

# Forest Certification in Indonesia

*Dwi Rahmad Muhtaman\**  
*Ferdinandus Agung Prasetyo\*\**

## ABSTRACT

Tropical deforestation and forest degradation in Indonesia is a serious concern of many stakeholders. About 16 million hectares of forestland in concessions is degraded. In addition, the lack of clarity of land tenure rights and ownership has given rise to significant conflict, which also contributes to unsustainable forest management. In response, domestic and international organizations have put considerable pressure on Indonesia to improve forest management policies and practices.

In 1990, the first ever developing country certification was carried out in Indonesia, when SmartWood certified Perum Perhutani's teak forest operation on the island of Java. In response to this and other NGO pressure, the Government of Indonesia established its own forest certification scheme – Lembaga Ekolabel Indonesia – in 1993.

In 1998, LEI was officially established as a foundation and since then has conducted several certification assessments. LEI and FSC have also developed a Joint Certification Protocol (JCP) that obliges FSC to use both LEI and FSC criteria and indicators when conducting an assessment of a forest management operation.

Despite its early arrival, poor forest practices, ineffective government policies, and forest-related conflicts over indigenous peoples' land rights have hindered certification's development in Indonesia. While many challenges remain, a few positive effects of certification have been noted. These include the establishment of a government incentive for companies to pass LEI certification, an increased willingness of companies to engage in public consultation, and the opening up of political space for NGOs and communities to express their concerns.

\* Dwi Rahmad Muhtaman,  
M.P.A., Project Consultant,  
CIFOR IFC Office: Bali Jeff  
Building Jl. Raya Puputan 488,  
Renon, Denpasar 80226, Bali,  
Indonesia

\*\* Ferdinandus Agung Prasetyo  
Researcher, Forest and  
Governance Program CIFOR  
Jalan CIFOR, Situ Gede,  
Sindangbarang, Bogor Barat  
16680, Indonesia  
a.prasetyo@cgiar.org



## INTRODUCTION<sup>1</sup>

Although its market-driven elements are often emphasized, forest certification actually encompasses much more: certification encourages collaboration, facilitates conflict resolution, builds confidence and trust, promotes partnership, and promises a premium price. These elements of a vision of what certification can achieve are a challenge to both private and communal forest managers. The implementation of certification in Indonesia has many unique features. Initially, not many parties welcomed the certification idea. However, international pressure, including boycotts of Indonesian wood products in Europe and the U.S., pushed forest certification onto the national forestry agenda.

The Government of Indonesia (GoI) developed an interest in certification as a result of its participation in the ITTO and the 1992 Earth Summit. At the ITTO, several meetings concluded in 1990 with a commitment by member states to achieve the sustainable management of natural tropical forests by the year 2000. Similarly, the non-binding Forest Principles adopted at the Earth Summit in 1992 put sustainable management of tropical forests on the agenda. The issue was made more urgent by growing environmental activism in North America and Europe demanding consumers to boycott tropical timber products. In response, the Indonesian government established its Standard and Criteria of SFM<sup>2</sup>, which were fully supported by a private sector organisation (APHI or *Asosiasi Pengusahaan Hutan Indonesia/Indonesia Forest Concessionaires Association*), which was similarly concerned about market access.

Indonesia's interest in certification as a way to achieve SFM was also stimulated by an international non-governmental organization (NGO) called the Rainforest Alliance, which introduced SmartWood Certification Program into the country when it assessed Perum Perhutani's teak operation on Java in 1990. Simultaneously, SmartWood built up contacts with local NGOs including LATIN (*Lembaga Alam Tropika Indonesia /Indonesian Tropical Institute*). While NGOs generally supported the idea of certification, some such as WALHI (*Wahana Lingkungan Hidup Indonesia/Indonesian Forum for Environment*) and SKEPHI (*Sekretariat Kerja Pelestarian Hutan Indonesia/Working Secretariat for Indonesia Forest Conservation*), questioned its feasibility in the Indonesian forestry context, where poor forestry and significant corruption existed alongside serious conflict with indigenous peoples.

With a variety of views about certification circulating, a *Kelompok Kerja Sertifikasi Lembaga Ekolabel Indonesia/LEI* (Certification Working Group of Indonesia Ecolabel Institute) was established in 1993 led by Emil Salim. The timing suggests that forest certification in Indonesia was also in part a response to the establishment of the Forest Stewardship Council (FSC), which had a founding meeting in Toronto, also in 1993. In the early years of its existence, the LEI working group concentrated on system and standard development; in 1998, however, the working group officially became the *Lembaga Ekolabel Indonesia*, an independent accreditation body.

The development of the LEI national standard raised the issue of its relationship with FSC. Although FSC was widely accepted by international markets, Indonesian stakeholders involved in LEI insisted that any Indonesian certification assessment

<sup>1</sup> This case study was conducted from January to June 2004. Given the limited documentation and research about certification in Indonesia, we depended on existing documents. We carried out a literature review and used notes from certification meetings as well as forestry mailing lists. We interviewed people involved with certification and sent a questionnaire to eight companies with certification experience. The personal experience of the authors has been an important component of the study. We are indebted to Asep Suntuana who provided a thorough review of an earlier draft. We also wish to thank the companies who returned their questionnaires and gave us useful feedback. We appreciate our colleagues in Indonesia who supplied us with knowledge and information. Certainly our colleagues in LEI who provided detailed information and helped make this study possible. The Symposium organizers played a key role in making the study, the symposium, the workshop and book possible, and we are thankful to them. A special thanks to Fred Gale for reviewing and giving input on the study.

<sup>2</sup> Achieved via two decrees: the Indonesian Ministry of Forestry decree No. 252/Kpts-11/1993 and decree No. 576/Kpts-11/1993, Regulation of Sustainable Forest Management.

should use the LEI system. The situation encouraged FSC and LEI to co-operate and, since 1998, all certification activities in Indonesia's natural forests have been done using both systems under a Joint Certification Protocol (JCP). This arrangement is supported by GTZ, the German donor agency.

Certification has been underway in Indonesia for about 10 years and considerable difficulties have been encountered. Challenges include a problematic external environment composed of inconsistent government policy, poor law enforcement, and corruption. This tough external environment, coupled with some high-profile cases of certification withdrawal, have encouraged detractors to conclude that certification cannot work in Indonesia unless there are fundamental changes in existing arrangements, in particular land tenure arrangements and the policy environment. However, in our view, this is an overly pessimistic conclusion. We believe that certification can make a practical difference at the level of the management unit and that it is assisting a modest number of companies to improve their performance.

## **BACKGROUND FACTORS**

### **Historical Context**

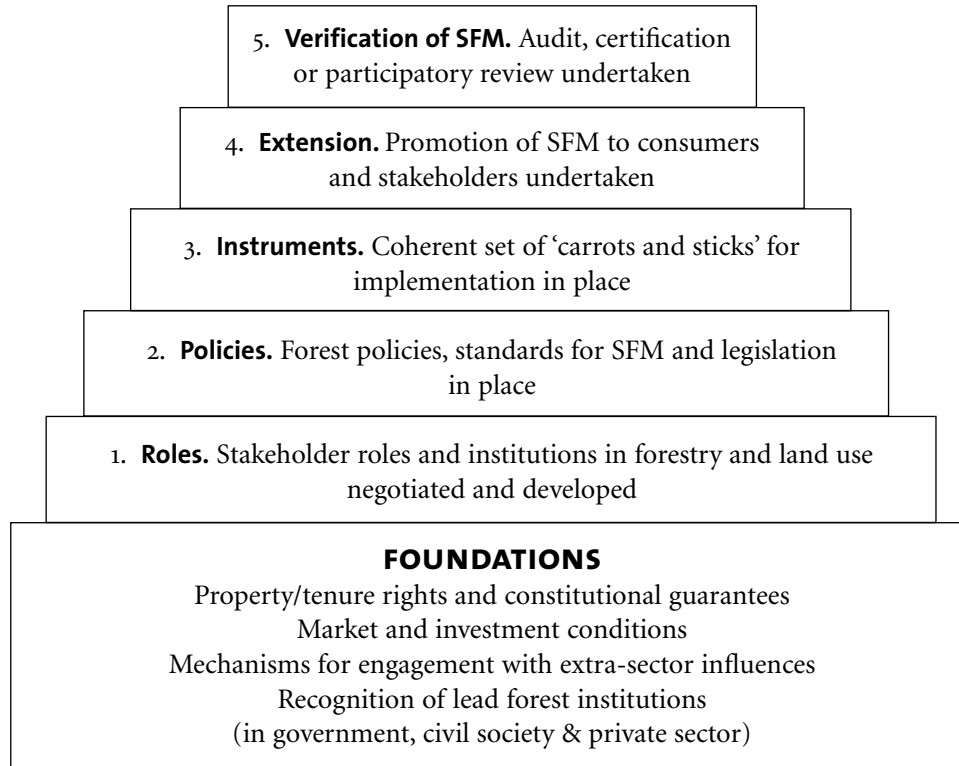
#### *Forestry Problems*

Forest fires, forest conversion and mismanagement are all proximate causes of deforestation and forest degradation in Indonesia. These factors also contribute to the loss of biodiversity (Agung 2001). However, underlying these proximate causes are a series of governance problems. The attainment of sustainable forest management (SFM) depends critically upon matters far from the forest itself, including the extent and quality of enabling policy, and legal and institutional arrangements (Mayers *et al.* 2002). The "pyramid" of forest governance when applied to Indonesia (Figure 1) illustrates many of these difficulties with problems in the foundational tier appearing in the form of forest-area conversion, land tenure overlap, unclear property rights, risky market and investment conditions, and social conflicts. These foundational problems reappear as problems in the forest sector in Tier 2 as policy failures with ineffective government incentives, heavy taxes and bribery. Good governance could make a substantial contribution to solving many of the problems located in the foundational tier.

One example of forest governance dysfunction is the tenure system. After more than three decades of operation, the HPH (*Hak Pengusahaan Hutan*/Forest Concessionaire Holder Rights) system has failed to achieve sustainable forest management (Tim Fakultas Kehutanan IPB 2002). It has been recorded that in 1998, almost 17 million hectares of forestland under concessions was in a degraded condition. Some of the degraded areas were then converted into other land uses. Ministry of Forestry data indicates that in 2002, approximately 4.7 million hectares of forestland was reclassified as non-forestry cultivated land. This tendency towards significant forestland reduction is likely to continue in the future as forests are cleared

for palm oil establishment (Forestry Statistics of Indonesia 2002). About 420 forest concessionaires were recorded as being in business in 1998, occupying a total area of 51.58 million hectares. Today, however, the number has fallen to 270 HPHs with a working area of 28.08 million hectares (Forestry Statistics of Indonesia 2002).

**Figure 1 The pyramid of good forest governance**



Note: the lower tiers in this pyramid are more difficult to build and are more important than the higher ones. The Foundational Tier is crucial, but is largely hidden from view and incorporates a large number of actors outside the forest sector.

Source: J. Mayers, S. Bass and D. Macqueen, *The Pyramid: A Diagnostic and Planning Tool for Good Forest Governance* (London: IIED 2002).

Another example of a forest governance failure in Indonesia is illegal logging. It has been estimated that 70 percent of forest products coming from timber processing mills is from illegal sources, an amount valued at approximately US\$3 billion in 2002 (Musthofid and Witjaksana 2002).<sup>3</sup> Wood-based industries use illegal logs because it is economically rational to do so since these are much cheaper than legal logs by about US\$50 per cubic meter (Mir and Fraser 2003). The widespread existence of illegal logs undermines the incentive to produce legally.

<sup>3</sup> Obidzinski (2003) has pointed out that patron-client dependency in natural resource utilization systems – including forestry in Indonesia – is a major reason why illegal logging is so difficult to suppress.

### *Policy Responses*

The policy response to the issue of poor governance has been to focus mainly on the proximate causes of deforestation and forest degradation and to downplay the structural causes, especially the tenure system. Efforts to bring about change include the introduction of various sustainability-related policies, including since 1972 the Indonesian Selective Cutting system. Nevertheless, due to improper implementation, Indonesia's forests continue to experience over-exploitation (Barr 1999, 2001; Brown 1999, 2001), which has been exacerbated by illegal logging. Illegal logging takes place on almost all forestland in the country, including national parks. While certification has been perceived as an innovative policy response with respect to illegal logging, it has been largely ineffective in protecting the country's forests and national parks because it is limited to the forest management unit level and because it is a voluntary not mandatory approach that focuses on internal management improvement. Because so much timber is illegal in Indonesia, considerable reliance has been placed on Chain of Custody (CoC) certification as a tool to enable the industry to prove that its logs come from certified sustainable forest. With a minimum supply of certified logs in Indonesia, there is a potential role to extend CoC certification to verify the legality of logs entering production, and not merely as a follow-up process of the certified forest management unit.

### **Structural Features**

#### *Ownership and Tenure*

The Indonesian government designates four major categories of forest. These are: (1) Conservation Forest, an area of about 19 million hectares designed to conserve biodiversity; (2) Protection Forest, an area of about 31 million hectares with the primary function of supporting the living system, such as providing potable water and preventing erosion and flooding; (3) Production Forest, an area of about 64 million hectares intended to produce timber in sustainable manner; and (4) Conversion Forest, an area of about 8 million hectares designed for non-forestry development. About 43 million hectares of Indonesia's forest has been degraded. Degraded forests exist not only in the Production Forest but also in the Protection and Conservation Forests. Summing these components up, the total forest is about 122 million ha, which is similar to the common view that Indonesia's total forest area is around 120 million ha. Forest Watch Indonesia provides data (Table 1), which shows a decline in forest cover of 15 percent between 1986 and 2000.

There are three main forest production management systems in Indonesia: KPH, HTI and HPH. The KPH (*Kesatuan Pemangkuan Hutan*/Forest Stewardship Unit) system has been developed in Java following the long history of plantation forestry dating back to the colonial era.

**Table 1 Forest area in Indonesia 1986-2000**

Forest Classification	1986		2000		Change in 1986-2000	
	Area (ha)	% Total	Area (ha)	% Total	Area Change	% Change
Production forest	31,850,000	23	35,200,000	29	3,350,000	11
Limited production forest	30,520,000	22	21,800,000	18	-8,720,000	-29
Protected forest	29,680,000	21	31,900,000	27	2,220,000	8
Conservation forest	18,250,000	13	23,300,000	19	5,050,000	28
Conversion forest	30,540,000	22	8,200,000	7	22,340,000	-73
TOTAL	140,840,000	100	120,400,000	100	20,440,000	-15

Source: Forest Watch Indonesia-Global Forest Watch. Potret Keadaan Hutan Indonesia. 2001: 18

The second forest management system is HTI (*Hutan Tanaman Industri*/Industrial Forest Plantation). Officially, the main purpose of HTI is “an activity to rejuvenate and revitalize forest lands in order to increase the potential of production forest to guarantee the availability of industrial material and is an effort to rehabilitate unproductive production forest. Many view HTI in practice, however, as a vehicle for earning more profits by cutting the logs in the HTI land clearing process” (Colchester *et al.* 2003).

The third forest management system is HPH (*Hak Pengusahaan Hutan*/natural forest concession holders). Indonesian corporations or individuals are only granted forest concessions by the Ministry of Forestry in production and limited production forest areas.

The Government established *Peraturan Pemerintah* (Government Decree) No. 21/1970, which grants rights to the private sector to manage HPH forest areas (Tim Fakultas Kehutanan IPB 2002; Brown 1999). The decree provided HPH holders a non-transferable 20 year right to cut timber, but obliged concessionaires to follow the principle of sustainable forest management as prescribed by the Indonesian selective logging and planting system (*Tebang Pilih Tanam Indonesia* or TPTI).

In addition to these three systems of tenure, Article 33 of the 1945 Indonesian Constitution stipulates that the State controls natural resources and their utilization. Acting on this authority, the Government of Indonesia controls, manages and administers the nation’s forests under the provisions of the 1967 Basic Forestry Law (Act 5), and the supporting rules and regulations. This arrangement contrasts significantly with that found in Papua New Guinea (PNG) where 97 percent of land is customarily owned (see PNG case study by Bun and Bewang, this volume), or in Solomon Islands where 90 percent of the forested lands is in traditional ownership (see Solomon Islands case study by Wairiu, this volume). In 1999, a new Indonesian Forestry Law No. 41/1999 was enacted, which helped strengthen forest conservation measures. Although recognized in the 1960 Agrarian Law, customary land rights (*hak tanah adat*) were not clearly acknowledged in the 1967 Basic Forestry Law, which sets

<sup>4</sup>The government of Indonesia through the State Ministry of Agraria Affairs/National Agrarian Board issued ministerial decree No. 5 Year 1999 on Guideline of Resolving Adat Land which highlights the principle of determining adat land (ulayat) and its claim implementation. This was introduced through *Peraturan Menteri Negara Agraria/ Kepala Badan Pertanahan Nasional No. 5 Tahun 1999 Tentang Pedoman Penyelesaian Masalah Hak Ulayat Masyarakat Hukum Adat*. Under the current legal structure, the ministerial decree does not have any teeth to enable implementation at the local government level. Since 1995, however, the government has encouraged local populations to take a more active role in forest management and the establishment of social forestry programs. This was supported by a decree in 1998 that authorised communities to undertake timber harvesting through cooperatives. Another similar programme is the Management of Forest Production by Traditional Societies, which involves non-government organizations (NGOs) working in partnership with local communities. Although not comprehensive, the new Forestry Law of 1999 does define some aspects of the property and other rights of local communities with regard to forestland. It defines a customary forest (*hutan adat*) as a state forest on the territory of a customary society (*masyarakat adat*) and acknowledges community rights 'as long as they are evidently in place and their presence is acknowledged and as long as their rights do not conflict with national interests'. *Peraturan Menteri Negara Agraria/Kepala Badan Pertanahan Nasional No. 5 Tahun 1999 tentang Pedoman Penyelesaian Masalah Hak Ulayat Masyarakat Hukum Adat*.

out land to be set aside as state forest and the purposes for which that forest land will be put aside. However, customary rights are given more emphasis in the 1999 Forestry Law (Kartawinata *et al.* 2001) although the government has been relatively powerless to enforce ownership rights and defend the legal status of forests.<sup>4</sup> The lack of provision for the rights of local communities has resulted in many conflicts between local communities and concession holders.

The prevailing conflict over land tenure suggests that the existing laws and regulations mentioned above have not clearly recognized the community land tenure and ownership system. In principle, all land and forests without formal ownership are owned by the state (Ruwiasuti 2000; Bachriadi *et al.* 1997). There are strong similarities between the Indonesian forestland ownership system and that of Malaysia (see Malaysia case study by Shahwahid, this volume). The rights of communities that have traditionally lived in and around the forests have been neglected or overruled.

Officially there is a HKM (*Hutan Kemasyarakatan*/community forestry) program, which commenced in 1998 by the Ministry of Forestry. HKM was designed to provide communities with access to state lands for planting trees (usufruct rights). However, HKM is not effective because it presents communities with serious administrative and procedural difficulties such as requiring them to obtain the legal status of forest management unit/community organization. Moreover, HKM regulations did not set out clearly who has authority to issue permits. In response to these difficulties, the HKM regulation was revised; however, instead of improving matters, procedures were made even more complicated, rendering HKM a failure.

### Markets

The average log production (round wood) for the past 7 years, whether from HPH, HTI, private forests or other sources, has only been capable of supplying a small percentage of overall domestic demand. For example, in 2001, these sources only supplied 37 percent of industrial raw material needs. The percentage of log production coming from natural forests using selective cutting decreased from 72 percent to 18 percent over the last seven years, while production from conversion forests increased significantly in the late 1990s, but has subsequently declined. Detailed figures are given in Table 2.

Forest products (plywood, sawn timber) are mainly exported to Asian countries such as Japan, Singapore, Taiwan, Hong Kong, China, and South Korea.

**Table 2 Log production by sources**

Year	Natural* Forest (m <sup>3</sup> )	%	Conversion Forest (m <sup>3</sup> )	%	Forest Plantation (m <sup>3</sup> )	%	Private Forest (m <sup>3</sup> )	%	Total (m <sup>3</sup> )
2001	1,809,099	18.0	2,323,614	23.1	5,918,766	58.9	0	0.0	10,051,479
2000**	3,450,133	25.0	4,564,592	33.1	5,294,604	38.4	488,911	3.54	13,798,240
1999/2000	10,373,932	42.2	7,271,907	29.6	6,019,107	24.5	895,371	3.6	24,560,317
1998/1999	10,179,406	53.5	6,056,174	31.8	2,162,546	11.4	628,818	3.3	19,026,944
1997/1998	15,821,397	53.6	10,162,081	34.4	2,247,190	7.6	1,289,654	4.4	29,520,322
1996/1997	15,268,135	58.6	8,021,329	30.8	2,097,812	8.0	682,006	2.6	26,069,282
1995/1996	16,943,933	68.2	5,398,196	21.7	2,383,049	9.6	124,883	0.5	24,850,061
1994/1995	17,308,737	72.0	4,708,697	19.6	1,871,737	7.8	138,106	0.6	24,027,277

Source: Forestry Statistics of Indonesia, Ministry of Forestry 2001

\* Annual production from TPTI (Tebang Pilih Tanam Indonesia/Indonesian Selective cutting and Planting System)

\*\*Data from April to December 2000

Other destinations include the European countries (UK, Netherlands, Belgium, Italy) and the USA and Canada. During the last 10 years, the export of plywood from Indonesia to North America and Europe decreased significantly, while that to Asia and Middle East remained healthy until 1996, when exports began to decline. These details are shown in Table 3.

**Table 3 Export destination and revenue from sawnwood and plywood**

Year	Product	USA & Canada (m <sup>3</sup> )	Europe & UK (m <sup>3</sup> )	Far East (ASIA) (m <sup>3</sup> )	Mid East (m <sup>3</sup> )	Others (m <sup>3</sup> )	Total (m <sup>3</sup> )	Value (US\$)
1991	Sawnwood	0	117	12,403	659	0	13,179	14,637,289
	Plywood	875,117	849,590	6,251,499	677,056	306,074	8,959,336	3,161,150,098
1992	Sawnwood	40	14	308	0	0	362	539,212
	Plywood	1,014,941	1,079,678	6,486,665	802,817	313,289	9,697,390	3,520,445,420
1995	Sawnwood	0	0	795	0	0	795	2,047,051
	Plywood	698,261	744,420	4,022,451	619,693	2,254,000	8,338,825	3,854,178,215
1996	Sawnwood	0	0	60	0	0	60	849,586
	Plywood	912,581	852,341	5,089,192	656,879	1,855,580	9,366,573	4,429,477,446
2000	Sawnwood	218	3,594	6,061	0	0	9,873	40,524,111
	Plywood	188,466	419,824	2,265,588	191,050	31,316	3,096,244	881,000,321
2001	Sawnwood	1,385	0	10,929	0	0	12,314	5,190,000
	Plywood	128,881	9,930	492,720	85,116	3,052	719,699	315,210,000

Source: Forestry Statistics 1992-2001, Ministry of Forestry

## THE EMERGENCE OF FOREST CERTIFICATION

### Initial Support

Certification started in Indonesia with an assessment of *Perum Perhutani* by SmartWood in 1990. After decades of struggle both through field action and policy intervention to prevent forest destruction due to logging operations, a few NGOs felt that certification could provide a tool for change and that it was (and is) an effective instrument to democratise forest resource management by making practices in forest concessions more transparent. It could also enhance public involvement in forest management through public consultation and monitoring and provide a “level playing field” and “learning arena” for sustainable forest management among interested parties including the private sector (concessionaires and industries), government, NGOs, academics, and communities.

Government interest in forest certification was stimulated by International Timber Trade Organization (ITTO) meetings in the late 1980s and early 1990s when members approved a set of “Guidelines for the Sustainable Management of Natural Tropical Forests” and agreed, in Bali, Indonesia, that producer members should develop national guidelines based on the ITTO model to encourage progress towards “Target 2000.” Neither “Target 2000” nor the ITTO guidelines made reference to certification, but both eventually served as “building blocks” for forest certification with the guidelines providing a technical basis for criteria and indicators and the year 2000 being seen by the Ministry of Forestry as the date by which the program should be implemented (Elliot 2000). At this point, the Government of Indonesia developed an interest in establishing an agenda for certification development. Unlike in Malaysia (where certification was led by the Ministry of Primary Industries) or Papua New Guinea and Solomon Islands (where it was driven by local and international NGOs and individuals) forest certification in Indonesia was driven by the Ministry of Forestry.

On the market side, wood products from Indonesia were threatened by environmental NGOs in Europe and the USA. Organisations in these countries called for a boycott and pressured governments to ban the use of tropical timber in public construction in various municipalities in Germany, Holland, the UK and the USA (Elliot 2000). The situation became more serious, however, in June 1992, when the Austrian parliament passed the “Federal Act on the Labelling of Tropical Timber and Tropical Timber Products as well as the Creation of a Quality Mark for Timber and Timber Products from Sustainable Sources.” This act made labelling of tropical timber obligatory in Austria, although following international pressure led by Indonesia and Malaysia, Austria revised the Act in the spring of 1993 and the obligatory timber labelling requirement was dropped in favour of voluntary labelling (Rametsteiner, quoted in Elliot 2000). Forest concession holders subsequently put certification on the Indonesian agenda because 40 percent of the country’s total exports were in product categories likely to be affected by an ecolabel. Both the Indonesian government and the private forestry sector organisation, APHI, began to promote the establishment of certification. While some Indonesian NGOs, such as RMI (*Rimbawan Muda Indonesia*/Indonesia Youth Forester, now called The Indonesian Institute for Forest

and Environment) and LATIN supported certification, others such as WALHI argued that certification could not be effective within the political structures of the day.

Rowland and Simpoha (1999) identified several constraints and challenges for certification in Indonesia that were of particular concern to NGOs. These included the perception that FSC required an absence of conflict over rights to forest concessions, an obligation that could rule out certification for nearly all the country's forestry concessions. But there was a policy problem as well. It was debatable whether Indonesia could afford to wait for certification to change attitudes and practices in the forestry sector in view of existing rates of deforestation and the extent of illegal logging. Influencing forest production indirectly through the global timber trade was considered to be a long-term process that depended on whether a sufficient market for 'eco-timber' really existed, whether consumers in the North were committed to purchasing certified timber, and whether profitable markets for uncertified wood and wood products remained.

### **Institutional Design**

To facilitate certification, changes to silvicultural policy in Indonesia were and are needed. Concessionaires are currently required by the terms of their concession licenses to undertake practices that contradict certification requirements. It is questionable whether certification can stimulate a policy change of sufficient magnitude in Indonesia's forest management system. Compounding these policy problems, there is a lack of community-level institutions for forest management after 30 years of virtual exclusion from the forest. The legal framework for community forestry is still unclear. For example, *hutan adat* rights and options are untested. The legal obstacles to recognising community rights are still considerable. It may be unrealistic to expect legal changes that bring them into line with certification standards in the near future. In response to this situation LEI launched a certification system and standard designed for community-based forest management that is now being trialed in the field.

In 1992 and early 1993, MPI (*Masyarakat Perhutanan Indonesia*/Indonesian Forestry Community) created a working group to develop Indonesian criteria for sustainable forest management. The group was coordinated by APhi with the proposed standard drawing mostly from ITTO's criteria and indicators. Professor Soerianegara from Bogor Agricultural University (IPB) headed up the team that developed this standard, which included academics and representatives from concessionaires. The Ministry of Forestry and the Ministry of the Environment chaired the APhi Group. Preparatory work on this had apparently started informally within MPI in 1990 after the ITTO meeting in Bali. However, the group was formally constituted and the link made between criteria and indicators and certification in 1992. The analysis of MPI seems to have been that the development of criteria and indicators for sustainable forest management and timber labelling was going to be inevitable in the future, and that they should take the lead in developing national criteria and indicators rather than run the risk of having them imposed (Elliot 2000).

Two options were debated at this time: to join the FSC process already under way, or to develop a national, independent certification process, system and standard separate from external processes. Stakeholders in Indonesia chose the second option and certification began as a producer-led initiative independent of other international initiatives, very much along the lines of Malaysia's National Timber Certification Council. However, both countries have since chosen to seek closer ties with international certification initiatives, most notably the FSC, with the aim of gaining international market recognition for their labels.

One reason behind this national certification initiative was that, if certification was coming, the Indonesian timber trade preferred to be a market leader, participating in shaping the system, rather than to have to adapt to an externally established system. In addition, there was a need for other mechanisms for evaluating the quality of forest management in Indonesia, a fact fully recognized by the Ministry of Forestry. Finally, there was increased pressure from Indonesian civil society for changes to the forestry sector, where many forestry practices marginalized the roles and rights of communities as forest beneficiaries (Elliot 2000).

At the end of 1993, Djameludin Suryohadikusumo, then-Minister of Forestry, announced that he had asked Emil Salim, a former Minister of the Environment and member of the Bruntland Commission, to develop a national forest certification system and establish the program's institutional arrangements. Salim then established the Indonesian Ecolabelling Working Group, an independent task force composed of individuals from NGOs and academia.<sup>5</sup> The working group began to take shape in early 1994 on the basis of a Memorandum of Understanding signed by Djameludin and Salim (Elliot 2000: 102).

There were three objectives of the LEI Working Group (*Kelompok Kerja Ekolabel Indonesia /Pokja Ekolabel*). These were to (a) develop criteria and indicators of sustainable forest management, (b) design a decision-making method for the forest certification process, and (c) design institutional arrangements for the formal establishment of the Indonesian Ecolabelling Institute (Salim *et al.* 1997). The basic principles of the LEI programme were defined as follows: to function as an independent, non-profit, third-party certification body; to encourage the implementation of the criteria and indicators and certification procedures and to make the final decision on issuing certificates; to ensure transparency throughout the certification process; to aim for mutual recognition of certification schemes internationally; to promote certification as an incentive not a punishment for concessionaires; and to implement certification on a voluntary basis.

The Pokja LEI process involved a variety of interest groups including the APHI expert team, the National Standardization Board (*Dewan Standardisasi Nasional/DSN*), NGOs, and experts from universities. The LEI standard itself draws from international documents, namely FSC's Principles and Criteria, ISO's 14000 series, and the ITTO's criteria and indicators. Before the establishment of the working group, a Ministerial Decree was adopted in April 1993 on "Criteria and Indicators for the Sustainable Management of the Natural Production Forest." The decree specified that the management of natural production forests would be considered sustainable if it

<sup>5</sup> In 1994 the membership of the group was as follows: Dr Emil Salim, Chair; Dr Riga Adiwoyo, Professor of economics, University of Indonesia; Ir Hariadi Kartodihardjo, PhD candidate in forest policy, Bogor Agricultural University; Ir., Haryanto R. Putro, forest conservation, Bogor Agricultural University; Ir Zaim Saidi (NGO-*Yayasan Lembaga Konsumen Indonesia*, a consumer advocacy group); Ir Asep S. Suintana, RMI-Indonesian Institute for Forestry and Environmental Research, an NGO; Ir Tri Nugroho and Suporaharjo, LATIN, Indonesian Tropical Institute, and NGO, and Ir Mia Siscawati, RMI. From 1994 to 1997 the membership of the group was essentially the same with one NGO representative (Nugroho) being replaced with another one. Tri Nugroho and Suporaharjo were not active after LEI became a Foundation.

complied with specified national and management unit level criteria and indicators as set out in an independent and credible certification system (Elliot 2000).

It is important to note that Pokja LEI made use of international sustainable forest principles and that a review was carried out to improve the implementation of environmental impact assessment (EIA), a weakness of forest management in Indonesia at this time (Kartodihardjo 2003).

This was a critical period for LEI in terms of its ability to establish a credible certification system. The Ministry of Trade and Industry and the Ministry of Environment relied on LEI to further develop certification for both forest and non-forest products. Heated discussions eventually led to consensus among the interest groups, mainly NGOs (who wanted the social and ecological aspects to be taken more seriously) and APHI (who had developed their own certification system). Harmonization of diverging views took place, resulting in the certification system that is now being implemented. The establishment of the working group prevented APHI's criteria and indicators from being imposed on the country as a national standard and subsequently the APHI initiative evolved into an internal auditing system to help concessionaires prepare for certification (Elliot 2000).

A consensus emerged between the LEI Working Group and APHI to harmonize the certification standard at this time, even though the former contained stronger social and environmental provisions. By the end of 1996, the main elements of the LEI forest certification programme were in place and in April the draft standard was submitted to the Indonesian National Standards Body for approval. In April 1997 a workshop was held between the Ministry of Forestry, APHI and LEI at which the three institutions agreed that LEI's criteria and indicators were acceptable and this agreement can be seen as a key stage in the programme development phase (Elliot 2000).

Field tests and system improvement were conducted intensively during this period and an effort was made to build up certification and assessment expertise. Given LEI's multifarious role, it organized several training sessions for assessors, established expert panels, and put in place the infrastructure for accreditation. Pokja LEI was officially established as a foundation in February 1998 as *Yayasan Lembaga Ekolabel Indonesia* (LEI) and in June of that year, LEI's criteria and indicators for natural forest management were adopted as the Indonesia National Standard.

**Table 4 Forest Stewardship Council (FSC) and Lembaga Ekolabel Indonesia (LEI) comparison**

Items	FSC	LEI
Standard	<ul style="list-style-type: none"> <li>• More focus on conservation.</li> <li>• 10 principles and 56 criteria designed for global application.</li> <li>• Certifiers develop indicators for specific jurisdictions.</li> <li>• Focus is on the implementation of planning documents.</li> <li>• Places emphasis on performance and SFM compliance.</li> <li>• Planning &amp; monitoring should be publicly accessible.</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on TPTI (selective cutting) and other forest management requirements set by government.</li> <li>• Criteria and indicators are tailored specifically to Indonesian forest conditions – 57 indicators (21 on production 19 on environment, and 17 on social requirements).</li> <li>• Verifiers defined to check that forest management implemented according to the standard.</li> <li>• Emphasis placed on the system applied by the forest management unit.</li> </ul>
Assessment process	<ul style="list-style-type: none"> <li>• Scoping is voluntary.</li> <li>• Assessments directly conducted by the accredited certifiers.</li> <li>• The weakest indicators are subject to pre-conditions.</li> </ul>	<ul style="list-style-type: none"> <li>• Screening by Expert Panel I (compulsory).</li> <li>• Scoping (compulsory).</li> <li>• Public meeting and certification monitoring is link with the established FKD (<i>Forum Komunikasi Daerah / Regional Communication Forum</i>).</li> <li>• Stronger indicators can compensate for weaker ones.</li> <li>• More criteria.</li> </ul>
Decision-making process	<ul style="list-style-type: none"> <li>• Decision to certify is responsibility of certifier.</li> <li>• At least two peer reviewers for decision verification.</li> <li>• FSC not involved in the decision making process.</li> </ul>	<ul style="list-style-type: none"> <li>• Decision-making done by an independent Expert Panel II based on data from the certifier assessment process.</li> <li>• Application of Analytical Hierarchy Process approach.</li> <li>• Assessors act as data enumerators/data collectors.</li> <li>• LEI makes decision to certify.</li> </ul>

Applications for Certification Bodies (CBs) were solicited at this time, and from 10 applications, four were approved and accredited to LEI: PT TUV International Indonesia, PT SGS ICS Indonesia<sup>6</sup>, PT Mutuagung Lestari and PT Sucofindo. From 1998, all assessments have been conducted by one of these accredited certification bodies. In 2000, in order to obtain public and international confidence in LEI as a credible system and to refine field assessment methods, LEI organised a workshop in cooperation with FSC that resulted in the establishment of the Joint Certification Program (JCP) in accordance with a Mutual Recognition Agreement (MRA). The purpose of JCP was to strengthen the bargaining position of LEI with respect to other forest certification initiatives, FSC included. The JCP was signed to convince foreign interests of the high degree of credibility of Indonesia's nationally based system. The JCP—signed in September 2000 by their respective accredited CBs operating in Indonesia, by the Executive Directors of both organizations, and by the GTZ representative—contained the following elements (LEI 2002). Both schemes should:

- Meet all the requirements of FSC and LEI;
- Use LEI's Criteria and Indicators (FSC's certifying bodies will use all LEI C&Is, including those exceeding FSC requirements as well as those additional FSC requirements not included in LEI's scheme);
- Oblige FMUs to pass both LEI and FSC system requirements to obtain certification (permitting the issuing of both certificates and the use of both logos);
- Make the FSC scoping requirement non-compulsory and determined by the FSC certifying body;
- Require public consultation as a fundamental component of the JCP;
- Make public summaries of the certification decision available in Bahasa Indonesia and English; and
- Conduct surveillance visits and appeal processes according to each system's requirements.

LEI's approach to certification is based on a "logical framework." The framework consists of two "dimensions" used to evaluate the quality of forest management in a concession. The first is the "sustainable forest management principles dimension", which covers the results of forest management. The second is the "management dimension," which addresses the inputs or strategies used to achieve sustainable forest management. The "sustainable forest management principle dimension" is divided into three functions: production, ecological, and social. Similarly, the "management dimension" is divided into three levels concerning forest resource management (at the level of the concession as a whole), forest stand management and institutional management. This framework has provided the basis of a set of criteria and indicators that are used for the evaluation of concessionaires' performance in the field.

<sup>6</sup> Since 2002 SGS Qualifor was replaced by SGS Malaysia. Meanwhile, PT SGS ICS Indonesia withdrew from the certification in November 2002 following a risk analysis of their forest certification business in Indonesia. (Personal communication with Daru Ascarya, Accreditation officer at LEI June 2004).

The final component of the LEI system is the use of the Analytic Hierarchy Process (AHP) for decision-making. AHP is used by Expert Panel 2 to weight the LEI criteria and indicators gathered by assessors in the field according to local social, ecological and economic conditions. The result of a LEI certification assessment is a grade on the certificate. The highest grade is gold, which means that the company has achieved sustainable forest management. Lower passing grades (silver and bronze) are given to concessions that are weak in one of the dimensions of sustainable forest management. Weaknesses in two dimensions, however, mean that the concession fails to be certified.

### Standards

Certification was designed to overcome, at the level of the management unit, the numerous forest management, social and environmental problems outlined earlier. To do this, LEI has developed several certification mechanisms and procedures for natural forest certification including a certification standard (SNI 5000 series), certification procedures (LEI 99 series), and a performance evaluation standard (LEI-01 and LEI-02). Standards for forest plantations are also completed. A community-based forest certification standard is under field-testing. The standard for natural forest management is the longest established, and therefore much of the focus of this section refers to this standard. In addition, the natural forest certification standard became the basis of later systems.

Certification standards are determined according to the certification activities. LEI 5000 Standards are based on a SFM system framework. Criteria, indicators and verifiers are discussed in more detail in LEI-01 standards, while the FMU performance values are determined using the LEI-02 document. The matrix in Table 5 shows how the management and production dimensions are combined and that each indicator represents a combination of dimensions. Table 6 elaborates on LEI classifications.

**Table 5 Matrix showing the management and production dimensions of LEI**

Management Dimension (Strategies for Achieving Results)	Production Dimension (Principles)		
	Production Sustainability	Environment Sustainability	Social Sustainability
1. <b>Area Management</b> (Compulsory Requirements) – <i>necessary conditions</i>	INDICATOR	INDICATOR	INDICATOR
2. <b>Forest Management</b> 2.1 Production 2.2 Environmental 2.3 Social (Core activities)	INDICATOR	INDICATOR	INDICATOR
3. <b>Organizational Management</b> (Desirable) – <i>sufficient conditions</i>	INDICATOR	INDICATOR	INDICATOR

Source: LEI 5000 Standards

**Table 6 Clarification of the main conditions for the social, environmental and production aspects in LEI**

NO.	ASPECT	MAIN CONDITION	CLARIFICATION
I.	SOCIAL	1. <b>Tenure system</b>	Land claims by local communities based on traditional ownership must be acknowledged.
		2. <b>Economic development of local Community</b>	If the local community relies on the forest for their livelihood, their activities should not be disturbed by the existence of the FMU.
		3. <b>Guarantee of social/cultural integrity</b>	No use of force (physical & non-physical) to solve problems with the workforce or the local community occurs.
		4. <b>Guarantee of community nutrition and health</b>	The FMU must be sensitive to the impact of its activities on the local community's health.
		5. <b>Guarantee of workers rights</b>	No unjust contract termination, health and safety should be provided, workers unions must be allowed, and salaries should be suitable to the local conditions.
II.	ENVIRONMENT	1. <b>Condition of the vegetation</b>	The structural composition of the forest stands should not change drastically, both within protected areas and other areas.
		2. <b>Condition of the wild life</b>	Logging activities should not disturb the biodiversity of animals and their habitats.
		3. <b>Soil and water conservation</b>	The level of erosion and water quality should not change as a result of forest exploitation. The FMU must have equipment for monitoring and evaluating its environmental impact.
III.	PRODUCTION	1. <b>Area status and security</b>	The area managed by the FMU must be free of land use conflicts in the long term. Both horizontal conflict with the local community (traditional land) and vertical conflicts due to inconsistent policies for land use allocation must be addressed. The FMU must be active in resolving conflicts.
		2. <b>Planning and harvesting techniques</b>	Harvesting should be well planned especially the yield schedule, and preparation of infrastructure must follow a set standard. Timber harvesting is done emphasizing environmentally friendly methods (RIL)
		3. <b>Silvicultural system and rehabilitation</b>	The FMU must implement post-harvesting activities in a realistic manner. The silvicultural system used should guarantee continual production for the long term in accordance with the forest condition
		4. <b>Timber management and reporting</b>	Any logs at the felling site, log landing or log pond are clearly identifiable
		5. <b>Organization and administration</b>	The FMU operations are supported by a professional organization and Standard Operating Procedures (SOP) are prepared, especially in forest fire management

The LEI standards provide several documents related to certification administration. Assessors, for example, should understand LEI doc-1 and LEI doc-2 for field assessment. Assessors must check the detailed indicators in the field as written in the LEI documents. This is different from FSC certification, which provides the assessor with a generic standard, which is then elaborated in the field unless an FSC national working group has developed national or regional standards. Where those exist, the FSC accredited certifier must then assess practices according to the endorsed national or regional standard.

## THE REACTION TO CERTIFICATION

### Forest Policy Community and Stakeholders

After more than ten years of operation in Indonesia, certification has been widely criticised by several parties. The most vociferous critics are NGOs led by WALHI and its international network (such as the Rainforest Foundation, Rainforest Action Network and Down to Earth). In March 2001 a workshop was organized by WALHI and attended by several NGOs and individuals on the subject of certification. At the end of the workshop participants signed a statement calling for a temporary halt to scoping, assessment and issuance of certificates to Indonesia's forest concessions—in effect, a forest certification moratorium. In its correspondence, WALHI does not oppose certification in principle but is opposed to certification in the current situation. Its position is that no certification of any logging concessions (HPH) can be credible as long as the concession system and legislation (such as the Forestry Act No.41/99) fail to grant local communities rights to their land and resources. The whole concession system must be revised and the borders of indigenous peoples' lands clearly defined (Down to Earth 2001).

In September 2000 ARuPA—a student forest advocacy group in Jogjakarta—issued a position paper criticizing the certification of Perum Perhutani done by SmartWood and its partner in Indonesia, LATIN. They argued that, based on their observations, KPH Perum Perhutani should not be certified due to ongoing social conflicts and illegal logging.

Some of the corrective actions requests (CARs) imposed on Perhutani were considered unrealistic. According to some national and local newspapers, ARuPA claimed that the log transport system was vulnerable to manipulation. Therefore, the issuance of CoC certificates for furniture industries in Java was not valid (Fuad and Astraatmaja 2000). The complexities of the Indonesian bureaucracy relating to timber operations make it easy to mislead certifiers about the sources of timber used by chain-of-custody companies. A field study by the ARuPA indicated a variety of ingenious methods for illegally harvesting teak plantations and “laundering” the timber so wood processors could claim they only used legal sources of wood. Local government officials, security forces and Perhutani staff and senior level bureaucrats were allegedly implicated in this “legalization” of illegal logging (Down to Earth 2001).

Despite this criticism, there are some NGOs working towards certification. RMI, Pelangi, YLKI (*Yayasan Lembaga Konsumen Indonesia*/Indonesian Consumer

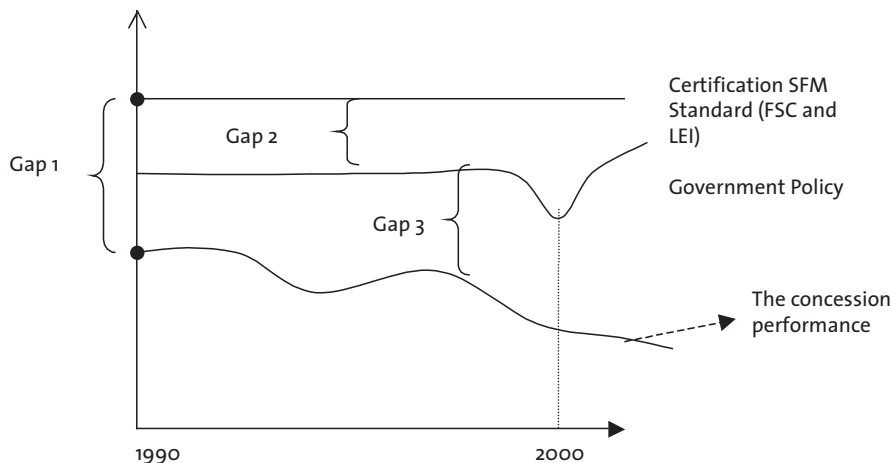
Advocacy Group), LATIN and Skephi are among those who champion certification. LATIN and Skephi are both members of FSC. In its response to criticism, LATIN believes that certification is a useful tool to penetrate directly and practically to the heart of forest management companies. Certification can also be a useful tool to ensure that stakeholders have access to the management unit to raise issues of concern. LATIN argues that certification is not a panacea to solve all of Indonesia's chronic forestry problems. It can, however, be a bridge and a forum of dialogue for stakeholders to raise their respective concerns. It is up to the assessed company to figure out ways to solve the conflict, to build a consensus, and to share its power with others. If it fails to do so, the conflict will continue, forest sustainability cannot be guaranteed, and the company in all probability will fail to meet the certification requirement (LATIN 2000).

### Forest Owners

Early on, the Indonesian private sector was very enthusiastic about certification. This can be observed through the development of criteria and indicators initiated by APHI in 1993. APKINDO (Indonesian Wood Panel Association) believed ecolabelling would support sustainable forest management and provide economic incentives (APKINDO quoted in Elliot, 2000). To ready concessions for certification, APHI continues to use its standard as an internal audit to identify the preparedness of its members. An APHI study showed that among the HPH undergoing evaluation none was ready to be certified to the sustainable forest management standard. In addition APHI has conducted certification training for its members.

Many years after ITTO commitment in Bali (1990) to achieve SFM in the year 2000, a dynamic process has emerged resulting from the different standards in use and commitments of all involved parties (i.e. between the standard of sustainable forest management, the Government policy, and the concession performance). This dynamic is illustrated in Figure 2.

**Figure 2** Gap between SFM standard, government policy and concession performance



Although the number of forest concessions in the last 30 years has been decreasing, the figure indicates that the ones that remain continue to fail to meet the government's standard. Their capacity to do so was weakened by the regional autonomy policies implemented in 2000, which created great uncertainty especially in the transition period. The situation was exacerbated by the non-availability of a forestry policy framework to support sustainable forest management practices (Agung and Hinrichs 2000).

Concessionaires' performance became worse because of lack of supervision by government as well as the uncertainty of the political situation. Gap-3 in Figure 2 illustrates the widening margin between government policy and concessionaires' performance.

Meanwhile, underlying forestry problems—such as unbalanced log supply and demand for forest industries, land encroachment, land dispute, overlapping forests land with other purposes (mining, agricultural, resettlement), as well as forest conversion policies that do not take into consideration High Conservation Value Forest (HCFV)—have created a gap between government policy and FSC's and LEI's Sustainable Forest Management Standard (Gap-2).

The existence of these two gaps has made it especially difficult for forest concessionaires to meet the SFM standard, because they not only have to improve their practices to achieve the government standard, but must go significantly beyond that to achieve the FSC-LEI Standard (i.e. move over the entire distance covered by Gap-1). Concession holders seem to be ill disposed towards forestry-related businesses because of the many problems of overlapping land tenure, illegal logging and price fluctuation of forest products. In such a context, certification becomes a less strategic issue. Some of the concessions, however, remain committed to export their products to eco-sensitive markets, and they remain interested in implementing sustainable forest certification. They expect that in such an uncertain situation, certification will be able to provide them greater long run security.

### **Current Status of Forestland Certification**

Certification has operated in Indonesia in at least three types of forest management: plantation forest (state-owned and private owned), natural forest (state-owned and private owned) and community-private partnership. In most cases private or state-owned companies pay the certification costs fully. However, prior to the certification assessment some companies worked in partnership with other programs that promoted sustainable forest management. These programs include Reduce Impact Logging (in partnership with Tropical Forest Foundation/TFF certification support program launched by Tropical Forest Trust (TFT), promotion of HCFV (in partnership with The Nature Conservancy (TNC)), and forest management improvement towards certification (in partnership with the Global Development Alliance to Promote Forest Certification and Combat Illegal Logging in Indonesia (WWF and TNC)). WWF and TNC through a recent program of Global Alliance have been actively promoting certification. Table 7 shows the progress of certification in forest concessionaires during 1999-2003. As can be seen, of a total of 13 HPH operations that applied for SmartWood or FSC certification, 11 went through the scoping phase but only 6 moved on to a full assessment.

**Table 7** Number of HPH assessed by SmartWood/ other FSC certifier

Year	Application	Scoping phase	Full assessment	Certified (area ha)
1999	2	1		
2000	4	4		
2001	2	2	3	90,957
2002	1	1	1	
2003	4	3	2	

In Table 8, we see that of the six that underwent a full assessment, two dropped out and by early 2004 only PT Intracawood Manufacturing had met its preconditions and become certified. But certification of PT Intacawood was cancelled shortly thereafter due to a legal dispute with the Ministry of Forestry. None of the preconditions in the remaining three operations had been met. A more detailed account of the status of forest certification is provided below, broken down by region.

**Table 8** Results of the six HPH operations that underwent full assessments

Name HPH/management units	Number of HPH/management units			Status by January 2004		
	Pre-condition	Condi-tion	Recomm-dation	Pre-condition	Condi-tion	Recomm-entation
PT. Sumalindo Lestari Jaya	8	35	26	8	35	26
PT. Erna Djuliawati	5	28	14	5	28	14
PT. Sari Bumi Kusuma	8	17	22	8	17	22
PT. Intracawood Manufacturing	7	32	18	0	32	18
PT. Inhutani I – Labanan	6	23	19	**	**	**
PT. Austral Byna	10	27	25	**	**	**

\*\* No longer in certification process

### *Certification in Java*

Perum Perhutani (a state-owned company in Java) was one of the first certified operations in the world. It was certified by SmartWood in November 1990 and the certificate, which covered approximately 2 million ha of mainly teak plantations, was valid until 1995 (the first certification cycle). There was no reassessment until 1998 when FSC decided that the scale for the assessment should be the district level/KPH (not the entire plantation area as it was in 1990). Reassessment was conducted in 1998 for five KPHs, of which three were certified (KPH Cepu, Kebonharjo and Mantingan) in 1999. A new forest district assessment was conducted in March/April 1999 for eight KPHs, of which three were certified (KPH Madiun, Kendal and Lawu/pine) in April

2000. By July of that year the certified teak KPHs were Cepu, Kebonharjo, Mantingan, Kendal and Madiun with total certified area was 115,000 hectare and production of 100,000 m<sup>3</sup>. There were also 33 teak furniture industries that had received chain of custody certification.

Perhutani's certified districts were suspended in 2001; and in 2003 all certification status in the districts were withdrawn because of non-compliance with the timeline for improvement. The suspension is based on the non-compliance of the certification conditions based on the FSC principles and criteria as well as the SmartWood standards. SmartWood believes that the long-term sustainability of the plantation resources is at a serious risk. The suspension is effective as of October 20th, 2001 (Rainforest Alliance 2001).

The failure to deal with illegal logging and difficulties in community relations were among the reasons for the suspension. Since then, no more management units in Java have been certified. Three districts have been under improvement since 2003 in collaboration with Tropical Forest Trust: Mantingan, Kebunhardjo and Randublatung.

A project supported by GTZ and WWF Indonesia in collaboration with several NGOs has been underway to develop certification for community forests. Two sites were selected as a pilot project in Central Java where local communities have been planting teak and *segon* (*Albazia sp.*) in gardens for many years. LEI has been involved in this process as part of its certification standard development for community forest. A Memorandum of Understanding was signed in 2003 among several NGOs (LEI, ARuPA, PERSEPSI, WWF, KPSHK, AMAN, and SHK Kaltim) to run a pilot project on CBFM certification. Some challenges that have arisen during community preparation include strengthening appropriate forest management plans, and rules and regulations about community forest management. The limited volume of harvest and a lack of continuity of supply may still be constraints for buyers to get a contract with community groups.

### *Certification in Sumatra*

Two companies in Sumatra have been certified. One, PT Xylo Indah Pratama (XIP), was suspended in 2003, while the other, PT Diamond Raya Timber, is still certified. SGS Qualifor, an FSC-accredited certification body, and PT Mutu Agung Lestari, a LEI-accredited certification body, conducted both forest assessments under the JCP program.

XIP plants and harvests pulai (*Alstonia scholaris* and *Alstonia angistoloba*), a raw material it uses in its pencil slat factory at Muara Beliti, Musi Rawas District, South Sumatra.<sup>7</sup> Currently, all slats are sent for final processing into pencils to XIP's pencil factory in Bekasi (PT Pencilindo), under a joint venture with Staedler. Pencil market prospects are said to be good for the consumer segments being developed by the company. XIP sources over 80 percent of its current wood supply for its pencil slat processing plant from hundreds of lowland smallholder rubber plantations where pulai grows wild.

Naturally occurring pulai in home gardens and other smallholdings account for the rest of the supply.

<sup>7</sup> Information about XIP is mostly taken from the assessment/audit report of SmartWood Forest Management Annual Report of PT Xylo Indah Pratama (XIP), SW-FM/COC-140. Official Audit Year: 2003, Audit Date: March 2003. Final Report Completed: May 2003. Auditors: Anne Gouyon and Dwi Rahmad Muhtaman.

XIP's Peoples Forest Development Project (*Proyek Pengembangan Hutan Rakyat, P2HTR*) entered its ninth year in 2004 and will eventually cover 10,000 hectares, almost all of it in smallholder agroforestry plantations under joint management agreements. These smallholder agroforestry plantations have been established on former alang-alang (*Imperata cylindrica*) grassland (approximately 65 percent), on scrub brush land (about 25 percent), and on past rubber gardens (about 10 percent), distributed throughout southeastern Musi Rawas District.

XIP currently harvests 30,000 m<sup>3</sup> per year from rubber plantations and home gardens located in the southeastern part of the Musi Rawas district. XIP plans to maintain this volume of production. The current plan does not call for an increased harvest level as this is projected to supply sufficient raw material for their pencil factories. While there is a potential of about 200,000 ha of rubber plantations in Musi Rawas from which XIP can harvest pulai, only about 18,000 ha belonging to some 2,464 farmers are in the certified suppliers' pool that signed the agreement. XIP started its involvement in the certification program in December 1998 when there was a scoping visit from SmartWood. Between July 25 and August 1 1999, a team from SmartWood conducted a full assessment; and in May 2000 XIP was certified as a community forestry management operation. This was the first certificate of its kind issued in Indonesia. Annual audits are regularly carried out by SmartWood to ensure the company complies with the certification standard. An annual audit conducted in March 2003 concluded that some significant improvements were needed, and XIP's certificate was suspended in June 2003.

The second important concession on Sumatra is PT Diamond Raya Timber (DRT), an HPH forest concession in Riau province. DRT is a subsidiary of the Uniseraya Group that now has three concessions in Indonesia. PT Uniseraya Group operates in Riau Province where it has factories producing plywood, sawn timber and furniture. The DRT concession was issued in 1979, and the current license (1998) covers 90,956 ha of peat swamp forest, no more than a few meters above sea level at any point, and merging into mangrove forest to the northeast. The forest provides a habitat for a number of rare and endangered species, notably Ramin (*Gonystylus bancanus*). In addition the forest provides habitat for the Sumatran Tiger (*Panthera tigris sumatrae*) along with a number of important arboreal primates such as gibbons (Down to Earth 2001).

SGS Qualifor undertook pre-assessment visits to DRT in November 1998 and June 1999. The main assessment then took place in December 1999 and was the first evaluation in Indonesia to take place in cooperation with LEI (Lembaga Ekolabel Indonesia). A certificate was subsequently issued in March 2001, with the company producing round logs of the following range of species: Meranti (30 percent), Ramin (20 percent), Durian burung (15 percent), Suntain (10 percent), and Bintagur (10 percent).

### *Certification in Kalimantan*

The only other region in Indonesia with an active certification operation is Kalimantan. In 2002, there were around 127 forest concessions with an area equal to

almost 10.8 million ha (Forestry Statistics of Indonesia 2002). Of these, only five are in the process of obtaining certification under the Joint Certification Programme (JCP) between LEI and FSC-accredited certification bodies.

### **Current Status of the Certified Marketplace**

In the 1990s there was a teak furniture boom in Java, which benefited Perum Perhutani, the country's major teak supplier. The public campaign by NGOs in Europe and the US about Indonesian forestry issues generated consumer demand for certified furniture, and Perum Perhutani was well placed because at the time it was certified. The demand for certified furniture increased from 1998 to 2000 and applications for Chain of Custody certification increased. However, the actual number of certified companies was limited because the volume of certified teak was limited. When part of Perhutani KPH's certificate was suspended in 2001, most of the CoC industries were also suspended. Teak furniture export is still going on regardless of the unavailability of certified sources, however; and one CoC certified company has managed to keep its certificate by importing certified pinewood from Australia.

At present, DRT is the only certified log producer in Indonesia with an average annual production of about 60,000 cubic meters (SGS Qualifor 2001). All of the log products are supplied to two other companies, namely PT Uniseraya (SGS-CoC-0767) and PT Panca Eka Bina, which export moulding, garden furniture and other products.

## **EFFECTS OF CERTIFICATION**

As discussed earlier, the promoters of certification hope that it can facilitate change at the policy, practitioner, and field implementation levels, so that the benefits of the forest can be more justly distributed to local communities surrounding the forest. Achieving SFM in Indonesia is hindered by problems outside the forest itself, especially those related to forest governance, as detailed in a revised "Pyramid Mayers" for Indonesia in Table 9 and as further elaborated in the following sections on certification's power, social, economic and environmental effects.

**Table 9 Certification's effects in Indonesia**

Element of Good Governance Of Pyramid Mayers	Current Conditions in Indonesia
[Tier-5]. Verification of SFM:	Certification has become a credible verification tool of what SFM would look like in the Indonesian context.
[Tier -4]. Extension:	The Joint Certification Scheme Program between FSC and LEI is a catalyst to promote and acknowledge the Indonesian certification scheme to the international market.
[Tier-3]. Instrument:	By being certified, PT. DRT received special treatment by being allowed to log Ramin ( <i>Gonystilus bancanus</i> ). However, law enforcement of forest policy is weak, leading to illegal logging, land conversion and conflicts, which are an economic disincentive.
[Tier-2]. Policies:	ITTO, FSC, PEFC, and LEI have issued SFM standard. However, there is still a gap between SFM standards and government policy (see Figure 2), especially with respect to property rights and land tenure-related problems. To date, certification has not contributed toward substantial government policy change.
[Tier-1]. Roles:	Certification has facilitated negotiations between interested stakeholders, and stimulated concessionaires to pay more attention to the role of local communities through community development program.
Foundations	Not so many changes in the (tier-1) and (tier-2) level, leaving many of the underlying problems unsolved, contributing to uncondusive investment environment in the long term for forestry business especially in the era of transition to decentralization.

### Power

Certification has altered subtly the balance of power between various groups, including government, local communities and business.

### Government

In 1970, the Indonesian government issued a regulation (PP No. 21/1970) covering the forest concession and the Forest Product Harvesting Rights. The forest area allocated to production under this regulation is based only on the limited consideration of timber volume and landscape condition, with less attention paid to property rights and tenure problems in the area. Lately it has been recognized that there are many land use-related conflicts in such concession areas. No fundamental changes in government policy concerning forest management have been made recently, however, even though after the ITTO declaration in Bali in 1990, the government issued policies intended to improve the current standard and criteria of SFM.

Consequently, many of the regulations made were incapable of preventing the failure of SFM in Indonesia due to institutional weaknesses in government caused by collusion, corruption, and manipulation. As a result, the government fails to present the real facts concerning the country's forest management performance. With market pressure, certification has been able to promote SFM through its role as a tool for verifying forest management practices. Certification has been able to generate greater transparency and a credible picture of the forest management practices required to achieve SFM, exposing in the process the forest management unit's problems caused by internal and external factors. As a broad generalization, certification in Indonesia has had a partial effect at the forest management unit level, but it has not been able to make large-scale changes toward the conditions for SFM, especially those related to forest governance.

### *Local Community*

At the community level the power dynamics are very interesting. Certification has pushed forest managers to work closely with local communities. Forest managers invest more in building community relations through a variety of community partnership activities. On the other hand, communities have a better chance to channel their concerns about the behaviour of companies and other groups. Avenues of communication are developed and participatory approaches are now becoming part of a new company culture for those under certification. In short, the social aspect of forest management gets more emphasis.

### *Private Sector*

Companies have recognized that the implementation of sustainable forest initiatives makes compliance with the Government's SFM mandate more systematic and straightforward. With forest certification, it was hoped that the Government would grant incentives to the company in the form of reducing administrative requirements such as approval of the annual operations plan and favourable considerations.<sup>8</sup> Companies operating forest management units also attempt to use certification as a lever for policy change. In the case of one company in East Kalimantan, the forest management team lobbied the local government as well as the Ministry of Forestry to establish a policy environment that would enable the company to meet its certification conditions. However, there are only a few certification supporters attempting to achieve policy change and they are not well organized and tend to emphasize the technical aspects of certification. More generally, certification has not been adopted as a tool for policy change.

### **Social**

One major social challenge encountered by forest management units has been the failure to build better relationships with communities in and around concessions. Certification improves community consultation mechanisms, with companies

<sup>8</sup> Personal correspondence with PT Riau Andalan Pulp and Paper, March 2004.

designing the conflict resolution and negotiation mechanisms. Although the design processes are still not adequate, at least there is willingness to solve conflict in better ways. One company, XIP, developed a community-company partnership program, which has been underway for more than 10 years. XIP's pulai planting program is focused on the grass and scrub bush lands owned by transmigrant families, who generally do not have the economic resources to develop it. Most households in the rural areas of Musi Rawas are first- and second-generation transmigrants that have two to five hectares of land under village land entitlements. A typical household has one to two hectares of land in rice (padi) and two to four hectares of land in a combination of along grass, scrub bush land, and tree crops (rubber, coffee, coconut).

Under the joint management agreements, XIP finances site preparation, establishment and maintenance costs, and has management control over the land until the trees are harvested in ten years time. Farmers are given the option of working as labourers on their land. While some take up this option, most do not. They continue with their (presumably more attractive) other on- or off-farm activities. Note that before the arrival of XIP much of the candidate land was fallow, often because farmers did not have the resources to make it productive. XIP's initiative has given farmers the opportunity to make the land more productive in the short term from agricultural crops and for the long term with the wood crop.

Companies involved in certification continuously conduct training of employees and community-participants in various topics relating to sustainable development. Workers unions and other workers rights receive more attention from the management. In general, as one top manager put it:

Environmental, social and economic objectives are included in the whole company organization and key performance indicators of every employee from supervisor and above positions, thus, awareness in addressing and balancing concerns for the profit, the planet and the people has widened, and concerns for the elements of sustainable development goes beyond compliance.<sup>9</sup>

Partnerships have expanded with community, university, and environmental NGOs.

In most of the companies under a certification program, land tenure issues are considered a priority to resolve. Many of them have been unsuccessful, however, because land tenure issues are intimately connected to national policy and law enforcement. Companies initiate discussion about the situation with affected local communities and engage in participatory mapping, identification and protection of sites of significant importance for community, and the development of appropriate conflict resolution mechanisms.

Community development programs, established initially as charity programs to meet government regulations, have improved as a consequence of certification. Community programs now adopt more participatory approaches through community planning and companies are learning better and effective community development approaches.

<sup>9</sup> Personal email correspondence with top management of Riau Andalan Pulp and Paper (RAPP), Riau, Sumatra.

Illegal logging is a critical forestry issue in Indonesia; however, most of the companies under certification have experienced minimum levels of illegal logging. All certification assessments evaluate the level of illegal logging taking place as well as the efforts of the company to prevent, monitor and reduce illegal logging practices. Certainly the management unit makes every possible effort to prevent or reduce it. These include a local policy approach to persuade authorities to stop giving away permits that overlap with the forest concession, the development of effective community development programs, and the use of police and military to guard the main exit and entry points.

One company reported that:

Certification has reduced illegal logging significantly after they developed a Log Tracking System and Procedure for external wood supplies. The system and procedure do not only focus on the documents but rather include field assessment ensuring wood are sourced consistent with approved harvesting permits ensuring that wood are sourced from harvesting areas that are in accordance with approved land use plans (known origin) and wood are harvested and transported in accordance with existing forestry rules and regulations and in accordance with the organization's Wood Purchase Policy. Along with the implementation of the log tracking system and procedure is the conduct of 3<sup>rd</sup>-Party Audit with WWF as observers.”<sup>10</sup>

Some buyers discriminate against products from mixed hardwood forests, while others gave timelines as to when supply of products should come from sustainable wood sources. Still others asked for third-party audits particularly of wood supplies originating outside of concessions. As an offshoot of illegal logging issues in Indonesia, Riau Pulp's major buyers required third-party audits on the origin and legal sources of wood, which was carried out in October 2002 with a surveillance audit in May 2003 with WWF (Indonesia) acting as observer.

## Economic

### Costs

In Indonesia, concessionaires experience significant certification costs associated with making the required improvements to their forest management practices. These costs vary depending on the topography in each region. For example, for concessionaires that operate in a region with high accessibility, social costs associated with illegal logging and land encroachment will be high. For others, working in the remote and difficult terrain requires the company to redesign the working area, allocate some land for protected areas and decrease the volume of timber logged. In addition, it may be necessary to change the tools used to harvest the forest to comply with topographic requirements.

DRT reported, for example, that they have spent a large amount of money to secure the area from illegal logging activities including the cost of patrolling by military/police officers, and the making of guard posts. While DRT desires government

<sup>10</sup> Personal email correspondence with top management of Riau Andalan Pulp and Paper (RAPP), Riau, Sumatra.

involvement in solving this problem, up to the present the obligation for securing the area remains the burden and responsibility of the concessionaire.

PT Sumalindo Lestari Jaya (SLJ), a concessionaire in the process of obtaining certification, reported that the main problem it faced is the hilliness of its working area. To reduce the impact of felling, they needed to redesign the area and the harvesting system. They also needed to restructure the area, allocating part of it to protect high conservation value forests, which reduced its overall Annual Allowable Cut (AAC). The process of retooling and adjusting its exploitation methods and applying Reduce Impact Logging, as well as redesigning the working area, will take almost five years, costing a significant amount of money.

There is a lack of market incentives too because many countries have yet to put into effect procurement policies supporting log certification. China, Korea, and Middle East countries are examples of the countries that pay little attention on these matters, made worse by their readiness to source illegal logs.

### *Benefits*

DRT is advantaged by the issuance of the Ministry Decree (SK) No. 168/Kpts-IV/2001 that allows *Ramin* (*Gonostylus bancanus*), which is listed in CITES' Appendix III, to be felled. PT DRT is the only legal Ramin producer in Indonesia producing about 20 percent (12,000 cubic meter per year) of the crop potentially available. The government through the Ministry Decree No. 156/Kpts-II/2003 and the Decree of Director General of Forest Production No. 02/Kpts/VI-PHA/2003 also provides incentives to concession holders via an exemption in reduction of its AAC. As a result, the concessionaire has an economic benefit because its AAC is not cut back. According to concessionaires, the overall benefit from these two economic incentives could cover the additional cost to meet the requirements of SFM.

While the above incentives appear to be important, certified forest companies in Indonesia claim that the price premium earned by certified timber is not significant, even though Perum Perhutani reports it at 15 percent. There are other economic and commercial imperatives why the Company is interested in implementing sustainable forest management, and these include long-term benefits such as the reduction of production cost, reduced environmental and social risks, and increased productivity. One company interviewed believed that forest certification would enable it to market its products and compete particularly in advanced economies. It recognized that today it is not the certification itself that is important; rather of most concern to the company is the sustainable development of the business. Therefore the adoption of the certification standard was aimed at improving the way the company did business.

The company reported that standard operating procedures aimed at improving productivity and minimizing adverse environmental and social impacts were put in place and continuously disseminated amongst its own employees and contractors. They had also institutionalised the ISO 14000 environmental management system and were making continuous improvements in correcting and improving areas where major non-conformance are observed. The company had also replaced its Annual Environmental and Social Report with a Sustainability Report that followed the

framework of the Global Reporting Initiative (GRI). Periodic independent third-party audits, particularly in environmental and social matters have become a regular activity, whereas before the focus had been only on financial audits.

### **Environmental**

Most of the companies under certification assessment have a low score on environment indicators, which includes biodiversity protection, conservation area management, procedures and strategies for logging-road construction, and monitoring and evaluation of environmental impacts. The most common practice to improve forest management is the application of RIL. Some companies get technical assistance from organizations such as the Tropical Forest Foundation. Companies face difficulties in understanding and interpreting the concept of HCVE, with some working with NGOs or other relevant organization to improve their knowledge.

Companies believe that many of the issues related to non-compliance are well recognized. Certification helps to identify specific weaknesses and to generate new knowledge and skills to meet the criteria and indicators. Internal and external training about certification is acquired and it contributes to improved awareness of the environmental aspects through improvements to the log harvesting system, especially with the introduction of low impact forestry (RIL). Two concessionaires in East Kalimantan that belong to the East Kalimantan Certification Working Group (*Kelompok Kerja Sertifikasi Kalimantan Timur (KKS)*) have received technical assistance from GTZ's Sustainable Forest Management Project (SFMP).

SFMP-GTZ recommended the government make RIL an important requirement in evaluating and monitoring the performance of concessionaires. The central government responded very well by issuing a circular letter from the Directorate General of Production Forest Management (No. 274/ 2001), stated that RIL needs to be implemented in the concessions. The establishment of forest conservation reserves in the forest management unit area has also been stimulated by certification. For example, PT Sumalindo Lestari Jaya II has allocated an area for HCFVs of about 50,000 ha. PT Intracawood Manufacturing is cooperating with The Nature Conservancy (TNC) to help identify HCVE in their working area.

As a precondition to certification, DRT, in cooperation with Indonesian Research and Science Institute (LIPI) and Bogor Agriculture University (IPB), is implementing a mangrove ecosystem study. The study also covers Ramin regeneration, wildlife monitoring, growth analysis, and taxonomy. Certification has also stimulated DRT to conserve about 10 percent of its forest area in every felling compartment as a wildlife corridor and seed source for natural regeneration. This has had a significant impact upon the availability of the seedling trees for natural regeneration. It is well known that the survival rate for manmade *ramin* regeneration in swamp forests is very low, so by allocating more land for seedlings, it is expected that natural regeneration will improve in the future.

## CONCLUSION

### Summary

There are two forces driving forest certification in Indonesia. First, there is the international pressure of the market place, with consumers reacting to destructive forestry practices by supporting import bans or boycotts and/or requesting that wood products be certified to the importing country standard. Second, there is domestic pressure, which is demanding that government and forest companies improve forestry practices and policy and promote certification as a tool for change. Because of the unique forestry context, certification is not designed solely to meet market demand and policy change will be required for certification to be effective. Recognising this, supporters of certification are promoting it as a tool to advocate for policy change in forestry sector.

For example, TNC and WWF Indonesia have developed a program to support certification and combat illegal logging, and the Tropical Forest Foundation (TFF) is working with Forum International, the Tropical Forest Trust (TFT), and PENSA-IFC (*Pengembangan Usaha*, Program for Eastern Indonesia Small and Medium Enterprise Assistance, the International Finance Corporation) to develop certification support programs. International buyers are working with forest management units (both forest concessions and community forestry groups) to facilitate certification and get certified wood. Meanwhile LEI is preparing itself to become a constituent-based organization (CBO) to make it a more effective and legitimate accreditation body in Indonesia.

### Roadblocks and Challenges

Disputes over forestland tenure, unsustainable forest management and un-conducive forest management policy have been Indonesia's major forestry problems. These are made worse by political, economic and social disruption, which have placed the efforts of sustainable forest management certification at a critical stage (Kartodihardjo 2003). In addition, there have been distractions related to the implementation of regional autonomy, which has led to disputes between regional and central governments over forest management authority.

Certification's arrival in Indonesia is to be credited to the establishment of LEI. For the last ten years, LEI has contributed significantly to public awareness and understanding of forest certification. Certification is now the concern of certifying bodies, companies under assessment and assessors, NGOs, local communities around the forest area under certification assessment, and other individuals who are involved in the assessment process or sustainable forest management issues. Meanwhile, the FSC-accredited certifying bodies operating in Indonesia (SmartWood, and SGS Qualifor until 2003) view Indonesia as an important market for their services but could not expect many applicants because in reality there are not many good forest management companies, not to mention the social and policy environment around forestry sector.

### **Future Developments**

There are at least three major factors affecting certification's future development in Indonesia. These are disputes over forestland tenure status, un-conducive forest management policy and negative market responses to certified forest products. The new structure of LEI as a constituency-based organisation will have a significant impact on certification's future development. By establishing a new type of governance it is expected that LEI will have an improved capacity to carry out its important mandate which is, among others, ". . . to evaluate the concession performance based on a set of rigorous standards, but also to critically evaluate government regulations and practices that do not support the effort to achieve sustainable management of forests" (Salim *et al.* quoted in Elliot 2000). NGOs, academics, international organizations and certifiers tend to stress the need for fundamental reform of forest policy.

### **Future Research**

There is considerable need for forest certification research in Indonesia. Specific areas of research include marketing, where there is a general lack of awareness of what certification is, even though certification has been underway for over fourteen years. Other research areas include the economic and social impacts of forest certification for local governments, management units and communities around the forest area; and the distribution of the costs and the benefits. There is also the need for future studies on the impact of certification to reduce illegal logging, on its capacity to bring about policy change, and on land tenure arrangements. Research could also be carried out on the costs and benefits of certification in transition from conventional forest management to SFM, on the role of domestic market, and on the impact of CBFM certification as a tool for legal, economic and ecological recognition of community forestry.

## REFERENCES

- Agung, Ferdinandus. 2001. "Role of credible forest management certification for the future of the forest in East Kalimantan: natural resources management in East Kalimantan with a frame of decentralization." The Alliance of Natural Resource Policies Monitoring of East Kalimantan (APKSA-NGO), NRMP-USAID.
- Agung, Ferdinandus and Alexander Hinrichs. 2000. "Self-scoping handbook for sustainable natural forest management certification in Indonesia." Eschborn, Frankfurt am Main, Germany: Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ).
- Bachriadi, D., E. Faryadi, and B. Setiawan. 1997. "Reformasi agraria: Perubahan Politik, Sengketa, an Agenda Pembaruan Agraria di Indonesia." Jakarta: KPA dan Lembaga Penerbit Fakultas Ekonomi Universitas, Indonesia.
- Barr, Christopher. 1999. "Discipline and accumulate: state practice and elite consolidation in Indonesian timber sector, 1967-1998." MS Thesis, Cornell University.
- \_\_\_\_\_. 2001. "Banking on sustainability: structural adjustment and forestry reform in post-Suharto Indonesia." Washington DC and Bogor, Indonesia: WWF and CIFOR.
- Brown, David W. 1999. "Addicted to rent: corporate and spatial distribution of forest resources in Indonesia: implication for forest sustainability and government policy." DFID/ITFMP.
- \_\_\_\_\_. 2001. "Why governments fail to capture economic rent: the unofficial appropriation of rain forest rent by rulers in insular Southeast Asia between 1970 and 1999." PhD thesis, Department of Political Science, University of Washington.
- Colchester, M., M. Sirait, and B. Wilardjo. 2003. "Application of FSC Principles 2 & 3 in Indonesia: Obstacles and Possibilities." Jagarta, Indonesia: WALHI, AMAN, and Rainforest Foundation.
- Down To Earth. 2001. "Certification in Indonesia: A Briefing." London: Down to Earth (June).
- Elliott, Christopher. 2000. "Forest Certification: A Policy Perspective." Bogor, Indonesia: CIFOR.
- Forest Statistics of Indonesia. 2002. Directorate General of Forest Production Development, Ministry of Forestry, Jakarta, Indonesia.
- Forest Watch Indonesia-Global Forest Watch. 2001. "Potret Keadaan Hutan Indonesia." Bogor: Forest Watch Indonesia.
- Fuad, Faisal H. and Rama Astraatmaja. 2000. "Sertifikasi Hutan Perum Perhutani: Insentif bagi Sustainable Forest Management, Sekedar Hadiah, atau Blunder?" Position Paper. Jogjakarta, Indonesia: Arupa. (September).
- Kartawinata, K., Riswan, S., Gintings, A. N. & Puspitojati, T. 2001. "An overview of post-extraction secondary forests in Indonesia. Indonesia has extensive areas of post-extraction." *Journal of Tropical Forest Science* 13 (4): 621–638.
- Kartodihardjo, Hariadi. January 2003. "Memperbaiki Rumah Tanpa Pondasi: 10 Tahun Inisiatif Sertifikasi Ekolabel dalam Belenggu Sistem Pengelolaan Hutan." Unpublished lecturer paper.

- LATIN. 2000. "Letter on capacitation certification for concessionaires in Indonesia: LATIN's Response." Bogor, Indonesia: LATIN (October).
- Lembaga Ekolabel Indonesia (LEI). 2000. "Pedoman LEI Seri 99, Sistem Sertifikasi Pengelolaan Hutan Produksi Lestari." Bogor, Indonesia: Lembaga Ekolabel Indonesia.
- \_\_\_\_\_. 2000. "Standar LEI Seri 5000, Kerangka Sistem Pengelolaan Hutan Produksi Lestari." Bogor, Indonesia: Lembaga Ekolabel Indonesia.
- \_\_\_\_\_. 2000. "Pedoman LEI 55, Pedoman Penyelesaian Keberatan Atas Keputusan Sertifikasi" Bogor, Indonesia: Lembaga Ekolabel Indonesia.
- \_\_\_\_\_. 2000. "Dokumen Tehnis LEI 01 dan 02." Bogor, Indonesia: Lembaga Ekolabel Indonesia.
- \_\_\_\_\_. 2000. "Naskah Akademik Sertifikasi." Bogor, Indonesia: Lembaga Ekolabel Indonesia.
- Mayers J, S. Bass and D. Macqueen 2002. "The Pyramid: A diagnostic and planning tool for good forest governance." London: IIED.
- Ministry of Forestry. 2003. "Study on discrepancy forest product trade statistic in Indonesia." *Buklet Kehutanan*.
- \_\_\_\_\_. "Statistical data from 1992 to 2002." Directorate General of Forest Production Development, Jagarta, Indonesia.
- Mir, J. and A. Fraser. 2003. "Illegal logging in the Asia Pacific region: ADB perspective." *International Forestry Review* 5 (3).
- Musthofid and Wijaksana, Dada. 2002. "Effort to curb illegal logging hamper by collusion." *Jakarta Post*, 19 September.
- Obidzinski, Krystof. 2003. "Logging in East Kalimantan Indonesia. historical experience of legality." PhD Thesis. University of Amsterdam, Amsterdam, Netherlands.
- Peraturan Menteri Negara Agraria/Kepala Badan Pertanahan 1999. Nasional No. 5 Tahun 1999 tentang Pedoman Penyelesaian Masalah Hak Ulayat Masyarakat Hukum Adat.
- Perum Perhutani. 2000. The history and current marketing and trade in Perum Perhutani." Paper presented at the Third Regional Seminar on teak: potential and opportunities in marketing and trade of plantation teak, challenge for the new millennium, Jogjakarta-Indonesia (July 31-August 4).
- PT. Diamond Raya Timber Uniseraya Group. 2003. "Pengelolaan Hutan Alam Produksi Lestari (PHAPL PT. Diamond Raya Timber) Pekanbaru, Riau, Indonesia." Presentation material.
- Rainforest Alliance. 2001. "The Rainforest Alliance's SmartWood Program suspends certification of Perum Perhutani's teak plantations in Indonesia: Non-compliance With FSC Standards Threatens Long-Term Sustainability." Press release from Rainforest Alliance, Washington, DC (21 August).
- Rowland, Ian and Max Simpoha. 1999. "Analysis of the Forest Management Certification Process, Indonesia: Draft." Department for International Development (DFID), DFID Forestry Indonesia, London, (November).

- Ruwiastuti, Maria Rita. 2000. *Sesat Pikir Politik hukum Agraria: Membongkar Alas Penguasaan Negara Atas hak-hak Adat*. Jogjakarta: Insist Press, KPA, Pustaka Pelajar: 129-149.
- Salim, E., U. Djalins, and A. Suntana. 1997. "Forest product trade and certification: an Indonesian scheme." Paper presented at the World Forestry Congress, Antalya, Turki.
- SGS Qualifor. 2000. "Public Summary Report: Main Assessment Report 1 April 2000." SGS Qualifor (Accessed March 3, 2004 on [www.sgsqualifor.com](http://www.sgsqualifor.com)).
- SmartWood. 2003. "SmartWood Forest Management Annual Report of PT Xylo Indah Pratama (XIP), SW-FM/COC-140." Final Report by auditors Anne Gouyon and Dwi Rahmad Muhtaman (May).
- \_\_\_\_\_. 2001. "Press Release: The Rainforest Alliance's Smartwood Program Suspends Certification Of Perum Perhutani's Teak Plantations in Indonesia." Richmond, Vermont: SmartWood.
- Tim Fakultas Kehutanan IPB. 2002. "Conditions, issues and policies on management of production forests: Policy Recommendations to the Ministry of Forestry." Unpublished
- TIM-4. 2004. "Menjajagi Format Kelembagaan Baru LEI." Unpublished (February).
- WALHI. 2001. "Statement: Seruan Ornop Indonesia untuk Penundaan Kegiatan Skoping, Penilaian dan Penerbitan Sertifikasi kepada HPH dan KPH di Indonesia." Jakarta: WALHI (21 April).

## ACRONYMS

AHP	Analytical Hierarchy Process
APHI	<i>Asosiasi Pengusaha Hutan Indonesia</i> /the Indonesian Association of Forest Concession Holders
APKINDO	<i>Asosiasi Panel Kayu Indonesia</i> /Indonesian Wood Panel Association
CB	Certification Body
CBO	Constituent Based Organization
CBFM	Community-based Forest Management
C&I	Criteria and Indicator
CoC	Chain of Custody
DPS	<i>Dewan Pertimbangan Sertifikasi</i> /Certification Review Board
DRT	PT Diamond Raya Timber
DSN	<i>Dewan Standardisasi Nasional</i> /National Standardization Board
EIA	Environmental Impact Assessment
EP1	Expert Panel 1
EP2	Expert Panel 2
FKD	<i>Forum Komunikasi Daerah</i> /Provincial Communication Forum
FMU	Forest Management Unit
FSC	Forest Stewardship Council GFTN/PFTN Global Forest Trade Network/Producer Forest Trade Network

HCVF	High-Conservation Value Forests
HKM	<i>Hutan Kemasyarakatan/Community Forestry</i>
HPH	<i>Hak Pengusahaan Hutan/Forest Concessionnaire Holder Rights</i>
HTI	<i>Hutan Tanaman Industri/Industrial Forest Plantation</i>
ITTO	International Timber Trade Organization
IPB	<i>Institut Pertanian Bogor/Bogor Agricultural University</i>
JCP	Joint Certification Program
KPH	<i>Kesatuan Pemangkuan Hutan/Forest Stewardship Unit</i>
KKN	<i>Korupsi, Kolusi, Nepotisme/Corruption, Collusion and Nepotism</i>
LATIN	<i>Lembaga Alam Tropika Indonesia/Indonesia Tropical Institute</i>
LEI	<i>Lembaga Ekolabel Indonesia/Indonesia Ecolabel Institute</i>
MPI	<i>Masyarakat Perhutanan Indonesia/Indonesian Forestry Community</i>
MRA	Mutual Recognition Agreement
NGO	Non-Governmental Organization
Pokja LEI	<i>Kelompok Kerja Lembaga Ekolabel Indonesia/LEI Working Group</i>
RIL	Reduce Impact Logging
RMI	formerly <i>Rimbawan Muda Indonesia/Indonesia Youth Forester</i> (now RMI read as The Indonesian Institute for Forest and Environment)
SFM	Sustainable Forest Management
SKEPHI	formerly <i>Sekretariat Kerja Pelestarian Hutan Indonesia/Working Secretariate for Indonesia Forest Conservation</i> )
TFF	Tropical Forest Foundation
TFT	Tropical Forest Trust
TNC	The Nature Conservancy
TPTI	<i>Tebang Pilih Tanam Indonesia/Indonesian Selective Logging and Planting System</i>
WALHI	<i>Wahana Lingkungan Hidup Indonesia/Indonesian Forum for Environment</i> )
WWF	World Wide Fund for Nature
XIP	PT Xylo Indah Pratama
YLKI	<i>Yayasan Lembaga Konsumen Indonesia/Indonesian Consumer Advocacy Group</i>