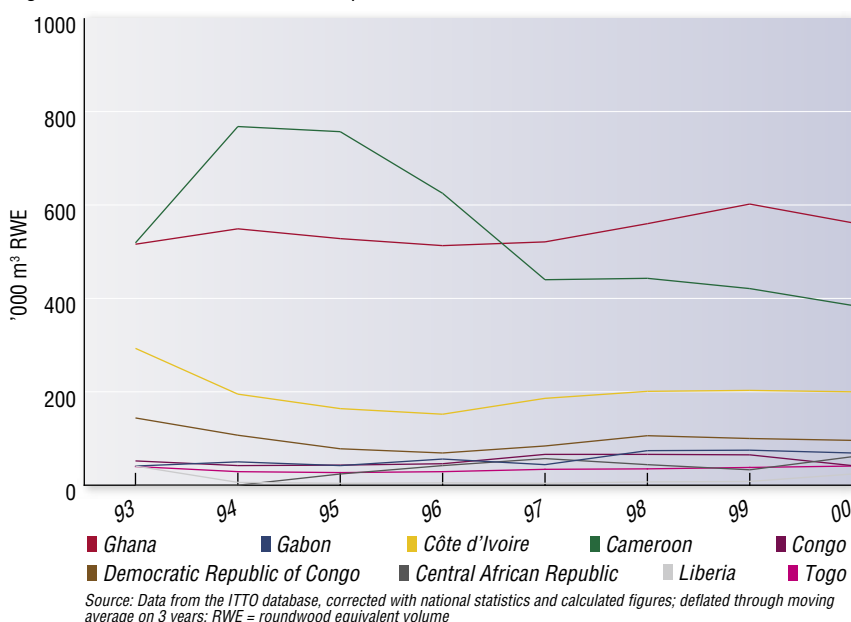
the reason for the failure of efforts to stimulate growth in the processing sector of Cameroon, a politically stable country (although the devaluation of the Central African franc— CFAF—may have played a role; see later).

Some general reasons for the low level of in-country timber processing can be enumerated. These include a dependency on the business strategies of European companies (which dominate the timber sector in tropical Africa), the small size of internal and even external markets, the high quality of the timber extracted (and therefore the sophistication of processing facilities in Europe), the generally low volumes per hectare of log production, and additional demand for logs from Asiatic operators.

This situation is not specific to the timber sector. The average annual growth of the total manufactured added value in Africa decreased from 4.3% during the 1980s to 2.0% in the 1990s. In the CFAF economic zone, the devaluation of the currency in 1994 led to an increase of production costs—and, except in Côte d'Ivoire, a recession in industrial activity—and accentuated this trend. The decrease in manufactured added value was particularly significant in the Congo Basin: over the period 1990–99, the rate of growth in industrial production decreased from 6.9% to –2.2% in Congo, from 10.4% to –1.0% in Cameroon, from 1.6% to –7.3% in the Democratic Republic of Congo (formerly Zaire), and from 1.8% to 0.9% in Gabon.

Undemanding markets

Figure 3a: Domestic sawnwood consumption in African ITTO member countries



Source: Data from the ITTO database, corrected with national statistics and calculated figures; deflated through moving average on 3 years; RWE = roundwood equivalent volume

The level of investment in processing activities remained correspondingly very low. For example, investment in the production of added value timber decreased in Cameroon from 2.3% in 1996 to zero in 1999. In the Democratic Republic of Congo, the average annual rate of growth of investment 'grew' from –5.1% during the 1980s to –2.7% in the 1990s.

A detailed study carried out by SODEFOR/ITTO (2000) shows that the volumes of raw timber purchased by factories and effectively processed in Côte d'Ivoire decreased in the period 1994–97. There, the policy reforms of 1995 promoting the use of small-size logs and lesser known species led to unsatisfactory results, due to both technical difficulties faced by industrialists to adapt to this policy, and the non-existent market for such products. As for further processing activities, the recession is still more severe. Despite a ban on log exports, there has been no reorganisation of the forest sector, which remains dependent on European demand.

There are exceptions to this generally negative picture. For example, the number and efficiency of sawmills in some countries (including Côte d'Ivoire) have increased. However, the full nature and extent of such successes and their contribution to sustainable development are not well documented. If they are to be extended to other countries, it is important to know more about the success stories; an analytical catalogue of successful experiences may be useful.

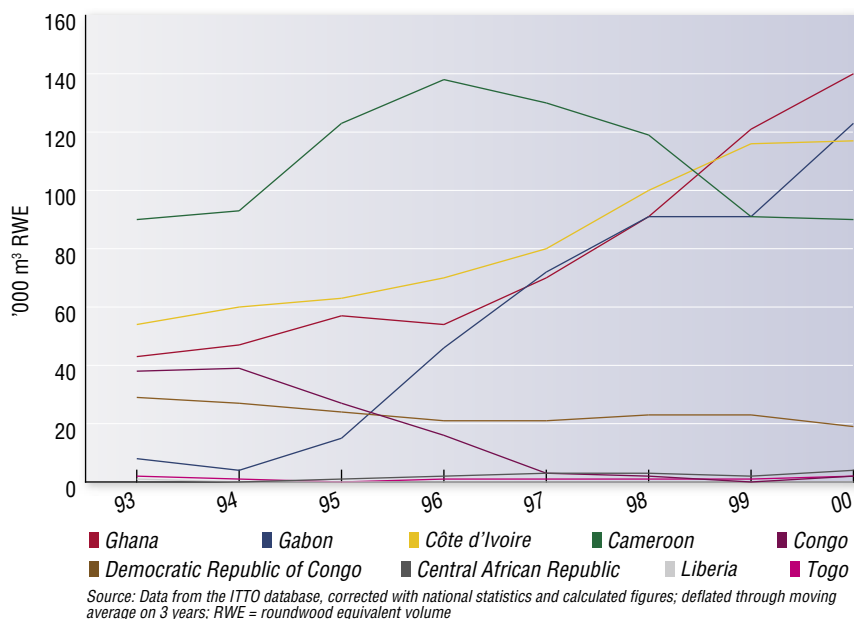
Small domestic demand

At the same time as processing industries were stagnating in Africa, the level of internal demand remained very low, even decreasing in some cases such as in Cameroon after 1994 and in Congo after 1997.

Indeed, local needs for sawn timber are not increasing significantly in any African country. In Gabon and Congo, demand is limited by low populations. Domestic demand

Plying the markets

Figure 3b: Domestic plywood consumption in African ITTO member countries



began increasing after 1996 in Côte d'Ivoire and Ghana, but by 1999 had not grown much above 1992 levels. In Cameroon, the local consumption of sawnwood increased strongly between 1992 and 1994 but declined steadily thereafter. The situation is rather different for plywood: growth in domestic consumption can be seen in Côte d'Ivoire, Gabon and Ghana. However, demand for plywood was stagnant in Congo and fell a dramatic 25% in Cameroon between 1995 and 1999 (Figures 3a & 3b).

In most countries the per capita consumption of timber products was stagnant over the period at the level of less than 0.1 m³ per inhabitant (Figure 4); it even decreased in Cameroon. The exception, Gabon, saw a significant increase between 1996 and 1999.

Thus, local demand for timber generally did not increase in the producing countries themselves. However, there was growth in consumption in their main African clients, including in Nigeria and North African countries. The main demand of these countries is for sawn timber; the decline in exports of sawnwood from the main African producers may therefore create a regional shortfall in supply in the medium term unless this trend can be reversed.

A major objective of the African timber industry is to be partly reoriented towards satisfying African needs, including those in producing countries, for economic development and a more sustainable management of the resource. This probably needs an investment strategy based on a share of risks between public and private sectors.

The inter-African competition on niches

The volumes of timber products exported from African countries is very limited compared to those coming from Southeast Asia, resulting in strong competition between the

main exporters, especially in restricted markets for specific products.

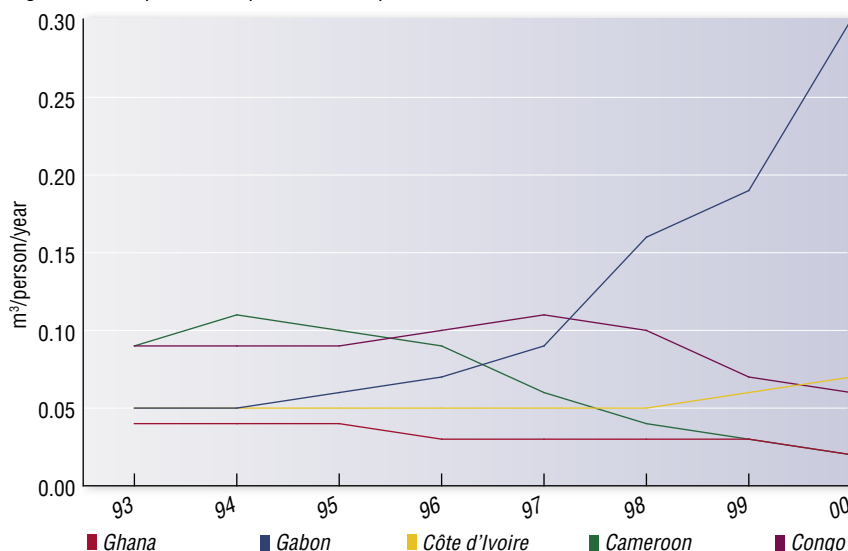
As an example of this, Côte d'Ivoire and Ghana compete directly in the same market for special plywood destined for European countries: trends in the percentages of the export market have been almost diametrically opposed during the whole period (Figure 5). The same can be said for Cameroon and Gabon for another type of plywood (Figure 5). This is mainly due to the existence of two separate chains for such products, one being in western

Africa and the other in the Congo Basin, with specific ship-transport companies and arrangements. Inside each chain, the competition for satisfying immediate demand is very strong due to the limited availability of the resource.

There appears to be no significant link between competitiveness in the market and the prices of various products. The average value of logs, for example, is almost the same within the period for all exporters except Congo (Figure 6). The reasons for this situation include: a) a rather high quality of African roundwood products for specific material ('specialities' and not 'commodities') for which competitiveness is not defined through pricing; and b) the importance of intra-firm trade (especially inside the French and Italian international companies) with artificial values. The market is thus driven by niches, not by the prices as it is the case for timber exports from Southeast Asia.

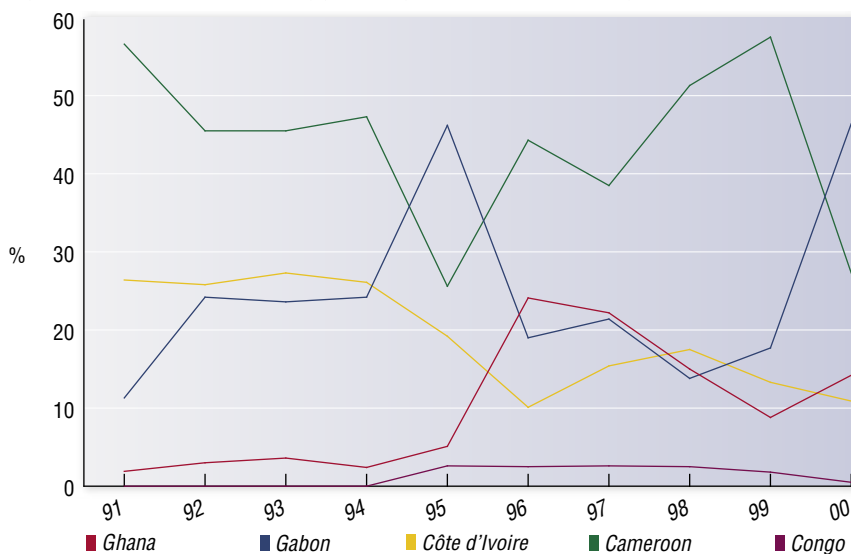
Gabon and the rest

Figure 4: Per capita consumption of timber products in selected African countries



Market share

Figure 5: Percentage of the African plywood export market commanded by selected countries



Source: ITTO database, corrected with national statistics and calculated figures

African timbers: just a reactive economy?

The significance of total tropical timber exports from Africa is certainly rather low at a global level, representing only 12% of the international trade of tropical timber (from 33% of the total tropical forest area), these figures including non-ITTO tropical members. This is indicative of the generally undynamic nature of the African timber sector; it remains basically extractive in nature and few of the earnings are re-invested in productive activities such as processing.

This situation may create some financial difficulties in promoting a competitive timber economy, but it could also provide time in which prudent silvicultural and harvesting models for sustainable forest

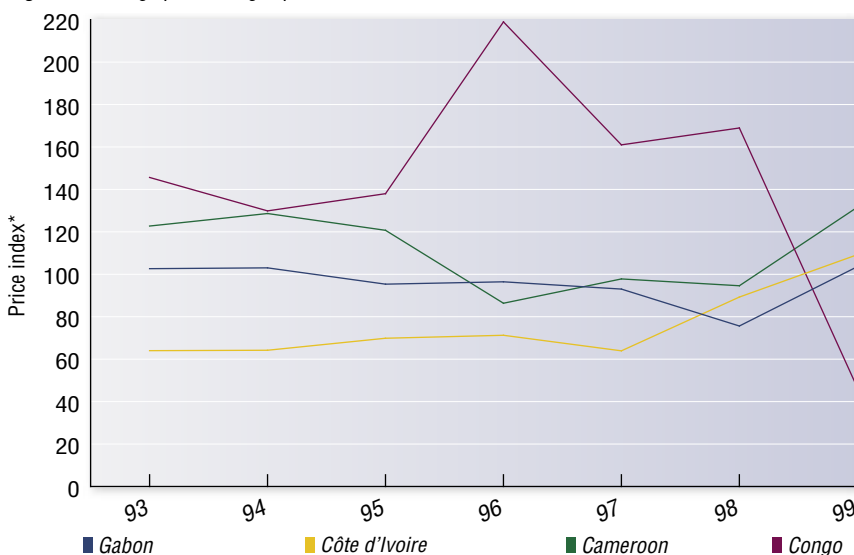
production linked to the market and conforming to long-term economic scenarios can be developed. Certainly, a dynamic timber processing sector is needed in Africa; nevertheless, the 'slow start' compared to what has occurred in many other parts of the tropical world provides an opportunity for African foresters, industrialists and policy-makers to get the processes right—so that the forest industry is able to play a substantial role in the sustainable development of the continent.

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Price parity

Figure 6: Average price of log exports in selected African countries



*Ratio of national price of log exports per m³ compared to the average price of logs exported by all African ITTO members in the same year; Source: ITTO database, corrected with national statistics and calculated figures

African outlook study

The Forestry Outlook Study for Africa (FOSA) is an initiative of the Food and Agriculture Organization of the United Nations (FAO), in partnership with the African Development Bank, the European Commission, the World Bank, the Economic Commission for Africa and all member countries of Africa. Its purpose is to analyse the status, trends and driving forces in African forestry and to reach a prognosis for sustainable development in the sector to the year 2020.

The study was undertaken as a highly participatory initiative involving all the 53 African countries and the main regional and sub-regional organisations in Africa. Considering the enormous diversity encompassing Africa, the study adopted a sub-regional approach, dividing Africa into five sub-regions. Therefore, FOSA consists of one regional report (*Regional Overview of Opportunities and Challenges Towards 2020*) and five sub-regional reports (North Africa; Central Africa; East Africa; West Africa and Southern Africa). These six reports can be downloaded from www.fao.org/forestry/fosa.

For more information contact: Johan Lejeune, EC-FAO Partnership Programme, Forestry Policy and Planning Division, FONS, Forestry Department, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy; Tel 39-06-570 55861; Fax 39-06-570 55137; johan.lejeune@fao.org

ITTO finances further forest action

Additional financial resources and decisions on forest restoration, certification, mangroves and increasing the involvement of civil society were some of the outcomes of the most recent session of the International Tropical Timber Council



Agog: Delegates in the packed plenary hall listen to President Megawati during the opening of the 32nd Session of the International Tropical Timber Council. Photo: © Andrei Henry, *Earth Negotiations Bulletin*

THE International Tropical Timber Council has pledged more than US\$8.1 million in additional funds for initiatives promoting sustainable forest management, greater transparency in the tropical timber trade and the development of sustainable tropical forest-based industries.

The pledges were made at the Council's 32nd session held in Bali, Indonesia, 13–18 May 2002. They include commitments to finance 15 projects, six pre-projects (feasibility studies) and a range of other activities.

Several activities and projects were financed to improve sustainable forest management in West Africa (*see box below*). Among other projects financed were three in Indonesia worth a total of US\$1.6 million to promote collaborative forest management in East Kalimantan and Bali and the development of a sustainable rattan industry. Projects in Brazil will facilitate the introduction of a forest concessions regime

in the country's national forests and harmonise ITTO's criteria and indicators with those of the region's Tarapoto Process.

Civil society advisory group

During the session, the Council made what some delegates referred to as a landmark decision on a civil society advisory group (CSAG), which was formed during the session by representatives of environmental non-governmental organisations and other representatives of civil society.

The Council welcomed the group's formation and encouraged both the CSAG and the Trade Advisory Group, which had been formed at an earlier session, to work together to showcase examples of collaboration between civil society organisations and forest concessionaires and industry and to consider how ITTO could facilitate such cooperation in the field. The Council provided finance so that the CSAG could organise a panel discussion relevant to ITTO's Yokohama Action Plan. ▶

ITTO takes action in Africa

Two decisions by the International Tropical Timber Council at its 32nd session will provide impetus for the achievement of sustainable forest management in West Africa.

The decisions came in the wake of ITTO missions to the Congo Basin countries, which recommended a range of activities that ITTO could undertake to support work towards sustainable forest management, forest conservation and the development of sustainable forest-based industries.

The Council decided to contribute to the development of a regional strategy aimed at improving the management of forest concessions based on the suite of ITTO guidelines. Particular attention will be paid to the impact of industrial timber logging on local

communities and to transboundary sites identified as high priorities for biological diversity conservation.

The Council further requested Dr Sobral to convene a workshop to develop a regional applied research program and to identify research activities focusing on social, economic and environmental aspects of tropical forest management and trade.

In a separate decision, the Council decided that ITTO should participate in the forthcoming ministerial conference on forest law enforcement in Africa. It further decided to undertake a data collection initiative for the forests of the Republic of Congo, the Central African Republic and the Democratic Republic of Congo aimed at improving forest concession management and ensuring the conservation of

protected areas. This initiative will be carried out in partnership with the governments of the countries concerned, the non-governmental organisation Global Forest Watch, and other stakeholders. A work program for the initiative is to be submitted to the next session of the Council, which will be held in Yokohama in November 2002.

In addition to these decisions, the Council financed a project to assist African countries in implementing and monitoring sustainable forest management through the application of the ITTO/African Timber Organization regional criteria and indicators for sustainable forest management. The first stage of Phase 1 of the project is worth US\$634,000; the three phases combined will be worth more than US\$3.5 million.

Should a phased approach be taken to certification?

The pros and cons of a phased approach to forest certification were the subject of debate during the session.

A phased or 'step-wise' approach has been advocated in some quarters to allow applicants to make claims on their progress towards sustainable forest management as they improve operations but before they qualify for full certification status.

After substantial debate in the Council and a drafting group, the Council adopted a decision on the "potential role of phased approaches to certification in tropical timber producer countries as a tool to promote sustainable forest management". It authorised the Executive Director, Dr Sobral, to commission a study to explore this potential role, and to convene three regional workshops to disseminate and discuss the results and implications of the study. Recommendations from the workshops will be reported to the Council next year.

The Council also encouraged its members to support project proposals for national capacity building to engage in forest certification in producer member countries, including in institution strengthening, stakeholder participation, auditing systems, training, and better public understanding of the role of certification in sustainable forest management.

Among other decisions, the Council adopted a Mangrove Workplan, which will guide the Organization's work on the conservation and sustainable management of mangrove forests. It also adopted guidelines on the management of secondary forests, the restoration of degraded forest lands and the rehabilitation of degraded forest lands and took steps to support their implementation in tropical forests (see box below). It also requested Dr Sobral to send a message highlighting ITTO's contribution to sustainable development to the World Summit on Sustainable Development, which will be held in Johannesburg, South Africa, in August.

ITTO pursues forest restoration

The International Tropical Timber Council has adopted a set of guidelines to promote the management of secondary tropical forests, the restoration of degraded tropical forests and the rehabilitation of degraded tropical forest lands.

Adoption of the guidelines, which were developed in cooperation with IUCN, the World Wide Fund for Nature, FAO and others, was hailed by Council Chairman Dr Juergen Blaser as "an important step towards the long-term sustainability of tropical forest landscapes and the livelihoods of local people".

The Council decided to finance a number of actions to promote the uptake of the guidelines by member countries. One of these was the convening of six sub-regional workshops to promulgate the guidelines and to encourage further regional or country-level initiatives in the area. It also encouraged members to apply the guidelines on a pilot scale and to submit project proposals to ITTO where appropriate.

The Council commended the guidelines to the international community as an international reference standard that will make "a major contribution towards the sustainable utilization and conservation of tropical forests and their genetic resources".

The guidelines will be published and made available to the public on the ITTO website and from the itto Secretariat in Yokohama, Japan. For more information contact: Dr Eva Mueller, ITTO Secretariat; rfm@itto.or.jp; see page 2 for other contact information.

President Megawati calls for more international cooperation



Overcoming illegal forest activities: Indonesian President Ibu Megawati Soekarnoputri called for greater international cooperation to curb illegal practices and improve forest conservation and rehabilitation. Photo: © Andrei Henry, *Earth Negotiations Bulletin*

More international assistance is needed to achieve sustainable forest management in Indonesia, according to Indonesian President Megawati Sukarnoputri.

Speaking at the opening of the 32nd Session of the International Tropical Timber Council, President Megawati said that the sustainable use of Indonesia's large forest resource was an essential part of national development.

"Our Constitution has mandated that we must utilise such natural assets to the best interest and the welfare of our people," she said.

However, while Indonesia was striving hard to combat a wide range of problems in forest management, it lacked the means to solve such problems without help.

"It is impossible for us alone to effectively handle illegal logging and illegal trading practices," she said, adding that these were driven partly by international demand. "There is therefore an urgent need for more concrete international cooperation to curb those practices which essentially endanger the future of mankind."

President Megawati said that the Indonesian Government was also placing particular emphasis on forest rehabilitation and conservation.

"Through this forum, I appeal to those who have concern with forest conservation to support and help us in these endeavours so that we can restore our forest," she said.

Council summary available

The International Institute for Sustainable Development's *Earth Negotiations Bulletin* has produced summaries of each day of the Council, and a final summary. They can be found at www.iisd.ca/linkages/forestry/itto/ittc32/

Cooperation urged on tropical timber certification

A provocative message from one of the world's most outspoken environmental critics sparked a lively discussion at this year's ITTO Annual Market Discussion, held in conjunction with the 32nd Session of the International Tropical Timber Council.

Dr Patrick Moore, who heads Greenspirit, a Canada-based organisation, argued that rather than reducing the consumption of wood, the world should be growing more trees and using more wood in order to reduce reliance on non-renewable fuels and materials.

Dr Moore challenged allegations that commercial logging and forestry activities were responsible for species extinction and that the tropical pulp and paper industry was responsible for illegal forest loss. Such allegations damaged the industry, he said, and were doing a disservice to forest conservation. Instead of creating hurdles for tropical countries in their efforts to further develop, he said, a more constructive approach would be to campaign for increased wood consumption and the establishment of more timber plantations. He cited the Brazilian pulp and paper company Klabin as a good example of a company using a plantation-based resource that was benefiting biodiversity and creating significant local employment.

Bill Mankin, representing a coalition of environmental non-government organisations, said he was pleased that Dr Moore had used Klabin as an example of good forest stewardship and pointed out that its operation had been certified by the Forest Stewardship Council (FSC). He said that the FSC was able to build bridges between the environmental movement, the timber industry and the market.

However, according to Totok Lestiyo, his logging and timber processing company Intracawood had invested heavily over the last five years in efforts to secure forest certification but had not yet been successful.

"We feel very disappointed that all our efforts in good forest management have not been recognised by the certifying bodies, who seem intent on putting insurmountable hurdles in our way," he said. He called for tropical timber producers and buyers to come together to help concession-holders cope with the demands of forest certification.

Experts sound tropical forest fire alert

ITTO should continue to evaluate the fire management situation at the request of member countries to identify pragmatic, useful actions that will lead to clear improvements in that situation.

This recommendation was made by participants at a side-event on ITTO's role in forest fire management staged during the 32nd Session of the International Tropical Timber Council.

The side-event was chaired by Mr Suhariyanto, Director General of Forest Protection and Nature Conservation in the Indonesian Ministry of Forestry and attended by about 50 delegates and observers. It was convened in the face of reports that major fire events are likely to occur in the tropics in the next twelve months and included presentations from six fire management specialists.

Consultant fire expert Mr James Sorenson said that the world's moist tropical forests are all facing an increasing fire threat as land use change makes them more vulnerable to large-scale fire. The impacts can be devastating: tropical forest fires destroy homes, livelihoods and wildlife and pollute river systems. Smoke haze events create health and navigation hazards on a regional scale, and the carbon emitted contributes significantly to the build-up of greenhouse gases in the atmosphere.

Jim Dunlop, former head of the Forest Protection Branch in British Columbia, Canada, said he had recently observed the fire-fighting capability in Ghana and reported that the attitude of village-level fire-fighting teams there was "upbeat and proud". He said that Ghana could become a regional centre of excellence in fire management with some strategic assistance from ITTO and other agencies.

Dr João Antonio Raposo Pereira, Fire Monitoring Coordinator at Brazil's Institute for Environmental and Natural Renewable Resources (IBAMA), described Brazil's sophisticated fire monitoring and response capability, which was coordinated by IBAMA and involved agencies such as the Army, Air Force, the urban fire-fighting corps Bombeiros and Civil Defence. He said that Brazil would be interested in sharing its experiences with other tropical countries, possibly with ITTO assistance.

The New South Wales Rural Fire Service's Ross Smith, part of a team of Indonesian and Australian fire experts who recently drafted an ITTO project proposal to establish a fire management agency in the Province of West Kalimantan, said that it was important to take a simple approach to fire management, building fire management programs from basic principles that matched identified needs.

Dr Daddy Ruhiyat of the University of Mulawarman informed participants that local communities in East Kalimantan have been using fire for many centuries as an effective management tool. He suggested that these traditional systems could be used as the basis for the development of modern approaches, in which new equipment and technologies would eliminate the weaknesses in the traditional approaches. He urged greater efforts to ensure that traditional fire management knowledge is retained in communities and disseminated more widely. Dr Dicky Simorankir, Deputy Director of WWF/IUCN Project FireFight, outlined Project FireFight's work and suggested ways of improving fire management in Southeast Asia.

The side-event indicated that ITTO evaluations of the fire management situations—at the request of member countries—are useful in identifying pragmatic actions that can be taken; ITTO project proposals can now be formulated to activate such assistance. The Committee of Reforestation and Forest Management will consider additional ways to increase ITTO's role in tropical forest fire management at its next session in November.



Focus on fire: Dr Daddy Ruhiyat of the University of Mulawarman, East Kalimantan, presented data on the field-testing of forest fire prevention based on indigenous knowledge at a workshop on ITTO's role in tropical forest fire management held during the 32nd session of the International Tropical Timber Council. Photo: © Andrei Henry, *Earth Negotiations Bulletin*

Fellowships awarded

Twenty-eight fellowships worth a total of US\$149 991 were awarded at the 32nd Session of the International Tropical Timber Council. Awardees were:

Mr Jhony Zapata Andia (Bolivia); **Ms Karin Hembik Borges** (Brazil); **Mr Julius Chupezi Tieguhong** (Cameroon); **Mr Henri Charles Akagou Zedong** (Cameroon); **Prof. Kun-Fang Cao** (China); **Ms Beatriz Gallego-Castillo** (Colombia); **Mr Raphael Yeboah** (Ghana); **Mr Emmanuel Kow Bonney** (Ghana); **Mr Kwaku Asumadu** (Ghana); **Dr Joshua Ayarkwa** (Ghana); **Sr Henry Armando Cano Toralla** (Guatemala); **Ms Iris Mariela Cruz** (Honduras); **Ms Diji Chandrasekharan Behr** (India); **Dr P.K. Muraleedharan** (India); **Mr Agus Hikmat** (Indonesia); **Mr Morris Kapong Senap** (Malaysia); **Dr San Win** (Myanmar); **Mr Dinanath Bhandari** (Nepal); **Ms Abha Joshi** (Nepal); **Mr Dev Raj Paudel** (Nepal); **Ms Ruth Caroline Turia** (Papua New Guinea); **Mr Raul Gustavo Torres Vasquez** (Peru); **Dr Menandro Natividad Acda** (Philippines); **Ms Nina Natividad Pangahas** (Philippines); **Ms Emma Payawan Abasolo** (Philippines); **Ms Evelyn Varquez Bigcas** (Philippines); **Mr Edjdomélé Gbadoe** (Togo); **Ms María Carolina Ramírez Ramírez** (Venezuela).

Poverty, forest and the economic crisis in Indonesia

by Muslim Salam

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THE economic crisis in mid-1997 hit Asian countries with the devastating impact of an earthquake. In Indonesia, the rupiah collapsed and by early 1998 had lost 80% of its pre-crisis value against the US dollar. The peak of the crisis occurred in August–September 1998, by which time the percentage of the Indonesian population living below the poverty line had nearly doubled from 11% (in 1990) to about 20% (Mukherjee 1999).

Poverty exists in both rural and urban areas in Indonesia. In rural areas, it is found mostly in forested and coastal areas. At the same time, many forested areas are undergoing rapid deforestation and/or degradation as a result of human activity. This deforestation has at least four main (and often interrelated) causes: 1) forest exploitation by state-owned enterprises; 2) forest-land conversion for agricultural purposes; 3) human encroachment; and 4) poverty among forest dwellers.

Research objectives and methodology

My research was conducted in the Talippuki village located in the Polmas District of South Sulawesi Province. The objectives were: 1) to assess the proportion of forest-dwellers who have incomes below the poverty line and to examine how poor the poor are; 2) to assess factors responsible for poverty in the forest area; 3) to determine the perceptions of 'poor' forest dwellers about poverty and its relation to forest use during the economic crisis; 4) to identify economic activities and socio-cultural aspects of the forest dwellers in and near the forest area; 5) to identify the socio-economic impacts of the economic crisis and their effects on forest use; and 6) to find innovative strategies for poverty alleviation in the forest area.

Household survey has been the main tool for analysing poverty for several decades. However, in this research I

complemented this quantitative method with a qualitative approach that used community meetings, follow-up interviews and focus group discussions for gathering initial and general data not obtained in the household surveys. I used various statistical techniques to analyse the quantitative data, including XY scatter plots, descriptive statistics, correlation and multiple regression analyses, head count index (HCI), and poverty gap index (PGI). For the purposes of research I classified families into two group communities: 'in-forest' and 'near-forest' communities. Households were classified as 'in-forest' if they lived in a forest area (Pamoseang community) and their income was derived mainly from forest products; they were classified as 'near-forest' if they lived near a forest area (Talippuki community) and their income from forest products was not significant. I interviewed 60 households chosen at random in each community, so that 120 households out of a total of 378 households were surveyed.

Results

All measures—HCI, PGI, housing performance, the availability of basic needs, etc—strongly indicate that both communities are struck by acute poverty. Moreover, the number of poor households was larger and the acuteness of poverty higher in the in-forest community compared to the near-forest community. Among the variables studied, family structure, agricultural productivity, personal contribution to income, and factor contribution of income (the contribution of each economic activity to income) were significant predictors of poverty in the in-forest community, while family structure, wage rate, personal contribution of income and factor contribution of income were identified as predictors of poverty in the near-forest community. Other factors contributing to poverty included *keterpencilan* (isolation), *kurang modal usahatani* (lack of farm capital), *produksi hasil pertanian rendah* (low productivity of agriculture), *kesempatan kerja kurang* (lack of job opportunities), *pendidikan dan keterampilan rendah* (low education attainment and know-how), and *kerja keras tapi kurang penghasilan* (low productivity of labour).

In the in-forest community, people associated wellbeing and security with a large area of productive land, sufficient income to meet daily food requirements, good clothing, good and spacious shelter, and extra cash for: children's schooling; unpredictable 'events' such as illness and death; *musim paceklik* (the lag time between rice planting and harvest); and social and religious events. Households with all these things were not considered to be 'poor'. In contrast, households that had insufficient daily food, no permanent house, no regular cash income and/or little or no productive land were classified as 'poor' within the local community.

In both communities, people perceived that their household economic situation worsened during the Asian economic crisis. People from the in-forest community considered that the forest itself and 'working hard' were the most important

Fellowship reports available

The following ITTO fellowship reports are available on request from the authors:

Report on training in computer integrated manufacturing (CIM) in secondary wood processing and its applicability in Africa

Contact: Mr Ben N. Donkor, Timber Industry Development Division (Forestry Commission), PO Box 783, Takoradi, Ghana; bendonkor@yahoo.co.uk

Effect of proof loading on the strength of lumber

Contact: Mr Charles Kumi Gyamfi, #124-9555, 128 St, Surrey, BC V3V 6N6, Canada; ckgyamfi@hotmail.com

Assessment of foreign-funded community-based reforestation projects in Ilocos Norte and Pangasinan

Contact: Mr Alfredo Rabena Racoma Jr, Department of Environment and Natural Resources, 3F Dona Pepita Bldg, Quezon Ave, San Fernando City 2500 La Union, Philippines; Fax 63-72-242 4044; DENR1FMS@SFLU.com

Making conservation pay: private sector forestry and the wise use of natural resources

Contact: Mr Tim Rayden, Oxford Forestry Institute, Plant Sciences Department, South Parks Road, Oxford OX1 3RB, UK; timothy.rayden@plants.ox.ac.uk

Sago starch and its acrylamide modified products as coating material in recycled paper

Contact: Mr Sin-Yeng Wong, Lecturer, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia; sywong@frst.univas.my

alternatives for generating cash in difficult economic times. In contrast, the near-forest community tended to regard the forest as not particularly important for surviving an economic crisis; 'working harder', 'adding extra crops' and 'reducing daily expenses' were seen to be more useful tactics.

In both communities people used the forest as a source of housing material and firewood and as a venue for socio-cultural activities; the latter included *baca doa* (prayer), *makkaringi* (eating new rice), and *madduluang* (working together). I also identified two value systems for forest use; they were *mabbatta kayu ketadenngi mupatujuang mosoko too* (literally: cutting timber without any purposes will 'hurt' both the timber itself and the environment), and *mo mabbatta kayu bassa to ko pattanang* (literally: if someone cuts timber in the forest, he should substitute it with another tree by planting more than he has cut already).

Recommendations

I made three recommendations for development efforts aimed at alleviating poverty while simultaneously promoting sustainable forest enterprises in the forest area. These were:

- promote and improve access to middle and higher levels of education for 'poor' forest dwellers. Primary education is not sufficient if the principles of sustainable agriculture and sustainable forest management are to be transferred and if such good-looking 'slogans' are actually to be put into practice;
- promote family planning to reduce family size. There was a strong correlation between family size (including number of children) and poverty and land clearing. If population growth remains high in forest areas, the forests will remain under pressure; and
- expand job opportunities outside agriculture and the forest environment.

In the short term, two policy actions can be taken. First, income generation by increasing the agricultural productivity of the land already in use should

be promoted. In so doing, it will be necessary to provide supporting measures such as farm credit and agricultural extension services. This strategy might make it possible for farmers to shift from local-traditional agricultural practices—which generate little cash income—to modern ecologically based agriculture. Second, promote the adding of value to rattan—a key forest resource—by introducing advanced processing technology and price guarantees by promoting linkages between rattan extractors, forest dwellers and rattan processing industries and traders.

The last recommendation is the promotion of 'ecohuman-based forest enterprises'. These may be defined collectively as a strategy to simultaneously promote income generation and sustainable forest management, emphasising and recognising the right of forest dwellers to 'legal space' within the forest for the conduct of enterprises such as agroforestry and silvopastoralism. Within the concept, forest is viewed as both an economic asset and a socio-cultural asset for the forest dwellers. Therefore, this strategy is intended to provide them with socio-cultural and economic incentives and compensation as well as facilitating access to forest-based enterprises. In practice, government would function as a development moderator rather than as a hunter of desperate *perambah hutan* (forest squatters) who are conducting uncontrolled logging in remote areas. It would encourage forest dwellers to be *jagawana* (forest security officers or forest police), who will watch over and control what happens to the resource.

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Mukherjee, N. (1999) *Consultation with the poor in Indonesia: country synthesis report (draft)*. Prepared for: Poverty Reduction and Economic Management Network, The World Bank.

The title of the masters thesis on which this article is based is 'Poverty situation in and near forest area during the economic crisis at South Sulawesi Province, Indonesia', Graduate School of Economics, Ryukoku University, Kyoto, Japan (unpublished). The research was conducted partially under the ITTO Fellowship Program.

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 about 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 monographs; 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 **4 September 2002** for activities that will begin no sooner than December 2002. 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; fellowship@itto.or.jp (see page 2 for ITTO's postal address).

ITTO moves on mangroves

International Workshop on Mangroves

19–22 February 2002

Cartagena de las Indias, Colombia

This ITTO-funded workshop was hosted by Colombia's Ministry of Environment and facilitated by the International Society for Mangrove Ecosystems (ISME). It was attended by more than 40 people, including participants from 23 countries and representatives of international organisations such as ITTO, FAO, UNESCO, the RAMSAR Convention on Wetlands, IUFRO and IUCN. Its objectives were to:

- share experiences in mangrove forest conservation, rehabilitation and sustainable management;
- identify areas where other organisations are already working, and conversely, areas where ITTO could meaningfully contribute given its available resources, comparative advantage and relevance to the Organization's goals; and
- assess the links of products from mangrove forest ecosystems with the objectives of the Organization as set out in the International Tropical Timber Agreement, and the impact on international markets.

After three days of presentations and discussions, participants recommended that a Global Plan of Action for Mangroves be implemented, and they drafted a list of elements for such a plan. These included: assessment and monitoring of mangrove resources; conservation and management; socio-economic benefits for local communities; research; information and databases; institutions; and policies and legislation. They further recommended that ITTO, FAO, UNESCO, RAMSAR, IUCN, represented countries and other organisations and countries not present should support such a global plan in accordance with their mandates and available resources, and should coordinate their actions to implement it. Participants also recommended that an International Year of Mangroves be established through the UN system.

The report of the workshop is available on request from the ITTO Secretariat

(itto@itto.or.jp, and see postal address page 2); it served as a major input to an expert panel convened last April to finalise an itto Mangrove Work Plan, which in turn was considered by the International Tropical Timber Council last May at its 32nd session. The outcomes of this consideration are described on page 20.

Restoring landscapes

International Expert Meeting on Forest Landscape Restoration

27–28 February 2002

Heredia, Costa Rica

This meeting in support of the United Nations Forum on Forests was hosted by the governments of Costa Rica and United Kingdom in collaboration with IUCN, the World Wide Fund for Nature (WWF), ITTO, the Centre for International Forestry Research and the Northeast Asian Forest Forum. It was attended by about 60 people from 21 countries, representing governments, universities and research institutions, and international, non-governmental and community-based organisations. Its objectives were to: increase understanding of the forest landscape restoration (FLR) approach; initiate a process for working with partners to refine and implement FLR concepts; and to generate a political commitment to and interest in pursuing FLR in specific countries and/or regions and/or through the appropriate intergovernmental processes.

Forest landscape restoration is a term originally proposed by IUCN and WWF. They define it as "a planned process that aims to regain ecological integrity and enhance human wellbeing in degraded or deforested forest landscapes. It is an all-encompassing approach that goes far beyond just planting trees. It aims to get the right activities in the right places in order to conserve biodiversity and enhance options for people's livelihoods at the landscape level ... good restoration can only take place when key stakeholders are involved in making informed choices about the type and configuration of forest establishment they wish to see in their landscape."

The workshop included presentations from a wide range of experts as well as case-studies from Malaysia, Costa Rica, Tanzania and elsewhere. ITTO's draft guidelines on the management of secondary forests, the restoration of degraded tropical forests and the rehabilitation of degraded tropical lands were also presented and discussed (see page 20 for more information on these).

Participants proposed several options for developing and testing FLR, including: involving indigenous peoples' organisations and other grassroots organisations; bringing FLR into universities and other training institutions; and using the Central American Biological Corridor as a laboratory to observe the impacts of FLR. Participants also identified opportunities for feeding the outcome of this meeting into the international policy arena at both the global and regional levels.

Participants agreed that another expert meeting on FLR in 2003 or 2004 would be useful in reporting on progress in local-level initiatives, lessons learned, national dialogues, and the integration of FLR into international and regional fora. A future edition of the *TFU* will feature articles based on papers presented at the workshop.

For more information visit <http://iucn.org/themes/fcp/activities/flr1.html>

Forest ministers declare

2nd Session of the United Nations Forum on Forests

4–15 March 2002

New York, USA

About 45 ministers, vice-ministers, high-level bureaucrats and ambassadors met during the most recent session of the United Nations Forum on Forests (UNFF) to discuss a range of forest-related issues. One outcome was a 'Ministerial Declaration and Message from the UNFF to the World Summit on Sustainable Development' (which will be held in August/September this year). In the declaration, the "Ministers responsible for forests" committed themselves to implement the Intergovernmental Panel

on Forest/Intergovernmental Forum on Forests (IPF/IFF) proposals for action. They expressed concern at “the continuing high rate of worldwide deforestation, as well as forest and land degradation” and committed themselves to work to reverse these trends. They also reaffirmed the sovereign and inalienable right of states to use, manage and develop their forests and noted that one of the challenges to achieving sustainable forest management (SFM) is to make it self-financing in the long run; they affirmed the importance of trade, as well as trade capacity building, to SFM. In the declaration ministers invited the Summit to, among other things, urge countries that have not done so to “make concrete efforts towards the target” of providing 0.7% of gross national product as overseas development assistance to developing countries, and to call for immediate action on domestic forest law enforcement and illegal international trade in forest products.

The UNFF itself adopted a resolution on the implementation of the IPF/IFF proposals for action in which, among other things, it invited the Collaborative Partnership on Forests (an interagency partnership designed to foster increased cooperation and coordination on forests and to support the work of the UNFF and its member countries) to strengthen and develop new capacity-building programs for developing countries that address the underlying causes of deforestation and forest degradation. It also adopted two decisions on the future work of the forum, but couldn't agree on the make-up of several proposed ad hoc expert groups.

Forests roundtable

During the session, the Global Environment Facility hosted a one-day roundtable on forests attended by 18 prominent people (including ITTO's Executive Director, Dr Manoel Sobral Filho), representing governments, multilateral agencies, private business, NGOs and academia. The panelists highlighted ways to advance the conservation of natural forests and sustainable development. Materials from the roundtable can be obtained from www.gefweb.org/Documents/Forest_Roundtable/forest_roundtable.html

Pending challenges in certification

ITTO International Workshop on Comparability and Equivalence of Forest Certification Schemes

3–4 April 2002

Kuala Lumpur, Malaysia

This workshop was attended by 68 registered participants from 14 ITTO member countries, five relevant international organisations, nine certification schemes, 14 private-sector groups, seven relevant non-governmental organisations and two buyers' groups. Presentations were made by speakers representing such organisations as the UK retail giant B&Q, IKEA, the Indonesian Ecolabelling Institute, the Forest Stewardship Council, the Pan European Forest Certification Scheme, the Rainforest Alliance, the African Timber Organization and several others. The workshop offered a range of recommendations for consideration by the International Tropical Timber Council at its May 2002 session, the results of which are described on page 20. The presented papers and a summary of the workshop are available at www.itto.or.jp/inside/workshop/index.html. Articles based on workshop papers will appear in the next edition of the *TFU*.

Expanding forests

6th Conference of the Parties to the Convention on Biological Diversity

7–19 April 2002

The Hague, the Netherlands

This conference was particularly relevant to forests because of a proposed 'expanded program of work on forest biological diversity'. Delegates began negotiating a decision to adopt the expanded work program (which had been drafted earlier by what is called the Subsidiary Body on Scientific, Technical and Technological Advice—SBSTTA) on Tuesday 9 April and finished on the conference's last day. One of several points of contention was the level at which priorities for implementing the expanded work program should be set. Some countries argued that this should be done only at the national level, while others

suggested that regional or global priority-setting would complement national efforts. In the end, the agreed text recognised “that Parties should implement the expanded programme of work ... in the context of their national priorities and needs. Activities implemented domestically by Parties will be prioritized based on country and regionally specific needs, national determination, legislation, circumstances and priorities ...”.

The decision requested the Convention's Executive Secretary to initiate a number of actions, including—in collaboration with the Coordinator of the UNFF—a comparative study to clarify the “conceptual basis of the ecosystem approach in relation to the concept of sustainable forest management”. Another action, again in collaboration with the Coordinator of the UNFF and also with members of the Collaborative Partnership on Forests, is to assess the relationship between the IPF/IFF proposals for action and the CBD's expanded work program. And another is to develop case studies on the effects on forest biodiversity of insufficient law enforcement. The decision also established an ad hoc technical expert group to provide advice in the review of the program's implementation.

More than a hundred ministers, vice-ministers and representatives of ministers met during the conference. As in the UNFF, they issued a declaration in which “we, the Ministers responsible for the implementation of the Convention on Biological Diversity” acknowledge “that life is on the line and therefore [we] resolve to strengthen our efforts to put in place measures to halt biodiversity loss, which is taking place at an alarming rate, at the global, regional, sub-regional and national levels by the year 2010.” The ministers also committed themselves to “full implementation of the ... expanded action-oriented work programme on all types of forest biological diversity” in close cooperation with the UNFF, and other conventions and forest-related processes “and with the involvement of all relevant stakeholders”.

Edited
by
Alastair
Sarre

► **Smouts, M-C. 2001. Forêts tropicales jungle internationale: les revers d'une écopolitique mondiale. Presses de la Fondation Nationale des Sciences Politiques, Paris. ISBN 2-7246-0852-6. €29.50**

Available from: Presses de Sciences Po, 44, rue du Four, 75006, Paris, France; info@presses.sciences-po.fr; www.sciences-po.fr



Simply, this is a brilliant book. Focusing on today's tropical forestry issues but written by a non-forester, it is recommended reading to all parties—from forest specialists to the lay public—interested in the 'hot' tropical forestry issues under discussion internationally. The book shows how tropical forest conservation became an issue for the international community, mainly because of its relevance to biodiversity and climate change; on their own merits, the conservation and sustainable management of tropical forests are of rather low priority in global debates and this is evidenced by the limited and dwindling resources they can attract. The book also identifies and analyses the motivations and *modi operandi* of the major actors in the international arena, highlighting the leading roles of non-governmental organisations in selecting the topics that should emerge as priorities.

The international community has sustained a tropical forests debate for some years now. According to the author, the incessant quest for consensus, the lack of clarity or unanimity in the concepts and definitions, the relatively unsuccessful role played by forest scientists, the very variable situations encountered in different parts of the tropics, the wide range of outcomes of attempts at sustainable forest management, and the differences in the agendas of the major actors have all helped prevent or delay major decisions on issues connected to tropical forests and therefore to maintain tropical forests in the international agenda.

Sourced from an abundant bibliography and interviews with many actors and 'fleshed out' with various well-documented case studies, *Forêts Tropicales Jungle Internationale* analyses almost all the major issues discussed in connection with tropical forests, sometimes with quite new perspectives and occasionally with slashing insight and almost always at least shedding new light on some well-established concepts. These include: tropical forest deforestation/degradation; competition for land uses in the tropics; illegal logging; overcapacity of timber industries in some tropical countries and their quest for resource supply; the involvement of and benefits accruing to local communities; criteria and indicators for sustainable

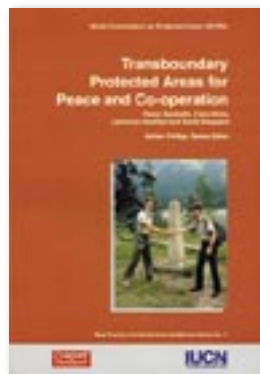
forest management; carbon sequestration, climate change and the Kyoto Protocol; substitution and boycotts of tropical timber products and certification; timber industry, trade and environment; international cooperation, the Global Environment Facility, the United Nations Forum on Forests and so on; all these hot potatoes are discussed and analysed with insight in the book.

The author's analysis does not attempt to establish a definitive truth on these issues. To the contrary, some of her assertions are highly controversial and are likely to trigger some fiery debates. Tropical forest politics have never been short of these, but the new perspectives offered by the book might make them more productive.

Review by Emmanuel Ze Meka, Assistant Director, ITTO Division of Forest Industry

► **Sandwith, T., Shine, C., Hamilton, L. and Sheppard, D. 2001. Transboundary protected areas for peace and co-operation. IUCN, Gland, Switzerland and Cardiff University, Cambridge, UK. ISBN 2-8317-0612-2.**

Available from: IUCN, Rue Mauverney 28, CH-1196 Gland, Switzerland; Tel 41-22-999 0001; Fax 41-22-999 0002; www.iucn.org



A transboundary protected area is defined in this publication as 'an area of land and/or sea that straddles one or more boundaries between states, sub-national units ..., autonomous areas and/or areas beyond the limits of national sovereignty or jurisdiction, whose constituent parts are especially

dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed co-operatively through legal or other effective means'. Among other things this publication presents guidelines for good practice in such reserves and proposes a code for transboundary protected areas in times of peace and armed conflict.

► **CONTRADROGAS 2001. Lineamientos de gestión forestal para el desarrollo alternativo (Forest management guidelines for alternative development). Lima, Peru.**

Available from: lflores@contradrogas.gob.pe or jocana@contradrogas.gob.pe

This book and a multimedia CD-ROM were produced in order to help the communities in the coca-growing valleys to generate additional income and to repair the environmental damage caused by illegal crops such as coca, poppy, etc, offering for the first time a training manual for successful forest management. Both materials are the result

of the efforts made by INDUFOR Oy Forestry Consultants and CONTRADROGAS with the support of Dr Mykko Pyhala, Ambassador of Finland, whose government funded this work under the auspices of the National Institute for Natural Resources (INRENA).

▶ **Hou Yuanzhao (ed.) (undated).** *Tropical forest environmental resources of China.* ITTO, Yokohama, Japan and Chinese Academy of Forestry, Beijing, China.

Hou Yuanzhao (ed.) (2001). *Forest environmental value accounting. Proceedings of the International Symposium on Forest Environmental Accounting, 9–12 October 2001.* ITTO, Yokohama, Japan and Chinese Academy of Forestry, Beijing, China.

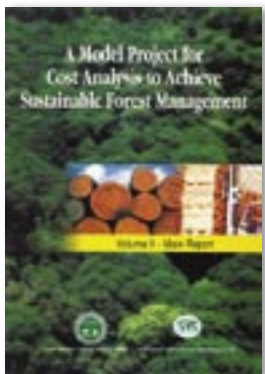
English version available from: ITTO Information Officer, Yokohama, Japan; itto@itto.or.jp (see page 2 for postal address and fax number); **Chinese version available from:** Mr Hou Yuanzhao, Chinese Academy of Forestry, Beijing 100091, China; Fax 86–10–6288 4836; houyuanzhao@163.net



Both these volumes are outputs of ITTO PROJECT PD 39/98 REV.2 (M). According to the editor, *Tropical Forest Environmental Resources of China* is the first book to systematically describe China's tropical forest resource. The second volume contains the papers presented at an international conference on forest environmental value accounting, the first of its kind ever held in China.

▶ **Abdul Rahim, N. 2002.** *A model project for cost analysis to achieve sustainable forest management. Two volumes: 'Synthesis report' and 'Main report'.* Forest Research Institute Malaysia, Kuala Lumpur, and ITTO, Yokohama.

Available from: ITTO Information Officer; itto@itto.or.jp (for postal address and fax number see page 2).



This publication presents the results of ITTO PROJECT PD 31/95 REV. 3 (F), which was implemented by the Forest Research Institute Malaysia with funding from the governments of Japan and the Netherlands. The project investigated the financial costs and benefits of two forest management systems: one that complied

with the Malaysian criteria and indicators for sustainable forest management (MC&I), and one that employed 'conventional' (and usually highly damaging) practices. It found that only through payment for the environmental

services offered by forests such as biodiversity conservation, carbon storage and water supply can sustainable forest management—as defined by the MC&I—be a financially competitive land use.

▶ **Appanah, S. and Kleine, M. 2001.** *Auditing of sustainable forest management: a practical guide for developing local auditing systems based on ITTO's criteria and indicators.* FORSPA Publication No. 26/2001. Forestry Research Support Programme for Asia and the Pacific, Bangkok.

Available from: S. Appanah, Senior Programme Adviser, FORSPA, c/o FAO Regional Office for Asia and the Pacific, Phra Atit Road, Bangkok 10200, Thailand; Simmathiri.Appanah@fao.org



This guide is intended to assist the development of local, site-specific (forest management unit level) auditing systems for sustainable tropical forest management and is directed towards government officers and forest managers in private-sector companies.

▶ **Durst, P., Waggener, T., Enters, T. and Tan, L.C. 2001.** *Forests out of bounds: impacts and effectiveness of logging bans in natural forests in Asia-Pacific.* FAO, Bangkok. ISBN 974-7946-09-2.

Anon. 2001. *Regional training strategy: supporting the implementation of the code of practice for forest harvesting in Asia-Pacific.* FAO, Bangkok. ISBN 974-88439-5-5.

Enters, T. 2001. *Trash or treasure? Logging and mill residues in Asia and the Pacific.* FAO, Bangkok. ISBN 974-7946-12-2.

Available from: Patrick Durst, FAO Regional Office for Asia and the Pacific, 39 Phra Atit Rd, Bangkok 10200, Thailand; Tel 66–2–697 4000; Fax 66–2–697 4445; Patrick.Durst@fao.org



This trilogy produced by FAO's regional office in Bangkok presents the outcomes of several activities of the Asia-Pacific Forestry Commission. A separate executive summary is available for *Forests Out of Bounds*.

Making contact

I would like to make contact with foresters and others with interests in the full range of issues pertaining to plantations—the good and the bad.

Manuel Mollinedo
Escuela de Postgrado

CATIE
Turrialba 7170, Costa Rica
Apartamento 34-102
mmolline@catie.ac.cr
Preferred language: Spanish

Enforcing forest law

Sir

Thank you for highlighting the issue of forest crimes (*TFU* 12/1), something I think is long overdue. As a person involved in the enforcement of forestry law in my country, I can say that it is a very difficult issue to tackle. Forest crimes are not only done by illegal operators but also, I believe, by those given licence to extract timber.

To impose the law is not a simple task. Few if any forest officers are trained in handling criminals and do not carry arms. A concerted effort together with the military or the police would help but it is still up to the State to show political will;

it depends, in part, on how seriously the State views the losses from taxes foregone in such activities. The uniformed enforcement agencies need such political support and encouragement if they are to be effective; after all, they do not tackle illegal logging alone, but must deal with other, often much more chaotic law enforcement issues. To add salt to the wounds, corrupt practices in such enforcement agencies that are 'prevalent but always unproven' in such countries also facilitate illegal logging.

Until we have a law that says 'shoot on sight' (as I believe is the case against elephant poachers in some African states), there will not be much improvement in the situation. Illegal operators are much better equipped in terms of transportation, communications and arms. They have nothing to lose. At the end of the day, who is willing to die for the sake of those logs? Environmentalists?

Asan O.

(full name and address supplied)

Expanding on reduced impact logging

Alf Leslie's article on the trouble with reduced impact logging (RIL; *TFU* 11/2; reproduced in part in the

International Society for Tropical Foresters' *ISTF News*, December 2001) went right to the heart of an ongoing controversy in pointing out the weakness of the whole RIL issue when it isn't taken in the overall context of sustainable management.

RIL only reduces the apparent short-term impact of logging for the removal of a determined amount of forest stand volume. It bears little relation to the actual intensity of commercial timber removal, especially regarding frequency. Hence, focusing so much attention on reducing logging damage distracts efforts from the much more meaningful and significant aspect of timber harvest intensity and its regulation. What good would it do to have RIL techniques if timber harvesting were to be repeated every year on the same site? The exaggeration is intentional to make the point.

Logging intensity can be characterised in two aspects: static intensity (one-time logging) and dynamic intensity (frequency: ie cutting cycle). Implementing a cutting cycle requires a management unit large enough to accommodate a reasonable cutting cycle, generally taken to be between 20 and 30 years in tropical high forest (THF), and, at the same time, a large enough annual compartment so that static harvest intensity can be kept reasonably low. Such a management unit is intended to be sustainable.

As a result, sustainable management first of all depends on an adequate formulation of management units (what we in the United States used to call working circles), for which appropriate long range management plans must be developed, which in turn must specify the manner in which logging intensity is to be regulated and, if deemed necessary, the means by which productivity can be enhanced through silvicultural practices. Furthermore, each management unit must be put under administration to implement planning guidelines, including other aspects such as forest protection, road development and community participation and systematic continuous stand monitoring in order to provide reliable information for management decisions. Here we have the main ingredients for sustainable management.

So why all the fuss and bother trying to define sustainable management while we're in the process of losing our tropical forests? At least we have a conceptual structure on which to base management actions, and sustainable forest management is widely regarded as one of the potential alternatives to forest clearance. It is true that there are still more questions than answers, especially on how forest ecosystems respond to our actions.

The situation of insufficient information on forest responses indicates the need to include safety mechanisms in management efforts. One such mechanism involves a strategy of implementing two modes of management: a low intensity form in which adequately regulated logging is the only ▶

Useful sites on the internet



www.rds.org.co/noticias.htm

This is the website of the Network for Sustainable Development, providing news on a wide range of environmental issues relevant to Colombia.

Language: Spanish

www.elsemillero.net

El Semillero is a Colombian agroforestry company that promotes reforestation activities and technologies.

Language: Spanish

www.iisd.ca

This is the address of the International Institute for Sustainable Development's 'Linkages' website. It links to, among other things, the *Earth Negotiations Bulletin*, which reports the various international policy processes related to forests and other environmental issues.

Language: English, with some French

Biodiversity monitoring and assessment techniques

22 April–2 June 2003

Cost: US\$3780

This course covers the scope and relevance of biodiversity in terrestrial ecosystems, planning and approaches in assessing and monitoring biodiversity, genetic and population inventory methods, fauna and flora inventory, single and multi-species inventory, ecosystem and landscape diversity inventory, and analysis and interpretation of biodiversity data and information.

See below for contact details.

Application of GIS in natural resources policy research

13–26 May 2003

Cost: US\$1575

Course participants are expected to gain skills in the use of geographic information systems (GIS) data in policy assessment and resources management alternatives. The course will be composed of lectures, discussions and hands-on computer exercises.

See below for contact details.

Study tour on forestry and environment training management

13–26 May 2003

Cost: US\$4500

This course is designed to improve the knowledge, skills and attitude of participants on the diverse aspects of training management through visits and observation tours of various training institutions and agencies in the Philippines.

All courses in this box will be based in Laguna, the Philippines.

Contact: The Director, Training Center for Tropical Resources and Ecosystems Sustainability (TREES), College of Forestry and Natural Resources, University of the Philippines Los Baños, PO Box 434, College, Laguna 4031, the Philippines; Tel 63–49–536 2268; Fax 63–49–536 3340; trees@laguna.net

Integrated land use planning and environmental impact assessment

Cost: €1600

11–22 November 2002

Wageningen, the Netherlands

This course introduces the ecosystem and watershed approaches to integrated, multi-sectoral land use planning aimed at finding the optimum combination of land uses. It examines tools such as multi-criteria analysis and GIS that can be combined for making optimum decisions. It also looks at the concepts and tools of environmental impact assessment for predicting and preventing unwanted environmental effects, especially from the viewpoint of local communities.

See course right for contact details.

By featuring these courses, ITTO doesn't necessarily endorse them. Potential applicants are advised to obtain further information about the courses of interest and the institutions offering them.

stand 'treatment' (which should be kept near the minimum financially feasible intensity) and a more ambitious form which involves productivity enhancement through silvicultural treatment in addition to logging. The safety factor involves implementing the lower intensity mode over most of the management unit area, ie over most of each annual compartment, while confining silvicultural treatment to a small proportion of the area on an experimental basis. Treatment may include planting or stand improvement techniques. RIL, of course, is necessary in both modes. The approach is a strategy that combines the two modes of management to afford the highest likelihood possible of attaining sustainability (but permanent systematic long-term monitoring is essential). As an additional safety measure, unaltered areas of forest should be set aside within the management units.

Finally a comment on so-called near-zero impact management. This really is possible if we consider long-term 'real impact' instead of short-term 'apparent impact'. Real impact is a result of the ecosystem's actual response to alteration (our management actions, mainly logging) as well as the original impact. THF responds to alterations such as those caused by logging

Biodiversity assessment and monitoring for adaptive management

Cost: US\$4500

11 May–13 June 2003

This course is designed for resource managers, ecologists, biologists and environmental educators and consultants. It provides a framework for biodiversity assessment and monitoring, strengthened by a basic background in GIS and statistics. It also addresses the assessment and monitoring of vegetation, aquatic systems, arthropods, amphibians, reptiles, birds and mammals, and how all these can be integrated to develop site-based, multi-taxa monitoring for adaptive management.

Contact: MAB Program, Smithsonian Institution, 1100 Jefferson Drive, SW, Suite 3123, Washington, DC 20560-0705, USA; Tel 1–202–357 4793; Fax 1–202–786 2557; simab@ic.si.edu; www.si.edu/simab

ProForest/Oxford Forestry Institute 2002 summer training program

9–21 September 2002

Cost: starts at £100/day

This summer training program offers training courses in a range of subject areas, including certification, forests and climate change, mapping, integrated pest management, sustainable forest management, mensuration and yield estimation, environmental impact assessment, forest ecology, monitoring, standards development, biodiversity surveying and monitoring, tree improvement and auditing.

Contact: ProForest, 58 St Aldates, Oxford OX1 1ST, UK; Tel 44–1865243 439; Fax 44–1865790441; info@proforest.net; www.proforest.net

Sustainable forest management and biodiversity conservation

Cost: €1600

28 October–8 November 2002

Wageningen, the Netherlands

The central theme of this course is how to develop adaptive forest management plans in different organisational and physical settings, taking account of the international and national policy framework. Issues include certification for sustainable forest management, the Convention on Biological Diversity, and decentralisation and democratisation processes. Special attention is given to poverty alleviation and to financial and economic aspects.

Contact: IAC, PO Box 88, 6700 AB Wageningen, the Netherlands; Tel 31–317–495 495; Fax 31–317–495 395; training@iac.agro.nl; www.iac.wageningen-ur.nl

by 'healing its wounds' through ecologic succession mechanisms (gap succession), ie what silviculturists have always considered 'weed growth'. In other words, what initially appears to be heavy impact eventually is cancelled out by spontaneous growth composed largely of vines and sprouts of species whose ecological niche is gap-filling. But this healing is only possible if the frequency of logging is such as to allow the process to be completed.

Lawrence W. Vincent

Retired professor

Universidad de los Andes

Mérida, Venezuela

and

forest management consultant

Merida, Venezuela

16 April 2002

For more information on Professor Vincent's approach to tropical high forest management see www.cmb-lwv.com.ve/thfmgt.htm

▶ 31 July–2 August 2002.

2nd Congreso Forestal Latinoamericano: Bienes and Servicios del Bosque Fuente de Desarrollo Sostenible. Guatemala City, Guatemala. **Contact:** Julieta Calderón Pontaza; conflat@c.net.gt

▶ 14–21 August 2002. **17th World Congress of Soil Science: Confronting New Realities in the 21st Century.** Bangkok, Thailand. **Contact:** Congress Office, Kasetsart University, Box 1048, Bangkok 10903, Thailand; o.sfst@nontrj.ku.ac.th

▶ 27–30 August 2002. **Forestry Serving Urbanised Societies.** IUFRO (European Regional Conference). Copenhagen, Denmark. **Contact:** Cecil Konijnendijk, Skov & Landskab, Hoersholm Kongevej 11, DK-2970, Hoersholm, Denmark; Tel 45-45763200; Fax 45-45763233; cck@fsl.dk; <http://iufro.boku.ac.at/meetings/europe2002/>

▶ 26 August–4 September 2002. **World Summit on Sustainable Development (Rio +10).** Johannesburg, South Africa. **Contact:** Johannesburg Summit Secretariat, Division for Sustainable Development, United Nations Department of Economic and Social Affairs, Two United Nations Plaza, DC2-2220, New York, NY 10017, USA; dspd@un.org; www.johannesburgsummit.org

▶ 3–5 September 2002. **II Latin America Symposium on Forest Pests.** Belo Horizonte, Brazil. **Contact:** Prof. José Cola Zanúncio; Tel 55-31-3899 1185; Fax 55-31-3899 2476; sifdc@mail.ufv.br

▶ 9–14 September 2002. **5th Pacific Regional Wood Anatomy Conference.** Yogyakarta, Indonesia. **Contact:** Joko Sulisty, Faculty of Forestry, Gadjah Mada University Bulaksumur, Yogyakarta, Indonesia; Tel 62-274-550 541; Fax 62-274-550 541; gmu02@5th-prwac.org

▶ 19–21 September 2002. **III Seminar on Integrated Management and Forest Certification.** Viçosa, Brazil.

Contact: Prof. Sebastião Renato Valverde, Federal University of Viçosa; valverde@mail.ufv.br

▶ 23–28 September 2002. **VI Congreso de la Asociación Latinoamericana de Estudiantes de Ciencias Forestales.** Eheredia, Costa Rica. **Contact:** marianelag@costarricense.com

▶ 24–25 September 2002. **Malaysian Timber Marketing Convention.** Kuala Lumpur, Malaysia. **Contact:** MTMC 2002, Level 18, Menara PGRM, 8 Jalan Pudu Ulu, 56100 Cheras, Kuala Lumpur, Malaysia; Tel 603-982 1778; Fax 603-982 8999; mtmc@mtc.com.my

▶ 29 September–5 October 2002. **International Seminar on New Roles of Plantation Forestry Requiring Appropriate Tending and Harvesting Operations.** Tokyo, Japan. IUFRO 3.04. **Contact:** Japan Forest Engineering Society Office, c/o Laboratory of Forest Utilization, Graduate School of Agricultural and Life Sciences, University of Tokyo, 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan; Fax 81-3-5841 7553; jfes-office@fr.a.u-tokyo.ac.jp; <http://jfes.ac.affrc.go.jp/iufro2002.html>

▶ 1–3 October 2002. **International Seminar on Advances in Genetic Improvement of Tropical Tree Species.** Yogyakarta, Indonesia. **Contact:** Anto Rimbawanto, Molecular Genetics Laboratory, Centre for Forest Biotechnology and Tree Improvement, Jl Palagan T. Pelajar Km 15, Purwobinangun – Pakem, Yogyakarta 55582, Indonesia; Fax 62-274-897 305; rimba@indo.net.id

▶ 7–10 October 2002. **Conference on Bringing Back the Forests: Policies and Practices for Degraded Lands and Forests.** Kuala Lumpur, Malaysia. **Contact:** Alias Abdul Jalil, Forest Research Institute Malaysia (FRIM); Tel 60-3-6272 2516; Fax 60-3-6277 3249; foreconf@apafri.upm.edu.my; www.apafri.upm.edu.my/mod/abc.html

▶ 14–18 October 2002. **Interpraevent 2002 in the Pacific Rim: Protection of Habitat against Floods, Debris Flows and Avalanches caused by Heavy Rainfall, Typhoon, Earthquake and Volcanic Activity.** Matsumoto, Japan. **Contact:** Japan Society of Erosion Control Engineering, Sabo Kaikan, 2-7-5 Hirakawa-cho, Chiyoda-ku, Tokyo, 102-0093 Japan; Tel 81-3-3263 6701; Fax 81-3-3263 7997; IPR2002@ics-inc.co.jp; www.sabopc.or.jp/IPR2002

▶ 27–31 October 2002. **International Seminar on Strategies to Develop Sustainable Bioenergy Production Systems.** Belo Horizonte, Brazil. **Contact:** Prof. Laércio Couto; Tel 55-31-3899 1185; sifdc@mail.ufv.br

▶ 29 October–1 November 2002. **Global Mountain Summit.** Bishkek, Kyrgyzstan. **Contact:** Andrei Iatsenia; Tel 41-22-917 8273; Fax 41-22-917 8036; iatsenia@unep.ch; www.globalmountainsummit.org

▶ 3–15 November 2002. **12th Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora.** Santiago, Chile. **Contact:** CITES Secretariat, International Environment House, Chemin des Anémones, CH-1219 Châtelaine, Geneva, Switzerland; Tel 41-22-917 8139; Fax 41-22-797 3471; cites@unep.ch; www.cites.org

▶ 4–9 November 2002. **33rd Session of the International Tropical Timber Council.** Yokohama, Japan. **Contact:** Collins Ahadome; Tel 81-45-223 1110; Fax 81-45-223 1111; itto@itto.or.jp; www.itto.or.jp

▶ 5–7 November 2002. **MADETEC 2002: Technologies and Uses of Wood Reforestation.** Belo Horizonte, Brazil. **Contact:** Prof. Laércio Couto; Tel 55-31-3899 1185; sifdc@mail.ufv.br

▶ 10–15 November 2002. **EucProd: International Conference on Eucalypt Productivity.** Hobart, Tasmania. **Contact:** Penny Archer, Conference Design Pty Ltd, PO Box 342, Sandy Bay, Tasmania 7006, Australia; Tel 61-3-6224 3773; Fax 61-3-6224 3774; mail@cdesign.com.au; www.cdesign.com.au/eucprod

▶ 11–17 November 2002. **Collaboration and Partnerships in Forestry.** Santiago, Chile. IUFRO 6.00.00. **Contact:** Susanna Benedetti, Instituto Forestal, Casilla 3085, Santiago, Chile; Tel 56-2-693 0722; Fax 56-2-638 1286; sbenedet@infor.cl

▶ 15–17 November 2002. **17th Session of the Global Biodiversity Forum.** Valencia, Spain. **Contact:** Caroline Martinet, IUCN; Tel 41-22-999 0216; Fax 41-22-999 0025; caroline.martinet@iucn.org; www.gbif.ch

▶ 11–15 March 2003. **Properties and Utilization of Tropical Woods.** IUFRO 5.03.00 and 5.06.00. **Contact:** Gan Kee SENG, Forest Research Institute Malaysia, 52190 Kuala Lumpur Kepong, Malaysia; Fax 60-3-636 7753; ganks@frim.gov.my

▶ 16–23 March 2003. **3rd World Water Forum.** Kyoto, Japan. **Contact:** Forum Secretariat, Tokyo; Tel 81-3-5212 1645; office@water-forum3.com; www.worldwaterforum.org

▶ 24–30 March 2003. **The Role of Planted Forests in Sustainable Forest Management.** Wellington, New Zealand. Sponsored by ITTO. **Contact:** ECPF Secretariat, c/- International Policy, Ministry of Agriculture and Forestry, PO Box 2526, Wellington, New Zealand; Fax 64-4-498 9891; plantedforestrymeeting@maf.govt.nz; www.maf.govt.nz/unff-planted-forestry-meeting

▶ 6–11 April 2003. **International Workshop on Gmelina arborea.** Samarinda, East Kalimantan, Indonesia. **Contact:** Bill Dvorak, Box 7626, Grinnells Lab. NCSU, Raleigh, NC 27695 USA; info@CAMCORE.org; www.CAMCORE.org

▶ 12–17 May 2003. **34th Session of the International Tropical Timber Council.** Panama City, Panama. **Contact:** Collins Ahadome; Tel 81-45-223 1110; Fax 81-45-223 1111; itto@itto.or.jp; www.itto.or.jp

▶ 26 May–6 June 2003. **3rd Session of the United Nations Forum on Forests.** Geneva, Switzerland. **Contact:** Mia Soderlund, UNFF Secretariat; Tel 1-212-963 3262; Fax 1-212-963 4260; unff@un.org; www.un.org/esa/sustdev/forests.htm

▶ 8–17 September 2003. **V World Parks Congress.** Durban, South Africa. **Contact:** Peter Shadie, Executive Officer, 2003 World Parks Congress, IUCN Programme on Protected Areas, Rue Mauverney 28, 1196 Gland, Switzerland; Tel 41-22-999 0159; Fax 41-22-999 0025; pds@iucn.org; <http://wcpa.iucn.org/wpc/wpc.html>

▶ 21–28 September 2003. **XII World Forestry Congress.** Quebec City, Canada. **Contact:** XII World Forestry Congress, PO Box 7275, Charlesbourg, Quebec G1G 5E5, Canada; www.wfc2003.org

▶ 19–31 October 2003. **6th Conference of the Parties to the Convention to Combat Desertification.** Bonn, Germany. **Contact:** CCD Secretariat; Tel 49-228-815 2800; Fax 49-228-815 2898/99; secretariat@unccd.int; www.unccd.int

▶ 8–13 August 2005. **XXII IUFRO World Congress.** Brisbane, Australia. **Contact:** Dr Russell Haines, Queensland Forestry Research Institute, PO Box 631, Indooroopilly 4068, Australia; Tel 61-7-3896 9714; Fax 61-7-3896 9628; hainesr@qfri1.se2.dpi.qld.gov.au; <http://iufro.boku.ac.at>

of more than 100%, an increase in industry employment of 20%, and a fivefold increase in the area of commercial timber plantations to 300 000 hectares.

Policies must change

The formulation of forest policy in PNG has always been an area of great public interest. Rightly so: forests cover a large part of the country's land area and are owned by perhaps five million people. Their management clearly involves and affects a broad range of stakeholders and participants.

The timber industry is subject to constant change, both in terms of markets and technological improvements. Policies relevant to the sector must be adaptable and responsive to these changes; they should encourage development within a framework that recognises and promotes sustainable development. Key elements to be incorporated include: resource-base security, both for existing and any new forest-based industrial development; economic sustainability; and social sustainability, which incorporates appropriate environmental measures.

Much progress has been made in PNG following the adoption of the National Forest Policy of 1991. However, while this policy contains much that is good, implementation has faltered, particularly in recent times: different stakeholders, notably some internationally financed organisations, are seeking to impose priorities on sectoral development which may not be in the PNG national interest but are seen as part of broader 'global' priorities which PNG must accept.

For PNG to now achieve the stability in its forest sector necessary for future growth, there is an urgent need to address some key areas of forest policy failure. Most critically, the World Bank's policy and loan conditionalities, which have been imposed on PNG in exchange for budgetary and structural adjustment support since 1995, need to be thoroughly reviewed. Little consideration appears to have been given to the impact of Bank-imposed restrictions on forest management or the future development of forest-based enterprises. But the cumulative effect has been devastating.

Forest revenue system

A complete review of the PNG forest revenue system, incorporating all taxes and charges to industry and landowner payments, is also needed. Three World Bank-sponsored reviews since 1997 have produced nothing in the way of a workable, market-responsive system. In fact, nothing has changed despite an estimated four million kina of PNG money having been spent on these studies.

The forest revenue system must be made a tool for improving forest management, not just for generating government revenue. It should provide incentives for the private sector to pursue sustainable forest management and plantation development. It must address taxation and individual forest investment, the pricing and allocation of logs, and the cost of infrastructure. It must encourage PNG foreign investment



Sporting chance: the PNG Forest Industries Association says policies need to create a level playing field if the local timber industry is to be competitive in the global market. *Photo: A. Sarre*

and confer fiscal stability. It should encourage added value timber production and it should address the issue of log exports: the forest industry is currently the only rural industry in PNG that is taxed on production costs.

Conclusion

PNG's forest industry can assist in alleviating the country's economic crisis under a sustainable development regime by generating employment and revenues through the continuing development of major export markets in the global forest economy. This can only happen if:

- PNG becomes more aware of its role in the global economy; it cannot afford to continue its isolationist forest policies. Interventions in recent years by the national government have often been at odds with global trends in the forest and environmental sectors, severely restricting PNG's ability to manage and develop an internationally important resource;
- PNG handles its forest policies objectively and in a global context. Otherwise, it will place the responsible industry in jeopardy and major economic opportunities will be foregone, causing PNG's current account deficit to remain unnecessarily high;
- PNG's national government properly presents the country's environmental issues in international policy arenas. The current mood of influential environmental groups in PNG appears irrational and irresponsible and the national government is unable to make hard decisions; and
- There is further development of PNG forest practices in order to achieve sustained management of the three types of wood resource (natural forests, secondary forests, and plantations) currently available in PNG.

Policies must change if PNG's forest industries are to survive and thrive

by Dick McCarthy

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PAPUA NEW GUINEA'S forest industries make a substantial contribution to national development. The forest sector has invested some US\$600 million and directly employs between 10 000 and 15 000 people, or 5% of PNG's total paid workforce. The forest industries contribute about US\$270 million to the country's GDP each year, together with some US\$85 million in export taxes and other levies to government. Moreover, PNG's forest industries provide employment and services in rural areas, where other economic activities are often scarce. Landowners receive approximately US\$20 million each year in direct payments from the sector for the right to harvest timber on their lands.

Most Papua New Guineans regard forest products as essential to their lives. Everyone uses timber in their homes and workplaces and a wide range of paper products in their daily lives.

Wood is viewed not only as a natural, renewable, energy-efficient resource but also as an increasingly strategic resource for tomorrow. This is because PNG must find replacement export industries by 2010 for some large mining projects that will be closing. The forest industries will need to make an increasingly significant contribution to the country's economy.

Export potential

The resource base of the entire industry—harvesting, sawmilling, wood chip production, veneer production, plywood manufacture, furniture manufacture and plantation development—occupies only 3.7 million hectares, or less than 10% of the country's land base of 46 million hectares. The potential for a vibrant export industry based on this resource is great: by 2010 PNG's domestic industrial wood consumption will be an estimated 591 000 m³, yet the annual sustainable yield of industrial wood is estimated to be 3.3 million m³. This means that PNG could have some 2.7 million m³ for sale in the global marketplace annually. (However, data on the forests are not particularly reliable: completion of the national forest inventory should be accorded the highest priority, since this is the foundation on which effective and appropriate forest management and development should proceed.)

... the World Bank's policy and loan conditionalities, which have been imposed on PNG in exchange for budgetary and structural adjustment support since 1995, need to be thoroughly reviewed.

Clearly, given the right policy environment, the PNG timber sector can contribute a great deal to national development goals. Technological innovations and market changes will provide PNG with a significant opportunity to increasingly utilise native hardwoods (from both the natural forest and



plantations) to manufacture a wide variety of domestic and export products. This will greatly add to the future value of natural and plantation forests and therefore to their retention and sustainable management. The PNG Forest Industries Association recognises the need to improve forest practices to achieve sustainable forest management in the natural forests. One of the Association's stated goals is to improve such practices and it is willing to work to this end with any parties who share the same objective.

The Association plan

The PNG Forest Industries Association has developed a forest industry plan for PNG covering the period 2001–2036 with the aim of ensuring an economically viable and sustainable timber industry within an environmentally acceptable framework. The plan aims to increase the sector's competitiveness and to provide incentives for investment in the industry. Critically, it aims to halt the decline of the existing industrial base through the erosion of investment capital due to impediments such as unsustainable and discriminatory taxation burdens, a lack of rural infrastructure development and maintenance, and a lack of reinvestment by the PNG Government in the forest sector. The plan addresses a wide range of issues, including resource security; administrative, industry and resource owner reforms; an expansion of forest plantations through investment strategies and the earmarking of revenues for resource replacement; the protection of other forest values by the earmarking of revenues for conservation and sustainable forest management practices; and the promotion of an expanded and skilled workforce.

We expect that implementation of the plan would result in an increase in the value of forest products production

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