

Development and Implementation of a Wood Procurement Plan for
Post-Tsunami Reconstruction in Indonesia

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Forestry Programme for Early Rehabilitation in Asian Tsunami
Affected Countries

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EXECUTIVE SUMMARY

This report provides information on the consultancy of Mr. George Kuru, carried out from 4 June to 3 July to provide technical assistance related to wood supply for post-tsunami reconstruction in Aceh Province, Indonesia.

The consultant completed the following tasks:

Revised the estimates of wood requirements for reconstruction, including through consultations with shelter and timber working groups¹ on needs and specifications for wood supply.

Prepared the following technical documents (drafts):

- Guidelines for timber classification and usage in post-tsunami reconstruction;
- Sawn timber procurement guidelines;
- Guidelines for determining the legality of wood in post-tsunami reconstruction;
- Wood suppliers' list.

Facilitated discussion and exchange of information between and among Government entities, including the Rehabilitation and Reconstruction Agency (BRR - Badan Rehabilitasi dan Rekonstruksi) and the Ministry of Forestry at central and provincial level for Aceh and Nias, and other stakeholders.

The report contains recommendations for on-going support to the Government of Indonesia, NGOs and other organizations involved in reconstruction, and specifically for FAO's continuing technical support to facilitate the provision of wood for reconstruction.

¹ The shelter and timber working groups are a discussion forum for groups involved in shelter construction and timber procurement. The main role of these groups is the coordination of humanitarian activities. The working groups meet periodically to discuss issues and share information pertinent to the interests of the members of each group.

I. MISSION OBJECTIVES

The terms of reference of the consultancy are provided in Appendix 1. The objectives of the mission were as follows:

1. Facilitate discussion and develop a wood procurement policy and implementation plan for shelter, infrastructure and boat construction, involving the following steps:
 - Prepare a description of wood requirements by sector, e.g. public service, residential, retail/commercial, ports/roads/infrastructure in terms of types of building, materials used, and volumes of timber needed, and assess the potential sources of wood supply within the country, to the extent possible;
 - Prepare detailed descriptions of wood requirements for boat construction and assess the availability of wood for this use from legal sources in Aceh and other sources;
 - Prepare technical documentation to assist organizations involved in reconstruction:
 - technical guidelines that can assist organizations procure wood in Indonesia;
 - technical guidelines describing legality requirements for wood production in Indonesia;
 - technical standards for various types of wood products required for specific end uses. This would include acceptable and required timber treatment methods for imported timbers;
 - list of suppliers, both domestic and international.
 - Make recommendations related to logistics and wood delivery systems required to deliver large volumes of wood to construction sites in Aceh. This would include describing the main timber delivery routes and modes of transport, and identifying agencies and organizations supplying wood delivery services.
1. Organize and attend workshops for government officials, donors, NGOs and national organizations assisting with reconstruction to facilitate discussion and development of a wood supply policy and implementation plan.
2. Prepare a proposal for technical assistance for maximizing the use of salvage wood and alternative wood supplies in Aceh and provide terms of reference for consultants (national and, if necessary, international) to carry out the activities.

The proposal for technical assistance for maximizing the use of salvage wood was not prepared. The main reasons were:

- Most salvage operations had been completed in the main urban centers at the time of the mission.
- Other agencies such as UNDP had already commenced programmes for utilization of salvage waste.
- While there was evidence of large volumes of waste wood and fallen trees in damaged coastal forests and rural areas, it appeared that the large majority of woody material had deteriorated / degraded to a state where it was not feasible to economically utilize.

II. BACKGROUND

Introduction

The 26 December 2004 earthquake and tsunami in the Indian Ocean had a particularly large impact on Aceh Province in Indonesia. Nearly five per cent of the population (125 000 people) was killed and approximately ten percent (400 000 people) was displaced. Considerable damage was inflicted on houses, buildings, ports, bridges and other infrastructure, including for fisheries and agricultural production and processing. Trees and forests located along the coast were significantly affected, although the total damage was small relative to the total forest resources in Aceh.

The post-tsunami reconstruction programme will require large volumes of lumber, plywood and other wood products. The greatest volume will be needed for residential construction. The wood can be sourced from within the province, from other provinces in Indonesia and from wood imports.

The question of where to source the wood for reconstruction arose early in the emergency relief phase and has become a complex, dynamic and politically sensitive issue. FAO fielded the current consultant for a mission in Indonesia from 6 March to 6 April 2005 to collect wood supply and demand data and to provide advice to facilitate the supply of wood products from sustainably managed forests for reconstruction. The report from the consultancy provides the information collected on wood demand and supply for reconstruction.²

During the initial consultancy, FAO identified the following options for addressing the wood demand for reconstruction in Aceh:

- use legally sourced wood from production forests in Aceh;
- tap alternative legal sources of local wood, such as from trees outside forests;
- maximize the volume of wood that can be salvaged;
- use legally sourced wood from elsewhere in Indonesia;
- use alternative construction materials to reduce the total demand for wood;
- import wood products from overseas, either purchased or as in-kind donations

FAO's Role in Supporting Wood Supply for Reconstruction

The first consultancy also helped FAO to define its potential roles in assisting the Government of Indonesia (GOI) address the wood supply issue. The envisioned roles are as follows:

1. Provide a neutral forum for policy development: convene and facilitate meetings for relevant stakeholders (including BRR, Ministry of Forestry, the provincial forestry agency – the forestry Dinas, donors, forest industry associations, NGOs, community based organizations, etc.) to stimulate dialogue on issues, constraints, opportunities and lessons learned and to translate these into policies, plans and guidelines for necessary actions to be taken for the procurement and use of wood for reconstruction.

² "FAO Assessment Of Timber Demand And Supply For Post-Tsunami Reconstruction In Indonesia", a technical report prepared by the Food and Agricultural Organization of the United Nations, 26 April 2005. The report is available on www.fao.org/forestry/site/27287/en

2. Supply information: collect and maintain a web-based clearinghouse for information concerning the demand for wood products for reconstruction, potential sources of wood supply, and activities of various organizations involved in the wood supply issue
3. Furnish technical assistance to the Government of Indonesia: provide technical information to support policy dialogue and decision-making by the Government of Indonesia, in particular to the BRR, the Ministry of Forestry and the NAD the Dinas Kehutanan, concerning wood supply strategies for tsunami reconstruction.
4. Provide technical guidelines: develop technical guidelines to facilitate the procurement of wood from suitable sources and of appropriate technical specifications of size, grade, durability etc.
5. Facilitate donations of wood: assist BRR in information and discussions concerning State-to-State donations of wood for tsunami reconstruction in Indonesia, with particular attention to meeting the necessary quantities and qualities suitable for the unique conditions prevailing.

FAO's Role in Supporting Various Stakeholders

Government of Indonesia

The three GOI agencies involved in forest-related rehabilitation efforts are BRR, the Ministry of Forestry and Dinas Kehutanan, the provincial forestry body. The role of FAO is to facilitate dialogue and promote a common policy approach between GOI agencies. Specific policy support initiatives are described below:

BRR: BRR is the principle organization responsible for reconstruction policy formation. FAO can provide policy support to BRR in the following areas:

- Technical assessment of wood demand and requirements. This information is essential not only for wood supply planning but also infrastructural and logistics planning;
- Assistance with the development of policy regarding timber imports;
- Assistance with the development of policy regarding timber donations;
- Assistance with the development of policy regarding timber usage and procurement;
- Assistance in the area of policy regarding auditing and control of timber quality and usage;
- Provision of technical advice in association with UNJLC regarding infrastructure and logistics requirements.
- Provision of advice on the technical specifications of timber provided through State-to-State donations”.

Ministry of Forestry: The Ministry of Forestry is responsible for wood production policy. They have the responsibility for allocation of forest concessions and harvest rights. FAO can provide policy support to the Ministry of Forestry in the following areas:

- Technical assessment of wood demand and requirements;
- Compilation of technical information on wood properties, timber treatment and legality from relevant divisions within the MOF.

NAD Dinas Kehutanan: The Dinas Kehutanan of the Province of Nanggroe Aceh Darussalam (NAD) is responsible for wood production activities within NAD province as well as controlling and monitoring timber distribution within the Province. FAO can provide policy support to the NAD Dinas Kehutanan in the following areas:

- Assistance with the development of management plans and facilitation of sourcing of legal and sustainable wood supply from within NAD Province.
- Assist the DINAS develop monitoring procedures for timber tracking of timber produced in the province and transferred from outside of the province.

Supporting other Non-GOI Stakeholders in Reconstruction

Donor / NGO Groups Timber Buyers: The majority of building reconstruction will be conducted or directly funded by donor and NGO organizations. FAO can provide support to these organizations by:

- Providing technical information and advice on timber procurement and usage.
- Providing advice on potential sources of timber through maintenance and distribution of producer lists.

Indonesian Timber Industry Groups: The main timber industry groups in Indonesia of significance to reconstruction are:

- APHI: Indonesian Association of Forest Concession Holders.
- ISWA: Indonesian Association of Plywood Manufacturers
- ISWA: Indonesian Sawmilling Association
- APKINDO: Indonesian Association of Plywood Manufacturers
- APKIN: Indonesian Association of Timber Treatment Organizations

FAO can provide support to these organizations as follows:

- Identification of potential sources of legal and sustainable supplies of domestic timber.
- A specific project would be to assist APHI develop supplies of plantation sawn timber for reconstruction.

International Donors: FAO can provide technical information on timber supply and specifications, advice on project concepts and documents, and provision of advice on the technical specifications of timber provided through State-to-State donations to international donors wishing to provide medium and long-term support for reconstruction.

III. MISSION RESULTS

A. Revised Estimates of Wood Demand

Reconstruction Needs Assessment

The consultant revised the estimates that he made in the previous consultancy of wood requirements for post tsunami reconstruction. The new estimates were based on assessments of the International Organization for Migration (IOM)³ of tsunami damage in Aceh Province. The IOM report is the most comprehensive assessment of damages available to date and provides estimates by the type of structure, the level of damage, and by District. The detailed assessments are provided in the appendices 2 and 3 and are summarized in Table 1 below⁴.

Table 1 International Organization for Migration Assessment of Building And Infrastructural Requirements.

Total damaged	Quantity	Destroyed (%)	Sustained major damage (%)
<i>Buildings:</i>			
Houses	116 880 units	57	12
Health facilities	693 units	66	6.2
School buildings	1 662 units	46	11
Religious buildings	2 580 units	43	13.5
Government buildings	1 412 units	70.6	7.2
Markets/kiosks	1 416 units	75	7.7
<i>Infrastructure:</i>			
Arterial roads	654 km	28	46
Neighborhood roads	1 361 km	33.7	21
Provincial highways	603 km	38	14
Bridges	2 267 units	66.5	18

The consultant used the IOM damage estimates of building and infrastructure needs to revise his earlier estimates of wood needed for reconstruction. These estimates are provided in table 2 below, by sector.

Table 2 Reconstruction Timber Usage Estimates (m³)

Type of structure	Average Timber Content per unit	Total Timber Usage	Sawn Timber	Plywood
Houses	4.0	343 135	257 351	85 784
Health	10.0	5 347	4 010	1 337
Schools	35.0	36 356	27 267	9 089
Religious	3.0	4 833	3 625	1 208
Government	20.0	22 770	17 078	5 693
Markets	50.0	59 633	44 724	14 908
Bridges	20.0	26 104	26 104	0
Boats		10 000	10 000	0
Total		508 177	390 159	118 018

³ "Post Disaster Assessment in Nanggroe Aceh Darussalam". A technical report prepared by Directorate General of Human Settlement Ministry of Public Works and in collaboration with International Organization for Migration, Ministry of Justice and Human Rights, Kecamatan Development Programme, NAD Urban Poverty Project, June 2005.

⁴ This damage assessment does not include requirements for Simeulue and Nias.

The following assumptions were made in making the estimates:

1. The buildings and infrastructure damaged or destroyed by the Tsunami will be rebuilt.

An average timber content of a house is 3.2 m³, which is the figure used in the consultant's previous estimate. A contingency of 25 per cent has been added to this.

2. The calculation of timber needs was based on the level of damage sustained.
 - 100% damage required 100% of the average timber content of the structure
 - 75%-100% damage required 75% of the average timber content
 - 50%-75% damage required 50% of the average timber content
 - 25%-50% damage required 25% of the average timber content
 - <25% damage required 10% of the average timber content

It should be noted that the IOC damage assessment does not necessarily reflect the needs for new housing or repairs. Several experts spoken to suggest the total housing requirements will be lower than the damage total of 116,880. The report of the March consultancy used the figure of 100,000 houses and an unpublished report by DFID indicates that reconstruction demand could be as low as 80,000 residential houses.

It should be further noted that these timber estimates are based on incomplete information and represent educated guesses at best. The consultant is unable to provide a more precise figure for the quantity of timber needed for house construction or for other types of buildings and infrastructure in the absence of government guidelines on building designs and material use or building designs used by donors, NGOs and other organizations involved in the reconstruction programme. The wood requirements by district are shown in table 3 below. The table does not include wood requirements for road or boat construction.

Table 3 Reconstruction Timber Usage Estimates by District (m³)

District	Houses	Health	Schools	Religious	Government	Markets	Bridges	Total
Aceh Barat	45 359	633	3 899	660	2 811	11 748	20	65 130
Aceh Barat Daya	4 582	12	61	45	129	60	150	5 040
Aceh Besar	76 113	1 593	5 492	772	6 173	8 023	1 727	99 892
Aceh Jaya	41 086	733	4 025	498	2 480	8 725	1 367	58 914
Aceh Selatan	5 547	52	511	132	143	75	352	6 812
Aceh Singkil	2 073	5	242	58	48	5	87	2 517
Aceh Tamiang	117	1	4	4	10	0	0	135
Aceh Timur	1 941	74	149	36	96	363	843	3 501
Aceh Utara	21516	301	1 899	306	705	13 300	995	39 022
Banda Aceh	72 561	781	8 356	400	2 263	3 393	12 453	100 206
Bireuen	15 926	238	1 608	247	471	10 078	1 550	30 117
Kota Langsa	141	3	35	0	0	0	0	178
Lhokseumawe	3 388	29	1 834	28	98	20	245	5 641
Nagan Raya	7 239	52	859	178	300	193	510	9 331
Pidie	24 353	425	4 286	291	928	1 390	1 860	33 533
Sabang	1 463	33	81	36	249	1 213	79	3 152
Simeulue	19 730	386	3 017	1 141	5 866	1 050	3 866	35 055
Total	343 135	5 347	36 356	4 833	22 770	59 633	26 104	498 177

Boat Building Wood Requirements

The consultant revised earlier estimates of the timber volumes required for fishing fleet reconstruction from 7,000 m³ to 10,000 m³. He based the new estimate on communications with FAO fisheries experts involved in boat reconstruction. The general assumptions for boat building wood requirements are as follows:

total number of boats destroyed or severely damaged in the tsunami is estimated to be 5 000 to 7 000;

actual number of boats built in reconstruction is likely to be less than that destroyed and is estimated to be approximately 4 000;

The average volume of timber needed to build a boat is estimated to be 2.5 m³. This equates to approximately 10 000 m³ for the total boat reconstruction programme.

The total volume of wood required for boat building represents approximately 2 per cent of the total wood requirements for reconstruction.

While the volume required for boat building is relatively small, there are significant issues relating to boat building wood supply:

boat building has very specialist needs in terms of timber. Only a small number of species are suitable for boat building and only the best quality timber is suitable. Timber must be defect free, sapwood free, straight grained and properly dried;

only a small proportion of total timber produced at any time is suitable for boat building.

FAO has observed that unsuitable timber has been used for a significant proportion of boats built in Aceh after the tsunami. The most pressing problem is related to the use of "wet" timber that twists out of shape as it subsequently dries, making the boat susceptible to leakage. In addition, widespread use of defective and sub-standard timber will compromise the reliability and longevity of the boats. FAO estimates that up to 25 percent of boats built in some regions are not fit for fishing.

From FAO's discussions with stakeholders, the inappropriate use of timber appears to be the result of several factors:

lack of knowledge about timber requirements for boat building;

lack of supply of timber of the correct species and timber qualities. The demand is so high that organizations are accepting inferior timber for their boat construction programme;

general increase in the price of sawn timber making high quality timber unaffordable.

B. Assessment of Wood Supply Issues

Update of Wood Supply Situation

The wood demand for the reconstruction programme is estimated to be approximately 510,00 m³ of solid wood products in the form of sawn timber and plywood. This would equate to approximately 1 020 000 m³ roundwood equivalent (RWE).

There is insufficient short-term capacity to supply this volume from existing legal logging operations in NAD province. Recent Government decisions may further decrease the availability of wood from Aceh on the short-term. The situation is as follows:

Dinas Kehutanan will stop all IPK⁵ logging operations in NAD Province after September 2005;

logging operations will continue in transmigration areas and community forests but the expected volume from these sources is expected to be less than 50 000m³ per year;

legal log production from transmigration areas and community forests is insufficient to meet underlying population timber needs;

Dinas Kehutanan plans to recommence harvesting in HPH⁶ concessions, but this is likely to take at least one year to implement and there are serious doubts about the ability to recommence HPH harvesting due to concerns about security and the availability of suitable production areas.

Therefore, the overwhelming majority of legally produced wood available for reconstruction is likely to be produced from outside Aceh province from either other Indonesian provinces or imported from other countries.

As discussed in the report of the previous consultancy, the actual national wood production levels are estimated to be very high at approximately 60 million m³ RWE. FAO's investigations have identified serious problems with procuring suitable wood for reconstruction purposes, which include:

- lack of transport infrastructure and of coordinated logistics systems;
- difficulties distinguishing between legally and illegally sourced timber;
- policy and regulatory framework for wood supply that is not supportive in critical areas;
- lack of knowledge that is compromising access by parties involved in reconstruction to the timber industry;
- lack of knowledge in parties involved in reconstruction relating to the appropriate use of timber;
- bureaucratic constraints hindering timber procurement and distribution.

⁵ IPK refers to natural forest areas licensed for conversion to other land uses such as agriculture or plantation forestry.

⁶ HPH refers to natural forest areas licensed for sustainable production forest management.

Wood Supply Problems

The report of the previous consultancy identified several problems with accessing wood supplies for reconstruction. Subsequently, some reconstruction activity has occurred and the wood supply problems have become more obvious and pressing. Wood supply problems are described below:

Lack of transport infrastructure and coordinated logistics systems:

There are significant issues relating to delivery of construction materials for Aceh, as follows:

- all major port facilities in mainland Aceh were destroyed or significantly damaged by the Tsunami. The current port infrastructure is not suitable for handling large volumes of construction materials;
- lack of port handling facilities, such as for container handling and warehouse storage. In addition, in many places the local roading systems are not of high enough quality to allow delivery of the goods from the port storage area to the construction site;
- significant portion of the road network was destroyed or significantly damaged by the Tsunami. The current coastal road network and remaining inland road network is not suitable for handling large volumes of construction materials;
- very few international and coastal shipping routes servicing Aceh province;
- road transport is susceptible to disruption from security and criminal elements.

UN Joint Logistics Center (UNJLC) has proposed a programme for port infrastructural development and supply of shipping services to support the reconstruction programme, see Appendix 4 for details. The elements of the UNJLC programme are summarized below:

- create a supply and logistics services hub based at Sabang Port for receiving, storing and dispatching reconstruction materials. Sabang port will be rapidly upgraded through the acquisition of mobile cranes and construction of new warehouse capacity. Containers will be used to store materials in the short term until new warehouses are constructed;
- contracting the services of Special Landing Craft (SLCs) for delivery of reconstruction materials from Sabang to other ports in Aceh and Nias;
- rapid upgrading of smaller ports to allow the use of SLCs for landing materials. Note that SLCs can land materials on very basic port facilities and the required port upgrades can be achieved at relatively low cost.

The UNJLC programme, if implemented, should allow delivery of large volumes of timber and other construction materials to begin. The life of the programme is estimated to be two years, after which, road reconstruction should allow delivery by truck to most locations.

Access to legal timber supply: Significant barriers to procurement of timber in post tsunami reconstruction are posed by the difficulties experienced by purchasing organizations to differentiate between legally and illegally produced wood products.

Donors and NGOs require a high level of transparency and legality when procuring wood products. Unfortunately there is a real lack of confidence in the chain of

custody systems for domestically produced timber. Donor and NGO groups are reluctant to procure local timber for fear of purchasing illegally sourced or unsustainably produced timber.

Unfortunately, the domestic timber industry cannot currently meet the donors' and NGOs' requirements with respect to legality requirements. This problem cannot be easily resolved without proactive and coordinated response on the part of suppliers and buyers.

Lack of clear policy and regulatory framework for wood supply: The reconstruction programme is best served by a clear, unambiguous, and enabling policy and regulatory framework. Currently, clarification is required in several areas including:

- more precise estimates of demand for wood products for the reconstruction programme, which are needed to assist wood supply planning and infrastructure and logistics development;
- customs procedures for importing timber;
- definition of the meaning “timber donations” and the allowable mechanism for processing timber donations;
- tax status and controls over the use of donated timber;
- use and access to confiscated timber;
- regulations for grading of timber and the use of timber in building construction;
- requirements regarding chemical treatment of timber, especially imported timber.

The main policy issues center around the use and access to imported timber. Many NGOs have decided to use only timber imported from overseas, but have found that policy uncertainties are hindering their efforts to import the timber.

Although there is growing consensus on key issues concerning wood supply for reconstruction, the lack of clear policies and guidelines on timber sourcing (domestic and international), specifications and use are hindering reconstruction efforts.

Lack of knowledge about timber usage: Many of the donors and NGOs involved in reconstruction appear to have insufficient knowledge about the appropriate use of sawn timber as a construction material with regard to:

- information on the basic strength, durability and construction properties of different species;
- chemical treatment and timber drying requirements.
- appropriate specification of timber for procurement purposes.
- appropriate use of timber in construction with regard to its physical, treatment and durability attributes.

This problem does not apply to plywood. Plywood is a building material widely available in Indonesia and subject international standards for grading and usage. The properties of plywood are well known and documented and this simplifies the designing and building process.

Bureaucratic constraints: Indonesia has a highly developed bureaucracy. The timber industry is governed by complex and sometimes contradictory regulations for timber treatment, procurement, transportation, and importation.

Many of the donor and NGO groups are not properly informed about the procedures and regulations governing timber procurement. This lack of knowledge creates uncertainty in procurement and logistics operations resulting in delays in delivery, and needless incurring of additional fees or fines.

C. Preparation of Standards and Guidelines

Overview

The consultant prepared the following standards and guidelines to facilitate wood supply and procurement for reconstruction⁷:

- Timber Procurement Guidelines
- Technical Timber Usage Guidelines
- Legality Guidelines
- FAO Supplier List

These are still in draft form. A process for review, finalization and distribution would include:

- fast track peer review process for technical documents;
- publication and distribution of information through work group mailing lists;
- posting of information on FAO, BRR, and Humanitarian Information Center (HIC) websites;
- period review and maintenance of guidelines and supplier lists.

Procurement Guidelines

The guidelines are provided in Appendix 5. They are intended to facilitate the procurement of timber and ensure that the wood obtained is fit for purpose. Wood procurement as defined here includes product specification, ordering and purchasing, and distribution and delivery.

There are good reasons for adopting clear guidelines for timber procurement for post- tsunami reconstruction:

1. Wood product specifications define product attributes (both required and prohibited) to ensure that the product supplied is fit for purpose.
2. Accurate wood product specifications facilitate the exchange of goods and services through the elimination of technical barriers to trade⁸. Clear product

⁷ These documents are available at -
<http://www.humanitarianinfo.org/sumatra/reliefrecovery/shelter/doc.asp>

specifications to help buyers locate products in the market and simplify the process of procurement.

3. Clear and appropriate procedures for timber procurement ensure that the correct products are purchased, that goods are handled appropriately, and are delivered on time and in the best possible condition.

The procurement guidelines provide information or recommendations on timber procurement with regard to:

- timber procurement planning;
- timber legality policy;
- requirements for Internal transport documentation;
- timber importing procedures;
- preparation of timber specifications / bill of quantity.

The consultant produced guidelines for timber usage and determining timber legality to be used in conjunction with the procurement guidelines

Guidelines for Timber Classification and Usage in Post-Tsunami Reconstruction

The guidelines are provided in Appendix 6. Technical guidelines were prepared for the specification of wood products so that the timber procured would meet the technical requirements of the reconstruction building programme.

The technical standards were restricted to sawn timber. The consultant identified a lack of suitable local standards for timber usage, especially timber grading rules for construction purposes, as major technical problem for participants in the reconstruction programme. The guidelines provide recommendations on timber usage with regard to:

- sizes suitable for different uses;
- structural strength classification;
- durability classification;
- species attributes and suitability for different uses;
- hazard level classification;
- allowable treatments;
- level of protection provided by each treatment.

⁸ This is a significant issue for Tsunami Reconstruction where many of the international participants in construction have no local experience in timber usage and have difficulty specifying the products needed.

Guidelines for Determining the Legality of Wood in Post-Tsunami Reconstruction

These guidelines are provided in Appendix 7. They were prepared to clarify what constitutes legal timber in the Indonesian context. The guidelines used the legality standard previously prepared by The Nature Conservancy (TNC) and accepted by Government Departments and NGOs.

The legality standards can be used to make it easier for buyers to differentiate between legally and illegally produced Indonesian timber products, thereby meeting market demands for products that conform to the laws of the Republic of Indonesia. Mills can then be audited and monitored against the standard.

FAO Supplier List

The FAO suppliers list (see Appendix 8) provides a list of domestic wood suppliers. The wood suppliers are classified into several groups according to the wood source. The classifications include:

- Indonesian plantation forest companies;
- Uncertified Indonesian natural forest companies;
- Traders of imported timber;
- BM Trada Certification Ltd - List of certified producers;
- Scientific Certification Systems - List of certified producers;
- SGS Qualifor - List of certified producers;
- Smartwood - List of certified producers;
- Tropical Forest Trust (TFT)- list of TFT programme members;
- Lembaga Ekolabel Indonesia (LEI) - list of producers under certification process (not yet certified).

Stakeholder Consultation

Summary

The consultant conferred with as many stakeholders as possible to identify needs and to share information related to wood supply. The consultant had several informal meetings, made formal presentations at various forums, and organized and/or participated in two FAO-sponsored workshops and one formal meeting of NGOs to discuss wood supply issues.

Workshop for Wood Supply, 28 June 2005

This wood supply workshop was jointly hosted by NAD Dinas Kehutanan and FAO and was held at the offices of the NAD Dinas Kehutanan in Banda Aceh. The attendees included representatives of GOI departments and FAO, as follows:

- NAD Dinas Kehutanan
- Ministry of Forestry
- Badan Rehabilitasi dan Rekonstruksi (BRR)
- BAPPENAS
- Lembaga Ekolabel Indonesia (LEI)
- UNFAO

The workshop was an opportunity for the respective representatives to present departmental policies. The meeting minutes are included in appendix 9.

Workshop for Wood Supply, 2 August 2005

This second wood supply workshop was hosted by BRR and was held at the UN offices in Jakarta. The attendants included representatives from GOI departments, UN Agencies, donors and NGOs. Presentations were made by:

- Mr. Man Ho So: FAO Representative, Indonesia.
- Pak Iskandar: BRR
- Ir. Sriyono: Ministry of Forestry
- George Kuru: FAO
- Ibu Nana Firman: WWF
- Pak Agus Halim: BRR
- Nanang Roffandi Ahmad: APHI
- Petrus Gunarso: CIFOR
- Tim Nolan – making presentation from NGO viewpoint.

Notes on the presentations are attached in Appendix 10.

The workshop outcomes included:

1. A clear consensus from Government Departments in relation to use of domestic wood supplies for reconstruction.
2. Identification of problems caused by lack of clarity on government policies with regard to timber importation, timber donations and chemical treatment of timber
3. Concerns expressed by donors and NGOs in relation to the MOF policy for reactivating HPH concessions in NAD.

GOI Policy Outcomes

At and immediately following the two workshops, some consistent policy statements from the BRR and the MOF have emerged and some relevant information has become known, as follows:

BRR and MOF support the use of legally produced timber supplied from domestic sources.

In August and September, the IPK land conversion-logging operations will produce 30 000m³ of logs, then IPK logging will be stopped. In the short-term, the shortfall in timber production will be replaced by timber from other provinces.

An Indonesian company has plans to transport 10,000m³ per month of timber from Kalimantan to Aceh via Lhoksumawe.

MOF intend to convene a meeting for all HPH concessionaires in NAD to discuss reactivating HPH concessions in Aceh.

The MOF policy is that no imports are required and only timber donations should be received. This is consistent with BRR policy but BRR seems to have different view of the definition for "donations". MOF wants Government-to-Government donations. BRR seems to believe NGO commercial purchases are donations.

The MOF has given permission to increase national wood supply from 5.7 to 7.9 million cubic meters per year. The additional 2.2 million m³ are specifically allocated for post Tsunami reconstruction.

BRR has undertaken to clarify the policy with regard to the importation of timber to provide some certainty for donors and NGO's.

BRR will investigate the regulations for timber chemical treatment and attempt to clarify the requirements for treatment of imported timber.

BRR has announced that it does not support the use of confiscated timber for reconstruction.

Summary of NGO Meetings and Consultation

Presentations were made to Donor and NGOs groups on several occasions including three shelter working group⁹ meetings, one timber working group meeting, the Green Aceh Workshop, and numerous meetings with representatives of various NGOs and donors involved in reconstruction.

At the request of FAO, the timber working group prepared a statement about concerns relating to timber supply. A copy of the paper is included in the appendix 11 and the main points are summarized below:

The timber industry group is committed to prioritizing procurement of seasoned timber from companies that demonstrate sustainable management practices with a transparent and accredited chain of custody from source to consumer.

The timber industry group supports the Ministry of Forestry and BRR in their efforts to increase wood supply including the possibility of releasing confiscated timber and the use of plantation grown timber to meet this increased demand.

The timber industry group requests the GOI to permit them to:

1. procure timber from legal and sustainably managed forests from throughout Indonesia that are subject to independent third party accreditation;
2. build with plantation timber treated to meet building standards;
3. procure suitable timbers from legal and sustainably managed forests sourced from other countries that are also subjected to independent third party accreditation;
4. avoid taking any action that threatens the integrity of either the Leuser ecosystem, gazetted National Parks or other ecologically sensitive areas;
5. access timber currently held by the Public Prosecution Service.

IV. RECOMMENDATIONS FOR FOLLOW-UP ACTIONS

Support for BRR

Recommended Actions:

FAO to assist BRR refine the estimates of demand for wood products for the reconstruction programme and assist with wood supply planning, taking into consideration infrastructure and logistics development.

FAO to offer advice to BRR on timber importation policies and timber donations so that this issue can be quickly addressed and clarified. In addition, the customs procedures for timber imports need to be clarified.

FAO to provide BRR with advice on chemical treatment of wood. FAO can work through BRR with the Ministry of Agriculture, Ministry of Forestry and Asosiasi Pengawetan Kayu Indonesia - Indonesian Association of Wood Preservation Companies (APKIN) to review the list of allowable timber treatments.

FAO to assist BRR with the development of regulations regarding the appropriate use of timber.

Inputs: Total 4 weeks work for one forest industry expert for all activities:

⁹ The shelter and timber working groups comprise representatives of Government Departments, UN Agencies, and NGO's and meet periodically. The shelter working group is chaired by UN Habitat and meets once a week.

Support for NAD Dinas Kehutanan

Recommended Action: FAO to assist the Dinas Kehutanan prepare a proposal to seek donor assistance for the review of HPH forest management plans. This recommendation has been requested by NAD Dinas Kehutanan.

Inputs: 1-2 weeks work for one forest management expert:

Recommended Action: FAO to provide technical assistance and training during the reactivation of the HPH.

Inputs: This would require a large project of long duration and involving several experts in different technical areas:

Maintenance of Standards and Supplier List

Recommended Action: Following an implementation period, the technical guidelines should be reviewed and revised in consultation with Government Departments, UN Agencies and NGO's directly involved in the reconstruction programme.

Recommended Action: Further work is required to expand the FAO supplier list. WWF has provided a list of potential timber suppliers from Australasia and North America. This list is enormous and contains a large quantity of superfluous information and needs to be rationalized prior to incorporation into the FAO supplier list. Other lists of suppliers of certified timber from other certification schemes should be added to the \FAO supplier list yet.

Inputs: 2 weeks work for one forest industry expert for all activities:

Thereafter, FAO should widely distribute these documents through work group mailing lists and by posting on FAO, BRR, and Humanitarian Information Center (HIC) websites. These materials should be periodically reviewed and updated.

Provision of Advice to NGOs on Procurement

Recommended Action: FAO to assist NGOs to implement appropriate internal procurement policies and strategies, to prepare timber specifications and purchase contracts, and to implement suitable procedures for purchasing, acquisition and distribution of timber products.

Inputs: FAO inputs dependent on NGO requests, but could require on-going support. A locally based forest industry expert would best support this task:

Support to Timber Industry for Development of Plantation Timber Supplies

Recommended Action: FAO to assist in the development of a strategy to facilitate the production and delivery of plantation grown sawn timber for reconstruction. Primarily, FAO can work with both APHI and donor and NGO to assist the development of this sector. This includes preparing information on the resource base, i.e. location, species, harvestable volume, etc. as well as processing capacity and delivery mechanisms.

There is a definite desire on behalf of the timber industry to develop an industry based on the production of sawn timber using plantation wood. This is reciprocated

by interest from donor and NGO timber buyers in plantation timber as a source of legal and sustainable local timber.

Inputs: 4 weeks for one wood supply expert.

APPENDIX 1. TERMS OF REFERENCE

Forest Products Consultant **Development and Implementation of a Wood Procurement Plan for Post-Tsunami Reconstruction in Indonesia**

Background:

A large amount of wood products will be needed in Aceh Province for the reconstruction of houses, other infrastructure and boats damaged or destroyed by the Indian Ocean tsunami of 26 December 2004. An initial assessment of the demand for wood and available supplies carried out by FAO in March-April 2005 recommended various options and related needs for sourcing the wood needed. (See report, "FAO assessment of timber demand and supply for post-tsunami reconstruction in Indonesia" by G. Kuru, 26 April 2005.) The objective of the consultancy is to begin to implement the recommendations made in the above-mentioned report.

Tasks of consultant:

1) Assist the GOI in preparing a wood procurement policy and implementation plan for residential, infrastructure and boat construction, involving the following steps:

Estimate the volumes and types of wood products, both structural and non-structural, needed for reconstruction of houses that are need/envisaged (e.g. steel-frame, wooden, reinforced concrete, multi-storied apartments, tenements or single-detached houses);

Estimate the volumes and types of wood products, both structural and non-structural, needed for infrastructure construction such as commercial/public buildings and bridges;

Prepare technical standards for solid wood products (grades, treatments and dimensions)

Prepare procurement guidelines for purchasing legal timber from domestic sources and from overseas

Examine potential supply sources of wood within the country, to the extent possible, identifying mills and volumes and types of wood products;

Review the information on wood requirements (volumes and species) for boat construction that is being collected by the FAO consultant and assess the availability of wood for this use from legal sources in Aceh;

Examine potential supply sources outside the country and, to the extent possible, identify donors/exporters and volumes and types of wood products for residential, infrastructure and, if appropriate, boat construction;

Create a list of approved suppliers or computer-based clearinghouse providing information on sources of solid wood products;

Recommend expedited import procedures;

Recommend organizational set-ups for receiving shipments of wood products in large quantity to Aceh and North Sumatera and delivering them to construction sites;

Prepare an implementation schedule

2) Organize a workshop for government officials, donors, NGOs and national organizations assisting with reconstruction to present and discuss the implementation plan (including the procurement guidelines)

- 3) Within the first two weeks of the consultancy, elaborate the proposal for technical assistance for maximizing the use of salvage wood and alternative wood supplies in Aceh (pg. 35 of above-mentioned Kuru report) and provide terms of reference for consultants (national and, if necessary, international) to carry out the activities. Regarding salvaged wood, take into account the potential for salvage operations, end uses of the salvaged material, and on-going salvage operations of the local governments, international organizations (e.g., UNEP, which has the mandate for disposal of debris), NGOs and local communities/individuals.
- 4) At the request of FAO's Emergency Coordinator in Aceh and/or the FAO Representation in Indonesia, attend relevant forest-related meetings in Aceh province and, as necessary, in Jakarta, for the purposes of providing technical support or coordination.
- 5) Prepare a report describing the actions taken, results achieved, key issues or constraints encountered, and recommending next steps to be taken.

APPENDIX 2. INTERNATIONAL ORGANIZATION FOR MIGRATION NEEDS ASSESSMENT – BUILDING DAMAGE

Damaged Housing

No	DISTRICT	Villages	Number	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	156	15 689	2 933	931	946	2 153	8 726
2	ACEH BARAT DAYA	77	3 234	1 013	1 065	583	346	227
3	ACEH BESAR	120	21 057	948	504	876	1 438	17 291
4	ACEH JAYA	75	10 592	0	0	0	1 282	9 310
5	ACEH SELATAN	138	4 284	1 678	1 234	755	336	281
6	ACEH SINGKIL	47	1 895	711	783	256	86	59
7	ACEH TAMIANG	207	278	269	9	0	0	0
8	ACEH TIMUR	429	791	187	70	125	90	319
9	ACEH UTARA	715	9 130	3 336	619	252	633	4 290
10	BANDA ACEH	55	21 631	1 717	1 207	1 037	2 087	15 583
11	BIREUEN	94	6 531	1 264	1 159	433	1 305	2 370
12	KOTA LANGSA	50	107	34	38	24	3	8
13	LHOKSEUMAWE	67	1 992	778	337	291	186	400
14	NAGAN RAYA	69	2 785	417	445	408	249	1 266
15	PIDIE	110	8 585	606	1 611	884	1 204	4 280
16	SABANG	16	430	14	27	38	50	301
17	SIMEULUE	71	7 869	1 117	921	1 090	2 782	1 959
	TOTAL	2 496	116 880	17 022	10 960	7 998	14 230	66 670

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use

Health Facilities

No	DISTRICT	Villages	Number	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	110	85	18	3	4	5	55
2	ACEH BARAT DAYA	4	3	2	0	0	0	1
3	ACEH BESAR	173	165	3	1	4	1	156
4	ACEH JAYA	80	74	0	0	0	3	71
5	ACEH SELATAN	11	11	4	2	1	1	3
6	ACEH SINGKIL	3	3	2	1	0	0	0
7	ACEH TAMIANG	1	1	1	0	0	0	0
8	ACEH TIMUR	7	9	1	1	0	0	7
9	ACEH UTARA	73	69	31	8	7	6	17
10	BANDA ACEH	75	97	11	4	8	8	66
11	BIREUEN	30	52	8	25	4	1	14
12	KOTA LANGSA	1	1	0	1	0	0	0
13	LHOKSEUMAWE	7	4	1	0	0	1	2
14	NAGAN RAYA	7	7	2	0	0	0	5
15	PIDIE	60	52	2	3	7	8	32
16	SABANG	4	4	0	1	0	0	3
17	SIMEULUE	57	56	8	8	4	9	27
	TOTAL	703	693	94	58	39	43	459

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use

Schools

No	DISTRICT	Villages	Number	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	156	174	44	17	13	15	85
2	ACEH BARAT DAYA	77	9	5	3	1	0	0
3	ACEH BESAR	120	181	14	6	9	10	142
4	ACEH JAYA	75	117	0	0	3	2	112
5	ACEH SELATAN	138	32	6	10	4	10	2
6	ACEH SINGKIL	47	29	9	16	4	0	0
7	ACEH TAMIANG	207	1	1	0	0	0	0
8	ACEH TIMUR	429	10	5	1	0	2	2
9	ACEH UTARA	715	174	110	19	8	10	27
10	BANDA ACEH	55	327	60	13	34	30	190
11	BIREUEN	94	115	7	72	11	13	12
12	KOTA LANGSA	50	1	0	0	0	0	1
13	LHOKSEUMAWE	67	108	4	2	101	0	1
14	NAGAN RAYA	69	51	23	5	3	2	18
15	PIDIE	110	204	57	16	10	53	68
16	SABANG	16	6	3	0	2	0	1
17	SIMEULUE	71	123	17	10	7	42	47
	TOTAL	2 496	1,662	365	190	210	189	708

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use

Religious Buildings

No	DISTRICT	Villages	Number	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	331	335	56	41	14	107	117
2	ACEH BARAT DAYA	33	39	13	11	7	2	6
3	ACEH BESAR	247	313	30	21	18	16	228
4	ACEH JAYA	149	171	1	0	3	10	157
5	ACEH SELATAN	108	122	24	47	35	14	2
6	ACEH SINGKIL	64	77	23	40	14	0	0
7	ACEH TAMIANG	9	9	6	3	0	0	0
8	ACEH TIMUR	29	29	15	2	3	2	7
9	ACEH UTARA	306	339	205	48	24	18	44
10	BANDA ACEH	121	213	70	11	11	12	109
11	BIREUEN	124	156	38	31	18	29	40
12	KOTA LANGSA	0	0	0	0	0	0	
13	LHOKSEUMAWE	21	21	7	5	1	5	3
14	NAGAN RAYA	83	107	42	5	9	6	45
15	PIDIE	125	162	38	24	13	25	62
16	SABANG	13	14	1	0	2	0	11
17	SIMEULUE	147	473	45	20	24	101	283
	TOTAL	1,910	2,580	614	309	196	347	1,114

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use

Government Buildings

No	DISTRICT	Villages	Number	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	216	213	63	12	6	15	117
2	ACEH BARAT DAYA	13	13	2	2	4	5	0
3	ACEH BESAR	335	335	14	9	5	18	289
4	ACEH JAYA	126	125	0	0	2	0	123
5	ACEH SELATAN	16	18	4	5	6	2	1
6	ACEH SINGKIL	9	8	4	1	2	1	0
7	ACEH TAMIANG	2	2	0	2	0	0	0
8	ACEH TIMUR	8	8	3	0	1	0	4
9	ACEH UTARA	60	67	25	5	7	8	22
10	BANDA ACEH	113	153	24	14	9	13	93
11	BIREUEN	32	29	3	0	3	5	18
12	LHOKSEUMAWE	11	9	4	0	0	2	3
13	NAGAN RAYA	28	29	15	0	1	0	13
14	PIDIE	62	63	9	5	1	17	31
15	SABANG	15	15	2	1	0	0	12
16	SIMEULUE	125	325	18	6	14	16	271
	TOTAL	1 171	1 412	190	62	61	102	997

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use

Markets and Commercial Structures

No	DISTRICT	Villages	Number	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	63	270	22	10	9	13	216
2	ACEH BARAT DAYA	3	3	2	0	0	0	1
3	ACEH BESAR	51	167	7	0	0	1	159
4	ACEH JAYA	43	186	0	0	2	42	142
5	ACEH SELATAN	2	2	0	0	0	2	0
6	ACEH SINGKIL	1	1	1	0	0	0	0
7	ACEH TIMUR	8	9	0	0	3	1	5
8	ACEH UTARA	41	350	90	1	3	3	253
9	BANDA ACEH	17	72	1	2	0	7	62
10	BIREUEN	40	243	18	14	18	23	170
11	LHOKSEUMAWE	1	4	4	0	0	0	0
12	NAGAN RAYA	6	6	1	0	2	1	2
13	PIDIE	10	54	13	16	4	2	19
14	SABANG	8	25	0	0	0	3	22
15	SIMEULUE	7	24	0	0	0	12	12
	TOTAL	301	1 416	159	43	41	110	1 063

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use

APPENDIX 3. INTERNATIONAL ORGANIZATION FOR MIGRATION NEEDS ASSESSMENT – INFRASTRUCTURE DAMAGE

Damage to Arterial Roads

No	DISTRICT	Villages	Distance in m	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	156	52 057	14 425	2 005	8 525	7 300	19 802
2	ACEH BARAT DAYA	77	0	0	0	0	0	0
3	ACEH BESAR	120	40,309	7 004	5 705	2 000	6 000	19 600
4	ACEH JAYA	75	132 800	28 000	5 100	32 200	1 400	66 100
5	ACEH SELATAN	138	265	200	0	15	0	0
6	ACEH SINGKIL	46	0	0	0	0	0	0
7	ACEH TAMIANG	207	0	0	0	0	0	0
8	ACEH TIMUR	429	16 335	3 865	2 300	7 400	500	2 270
9	ACEH UTARA	709	7,000	2 500	500	0	3 500	500
10	BANDA ACEH	55	500	500	0	0	0	0
11	BIREUEN	94	4 800	2 000	0	1 800	1 000	0
12	KOTA LANGSA	50	0	0	0	0	0	0
13	LHOKSEUMAWE	67	6 600	0	2 000	4 500	100	0
14	NAGAN RAYA	69	279 990	3 250	3 300	0	270 200	3 240
15	PIDIE	99	8 570	200	530	0	2 990	4 850
16	SABANG	16	8 000	0	3 000	1 000	1 000	3 000
17	SIMEULUE	71	46 258	16,250	16 458	2 500	5 200	0
	TOTAL	2 478	603 484	78 194	40 898	59 940	299 190	119 362

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired.
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use.

Damage to City Roads

No	DISTRICT	Villages	Distance in m	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	156	67 374	3 574	4 400	10 300	27 100	22 000
2	ACEH BARAT DAYA	77	1 250	0	0	100	1 100	50
3	ACEH BESAR	120	111 908	30 705	1 001	600	15 800	63 802
4	ACEH JAYA	75	58 675	1 520	11 400	7 140	1 005	37 610
5	ACEH SELATAN	138	300	0	300	0	0	0
6	ACEH SINGKIL	46	5 430	850	1 530	2 550	0	500
7	ACEH TAMIANG	207	0	0	0	0	0	0
8	ACEH TIMUR	429	1 200	0	100	500	0	600
9	ACEH UTARA	709	48 100	13 675	1 725	10 200	9 600	12 900
10	BANDA ACEH	55	27 125	8 850	5 500	0	5 175	7 600
11	BIREUEN	94	26 945	5 300	3 870	7 800	5 750	4 225
12	KOTA LANGSA	50	0	0	0	0	0	0
13	LHOKSEUMAWE	67	8 700	0	2 300	2 000	4 400	0
14	NAGAN RAYA	69	231 565	5 005	3 400	5 500	211 500	6 160
15	PIDIE	99	50 756	1 492	3 272	10 055	14 490	21 447
16	SABANG	16	0	0	0	0	0	0
17	SIMEULUE	71	14 708	1 846	1 030	6 804	1 920	3 108
	TOTAL	2 478	654 036	72 817	39 828	63 549	297 840	180 002

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired.
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use.

Damage to Neighborhood Roads

No	DISTRICT	Villages	Distance in m	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	156	318 264	39 589	31 550	45 300	46 325	155 500
2	ACEH BARAT DAYA	77	7 270	1 520	1 700	1 500	2 150	400
3	ACEH BESAR	120	295 171	26 110	20 300	31 125	89 285	128 351
4	ACEH JAYA	75	169 760	51 160	48 000	28 850	9 900	31 850
5	ACEH SELATAN	138	6 517	500	4 950	800	200	67
6	ACEH SINGKIL	46	1 225	0	550	0	675	0
7	ACEH TAMIANG	207	0	0	0	0	0	0
8	ACEH TIMUR	429	15 151	1 601	640	3 710	2 600	6 600
9	ACEH UTARA	709	73 357	14 987	18 470	16 484	14 471	8 945
10	BANDA ACEH	55	178 655	20 500	14 600	15 245	28 355	99 955
11	BIREUEN	94	140 082	25 050	31 300	16 400	59 982	7 350
12	KOTA LANGSA	50	200	0	100	0	100	0
13	LHOKSEUMAWE	67	15 544	1 300	2 550	6 009	5 685	0
14	NAGAN RAYA	69	16 650	9 200	2 650	3 250	1 050	500
15	PIDIE	99	56 358	5 015	5 168	9 762	21 189	15 224
16	SABANG	16	7 400	200	1 000	0	4 200	2 000
17	SIMEULUE	71	59 259	24 205	16 175	9 235	6 710	2 934
	TOTAL	2 478	1 360 863	220 937	199 703	187 670	292 877	459 676
Classification Criteria								
%	Damaged Meaning							
100%	Structure is unusable, cannot be repaired.							
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month							
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair							
Greater than 25%	Some structural damage, safe for limited use, repairable in a week							
Less than 25%	Minor structural damage and safe for use.							

Bridges

No	DISTRICT	Villages	Number	<25%	>25%	>50%	>75%	100%
1	ACEH BARAT	156	678	15	19	18	165	461
2	ACEH BARAT DAYA	77	9	0	1	0	3	5
3	ACEH BESAR	120	114	21	2	7	15	69
4	ACEH JAYA	75	84	6	6	3	17	52
5	ACEH SELATAN	138	24	1	2	6	4	11
6	ACEH SINGKIL	46	9	1	3	3	0	2
7	ACEH TAMIANG	207	0	0	0	0	0	0
8	ACEH TIMUR	429	52	4	2	4	11	31
9	ACEH UTARA	709	92	15	28	8	15	26
10	BANDA ACEH	55	641	14	5	2	4	616
11	BIREUEN	94	96	5	7	12	11	61
12	KOTA LANGSA	50	0	0	0	0	0	0
13	LHOKSEUMAWE	67	23	10	0	0	7	6
14	NAGAN RAYA	69	47	20	2	1	6	18
15	PIDIE	99	138	15	8	3	96	16
16	SABANG	16	7	2	0	1	3	1
17	SIMEULUE	71	253	18	26	21	54	134
	TOTAL	2 478	2 267	147	111	89	411	1 509

Classification Criteria

%	Damaged Meaning
100%	Structure is unusable, cannot be repaired.
Greater than 75%	Major structural damage, unsafe for use but repairable within 1 month
Greater than 50%	Significant structural damage, unsafe for use, will require more than a week to repair
Greater than 25%	Some structural damage, safe for limited use, repairable in a week
Less than 25%	Minor structural damage and safe for use.

APPENDIX 4. PROPOSED UNJLC RECONSTRUCTION PORT AND LOGISTICS STRATEGY

Port Development and Shipping Strategy

In July 2005, UNJLC released a draft report describing an integrated port and logistics strategy for reconstruction¹. The main findings of the report are repeated here because of its relevance to reconstruction wood supply.

The report estimates that approximately 30 million tonnes of materials will be required for reconstruction. Some of the material can be sourced within NAD province and some can be brought in by road, but the vast majority has to be brought into the province and then distributed to the various townships along the coast by sea.

This report summarizes the strategy that will be adopted for the reconstruction and development of the commercial ports of Aceh (NAD) and Nias. There are two aspects to this strategy. The first is the strategy to be adopted in the short term – over the next six to twelve months, before much major reconstruction work can be done to the ports, and when large quantities of materials have to be shipped in and distributed. In the long term, the strategy aims at rebuilding the ports in such a way that they can have a major influence on the long-term economic development of the province.

The main components of the port development and shipping strategy are:

The use of Port of Sabang as the main point of entry for reconstruction building supplies.

The rapid upgrading of Sabang and other ports to a state where they can support the movement of large volumes of materials for reconstruction. This includes the construction of temporary wharves at locations where there is a short-term need for port facilities but no long-term requirement.

The use of Port of Sabang as the main hub for storage, dispatch and distribution of construction materials to other ports in NAD.

The creation of a common sea service based around so-called “Special Landing Craft (SLC)” which are specially contracted for the delivery of reconstruction materials throughout NAD.

A long-term port development strategy

¹ “Strategy for the development of the ports of Aceh and Nias”. A draft report prepared by UNJLC on behalf of UNDP. July 2005.

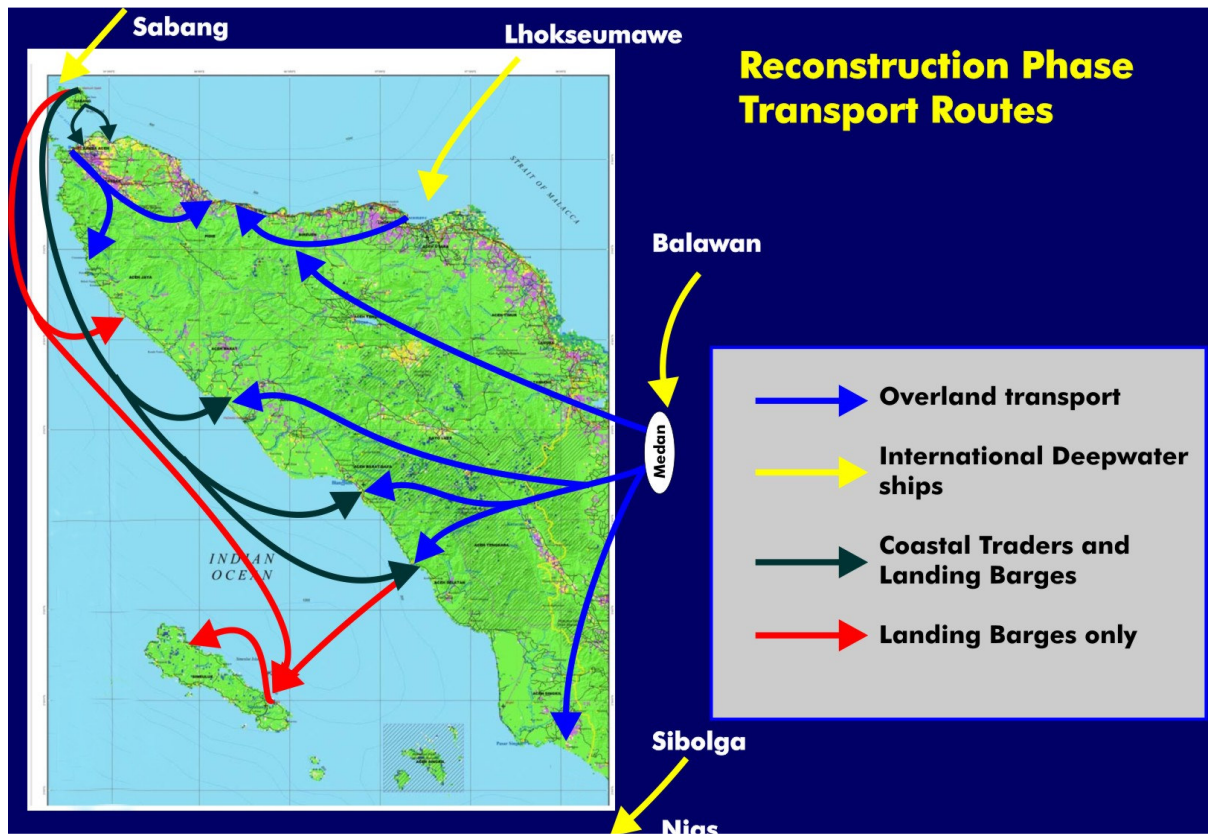
Short Term Port Development Strategy

In the short term, cargo can be brought into several ports in large ships. In Aceh, these are the ports of Lhokseumawe and Sabang. In North Sumatra the ports of Balawan near Medan and Sibolga on the south coast are suitable for large ships. Balawan is connected to most of Aceh by road. Sibolga is a convenient transit port for goods going to Nias.

The intention is to have, as far as possible, the port of Sabang acting as a hub port with goods being trans shipped from there in appropriate vessels to other ports. Figure 3 above gives the main transport routes to the regional ports of Aceh and Nias.

At Sabang the immediate requirement is to extend the lay-down area behind the wharf and to build new temporary storage sheds for perishable goods.

Transport Routes



Long Term Port Development Strategy

The long-term strategy is to have a network of large and small ports for the province and for Nias with Sabang acting as a hub port. The general arrangement is shown in Figure 4

Figure - Strategic Location of Ports of Aceh



APPENDIX 5. PROCUREMENT GUIDELINES

Procurement Guidelines

Draft Discussion Documents

Prepared by UN FAO

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OBJECTIVES

To prepare guidelines to facilitate the procurement of timber and ensure that the wood obtained is fit for purpose.

OVERVIEW

We define wood procurement as the processes of product specification, ordering and purchasing, and distribution and delivery. There are good reasons for adopting clear guidelines for timber procurement for post tsunami reconstruction:

1. Wood product specifications define product attributes that are required and are precluded to ensure that the product supplied is fit for purpose.
2. Accurate wood product specifications facilitate the exchange of goods and services through the elimination of technical barriers to trade¹. Clear product specifications facilitate finding / identification of products in the market and simplify the process of procurement.
3. Clear and appropriate procedures for timber procurement ensure that the correct products are purchased, that goods are handled appropriately and delivered on time and in the best possible condition.

FAO has produced the following technical documents² to be used in conjunction with these guidelines:

“Guidelines for Timber Classification and Usage in Post–Tsunami Reconstruction”

“Guidelines for Determining the Legality of Wood in Post–Tsunami Reconstruction”

¹ This is a significant issue for Tsunami Reconstruction where many of the international participants in construction have no local experience in timber usage and have difficulty specifying the products needed.

² These documents are available at -
<http://www.humanitarianinfo.org/sumatra/reliefrecovery/shelter/doc.asp>

PROCUREMENT PLANNING ISSUES

Considerations Regarding Timber Procurement Planning

A comprehensive statement of procurement planning issues is outside the scope of this document. However, procurement of timber should take into account the following:

1. Timber is a highly variable product in terms of species and grade. Appropriate use of timber requires an understanding of attributes of the different species and grades. The buyer of goods needs to clearly describe the goods to be purchased in the specifications and implement sufficient quality control procedures to ensure the delivered goods complies with the specification.
2. Because timber is often ordered in large quantities, the required products are often not available in sufficient quantities from any one source. Large procurement orders may require sourcing from multiple locations.
3. Timber supply and delivery often has a long lead-time. For example, an export order of timber may take many weeks including the following tasks:
 - Completion of specification, tendering, ordering and contract negotiation (approx 2-4 weeks)
 - Consolidation of the consignment (approx 2 weeks)
 - Linking of the consignment to existing shipping services (approx 1-2 weeks).
 - Shipping of goods to the regional hub, e.g. Singapore (approx 10 days)
 - Transshipment to secondary hub, e.g. Lhoksumawe (approx 1 week)
 - Customs clearance (1-3 days)
 - Processing transport permits - SKSHH (1-2 days)
 - Transshipment to final destination (2 days)
1. It is highly recommended that customs clearance be obtained before the arrival of the shipment to avoid the possibility of demurrage¹. This involves submitting the bill lading to customs prior to arrival, preferably pre-shipment.
2. Organizations with large long-term construction programs should consider long-term supply agreements so that procurement and delivery processes can be streamlined.
3. Timber is a bulky commodity and requires large-scale facilities for production, storage and transport. Long-term storage in the tropics requires adequate warehousing facilities although in the short term timber can be transported break bulk and stored outside. Warehousing facilities are essential when procuring large volumes of imported timber.

¹ A charge required as compensation for the delay of a ship or freight car or other cargo beyond its scheduled time of departure.

4. Containerization of timber has advantages in terms of ease of shipment and handling. Containers also provide a good long-term storage option for timber. Container handling facilities are available at the ports in Medan and Lhoksumawe but are not available at any other ports in Aceh. UNJLC inform FAO that they are planning to construct container-handling facilities at Sabang.

Product Legality Policy

All organizations should ensure that the procedures used to procure timber complies with the laws of The Republic of Indonesia and that the materials procured meet their own internal organizational rules for legality and sustainability. To that effect, all organizations should have:

1. Clear procurement policies in place
2. Clear procedures for specification, purchasing and document control to ensure the procurement policies are met.

Organizations have different concerns but FAO has identified three main issues:

- **Protection from prosecution for receiving stolen timber:** All timber buyers should implement procedures to protect themselves from prosecution for receiving stolen timber. In principle, purchasing from a licensed sawmill or trader effectively indemnifies the purchaser from any legal liability regarding the legality of the purchased goods.
- **Ensuring that wood comes from a legal source:** Many timber buyers require that the wood they purchase is from a legal source, meaning that the logs are sourced from forests that is properly licensed and from mills that are licensed to produce processed wood. This can be achieved by either conducting an audit of suppliers or by using the services of third party verification agency. Some suppliers are independently certified as using logs from legal licensed forest and so will not need to be audited by the buyer.
- **Ensuring wood is from sustainably managed forest:** Many timber buyers require that the wood they purchase is from a legal source and is sustainably managed. This can be achieved by either conducting an audit of suppliers or by using the services of third party verification agency. Some suppliers are independently certified and so will not need to be audited by the buyer.

There are several procedures that can be adopted to address the concerns above:

Concern	Procedures to address the concern
Protection from prosecution for receiving stolen timber.	<ul style="list-style-type: none"> • Check that the supplier has been issued with a permit for timber trading from the Dinas Trade and Industry.
Ensuring that wood comes from a legal source.	<ul style="list-style-type: none"> • Check that the timber comes from a licensed sawmill and licensed forest concession area.
Ensuring wood is from sustainably managed forest	<ul style="list-style-type: none"> • Conduct an audit of the supplier with regard to legal source and forest management practices. • Conduct an audit of the chain of custody and • Purchase wood from certified forests or from producers with chain of custody.

The FAO document “Guidelines for Determining the Legality of Wood in Post-Tsunami Reconstruction” contains criteria and indicators for determining legal source and legal compliance.

Internal Transport Documentation Requirements

The Dinas Kehutanan must authorize the transport of all domestically produced timber with the following documents:

Surat Keterangan Sahnya Hasil Hutan (SKSHH)

Daftar Hasil Hutan Kayu Bulat (DHH)

The SKSHH is a transportation permit authorizing the movement of goods between designated locations. The Dinas Kehutanan at source issues the SKSHH. It is specifically allocated to the transport vehicle carrying the load. The DHH is the equivalent of a shipping manifest and lists the logs or packs of timber in the shipment.

In theory, Dinas must issue a SKSHH and DHH every time wood is moved from one location to another. In practice:

Small purchases from local merchants do not require SKSHH and DHH.

In Aceh as at July 2005, SKSHH and DHH are not routinely issued for timber movements within a district. This is primarily due to the large increase in shipments and the lack of on the ground capacity.

Lack of documentation can be a problem though at police checkpoints and it is recommended that SKSHH and DHH be obtained for all shipments of timber.

Dinas Kehutanan is currently redesigning the SKSHH and DHH for NAD to improve control over timber movement.

Timber Importing Procedures

Simplified customers procedures were issued by the Ministry of Finance to speed the clearance of goods through customs for the supply of goods for humanitarian relief in Aceh. Subsequently, procedures for importing goods, including timber, have been prepared by UNJLC¹. These are summarized below:

For all imported timber:

- Recommendation letters for importing wood products are required from BAKORNAS and the Ministry of Trade. A copy of these documents should be annexed to the other customs documents.
- All importing agencies are required to complete a PEMBERITAHUAN IMPOR BARANG (PIB - Customs Declaration form).
- Clearance of goods through customs and quarantine requires the following documents:
 - Invoice
 - Packing list
 - Phytosanitary certificate from port of loading

¹ See <http://www.unjlc.org>

DRAFT DISCUSSION DOCUMENT ONLY – WORK IN PROGRESS

- An Airway Bill or Bill of Lading (B/L) be used as a substitute for other documents (Manifest, Invoice, and Packing List). However, this is only possible for a temporary period.
- Medan has a permanent customs office. Timber can be imported directly into Banda Aceh, Sabang, Lhokseumawe, and Simeulue as long as there is a customs person officer in that place.
- Some countries are blacklisted for timber but the consultant was not been able to obtain a list of these countries.

Donations of timber require the following additional documentation:

- Duty and tax-free importation for emergency relief purposes in Indonesia is processed using the PAPER 19 form issued by the Sekretariat Negara (Government Secretariat).
- A CERTIFICATE OF AUTHENTICITY that must be signed by the Head of the UN Agency or NGO requesting clearance of the goods should be prepared as this will assist in the speed of clearance.

SPECIFICATIONS AND BILLS OF QUANTITIES

Overview

The first stage in timber procurement is the preparation of a list of materials to be purchased and the specification of the attributes of those materials. The timber materials required will arise from the design plans for the buildings. The selection of different species, grades, and sizes of timber will depend on several factors:

1. The structural use of the material and the performance requirements of that use.
2. Basic strength, stiffness and other engineering attributes of the timber being used.
3. Physical grade characteristics (e.g. knots, splits, etc) that affect its engineering attributes.
4. Natural durability of the timber and the level of hazard it is being exposed to.
5. The standard sizes that are available.

The bill of quantity / timber specification should be sufficiently detailed to ensure that the materials obtained meet the requirements. The specification is usually simplified when timber-grading rules are available. In the absence of robust and comprehensive grading rules, the bill of quantity / timber specification should include the following information¹.

1. The dimension, number of pieces and / or volume of the timber.
2. Grading system to be used and grade of the timber.
3. Minimum grade attributes for the timber².
4. Allowable species
5. Durability of the timber
6. Chemical treatments required
7. Declaration regarding timber legality

¹ See the FAO document “Guidelines for Timber Classification and Usage in Post–Tsunami Reconstruction” for further information.

² This is especially required for domestic sales because of the lack of robust and transparent domestic timber grading rules.

Sample Timber Specification / Bill of Quantity

A example of a timber specification / bill of quantity that conforms these guidelines is shown below:

Roofing Timber			
Product	Dimension	No. Pieces	Volume (m3)
Roofing beams	5cmx10cmx4m	16	0.320
Roofing cross beams	5cmx5cmx4m	18	0.180
Corner wall beams	10cmx10cmx2.5m	4	0.100
External wall supporting beams	5cmx10cmx2.5m	18	0.225
Allowable species: Ampupu, Bangkirai, Bayur, Berumbung, Bintangur, Bungo, Cemara Laut, Cengal, Kapur, Keruing, Meranti batu, Merawan, Nangka, Resak, Semantok, Sentang, Sungkai, Tanjung.			
Durability Class: Class I-III, under the roof, no ground contact and well ventilated.			
External Walls			
Product	Dimension	No. Pieces	Volume (m3)
External wall planks	2cmx20cmx6m	65	1.560
Allowable species: Ampupu, Bayur, Berumbung, Bintangur, Keruing, Meranti batu, Merawan, Semantok, Tanjung.			
Durability Class: Class I-II, exposed to weather, but it is kept dry and ventilated.			
All Timber			
Legality status: Must be purchased from a timber merchant licensed by the Dinas Trade and Industries.			
Treatment Required: Pressure treated CCB with topical application on ends during construction for termite resistance. Must attain hazard class II.			
Grading system / Grade: Local grading system, Class II			
Minimum timber grading standards			
Sloping grain	1 in 8		
Sound Knots	1/3 dimension of face, to max of 10cm dia. 1 per meter in length		
<i>Unsound knots or Knot holes</i>	1/4 dimension of face, to max of 7cm dia. 1 per 3 meter in length		
Decay (Rot)	None, except in an unsound Knot		
Sound Sapwood, including Wane	1/3 sum of width and thickness		
End Splits	Longest split, 15cm at each end		
Stain free from decay	Unlimited		
Twist	1 cm in 3m.		
Compression failures	None		
Brittle heart	1/4 of cross-section at ends		
Open shakes, Surface checks and End checks	1/2 thickness		
Seasoning / Drying	Timber should be dried to 15% or less		

**APPENDIX 6. GUIDELINES FOR TIMBER CLASSIFICATION AND USAGE IN
POST-TSUNAMI RECONSTRUCTION**

Guidelines for Timber Classification and Usage in Post-Tsunami
Reconstruction

Draft Discussion Documents

Prepared by UN FAO

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TIMBER GRADING GUIDELINES

Purpose

The purpose of this section is to provide guidelines for timber classification and usage. The purpose of timber grading is to determine the quality of a piece of wood and its suitability for different uses. The guidelines are limited to definition of grading criteria for structural and construction timbers only.

Interpretation

Bending moment: Bending moment is a measure material strength. The maximum bending moment determines the load a beam will carry before it breaks. The maximum bending moment given to a grade will be the minimum value, which must be exceeded by the timber to be classified in that particular grade.

Common name: This is the trade name used to identify individual or species groups. Species groups with a common name will normally share the same family and produce timber with similar visual and physical properties.

Specific gravity: Specific gravity is the density of a substance compared to that of water. Generally the higher the specific gravity the higher the strength, but this relationship differs between different species.

Stress: Stress is a measurement of material stiffness. Generally the higher the stiffness the higher the strength, but this relationship differs between different species. Stiffness is a useful unit of measure because it can be used to test timber non-destructively. The maximum stress value given to a grade will be the minimum value, which must be exceeded by the timber to be classified in that particular grade.

Timber quality: The grade into which a piece is classed.

Timber Grading Guidelines

Sizes

Timber is routinely sawn into standard sizes that are multiples of 5cm¹, e.g. 5x5, 5x10, 10x10.

It is recommended that large dimensions are used for load-bearing structures, e.g. 10cm x 5cm, 10cm x 10cm, 15cm x 15cm etc.

For Non-load bearing beams can be 5cm x 5cm.

We suggest the use of 12mm x 4' x 8' plywood for flooring and 3mm x 4' x 8' / 4mm x 4' x 8' for internal walls.

Timber Grading Overview

We provide the following information to assist with:

Classification system for timber by strength and durability properties

List of common species and estimates of their respective strength and durability classification

Guidelines for visual quality attributes for structural timbers

Structural Strength Classification

A classification system for sorting timbers by its structural strength is shown in the table below. The classification system was developed for tropical hardwoods in 1923 and we have been unable to identify a more recent system for Indonesia.

The maximum bending moment is a direct measure of timber strength that is a direct measurement of strength. However, maximum bending moment can only be measured by destructive testing. Specific gravity (density) and stress resistance (stiffness) are used as a proxy for strength. These parameters are directly related to strength, but this relationship differs between different species.

Table 1. Timber Strength Grade Classification

Grade	Specific Gravity	Maximum bending moment (kg/cm ²)	Maximum stress (kg/cm ²)
I	> 0.90	> 1100	> 650
II	0.60-0.90	725-1100	435-650
III	0.40-0.60	500-725	300-425
IV	0.30-0.40	360-500	215-300
V	< 0.30	< 360	< 215

Source: DEN BERGER (1923)

¹ This applies to metric countries only. Countries using imperial measurements (e.g. USA and Malaysia) have different sizes based around quarter inch (0.75cm), inch (2.5cm), and feet (25cm) dimensions.

Durability Classification

A classification system for sorting timbers by its durability is shown in the table below.

Table 2. Timber Durability Grade Classification

Environmental Conditions	Durability Grade				
	I	II	III	IV	V
Always in contact with ground	8 years	5 years	3 years	Very short	Very short
Exposed to weather, but it is kept dry and ventilated	20 years	15 years	10 years	<10 years	Very short
Under the roof, no ground contact and well ventilated	No limit	No limit	Very long	Some years	Short
Same as above, but with good maintenance and regularly painted	No limit	No limit	No limit	20 years	20 years
Attacked by termite from soil	No	Rare	Fast	Very fast	Very fast
Dry Rot	No	No	Almost never	Insignificant	Very fast

Source: OEY DJOEN SENG (1951)

Species Strength and Durability Characteristics

The table below lists common timbers used in construction in Indonesia¹. The common name may refer to specific species but more commonly refers to a group of species with common or similar attributes.

The durability and strength characteristics of each species have been identified. Please note that durability and strength characteristics are estimates only and actual performance may vary greatly from that stated in the list.

¹ It should be noted that there are no official systems for identifying and naming species in the timber trade in Indonesia. Common names vary between and even within provinces although the most prominent species such as Meranti and Keruing are universally used. There are several hundreds of forest tree species in Indonesia, however less than 100 common species groupings are used in the timber industry.

TIMBER SPECIES FOR HOUSE AND BOAT CONSTRUCTION														
SPECIES	BOTANIC NAMES	FAMILY	DURABILITY CLASS	STRENGTH CLASS	Used for House Construction						Used for Boat Construction			
					FLOOR	FRAME	WINDOW	DOOR	WALL	ROOF TIMBERING	KEEL	BODY PLANK	STEM	RIB
Ampupu	<i>Eucalyptus alba</i> Reinw	Myrtaceae	II-III	II-I	√					√				
Bangkirai	<i>Shorea laeviforea</i>	Dipterocarpaceae	I-II	I-II	√							√		
Bawang	<i>Melia excelsa</i> Jack	Meliaceae	III-IV	II-III	√	√								
Bayur	<i>Pterospermum javanicum</i>	Sterculiaceae	III	I			√			√				
Berambung	<i>Adina minutiflora</i> Val	Rubiaceae	II	II-I	√	√				√				
Bintangur	<i>Callophylum</i> spp	Guttiferae	III	II-III	√					√				
Bungo	<i>Artocarpus glauca</i> El	Moraceae	III	III-V								√		
Cemara Laut	<i>Casuarina equisetifolia</i> Forst	Casuarinaceae	I-II	II-III							√			
Cengal	<i>Hopea sangal</i>	Dipterocarpaceae	II	I	√							√		
Jati	<i>Tectona grandis</i>	Verbenaceae	I-II	II						√				
Kapur	<i>Dryobalanops</i> spp	Dipterocarpaceae	II-III	II - I	√			√			√			
Keruing	<i>Dipterocarpus</i> spp	Dipterocarpaceae	III	I-II					√	√				
Laban	<i>Vitex pubescens</i>	Verbinaceae	I	II-III							√	√	√	
Medang	<i>Litsea</i> spp	Lauraceae	III-V	II-V	√	√		√	√					
Medang Ara	<i>Artocarpus altissima</i>	Moraceae	IV	I			√							
Meranti batu	<i>Parashorea</i>	Dipterocarpaceae	III	II-III									√	
Meranti Merah	<i>Shorea teysmanniana</i>	Dipterocarpaceae	IV	IV				√	√	√		√		
Meranti Merah ringan	<i>Shorea</i> spp	Dipterocarpaceae	III-IV	II-IV	√									
Meranti Putih & Kuning	<i>Shorea</i> spp	Dipterocarpaceae	III-IV	II-IV	√				√					
Merawan	<i>Hopea mengarawan</i>	Dipterocarpaceae	II-III	II			√							
Merbau	<i>Intsia palembanica</i> Mig	Caesalpiniaceae	I	I	√			√						
Nangka	<i>Artocarpus heterophyllus</i>	Moraceae	II	II-III							√	√	√	
Nyatoh	<i>Palaquium</i> spp	Sapotaceae	III-IV	II-III	√	√			√					
Pulai	<i>Alstonia</i> spp	Apocynaceae	III-V	IV-V					√					
Resak	<i>Vatica rassak</i>	Dipterocarpaceae	III	II-III			√							
Sawo Kecil	<i>Manilkara kauki</i> Dub	Sapotaceae	I	I	√				√					
Semantok	<i>Shorea</i> spp	Dipterocarpaceae	II-III	I-III	√	√						√		
Sentang	<i>Aglaiia</i>	Meliaceae	II	I	√			√				√		
Sungkai	<i>Peronema carescens</i>	Verbenaceae	III	II-III						√				
Suren	<i>Toona sureni</i> Merr	Meliaceae	III-V	III-IV		√			√					
Tanjung	<i>Mimosops elengi</i> L	Sapotaceae	I-II	I	√				√					
Ulin	<i>Eusideroxylon zwergeri</i>	Lauraceae	I	I									√	

Source:

- 1.Forest Product Research Institute CIRI UMUM,SIFAT DAN KEGUNAAN JENIS-JENIS KAYU INDONESIA,1977
- 2.DAFTAR NAMA POHON-POHONAN ACEH - SUMATRA,Suwanda.R,Tantra
- 3.Dinas Kehutanan NAD
- 4.Balai Sertifikasi Penguji Hasil Hutan Wil.I,NAD.Departemen Kehutanan

Visual Grading Guidelines for Structural Timbers

a. **Scope**

These guidelines have been adopted from Malaysian Timber Council grading rules for structural timbers. They are intended for application to timbers required for structural members.

b. **Sizes**

Any rectangular section of sizes normally used in load-bearing structures, e.g. 10 x 5, 12 x 12, 15 x 15, 20 x 10, 30 x 15, etc.

c. **General**

The visual grading requirements were adopted from Malaysian grading rules for construction timbers. They provide guidelines as to what visual attributes are acceptable for timber used in construction. These may be used in addition to strength and stress grading tests.

Table of Grading Requirements for Construction	
Kind of Defect	Comment
Sloping grain	1 in 8
Sound Knots	1/3 dimension of face, to max of 10cm dia. 1 per meter in length
Unsound knots or Knot holes	1/4 dimension of face, to max of 7cm dia. 1 per 3 meter in length
Decay (Rot)	None, except in an unsound Knot
Sound Sapwood, including Wane	1/3 sum of width and thickness
End Splits	Longest split, 15cm at each end
Stain free from decay	Unlimited
Twist	1 cm in 3m.
Compression failures	None
Brittle heart	1/4 of cross-section at ends
Open shakes, Surface checks and End checks	1/2 thickness
Seasoning / Drying	Timber should be dried to 15% or less

TIMBER TREATMENT GUIDELINES

Purpose

The purpose of timber treatment section is to provide guidelines for the specification of timber treatment.

Treatment Guidelines

Timber Treatment Overview

The requirement for timber treatment is determined three main factors:

1. The environmental conditions that the timber will be exposed to;
2. The required level of durability / desired hazard level;
3. The natural durability and treatability/permeability of the timber;

We provide the following information on timber treatment:

- Hazard level classification
- List of allowable treatments in Indonesia.
- Level of protection provided by each treatment

Hazard Level Classification

Hazard level is an international classification for timber preservation. It closely relates to the natural durability classification shown in table 2.

Hazard Class	Exposure	Service Conditions	Biological Hazard
I	Inside above ground	Fully protected well ventilated	Borers only
II	Inside above ground	Protected from wetting and leaching	Borers and termites
III	Outside above ground	Moderate wetting and leaching	Decay, borers and termites
IV	Outside above ground	Severe wetting and leaching	Severe decay, borers and termites
V	Ground Contact	Extreme wetting and leaching	Very severe decay, borers and termites

Allowable Treatments

Allowable timber treatments in Indonesia are described in timber standard SNI 01-5010.1-1999. Only two types of chemical treatments are allowed under the standard under the standard being CCB and CCF treatment. The allowable chemical formulations and application rates are shown in the table below:

ALLOWABLE CHEMICAL TIMBER TREATMENTS					
Type	Active Ingredients	%	Form	Chemical retention rates (kg/m³)	
				Internal use	External use
CCB1	CuSO ₄ .5H ₂ O K ₂ Cr ₂ O ₇ H ₃ BO ₃	33.0 37.0 25.0	Powder	8.0	11.0
CCB2	CuSO ₄ K ₂ Cr ₂ O ₇ H ₃ BO ₃	34.0 38.0 25.0	Powder	8.0	11.0
CCB3	CuSO ₄ Na ₂ Cr ₂ O ₇ H ₃ BO ₃	28.6 43.9 27.5	Powder	8.0	11.0
CCB4	CuSO ₄ .5H ₂ O Na ₂ Cr ₂ O ₇ .2H ₂ O H ₃ BO ₃	32.4 36.0 21.6	Paste	8.0	11.0
CCF	CuSiF ₆ .4H ₂ O (NH ₄) ₂ Cr ₂ O ₇	36.3 63.7	Powder	6.0	8.6

CCA and BFCA treatments have been banned by MOAg decree No: 326/Kpts/TP.270/4/94. This decree bans the use of Arsenic as a chemical for use in timber treatment.

Common treatments that are not included on the list are ACQ, Tanalith-E / CuAz, and LOSP. We assume that these treatments are not allowed by exclusion from the list. The Ministry of the Environment is currently reviewing the list of allowable timber treatments. No extension of the list of allowed until the relevant authority passes a decree or the standard is officially revised.

Level of Protection Provided by Each Treatment

Treatment	Hazard Level	Note
CCB	I	Currently allowed
CCF	II	Currently allowed
CCA	V	Banned
BFCA	III	Banned
ACQ/Tanalith-E	V	Status unknown
LOSP	III	Status unknown
CuAz	V	Status unknown

APPENDIX 7. GUIDELINES FOR DETERMINING LEGALITY OF WOOD IN POST-TSUNAMI RECONSTRUCTION

Guidelines for Determining the Legality of Wood in Post-Tsunami Reconstruction

Draft Discussion Documents

Prepared by UN FAO

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Disclaimer: FAO has compiled these draft guidelines and distribute them for comment only. Please forward comments to Susan.Braatz@fao.org so that they can be considered in the preparation of the official final draft.

While FAO believe the contents of the draft guidelines are valid, we make no representation or warranty as to the accuracy or completeness of the information herein. FAO accepts no responsibility for any use of the guidelines. Nothing in this report shall be relied upon as a promise or representation to the future.

OBJECTIVES

To work in close collaboration with GOI and forest industry groups to facilitate the procurement of wood from legal origins for nationally and internationally supported reconstruction efforts in the Tsunami affected areas.

To document proposed mechanism for facilitation of legal wood supply to Aceh reconstruction program in collaboration with Ministry of Forestry at central and provincial Government level and forest industry groups. The wood supply facilitation mechanism would be voluntary and should include the following components:

- Tightly specified policy framework relating to ensuring the legal origin issues¹
- Standards for verifying legal timber
- List of approved suppliers, both domestic and international, for the wood supply facilitation mechanism

To prepare implementation plan for the wood supply facilitation mechanism, maintenance of approved supplier list and auditing and monitoring program.

BACKGROUND

A significant barrier to procurement of timber in post tsunami reconstruction is the difficulties experienced by purchasing organizations to differentiate between illegally produced wood products from legally produced wood products.

Donor and NGO groups require a high level of transparency and legality when procuring wood products and the timber industry cannot currently meet the Donor and NGO group's requirements.

We promote existing legality standards to make it easier for buyers to differentiate between legally and illegally produced Indonesian timber products thereby meeting market demands for products that conform to the laws of the Republic of Indonesia.

Mills can then be audited and monitored against the standard. Compliant mills can then be added to a list of approved suppliers that records the mills, the level of compliance, and the type of licenses that the mills are operating under.

¹ "Legal origin" implies wood is sourced from forest areas with legal harvesting licenses. We would probably not recommend a standard requiring "legal compliance", i.e. the requirement for forest management activities within forest areas to comply to local and national regulations.

OPERATING FRAMEWORK

The legality standard applies specifically to Indonesian source wood products. Imported timbers will need to be assessed according to principles and criteria specific to the country from which the timber is sourced.

The standards will be utilized under the following conceptual framework:

The standards specify the principles under which legality of wood supply is assessed and specific criteria for assessing legality. The Standard's main purpose is to make it easier for buyers to differentiate between legally and illegally produced Indonesian timber products

The standard is voluntary and designed to facilitate free market transactions between timber industry participants and parties involved in post-Tsunami reconstruction activities in Indonesia.

It is intended that the standards complement, not supplant, other initiatives that support legal wood supply in Indonesia and worldwide. For this reason, the standards are identical to existing legality standards and programs developed and already operation in Indonesia.

The standard is a temporary mechanism. For this reason, the standard will not apply outside of the term of the post-Tsunami reconstruction program and should be reassessed after 2 years from the commencement date of the post-Tsunami reconstruction program.

PRINCIPLES AND CRITERIA FOR FOREST LEGALITY

Indonesian Forestry Operations and Timber Processing Legality Standards¹

A draft standard has been prepared for legality for forest operations and timber processing in Indonesia. This draft 'Legality Standard' aims to promote trading in legal timber originating from Indonesia, and to discourage the trade in illegal timber. Specifying legal requirements relating to timber origin, production, transportation, processing and trade does this. The Standard's main purpose is to make it easier for buyers to differentiate between legally and illegally produced Indonesian timber products, thereby meeting market demands for products that conform to the laws of the Republic of Indonesia.

Development of the standard was carried out under the auspices of the Indonesian Ministry of Forestry in close partnership with The Nature Conservancy (TNC) under the Indonesia-UK Memorandum of Understanding on Illegal Logging, with contractors SGS and URS Forestry. Financial support was provided by the UK Department for International Development (DFID), the US Agency for International Development (USAID) and The Home Depot.

The draft Standard is the outcome of stakeholder consultations carried out in Berau District, East Kalimantan and in Pelalawan District, Riau between April and June 2003. In addition, provincial workshops were held in Samarinda and Pekanbaru, and a national workshop was hosted in Jakarta in June 2003. The draft standard has been accepted by several organizations for assessing the performance of wood processing companies².

The standard comprises 7 principles that address different areas of legality. Each principle has several criteria against which legality is assessed. Guidance notes to assist auditors in verifying compliance with each indicator are presented in the appendices.

¹ <http://www.illegal-logging.info/papers/Z%20Introduction%20and%20Principles.htm>

² The standard has been adopted by WWF Global Forest Trade Network as the basis of a two-stage legality assessment program. Notable forest certification organizations such as SGS and Smartwood have also adopted the standard.

Degrees of Legality

From our discussions with various wood consumers in post Tsunami reconstruction, we have identified two distinct levels of legality that are required:

- ***Wood from a legal source (“legal source”)***: These consumers want to source wood from legal source that is not stolen or taken from unlicensed areas. Essentially, wood under this criteria must be sourced from logs harvested in licensed areas, processed in licensed mills and tracked using a reliable documentation system.
- ***Wood from a legal source, compliance with all laws and from forests managed under sustainably management regimes***: These consumers want wood that is from a legal source, is sustainably management and meets all laws with respect to forest management. In practice this means wood must comply with forest certification standards.

We propose a mechanism that specifically identifies degrees of legality against which a company can be audited and monitored¹. The market can then identify wood supply companies that meet their requirements in terms of levels of legality. We have identified two degrees of legality that can be audited and monitored against:

Legal source

Legal compliance and sustainable source (“Legal compliance”)

We have taken the legality standard for Indonesia and identified the criteria and indicators that apply to the degrees of legality.

¹ This is based on the WWF's Global Forest & Trade Network (GFTN) concepts for responsible purchasing highlight using a step-wise approach to identify materials of uncertain origin in degrees towards a credible certified source. This involves a progression through four categories: 1) known source that complies with policy; 2) legal source; 3) source in progress to certification; and, 4) credibly certified source.

These schemes suggest a step-wise approach makes it easier for loggers and timber companies to comply with forestry regulations. The rationale is that these types of gradual compliance systems would lead to more sustainable forest management practices.

Principles of Legality for Forestry Operations and Timber Processing in Indonesia

The basic premise for assessing timber legality in the standard is as follows:

“Timber is legal when the validity of its origin, logging permit, logging system and procedures, administration and transport documentation, processing, and trade or transfer are verified as meeting all applicable legal requirements.”

The seven principles of the legality standard are:

Principle 1: Land Tenure and Use Rights

The legal status of, and tenure rights to the Forest Management Unit^{i[2]} are clearly defined and its boundaries have been properly gazetted. The Company^{ii[3]} has documented, legally established rights to harvest timber within those boundaries, and harvests timber only within those boundaries.

Principle 2: Physical and Social Environmental Impact

The Company has an Environmental Impact Assessment (AMDAL) covering the Forest Management Unit that was prepared in the prescribed manner, and can demonstrate that it complies with all legal, physical, social and environmental requirements stated in the AMDAL, as well as all legal requirements for monitoring and reporting on implementation of the AMDAL.

Principle 3: Community Relations and Workers Rights

The Company complies with all its legal responsibilities in ensuring the well-being of communities affected by its activities in the Forest Management Unit, its provision of services to local communities, and the well-being and safety of its workers and contractors employed in the Forest Management Unit.

Principle 4: Timber Harvesting Laws and Regulations

The Company conducts all forest planning, harvesting and other activities within the Forest Management Unit in compliance with relevant government regulations.

Principle 5: Forest Taxes

The Company pays all relevant legally prescribed fees, royalties, taxes and other legal charges related to its use of the Forest Management Unit and the timber extracted from it.

Principle 6: Log Identification, Transfer and Delivery

The Company ensures that all logs transported from the Forest Management Unit are properly identified, have correct associated documentation and are transported in accordance with government regulations.

Principle 7: Timber Processing and Shipping

Timber processing facilities and shipping companies have valid licenses and operate in accordance with applicable government regulations.

Criteria for Forest Legality

Principles, Criteria and Indicators	Legal Source	Legal Compliance
Principle 1. Land Tenure and Use Rights		
Criterion 1.1: Areas covered by HPH, IUPHHK or HPHTI or land managed by Perum Perhutani must be located in the permanent state forest zone. Land clearing associated with non-forestry activities that are nationally approved or authorized by district governments may only be located outside the permanent state forest zone.		
1.1.1 If the Forest Management Unit is covered by a natural forest selective felling permit [HPH (IUPHHK pada HA)], an industrial timber plantation permit [HPHTI (IUPHHK pada HT)], or is licensed to the state-owned enterprise Perum Perhutani, it must be located within the permanent state forest zone.	√	√
1.1.2 Land clearing associated with nationally approved non-forestry activities or authorized by district governments may only be located outside the permanent state forest zone. Any declassification of land from forest to non-forest (such as agricultural plantations) must have taken place with the free and prior informed consent of local and adat communities, and be gazetted in a manner consistent with applicable regulations.	NA	NA
1.1.3 In cases of community forestry (HkM), Community Forestry Permits (IKHM) must be located within production forest.	√	√
Criterion 1.2: The Company holds a license to harvest timber on the Forest Management Unit that has been formally approved by the appropriate government authority.		
1.2.1 In the case of land in the permanent forest zone, the Company holds a valid HPH, HPHTI or IUPHHK that has been approved by the Ministry of Forestry and that has been issued only with the free and prior informed consent of all affected communities.	√	√
1.2.2 In the case of land that is not in the permanent forest zone and is subject to clearing for a non-forest use, or land in the permanent forest zone that is subject to clearing for HTI, the Company holds a (ILS) IPK for the area that has been approved by national and provincial, or provincial and district, forestry authorities, as required by national forestry law, and that has been issued only with the free and prior informed consent of the affected communities.	NA	NA
1.2.3 In no cases do the gazetted boundaries of a license area conflict with any land use classification in which the activities allowed under that license are prohibited.	√	√
Criterion 1.3: There are plans for the Forest Management Unit that meet all applicable government regulations.		
1.3.1 Areas covered by HPH, HPHTI or IUPHHK have long term (20-year), medium term (5-year) and annual management plans approved by the appropriate government authority.	√	√
1.3.2 (ILS) IPK licensed areas have approved work plans (<i>Bagan Kerja</i>) to harvest trees from Conversion Forest for non-forestry purposes, or from Production Forest for industrial tree plantations.	NA	NA

Principles, Criteria and Indicators	Legal Source	Legal Compliance
Principle 2. Physical and Social Environmental Impact		
Criterion 2.1: The Company has conducted a physical, social and environmental assessment of the forest operations and/or processing facility using the AMDAL Process as specified by Governmental Regulation No.27 of 1999.		
2.1.1 The Company has a current government-approved AMDAL that was prepared in accordance with applicable regulations and covers the entire area of the licensed operations and includes an Impact Identification and Evaluation Report (ANDAL), an Environmental Management Planning Report (RKL) and an Environmental Monitoring Plan (RPL).		√
2.1.2 The Company has prepared all required Monitoring Reports based on the RPL of the AMDAL that demonstrate actions it is taking to mitigate environmental impacts and to provide social benefits.		√
Criterion 2.2: The Company provides for protection of endangered species, as listed in Indonesian Government Regulations 7 and 8/1999 whose range or habitat form part of the Forest Management Unit		
2.2.1 The Company implements procedures to identify endangered species whose range or habitat occur in the Forest Management Unit and to protect those species and their habitats.		√
2.2.2 The Company implements procedures that demonstrate its compliance with Government Regulation 7 and 8 /1999.		√

Principles, Criteria and Indicators	Legal Source	Legal Compliance
Principle 3. Community Relations and Workers Rights		
Criterion 3.1: The Company has identified all communities affected by its activities in the Forest Management Unit and has obtained their free and prior informed consent to carry out those activities.		
3.1.1 The Company has identified all communities affected by its activities in the Forest Management Unit and taken reasonable steps, including announcements in local media, to inform them about its planned activities.		√
3.1.2 The Company has held and documented the proceedings of public consultations with each community affected by its planned activities in the Forest Management Unit.		√
3.1.3 The Company has made good faith efforts to reach a consensus concerning implementation of its planned activities in the Forest Management Unit with each community affected by those activities.		√
Criterion 3.2: The Company has identified and documented the traditional rights of communities affected by its activities in the Forest Management Unit and can demonstrate that it respects those rights.		
3.2.1 The Company has documented the traditional rights claimed by each community affected by its activities in the Forest Management Unit.		√
3.2.2 The Company has developed plans in association with affected communities that describe how areas and/or resources covered by traditional rights within the Forest Management Unit are to be managed, detailing use, access and any compensation arrangements.		√
Criterion 3.3: The Company has entered into and honors agreements with local communities (as distinct from affected communities) that clearly specify social benefits (such as health and community development) it will provide to them.		
3.3.1 The Company has documented agreements with local communities that clearly describe social welfare and community development projects it will undertake for them.		√
3.3.2 The Company can demonstrate that it is implementing those agreements.		√
Criterion 3.4: The Company respects its employees' rights to organize and voluntarily negotiate their employment conditions in accordance with International Labor Organization (ILO) conventions 87 and 98, enacted through Law no 13/ 2003 on Employment.		
3.4.1 The Company permits its employees to join recognized labor unions and can demonstrate that it does not discriminate against labor union members when making employment decisions.		√
3.4.2 When requested by a recognized labor union that represents its employees, the Company willingly enters into negotiations with that union and honors all agreements reached as a result of those negotiations.		√
Criterion 3.5: The Company complies with manpower regulations regarding worker safety and health, benefits in kind, minimum salary, termination and contractors' conditions, as specified in the TPTI or TPTJ, as applicable.		

DRAFT DISCUSSION DOCUMENT ONLY – WORK IN PROGRESS

3.5.1	The Company pays its employees' salaries and provides them with benefits in kind in a manner that meets the minimum legal requirements as prescribed in Law 13/2003 (commencing with Article 88)		√
3.5.2	The Company implements clearly defined safety procedures as prescribed in Act 1/1970.		√
3.5.3	The Company ensures that all required safety equipment (APD) and emergency first aid equipment (P3K) are available and readily accessible for use at each work site within the Forest Management Unit and that they are used in an appropriate manner.		√
3.5.4	The Company ensures that all its employees are 15 years old or above, as prescribed in Law 13/2003, Article 68.		√
3.5.5.	The Company does not require any of its employees to work more than 40 hours plus 14 hours overtime per week, and allows each employee to take 12 paid days off per year in addition to statutory holidays (Law 13/2003, Articles 78 and 79).		√

Principles, Criteria and Indicators	Legal Source	Legal Compliance
Principle 4. Timber Harvesting Laws and Regulations		
Criterion 4.1: Harvest plans for the Forest Management Unit have been approved by the appropriate government authority and have clearly defined boundaries that show areas where harvesting is allowed and areas that must be protected.		
4.1.1 Harvest plans (RKT and IPK – <i>Bagan Kerja</i>) have been formally approved by the appropriate government authority.	√	√
4.1.2 Harvest plans have clearly delineated boundaries that show areas excluded from harvesting such as buffer zones, steep slopes, critical habitats and areas of cultural significance such as adat areas and religious areas, or those of cultural significance identified in the planning phase.		√
Criterion 4.2: The Company implements harvest operations in accordance with the legally prescribed silvicultural system or the conditions for harvesting for land clearing as applicable.		
4.2.1 Harvesting operations comply with the requirements listed in TPTI, TPTJ, PUHH (2003) documents for RKT licensed areas, or the applicable land clearing regulations for (ILS) IPK licensed areas.		√
4.2.2 All boundaries of licensed harvesting areas are clearly demarcated on maps of an appropriate scale and on the ground.		√
4.2.3 All equipment used in forestry operations complies with BPK requirements as specified in Ministry of Forestry Decree No. 428/KPTS-II/2003.		√
4.2.4 Data for all trees harvested as listed in the cruising report (LHC) are recorded in the Daily Log Measurement Report (BU) as per PUHH (2003) requirements.		√
4.2.5 No harvesting operations have been carried out in any Exclusion Areas as shown in the approved Harvest Plan.		√

Principles, Criteria and Indicators	Legal Source	Legal Compliance
Principle 5. Forest Taxes		
<p>Criterion 5.1: The Company demonstrates that it has paid all applicable concession fees and taxes for its license covering the Forest Management Unit and the timber extracted from it. These include:</p> <ul style="list-style-type: none"> • IIUPH – Iuran Izin Usaha Pemanfaatan Hutan (Forest Utilization Business Permit Fees) • DR – Dana Reboisasi (Reforestation Fund) • PSDH – Provisi Sumber Daya Hutan (Forest Resource Royalty) • PBB – Pajak Bumi dan Bangunan (Land and Building Tax) • PPH 21 – Monthly Employee Withholding Tax • PPH 22, 25 • Fees agreed upon with local communities 		
5.1.1 The Company demonstrates that payments for concession fees (HPH, HTI, IUPHHK), reforestation fees (DR), and resource taxes (PSDH) are current.		√
5.1.2 The Company demonstrates that payments for community taxes based on extracted volume of timber harvested and annual building tax (PBB) and other legal charges are current.		√

Principles, Criteria and Indicators	Legal Source	Legal Compliance
Principle 6. Log Identification, Transfer and Delivery		
Criterion 6.1: The Company ensures that all logs transported from the Forest Management Unit have the required physical identification.		
6.1.1 All logs transported from HPH, IPK (ILS), IUPHHK areas are marked using the prescribed tags and paint and chisel marks that contain sufficient information to trace each log back to the compartment (petak) and to the RKT harvest tree.		√
6.1.2 All logs transported from HPH areas have a valid MoF hammer mark to verify government clearance at the log pond.		√
Criterion 6.2: The Company ensures that all logs transported from the Forest Management Unit are properly documented.		
6.2.1 The Company records the transport of logs from log landings (TPn) to the primary log pond (TPk) using document DP.		√
6.2.2 The Company records the transport of logs through all further log ponds en route to the processing facility using SKSHH with attached log list (DHH) that is issued before those logs leave the Forest Management Unit.		√
6.2.3 All exemptions from use of documents listed in 6.1.1 and 6.1.2 must be documented with a valid government approval form.		√
6.2.4 Where the Company is an (ILS) IPK license holder it records the transport of logs from the Forest Management Unit to the processing facility using the Faktur, or SKSHH with attached log list (DHH) as appropriate.		√
Criterion 6.3: All organizations transporting timber products have valid licenses.		
6.3.1 Organizations operating vessels or trucks for transporting forest products outside the Forest Management Unit have licenses issued by Ministry of Transportation for the Company and for each vessel or truck it operates.		√
6.3.2 Organizations operating trucks and loaders within the Forest Management Unit have licenses issued by the Ministry of Forestry for that equipment.		√
6.3.3 Organizations transporting wood products out of a province have a PKAPT (Registered Inter-island Wood Trader Registration Number) issued by the Ministry of Industry and Trade.		√

Principles, Criteria and Indicators	Legal Source	Legal Compliance
Principle 7. Timber Processing and Shipping		
Criterion 7.1: Timber processing facilities, and companies engaged in trading or export of forest products comply with all legal requirements for their activities.		
7.1.1 The timber processing facility has a legal license to operate based on its current capacity and legal BKPM that approves the investment.		√
7.1.2 The timber processing facility has an approved Industrial Raw Material Requirement Plan (RPBBI).		√
7.1.3 All organizations engaged in trading of forest products are registered with the Ministry of Industry and Trade and, if exporting processed wood products, have a registration number issued by the Ministry confirming its status as a Registered Exporter for Forest Products (ETPIK).		√
7.1.4 All raw material received by the wood processing facility must originate from one of the following sources: natural forest selective felling permit [HPH (IUPHHK pada HA)]; industrial timber plantation [HTI (IUPHHK pada HT)]; Perum Perhutani licensed area; land clearing associated with nationally approved non-forestry activities or authorized by district governments located outside the permanent state forest zone.		√
7.1.5 All logs in the log yard or log pond are accompanied by valid log transportation documents, and the information within these documents corresponds to the physical characteristics of each log.		√
Criterion 7.2: Organizations engaged in shipping of forest products for export can demonstrate their compliance with government regulations.		
7.2.1 Each shipping company and its vessels are registered with the Ministry of Transportation (MoT).		√

Terms and Abbreviations

AMDAL	<i>Analisa Mengenai Dampak Lingkungan</i> (Environmental Impact Document)
Adat	Customary or Traditional law
ANDAL Assessment)	<i>Analisa Dampak Lingkungan</i> (Environmental Impact Assessment)
APD	Safety Equipment
BKPM	<i>Badan Koordinasi Penanaman Modal</i> (Department of Coordination of Investment)
BPK	<i>Dit Jen Bina Produksi Kehutanan</i> (Directorate General of Forestry Production Management)
BU	<i>Buku Ukur</i> (Daily Log measurement Report)
DHH	Product list that accompanies SKSHH
DP	Log transportation document from log landing to log pond
DR	<i>Dana Reboisasi</i> (Reforestation Fund)
ETPIK	Registered Exporter for Forest Products
HPH	<i>Hak Pengusahaan Hutan</i> (Forest Timber Concession Permit)
HPHTI	Hak Pengusahaan Hutan Tanaman Industri Industrial Forest Plantation Permit
HTI	Hutan Tanaman Industri/ (Industrial Plantation Forest)
IUPH	Iuran Izin Usaha Pemanfaatan Hutan (Forest Concession Fee)
ILO	International Labor Organisation
ILS	Izin Lainnya Yang Sah (Permits permitted under PP No 34, 2000)
IPHH	Izin Pemungutan Hasil Hutan (Forest Product Collection Permit)
IPK	Izin Pemanfaatan Kayu (Land Conversion Permit)
IUPHHK	Izin Usaha Pemanfaatan Hasil Hutan Kayu (Forest Timber Product Exploitation Permit)
LHC	Laporan Hasil Cruising (Cruising Report)
P3K	Emergency First Aid
PBB	Pajak Bumi dan Bangunan (Land and Building Tax)
Petak	Compartment block (usually 100 ha) used for inventory, planning, and operational control
PKAPT	<i>Pedagang Kayu Antarpulau Terdaftar</i> (Registered Inter-Island Wood Trader)
PPH	Personal Withholding Tax
PSDH	<i>Provisi Sumber Daya Hutan</i> (Forest Resource Royalties)
PUHH	<i>Penatausahaan Hasil Hutan</i> (Forest Use Plan)
RKL	<i>Rencana Pengalolahan Lingkungan</i> (Environmental Management Plan)
RKT	<i>Rencana Kerja Tahunan</i> (Annual Work Plan)
RPBBI	<i>Rencanan Pemenuhan Bahan Baku Industri</i> (Industrial Raw Material Requirement Plan)
RPL	<i>Rencana Pemantauan Lingkungan</i> (Environmental Monitoring Plan)
SKSHH	<i>Surat Keterangan Sahnya Hasil Hutan</i> (Legal Forest Product Transportation Permit)
TPk	Log Pond
TPn	Log landing in forest
TPTI	<i>Tebang Pilih Tanam Indonesia</i> (Indonesian Silvicultural Tree Planting Scheme (selective cutting and planting system)
TPTJ	<i>Tebang Pilih Tanam</i> (Silvicultural and Tree Planting Scheme (Selective cutting and line planting system)

Appendix - Legality Standard Guidance Notes

Principles, Criteria and Indicators of Legality for Forestry Operations and Timber Processing in Indonesia - Auditors Guidance Notes

Indicator	Guidance Note
Principle 1. Land Tenure and Use Rights	
<p>Criterion 1.1: Areas covered by HPH, IUPHHK, HPHTI or land managed by Perum Perhutani must be located in the permanent state forest zone. Land clearing associated with non-forestry activities that are nationally approved or authorized by district governments may only be located outside the permanent state forest zone.</p>	
<p>1.1.1 If the Forest Management Unit is covered by a natural forest selective felling permit [HPH (IUPHHK pada HA)], an industrial timber plantation permit [HPHTI (IUPHHK pada HT)], or is licensed to the state-owned enterprise Perum Perhutani, it must be located within the permanent state forest zone.</p>	<p>Step 1: <i>With a view toward finding out whether the area is in the permanent state forest zone, determine whether or not there is a current 'berita acara tata batas' signed by the authorized delineation committee regarding land status.</i></p> <p><u>Note 1:</u> <i>An authorized delineation committee is specified in SK Menhut 32, 2001 regarding the forest delineation process.</i></p> <p><u>Note 2:</u> <i>Step 1 above should only have been followed by any demarcation activities carried out after February 2001, or by any forest gazettelement which failed to demarcate the boundaries prior to that date. [not clear!]</i></p> <p>Step 2: <i>Ensure that any community area physically located within the boundaries of the HPH area, HTI or Perum Perhutani area is defined as an enclave and excluded from any production forestry activities (Juklak and Juknis Dirjen Intag No. 724/A/VII-2, 1994).</i></p> <p><u>Note 1:</u> <i>Forest zones demarcated between 1974 and 1990 should follow the provisions of SK DirJen Kehutanan 85/Kpts/DJ/1/1974.</i></p> <p><u>Note 2:</u> <i>Forest zones demarcated between 1990 and 1996 should follow the provisions of SK Menhut 399, 1990 and SK Menhut 400, 1990.</i></p> <p><u>Note 3:</u> <i>Forest zones demarcated between 1997 and February, 2001 should follow the provisions of SK Menhut 399, 1990, SK Menhut 400, 1990, SK Menhut 634, 1996 and SK Menhut 635 1996.</i></p> <p><u>Note 4:</u> <i>Crosscheck the status of the proposed forest land in the village land book and district land book in the district office of the Badan Pertanahan Nasional (BPN).</i></p>

<p>1.1.2 Land clearing associated with nationally approved non-forestry activities or authorized by district governments may only be located outside the permanent state forest zone. Any declassification of land from forest to non-forest (such as agricultural plantations) must have taken place with the free and prior informed consent of local and adat communities, and be gazetted in a manner consistent with applicable regulations.</p>	<p><i>Applicable regulations are:</i></p> <ul style="list-style-type: none"> • SK Mentan 178/Kpts/Um/4/1975 Pedoman Umum Perubahan Batas Kawasan Hutan , 23 April 1975 – 23 Oktober 1980 • SK Mentan 764/Kpts/Um/10/1980, Ketentuan Pelepasan Areal Hutan untuk Tujuan Perkrbunan, Peternakan, Perikanan dan Tanaman Pangan - 23 Oktober 1980 • SK Dirjen Kehutanan 54/Kpts/DJ/I/1981, Tata Cara Pelepasan Areal Hutan untuk Tujuan Pekebunan, Peretnakan, Perikanan dan Tanaman Pangan 23 Maret 1981 • SK Dirjen Kehutanan 53/Kpts/DJ/I/1981, Penetapan Wilayah-Wilayah Propinsi yang areal Hutannya tidak dapat dilepaskan untuk tujuan Perkebunan, Peternakan, Perikanan & Tanaman Pangan • SK Menhut KB.550/246/Kpts/4/1984 Pengaturan Penyediaan Lahan Kawasan Hutan untuk Pengembangan Usaha Budi Daya Pertanian • Surat Edaran Menhutbun no-VIII/2000 Penhentian/penagguhn pelepasan kawasan hutan, 22 Mei 2000 • SK Menhut 70, 2001 Perubahan Status & Fungsi Kawasan Hutan , 21 April 2001 • SK 48, 2004. Perubahan SK Menteri Kehutanan No 70/2001, Januari 2004
<p>Criterion 1.2: The Company holds a license to harvest timber on the Forest Management Unit that has been formally approved by the appropriate government authority.</p>	
<p>1.2.1 In the case of land in the permanent forest zone, the Company holds a valid HPH, HPHTI or IUPHHK that has been approved by the Ministry of Forestry and has been issued only with the free and prior informed consent of all affected communities.</p>	<p><i>License number, validity dates, license is signed. Free and prior informed consent means that affected communities must have been given full information on all activities to be undertaken and consequences deriving there for before they gave their consent to such activities (UU 23, 1997 on Environmental Management; RUU Pemanfaatan dan Pelestarian Sumber Daya Genetik). An affected community is one whose land claims overlap with the forest management unit and/or whose livelihood system is positively or negatively altered by the activities of the forest management unit (UU 23, 1997 and PP 27, 1999).</i></p>
<p>1.2.2 In the case of land that is not in the permanent forest zone and is subject to clearing for a non-forest use, or land in the permanent forest zone that is subject to clearing for HTI, the Company holds a (ILS) IPK for the area that has been approved by national and provincial, or provincial and district, forestry authorities, as required by national forestry law, and has been issued only with the free and prior informed consent of the</p>	<p><i>License number, validity dates, license ^{1[2]} is signed by Dinas and Ministry of Forestry. Natural forest timber felled through land clearing activities to create industrial timber or agricultural plantations must have SK HTI or SK Kebun granted by national forestry authorities prior to the declaration of the June, 2000 land clearing moratorium, as well as an SK IPK granted by provincial forestry authorities. Natural forest timber felled using licenses from district authorities may only come from districts which have written permission to issue such licenses from provincial forestry authorities, and only in the event that such land clearing activities take place outside the national forest estate.</i></p>

<p>affected communities.</p>	<p>1.2.3 In no cases do the gazetted boundaries of a license area conflict with any land use classification in which the activities allowed under that license are prohibited.</p> <p><i>Map with clear boundaries, cross-checked with Provincial Land Use Planning Office. Using as base maps the Peta Penunjukan Kawasan Hutan dan Perairan Propinsi, or if that is not available, the most recent provincially sanctioned RTRWP, plot the RKT map (in the case of a HPH), Peta Rencana Pembukaan Lahan (in the case of nationally sanctioned land clearing activities), or Peta Bagan Kerja dan Rencana Pembukaan Lahan or its equivalent (in the case of provincially sanctioned/district approved land clearing permits). Interpret the resulting map overlay to ensure that, for HPH and industrial timber plantations, cutting blocks do not overlap with areas designated as hutan lindung or kawasan konservasi. Ensure also that nationally approved agricultural plantations and provincially sanctioned/district licensed land clearing permits do not overlap with any part of the national forest estate. In instances where unauthorized intrusion into prohibited forest areas is thought to have occurred, take GPS readings to find out whether this is the case.</i></p> <p><i>Evidence that the forest management unit has been gazetted (according to UU 24, 1992) in consultation with adat and local communities (for example, by participatory community mapping) with prior informed consent verified through a transcript of a dialogue with the communities).</i></p> <p><i>For HPH (IUPHHK pada HA) and HTI (IUPHHK pada HT) and Perum Perhutani areas in particular, clear boundaries have been established between the forest management unit and the territory of local and adat communities with the consent of all related parties (eg, relevant government authorities and affected communities).</i></p> <p><i>Steps for gazettal:</i></p> <p>Step 1: <i>With a view toward finding out what are the functional categories (kawasan konservasi, hutan lindung, hutan produksi terbatas, hutan produksi, hutan konversi), determine whether there is a current official notification of boundary delineation (berita acara tata batas) signed by the authorized delineation committee (SK Menhut 57, Kpts-II 1994).</i></p> <p>Step 2: <i>With a view toward finding out whether the boundaries of a concession have been fully established, determine whether or not there is a current berita acara tata batas (according to the SK-HPH or its equivalent under new regulation, SK-HTI or its equivalent under new regulation) signed by the authorized delineation committee (Dir.Jen. BPK).</i></p> <p>Step 3: <i>Ensure that there is no hutan adat (regulated by UU 41, 1999 or PerMenBPN 5, 1999) or ijin hutan kemasyarakatan (SK Menhut 31, 2001) located inside or overlapping with the working area of the forest management unit.</i></p> <p>Step 4: <i>For Perum Perhutani areas, no wood may be taken from land which is former ERFACHT and/or partikulir land (UU 1, 1958) and/or conservation areas (SK Menhut 251, 1985).</i></p>
<p>Criterion 1.3:</p>	<p>There are plans for the Forest Management Unit that meet all applicable government regulations.</p>

<p>1.3.1 Areas covered by HPH, HPHTI or IUPHHK have long term (20 year), medium term (5 year) and annual management plans approved by the appropriate government authority.</p>	<p><i>Approved and valid 20-year, 5-year plans (Ministry of Forestry) and annual plans (Provincial Forestry Office). AAC clearly defined within a net production area. Conservation areas are delineated on maps for all management plans appropriate to scale. Social areas adequately identified including any agricultural areas or culturally sensitive areas (see 1.1.3)</i></p>
<p>1.3.2 (ILS) IPK licensed areas have approved work plans (<i>Bagan Kerja</i>) to harvest trees from Conversion Forest for non-forestry purposes, or from Production Forest for industrial tree plantations.</p>	<p><i>(ILS) IPK License, validity dates, license and work plan is approved by the government authority: provincial or district as outlined in Criterion 1.2).</i></p>
<p>Principle 2. Physical and Social Environmental Impact</p>	
<p>Criterion 2.1: The Company has conducted a physical, social and environmental assessment of the forest operations and/or processing facility using the AMDAL Process as specified by Governmental Regulation No.27 of 1999.</p>	
<p>2.1.1 The Company has a current government-approved AMDAL that was prepared in accordance with applicable regulations and covers the entire area of the licensed operations and includes an Impact Identification and Evaluation Report (ANDAL), an Environmental Management Planning Report (RKL) and an Environmental Monitoring Plan (RPL).</p>	<p><i>AMDAL is signed and valid, key components of AMDAL to address social and physical environmental impacts, including; impact on customary land claims, protected areas have been prepared and correspond with the site</i></p>
<p>2.1.2 The Company has prepared all required Monitoring Reports based on the RPL of the AMDAL that demonstrate actions it is taking to mitigate environmental impacts and to provide social benefits.</p>	<p><i>RPL has clear plan to mitigate environmental impacts and provide social benefits. Review Reports on the monitoring of the impacts according to the RPL and review reports and field visit to review procedures in place as recommended in the RKL to mitigate environmental impacts</i></p>
<p>Criterion 2.2: The Company provides for protection of endangered species as listed in Indonesian Government Regulation 7 and 8 /1999^{2[3]} whose range or habitat forms part of the Forest Management Unit.</p>	
<p>2.2.1 The Company implements procedures to identify endangered species whose range or habitat occur in the Forest Management Unit and to protect those species and their habitats.</p>	<p><i>List of endangered species within the AMDAL. Correct application of AMDAL procedures to develop the list of endangered species. Cross-checking with other information about endangered species independent of AMDAL especially the official Ministry of Forestry list of endangered species. Procedures for identification and protection of endangered species. Evidence of actions take to prevent illegal hunting or trapping by local communities, workers /contractors. Procedures to control access to the forest and provide for security. Evidence to demonstrate implementation of procedures: patrols, guard posts, logbooks, and reports.</i></p>
<p>2.2.2 The Company implements procedures that demonstrate</p>	<p><i>Evidence of trading of CITES-listed species by local communities or workers / contractors. Evidence of captured</i></p>

<p>its compliance with Government Regulations 7 and 8 /1999.</p>	<p><i>animals (RTE) in villages. Recognition of indigenous legal systems and encouragement of continued customary use consistent with the Convention on Biological Diversity (see 1.2.2).</i>^{3[4]}</p>
<p>Principle 3. Community Relations and Workers Rights</p>	
<p>Criterion 3.1: The Company has identified all communities affected by its activities in the Forest Management Unit and has obtained their free and prior informed consent to carry out those activities^{4[5]}.</p>	
<p>3.1.1 The Company has identified all communities affected by its activities in the Forest Management Unit and taken reasonable steps, including announcements in local media, to inform them about its planned activities.</p>	<p><i>Documents demonstrating this.</i></p>
<p>3.1.2 The Company has held and documented the proceedings of public consultations with each community affected by its planned activities in the Forest Management Unit.</p>	
<p>3.1.3 The Company has made good faith efforts to reach a consensus concerning implementation of its planned activities in the Forest Management Unit with each community affected by those activities.</p>	<p><i>Documents demonstrating this.</i></p>
<p>Criterion 3.2: The Company has identified and documented the traditional rights of communities affected by its activities in the Forest Management Unit and can demonstrate that it respects those rights.</p>	
<p>3.2.1 The Company has documented the traditional rights claimed by each community affected by its activities in the Forest Management Unit.</p>	<p><i>Evidence that company has conducted a social assessment and has compiled a list of local communities and their traditional rights. Documentation of extensive consultation with communities.</i></p>
<p>3.2.2 The Company has developed plans in association with affected communities that describe how areas and/or resources covered by traditional rights within the Forest Management Unit are to be managed, detailing use, access and any compensation arrangements.</p>	<p><i>Management plans. Evidence that community input was included in management plan. Provisions should address collection of non-timber forest products, co-management and benefit sharing, if relevant (PP 34 2002 and SK 4795 2002). Cross-check management planning process with sample of communities.</i></p>
<p>Criterion 3.3: The Company has entered into and honors agreements with local communities (as distinct from affected communities) that clearly specify social benefits (such as health and community development) it will provide them.</p>	
<p>3.3.1 The Company has documented agreements</p>	<p><i>Company has formal defined agreements with local communities regarding community development (Bina Desa</i></p>

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<p>with local communities that clearly describe social welfare and community development projects it will undertake for them.</p>	<p><i>regulations^{5(b)}). Cross-check with beneficiary communities on implementation.</i></p>
<p>3.3.2 The Company can demonstrate that it is implementing those agreements.</p>	<p><i>Company has clear list of obligations to local communities (Government Regulation No.27 of 1999 in reference to AMDAL process). Inclusion of such obligations within the AMDAL. Cross-check with beneficiary communities.</i></p>
<p>Criterion 3.4: The Company respects its employees' rights to organize and voluntarily negotiate their employment conditions in accordance with International Labor Organization (ILO) conventions 87 and 98, enacted through law No 13/2003 on Employment.</p>	
<p>3.4.1 The Company permits its employees to join recognized labor unions and can demonstrate that it does not discriminate against labor union members when making employment decisions.</p>	<p><i>Workers are not prevented from joining unions and union members are not discriminated against in employment decisions.</i></p>
<p>3.4.2 When requested by a recognized labor union that represents its employees, the Company willingly enters into negotiations with that union and honors all agreements reached as a result of those negotiations.</p>	<p><i>Formal agreements with unions, Records of union meetings and management meetings.</i></p>
<p>Criterion 3.5: The Company complies with manpower regulations regarding worker safety and health, benefits in kind, minimum salary, termination and contractors' conditions, as specified in the TPTI or TPTJ, as applicable.</p>	
<p>3.5.1 The Company pays its employees' salaries and provides them with benefits in kind in a manner that meets the minimum legal requirements as prescribed in Law 13/2003 (commencing with Article 88).</p>	<p><i>All salaries must be equal to or higher than the regional minimum wage. Evidence that salaries have been paid on time and in kind benefits actually provided.</i></p>
<p>3.5.2 The Company implements clearly defined safety procedures as prescribed in Act 1/1970</p>	<p><i>Company has documented procedures on safety that are implemented, including, work instructions (Standard Operating Procedures), proper use of safety equipment, and training of staff in its use. Records of accidents are evident as record that and safety performance is regularly reviewed to identify needs for improvement.</i></p>
<p>3.5.3 The Company ensures that all required safety equipment (APD) and emergency first aid equipment (P3K) are available and readily accessible for use at each work site within the Forest Management Unit and that</p>	<p><i>Company has safety equipment for workers that are actually used. Emergency first aid is available on site. Evidence that workers are trained in basic first aid.</i></p>

they are used in an appropriate manner.	
3.5.4 The Company ensures that all its employees are 15 years old or above as prescribed in Law 13/2002, Article 68.	<i>Company to provide complete records of all staff that include employee number, registration of date of birth by identity card or birth certificate.</i>
3.5.5. The Company does not require any of its employees to work more than 40 hours plus 14 hours overtime per week, and allows each employee to take 12 days off per year in addition to statutory holidays (Law 13/2003, Articles 78 and 79).	<i>Workers from a range of work classifications are interviewed to ensure that no worker puts in more than 40 hours a week, plus 14 hours overtime and that each worker is given 12 days off per year in addition to national holidays.</i>

Principle 4. Timber Harvesting Laws and Regulations

Criterion 4.1: Harvest plans for the Forest Management Unit have been approved by the appropriate government authority and have clearly defined boundaries that show areas where harvesting is allowed and areas that must be protected.

4.1.1 Harvest plans (RKT and IPK – <i>Bagan Kerja</i>) have been formally approved by the appropriate government authority.	<i>Company has geo-corrected maps of the annual working area that clearly show the boundary at an appropriate scale (1:10,000). The appropriate authorities are the Dinas Kehutanan Province for RKT; the Bupati, with technical approval from Dinas Kehutanan Kabupaten, for IPK.</i>
4.1.2 Harvest plans have clearly delineated boundaries that show areas excluded from harvesting such as buffer zones, steep slopes, critical habitats and areas of cultural significance such as <i>adat</i> areas and religious areas, or those of cultural significance identified in the planning phase.	<i>Harvest plan (RKT (ILS) IPK) has clearly delineated areas set aside for protection with GPS coordinates where applicable for ease of identification in the field. Check to see if TPTI has a formal list of area classifications required to be mapped.</i>

Criterion 4.2: The Company implements harvest operations in accordance with the legally prescribed silvicultural system or the conditions for harvesting for land clearing as applicable.

<p>4.2.1 Harvesting operations comply with the requirements listed in TPTI, TPTJ, PUHH (2003) documents for RKT licensed areas, or the applicable land clearing regulations for (ILS) IPK licensed areas.</p>	<p><i>TPTI harvesting system requires (use the Reduced Impact Logging Guidelines for Indonesia for guidance purposes):</i></p> <ul style="list-style-type: none"> • <i>Tree identification and tagging with tree numbers of all harvested trees with tags, species, petak number, DBH and estimated bole length. Potential Crop Trees (PCTs) above 20 cm are also identified with tags and mapped.</i> • <i>Protected trees are marked with yellow tags.</i> • <i>Permanent sample plots (PUP) established</i> • <i>Buffer zones for roads and watercourses</i> • <i>No slopes over 40% to be harvested</i> • <i>No logging in Protected Areas, buffer zones, steep areas above 40%, or cultural sites</i> • <i>ILS areas also require boundary to be demarcated along with any Protection/Conservation Areas. (SK Menhut 162, 2003).</i>
<p>4.2.2 All boundaries of licensed harvesting areas are clearly demarcated on maps of an appropriate scale and on the ground.</p>	<p><i>Boundary is cleared with 1-meter brush cutting and trees are clearly painted along the boundary. Markings on the ground coincide with those on approved plans</i></p>
<p>4.2.3 All equipment used in forestry operations complies with BPK requirements as specified in Ministry of Forestry Decree No. 428/KPTS-II/2003.</p>	<p><i>All equipment to be registered with the BPK.</i></p>
<p>4.2.4 Data for all trees harvested as listed in the cruising report (LHC) are recorded in the Daily Log Measurement Report (BU) as per PUHH (2003) requirements.</p>	<p><i>All trees harvested (as listed in the LHC) are identified with tags that contain the tree number, log letter, petak no., diameter, length and species and registered in a BU.</i></p>
<p>4.2.5 No harvesting operations have been carried out in any Exclusion Areas as shown in the approved Harvest Plan.</p>	<p><i>Check areas on harvesting plan with actual field situation.</i></p>

Principle 5. Forest Taxes

Criterion 5.1: The Company demonstrates that it has paid all applicable concession fees and taxes for its license covering the Forest Management Unit and the timber extracted from it.

<p>5.1.1 The Company demonstrates that payments for concession fees (HPH, HTI, IUPHHK), reforestation fees (DR), and resource taxes (PSDH) are current.</p>	<p><i>Receipts of payments for fees and timber extracted are current for the year. Cross-check with a sample of harvesting records.</i></p>
<p>5.1.2 The Company demonstrates that payments for community taxes based on extracted volume of timber harvested and annual building tax (PBB) and other legal charges are current.</p>	<p><i>Receipts of payments for fees are current for the year. Cross-check with a sample of harvesting records.</i></p>

Principle 6. Log Identification, Transfer and Delivery	
Criterion 6.1: The Company ensures that all logs transported from the Forest Management Unit have the required physical identification.	
6.1.1 All logs transported from HPH, IPK (ILS), IUPHHK areas are marked using the prescribed tags and paint and chisel marks that contain sufficient information to trace each log back to the compartment (petak) and to the RKT harvest tree.	<i>All logs have tags and paint/chisel markings that are legible.</i>
6.1.2 All logs transported from HPH areas have a valid Forestry Department hammer mark to verify government clearance at the log pond.	<i>All logs at log pond have a legible hammer mark.</i>
Criterion 6.2: The Company ensures that all logs transported from the Forest Management Unit are properly documented.	
6.2.1 The Company records the transport of logs from log landings (TPn) to the primary log pond (TPk) using document DP.	<i>Check sample of logs against documentation. This criterion only applies if the TPk is located within the boundaries of the forest management unit. If not, go to Criterion 6.1.2.</i>
6.2.2 The Company records the transport of logs through all further log ponds en route to the processing facility using SKSHH with attached log list (DHH) that is issued before those logs leave the Forest Management Unit.	<i>Check SKSHH has been issued inside the boundary of the FMU. Check sample of logs in each transport node against documentation, according to technical guidelines outlined in separate standardized audit procedures.</i>
6.2.3 All exemptions from use of documents listed in 6.1.1 and 6.1.2 must be documented with a valid government approval form.	<i>Formal letter from the provincial government exempting the company from using authorized forms. Internal delivery note (Faktur) during the interim should be cited.</i>
6.2.4 Where the Company is a (ILS) IPK license holder it records the transport of logs from the Forest Management Unit to the processing facility using the Faktur, or SKSHH with attached log list (DHH) as appropriate.	<i>Check sample of logs against documentation.</i>
Criterion 6.3: All organizations transporting timber products have valid licenses.	
6.3.1 Organizations operating vessels or trucks for transporting forest products outside the Forest Management Unit have licenses issued by Ministry of Transportation for the	<i>Valid (year and vehicle type, load capacity) registration License, and documentation stating it is a company owned /contractor vessel or truck to be inspected.</i>

	Company and for each vessel or truck it operates.
6.3.2	Organizations operating trucks and loaders within the Forest Management Unit have licenses issued by Ministry of Forestry for that equipment. <i>Valid License (year and vehicle type, load capacity), and documentation stating it is a company owned /contractor vessel or truck available at office and inspected.</i>
6.3.3	Organizations transporting wood products out of a province have a PKAPT (Registered Inter-island Wood Trader Registration Number) issued by the Ministry of Industry and Trade. <i>Valid (year and quantity) license with registration number and details of transportation protocols to be inspected.</i>
Principle 7. Timber Processing and Shipping	
Criterion 7.1: Timber processing facilities, and organizations engaged in trading or export of forest products comply with all legal requirements for their activities.	
7.1.1	The timber processing facility has a legal license to operate based on its current capacity and legal BKPM that approves the investment. <i>Current operating license available on site for inspection.</i>
7.1.2	The timber processing facility has an approved Industrial Raw Material Requirement Plan (RPBBI). <i>Current plan available on site for inspection and should be reviewed to ensure legal sources of wood are identified. Installed capacity and annual output of the processing facility shall not exceed more than 30% of the licensed capacity for any category of processed timber.</i>
7.1.3	All organizations engaged in trading of forest products are registered with the Ministry of Industry and Trade and, if exporting processed wood products, have a registration number issued by the Ministry confirming its status as a Registered Exporter for Forest Products (ETPIK). <i>Current ETPIK with current registration number to be inspected.</i>
7.1.4	All raw material received by the wood processing facility must originate from one of the following sources: natural forest selective felling permit [HPH (IUPHHK pada HA)]; industrial timber plantation [HTI (IUPHHK pada HT)]; Perum Perhutani licensed area; land clearing associated with nationally approved non-forestry activities or authorized by district governments located outside the permanent state forest zone (kawasan). <i>Check SKSHH documentation, to verify that log came from one of these sources.</i>

<p>7.1.5 All logs in the log yard or log pond are accompanied by valid log transportation documents, and the information within these documents corresponds to the physical characteristics of each log.</p>	<p><i>Audited logs must match their description in the DHH attachment to the SKSHH on file in the log pond or log yard. In particular, alphanumeric codes of each sample log must match exactly the code found in the DHH. If the log originates from a HPH, it must also match the way it is described in the DHH in terms of species, diameter (within 5 cm of error), and length (within 10 cm of error).</i></p>
<p>Criterion 7.2: Organizations engaged in shipping of forest products for export can demonstrate their compliance with government regulations.</p>	
<p>7.2.1 Each shipping company and its vessels are registered with the Ministry of Transportation (MoT)</p>	<p><i>Registration documents to be inspected for validity (signed by MoT and current) plus that they relate to the actual company and vessel.</i></p>

APPENDIX 8. FAO WOOD SUPPLIERS LIST

Company	Forest / Mill Location	Plantation	Natural Forest	Products	Species	m3/yr processed	Certified	Management License	Contact person	Phone number	Fax number	Email address
PT. Tusam Hutani Lestari	Aceh	Yes	No	Sawn timber	Pinus / Eucalyptus sp.	88,000	No	HTI / IUPHHK	Putri / Ita	83793250 – 83793255	83793155	
PT. Musi Hutan Persada	Palembang, South Sumatera	Yes	No	Sawn timber	Acacia mangium	?	No	HTI / IUPHHK	Hardjono Arisman	0711-718142	0711 - 718102	
PT. ITCI Hutani Manunggal	Balikpapan, East Kalimantan	Yes	No	Sawn timber	Acacia mangium	80,000	No	HTI / IUPHHK	Dan Toding	7892855 / 0854-284-0139	7802682	
PT. Tanjung Redeb Hutani	Berau, East Kalimantan	Yes	No	Sawn timber	Acacia mangium	20,000	No	HTI / IUPHHK	Abidin Anwar	83793266-68	83793267	
PT. Irmasulindo	Papua/Makassar	Yes	No	Sawn timber	Acacia mangium	10,000	No	HTI / IUPHHK	Jhonny Tjowasi	0411-510015 / 510247 / 0811-4121-15	0411-510014	irmasulindo@yahoo.com
PT. Silva Inhutani Lampung	Lampung	Yes	No	Sawn timber	Acacia mangium	1,200	No	HTI / IUPHHK	Djunaidi Nur	5213383	5205829, 5213392	
PT. Wira Karya Sakti	Jambi Province	No	Yes	Sawn timber	Mixed tropical hardwoods	5.000 – 10.000	No	IPK	David Losuf	573-0256, 39834473	39834707	
Aceh Reconstruction Consortium (ARC)	Banda Aceh, Medan, Jakarta	Yes	No	Sawn timber	Imported softwoods	?	Some FSC, other wood WWF approved	NA	Arian Ardie	0813 18890598		arian@acehrc.com
GXG Asia Sdn BDH	Banda Aceh	Yes	No	Sawn timber	Acacia mangium	?	Certisource	NA	Timothy Hromatka / Mufid	+60 333630151 / 0811 251725		timothy@globexgreen.com
Timber for Aceh – International supplier list												
Aurora Group	Cirebon	-	-	Furniture	?	Small volume	FSC COC	-	Arief Priabudi	0231 321653	0231 321362	
PT Arona Binasajati	Cileungsi Bogor	-	-	Furniture	?	Small volume	FSC COC	-	Mrs Suminah	021 8324567	021 823741-42	
PT Harmoni Sarana Kayu	Tangerang	-	-	Doors, window frames	?	Small volume	FSC COC	-	Harry Sembel	5913114		
PT Kutai Timber Indonesia	Jakarta	-	-	Plywood and door blanks	?	Small volume	FSC COC	-	Mr Capt. M. Sain Latief			
PT Panca Eka Bina Plywood	Kecamatan Siamk, Riau	No	Yes	Plywood	Mixed tropical	?	FSC COC	-	Mr Tony Arifiarachman	021 874 0202	021 877 40745	T_arifiarachman@yahoo.com

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Industry					hardwoods							
PT Rimbawood Arsilestari	Serang	-	-	Furniture	?	Small volume	FSC COC	-	Mr John Freddy	0254 480 555	0254 480 888	Johnf@rwa.co.id
PT Tunggal Yudi Sawmill Plywood	Samarinda	No	Yes	Plywood	Mixed tropical hardwoods	?	FSC COC	-	Harry Sembel			
PT Intracawood Manufacturing	Jakarta	Yes	No	Furniture	?	Small volume	FSC COC	-	Mr. Totok Lestiyo	021 3905 751	021 3908 469	intraca@cbn.net.id
PT Diamond Raya Timber	Riau	No	Yes	Sawn Timber	Mixed tropical hardwoods	30,000	FSC / LEI PHAPL	HPH / IUPHHK	Surya Agung	0761 37555	0761 33595	
PT Allure Indonesia	Semarang	-	-	Furniture	?	Small volume	FSC COC	-	Riyanto	024 7625261	024 7625262	allureind@hotmail.com
Domus Ventures PTE Ltd / PT Inovasi Artistika	Jakarta	-	-	Furniture	?	Small volume	FSC COC	-	Hendi Nuryadin	021 15279133	021 5271242	
PT Duta Rendra Mulya	Tangerang	Yes	No	Furniture	Teak	Small volume	FSC COC	-	Bambang Sunaryo, Trisno Teddy	021 6338670	021 6337814	kjbams@cbn.net.id
PD Sinar Agung	Tangerang	-	-	Laminated wood products	?	Small volume	FSC COC	-		0321 363 010	0321 363 011	
PT Cemerlang Selaras Wood Working	Tangerang	-	-	Pine doors	?	Small volume	FSC COC	-	Mr Chua Chin Guan	021-5903533	021- 5903538	
PT Falak Jaya Furnitama	Tangerang	-	-	Furniture	?	Small volume	FSC COC	-	Ms. Binatari	021-5921306	021- 6262823	falakjaya@cbn.net.id
PT Trimitra Mebelindo	Serang	Yes	No	Furniture	Eucalyptus	Small volume	FSC COC	-	Mr Hendrono	0254-403308	0254- 403836	Lili@trimitramebelindo.com
PT Uniseraya	Pekanbaru	-	-	Sawn Timber	Mixed tropical hardwoods	Small volume	FSC COC / LEI LACAK BALAK	-	Mr. Haslim	0761 37 555	0761 33 595	
PT Cipta Kreasi Wood Industry	Kerawang	-	-	Furniture	?	Small volume	FSC COC	-	Setya Gunadi	0267-436 373	0267-435 682	s_gunadi@hotmail.com
PT Dwipantara Global Arts	Jakarta	-	-	Furniture	?	Small volume	FSC COC	-	Mr. Richard J. Lino	021.781.9422	021.788.3 3087	ship@dwipantara.famili.com
PT Inatai Golden Furniture Industries	Jakarta	-	-	Furniture	?	Small volume	FSC COC	-	Antonius M.A	021 4403518	021 4404456-7	inataigf@inatai.com
PT Intertrend Utama	Buduran Sidoarjo	-	-	Furniture	?	Small volume	FSC COC	-	Hendro Rusli	031-894 9491	031-892 8377	marketing@intertrendfurniture.co.id
PT Pelita Mulia Pratama	Jakarta	-	-	Furniture	?	Small volume	FSC COC	-	Mr. Patrick C.H. Loh	021-690 9503	021-690 4243	pelitamp@cbn.net.id
PT. Intraca Wood	East	No	Yes	Logs	Mixed	-	In	HPH /	Totok Lestiyo	021-3905751/	021-	

DRAFT DISCUSSION DOCUMENT ONLY – WORK IN PROGRESS

	Kalimantan				tropical hardwoods		process - Smartwood	IUPHHK		3148505	3908469	
PT Inhutani I Unit Labanan	East Kalimantan	No	Yes	Logs	Mixed tropical hardwoods	-	In process - Smartwood	HPH / IUPHHK	Ir. Sri Soediarto	021-5731724 / 5734335		
PT. Sari Bumi Kusuma	West Kalimantan	No	Yes	Logs	Mixed tropical hardwoods	-	In process - Smartwood	HPH / IUPHHK	Ir. Nana Suparna	021-63863807	021-63863804	
PT Erna Djulawati	Central Kalimantan	No	Yes	Logs	Mixed tropical hardwoods	-	In process - Smartwood	HPH / IUPHHK	Ir. Iwan Juanda	021-3840608		
PT Gunung Meranti	Banjarmasin-South Kalimantan	No	Yes	Logs	Mixed tropical hardwoods	-	In process - Smartwood	HPH / IUPHHK	Ir. Johannes A. Hoesada			
PT Sumalindo Lestari Jaya Tbk	Samarinda	No	Yes	Plywood / MDF	Mixed tropical hardwoods	Large volume	In process - Smartwood	HPH / IUPHHK		0541 261 277, 260 554, 260 863	0541 260 821	investor@sumalindo.com
PT Dwima Jaya Utama	Central Kalimantan	No	Yes	Logs	Mixed tropical hardwoods	-	In process - Smartwood	HPH / IUPHHK				

APPENDIX 9. MINUTES OF FOREST INDUSTRY WORKSHOP, 28 JUNE 2005

Location: Held at Offices of NAD Dinas Kehutanan, Banda Aceh, NAD,

Attendants:

Ir. Mustafa Hasjibullah, Dinas Kehutanan NAD (Chair)
Mr. J.J. Franc de Ferrière
Mr. Sriyono, Director, MOF
Ir. Anton Suhartono, MOF
Mr Yusya Abubakar, BRR
Ibu Nita Kartika, BAPPENAS
Mr. Taufiq Alimi, LEI
John D. Clark World Bank
Ir. Husaini, Dinas Kehutanan NAD
Ir. Irwan Kesuma, Dinas Kehutanan NAD
Ir. Anas Mahmudi, Dinas Kehutanan NAD
Mr. B Tou, Dinas Kehutanan NAD
Mr. Hasrian Nur, Dinas Kehutanan NAD
Mr. S. Sembiring Nelid, Dinas Kehutanan NAD
Mr. George Kuru, UN-FAO
Ms. Marlene Arboe Rassmussen, UN-FAO
Mr. Denni Ridwan, UN-FAO
Mr. Irwansyah, UN-FAO

8.00-11.30 am, we conducted a field trip including the following:

Visit to Dinas Pemukiman dan Perkotaan (Department of Public Works) to see the model house proposed by Government;

Inspection of damage zone in Banda Aceh including a wetlands rehabilitation project;

Cot Lamkuweh village to see a traditional house made from coconut wood;

Kedah village salvage and recycling project (UNDP Project);

Cadek village barrack temporary housing;

Ateuk Deah Tanoh (boat building).

13.30-16.00 pm, presentations on wood related issues were made by:

Ir. Mustafa on current forest management issues in NAD.

Mr. Sriyono on MOF policy regarding importation of timber, forest management policy, supply of wood from confiscated wood / alternative wood supplies / new forest management.

Mr Taufiq Alimi introduced LEI, its history and its functions. He talked of the problems in monitoring forestry companies and the programmes that LEI has introduced to monitor forestry companies and support sustainable forestry management.

Mr. John Clark made the point that the need action in Aceh was critical and urgent and that the respective Government departments have a duty to give the highest priority to assisting post Tsunami reconstruction.

Mr Yusya Abubakar talked of the role of BRR / BAPEL in terms of the requirement for a strong monitoring programme and supporting the role of LEI as an independent verification and auditing agency.

Mr. George Kuru gave an overview of the FAO wood supply project and a discussed FAO commitment to supporting GOI and timber industry in development of legal and sustainable wood supplies.

16.00-17.30 pm, general discussion with Mr. Mustafa Hasjebulah as the moderator. The meeting was wrapped up with a summary of the findings and proposed actions. These are summarized below:

The forest management policy for Aceh has been clearly stated by Dinas Kehutanan as follows:

- The small clearfelling licenses (IPHHK) will be revoked over a period finishing on 21 September 2005.
- The only licensed logging activity that will occur after 21 September 2005 will occur in non-production forest areas /Areal Penggunaan Lain (APL) / Budidaya zone, e.g. community forest (Hutan Rakyat), community agricultural (Kebun Rakyat), transmigration programme (Lahan Usaha Transmigrasi). The harvest volume from these areas is expected to be considerably lower than current harvest.
- The Dinas Kehutanan plans to restart harvesting in the HPH (large forest concessions). A moratorium on logging had been placed on HPH logging from 2001. The area of HPH forest is approximately 660 000 hectares and the expected annual harvest volume from HPH is approximately 400 000 m³ starting in 2006.

The current policy of the Ministry of Forestry regarding wood supply for Aceh reconstruction is as follows:

- Preference to be given to local and national legal supply over imported timber.
- The only imported wood that will be acceptable to MOF is State-to-State donations of wood. The procedures required for importing wood have not been defined yet.
- MOF has already initiated steps to make confiscated logs and timber available for reconstruction. The MOF are awaiting the clearance from the Attorney General and this is the last administrative barrier to delivery of this wood supply to Aceh. The meeting is likely to be hosted by the MOF and FAO has agreed to assist in organization of the meeting.

It was agreed at the meeting that the following actions be implemented:

- An over all programme must be designed to assist the development and the implementation of the HPH system to establish a legal wood supply in Aceh province while rehabilitating the wood processing industry on a responsible basis. It was agreed that this programme would be presented for funding to the Multi Donor Trust Fund (MDTF) with a high priority rating through BRR. A specific presentation will be done to Mr Kuntoro by the end of the week upon his return from Jakarta. FAO has offered to assist in this process and is awaiting a letter from Dinas to formalize this.
- MOF has agreed to set up the procedure for the importation of wood through donation from State to State together with BRR, the Dinas Kehutanan of Aceh and LEI. They would set rules for the supply of wood

both from inside or outside Indonesia. MOF has promised to address this issue as swiftly and efficiently as possible in order to give to BRR the appropriate instructions to respond to the various offers they receive from the Donors States and NGOs.

- MOF has agreed to expedite the delivery of confiscated timber as quickly as possible. This will include setting up the procedures for delivery, processing and distribution of the wood products.
- The group was very keen to establish a list of approved legal suppliers and FAO was asked to coordinate these efforts.
- The group has agreed to reconvene the workshop on 8 July 2005 in Jakarta to discuss progress. This work group will be open to a wider group of participants and FAO hope to involve the forest industry groups, NGO's in construction and other NGO's / organizations from civil society.

Meeting finished at 17.30.

APPENDIX 10. NOTES ON MEETINGS

Tuesday 7 June – Kevin Grace, Managing Director, Global Forestry Services

GFS has several legality programmes for legal source, legal compliance and forest certification.

Provided copies of legality programmes.

Recommends legal source as base standard for legal wood.

GFS can provide local expertise, industry experience and auditing capacity for a legal standard.

Wednesday 8 June – Art Klassen, Director, Tropical Forest Foundation

TFF has a legality programme for legal source and legal compliance called the “RIL Verified” programme.

TFF has also prepared a legality standard for Indonesia based around the Dutch Keurhout Protocol for verification of claims of legal timber.

TFF can provide local expertise, industry experience and auditing capacity for a legal standard.

TFF believe that a one off inspection using local inspectors would cost between US\$1000-2000. For a full monitoring programme, probably 3-4 inspections would be needed each year.

TFF recommend the following process:

- The programme work through the MOF and industry groups. MOF and industry groups would be responsible for involving participation of industry.
- There would need to be clear criteria for eligibility
 - Commitment to attain compliance with criteria
 - Logs obtained from areas with legally authorized license.
 - Demonstrate log transport recorded on proper documentation e.g. DP, SKSHH and DHH.
 - Logs are properly labeled and have chain of custody.
 - Subject to independent audit.

Wednesday 8 June – Dr. Hari Santoso, Director Watershed Management and Land Rehabilitation.

Available to support FAO coastal rehabilitation projects

Thursday 9 June – Andrew Jones, UNEP consultant.

Have initiated a Dinas level initiative in environmental development and monitoring in collaboration with MOE, BAPPEDAL, and UNESCO.

Jan Stephan is conducting an unofficial group on matters environmental. Meeting every second week, next meeting 14 June 2-4 o'clock, Canadian Embassy, World Trade Center.

29-30 June, waste disposal workshop at Banda Aceh at the University sponsored by UNDP, UNEP, MOE.

Thursday 9 June – Jeff Haywood, SMARTWOOD.

SMARTWOOD has adopted the TNC / WWF GFTN legality criteria.

SMARTWOOD has identified four distinct levels of legality:

- Legal right to harvest
- Legal source
- FSC compliance for principles 1.1 & 1.2
- Legally verified including legally harvested, traded, processed and forest charges paid.

SMARTWOOD has provided criteria for all four levels of legality.

They recommended legal source as a minimum criteria with a basic chain of custody. This would have credibility in the public arena.

A SMARTWOOD auditing programme for assessment of chain of custody / legal source would require site visits. The expected cost of site visits is US\$3-5000 and typically involve:

- An initial assessment
- Follow-up audit at 1-3 months depending on the results of the initial assessment.
- 6 month audit
- 12 month audit
- 6 monthly audits thereafter

FSC has criteria for non-certified wood called “controlled wood” or “wood from non-controversial sources”. The significance is that even FSC has mechanism in place that recognizes a lower level and has standards in place that could be adopted for the Aceh programme.

Friday 10 June – Mr Hendro Prastowo and Mr Nanang Rofandi, APHI

APHI = Asosiasi Pengusaha Hutan Indonesia, Indonesian Association of forest Concessionaires.

APHI are keen to promote the interests of its members and assist in Aceh if possible.

It is critical to APHI that timber specifications be prepared as soon as possible regarding species, dimension, and grade.

Attaining international prices is a key element to making it possible to be involved in supplying Aceh. Current domestic prices are highly depressed because of illegal logging and international prices are the key to being competitive.

Pak Nanang believes that large volumes of *Acacia mangium* from plantations may be available for Aceh reconstruction.

APHI strongly recommend meeting with BAPPENAS to discuss the programme.

APHI recommend we contact APKIN, the timber treatment association.

Friday 10 June – Mr. I Ketut Kaler Ginaputra, APKINDO

APKINDO = Asosiasi Panel Kayu Indonesia, Indonesian Wood Panel Association.

APKINDO will support supply of timber into Aceh provided the users can pay international prices.

It is critical to APKINDO that timber specifications be prepared as soon as possible regarding species, dimension, and grade.

The industry can produce plywood to any international grading system. The most common systems are IWPA for North America and JAS for Asia.

Friday 10 June – Mr. Pangestu Sugondo and Mr. Gustaf Ardianto, APKIN

APKIN = Asosiasi Pengawetan Kayu Indonesia, Wood Preservation Association of Indonesia.

APKIN will support supply of timber into Aceh and promote the use of timber treatment.

APKIN provided a copy of the timber treatment standards. These have been translated.

The Ministry of Forestry is responsible for maintaining the timber treatment standards / list of allowable treatments. The contact is:

Dr. Pipin Permadi
Pusat Penelitian Hasil Hutan
Divisi Pengawetan
Departemen Hutan

We contacted Dr. Pipin Permadi. He instructed us that no changes to the standards had been made since publication of the standards in 1987.

The Ministry of Public Works is has developed its own standards for timber treatment. The contact is:

Mrs Nana S. Ginting
Pusat Penelitian Dan Pengembangan Pemukiman
Departemen Pekerjaan Umum

Friday 10 June – Mr. Pangestu Sugondo and Mr. Gustaf Ardianto, APKIN

APKIN = Asosiasi Pengawetan Kayu Indonesia, Wood Preservation Association of Indonesia.

Tuesday 14 June – Dr. Dedi M Riyadi, BAPPENAS

BAPPANAS = Badan Perencanaan Pembangunan Nasional, National Central Planning Agency of Indonesia.

BAPPENAS prepared the master plan for reconstruction in Aceh. They have already identified that wood supply is an issue that needs urgent attention.

Mr. Dedi M. Riyadi strongly recommends we contact the Minister of Forestry to discuss our plans for assisting the forest industry.

Mr. Dedi M. Riyadi has nominated the following two people as counterparts to FAO for the wood supply process:

Dr. Edi Effendi Tedjakusuma
Director of Environmental Affairs
BAPPENAS

Dr. Agus Prabowo
Director of Environmental Affairs

BAPPENAS

BAPPENAS will definitely attend a workshop on timber supply to be hosted by FAO and held in Aceh.

Wednesday 15 June – Ir Edi Mocktar Rosadi and Ir Anton Suhartono, MOF

The Division for Region I is the appropriate division within the Ministry of Forestry to handle the wood procurement programme.

The Deputy Minister Region I is Mr. Sriyono who is recently appointed to this position.

Ir Edi Mocktar Rosadi is the engineer with specific responsibility for Aceh

Ir Anton Suhartono is the engineer who conducted a study of wood requirements for Aceh reconstruction. Mr. Suhartono provided a copy of his report which estimate the volume of sawn timber required at 385,000 m³ and 365,000 sheets of plywood.

APPENDIX 11. NOTES ON THE PRESENTATIONS GIVEN AT THE WORKSHOP FOR WOOD SUPPLY, 2 AUGUST 2005

1. Head of Nanggroe Aceh Darussalam Forestry Office - Mustafa Hasjullah

- After the tsunami, Dinas (Forestry Office) was involved in supplying wood for construction of barracks.
- The impact of Logging Moratorium from 2001-2005, which limits the area of production. Consequently the wood supply is very limited, which is worsened by Aceh condition as conflict area.
- Dinas has licensed IPHHK in Aceh to meet local wood demand.
- It is not denied that illegal logging activity happens in some places due to limitation in monitoring activity.
- Aceh still has around 650,000 ha production forest which is still available to supply wood for Aceh reconstruction.
- Dinas plans to recommence production from HPH production forests.
- The estimation of legal wood production for the last 3 months is around 40,000 m³ of roundwood.
- Wood supply from outside the province to contribute to the reconstruction activity needs to fulfill the legal aspect, mainly this should come from seized wood. In addition, the transportation cost of the wood has to be considered too.
- The wood provided by donor countries has to obtain approval from MoF before imported to Indonesia.
- Natural Resources Management in accordance with Special Autonomy which gives solution for Aceh problem stated in Act #. 18 Year 2001 and Qanun #. 14-15 is supposed to be fully delegated to the provincial government. Nevertheless, the reality on the ground reveals that this matter is still carried out in centralistic way.
- When reconstruction activity started, indications suggested illegal logging increased.
- The policy of Forestry Minister for the next three months is that IPHHK is given time to finalize the administration matters, obligation to the central government as well as removal of already-cut timber.
- After 21 September all logging in IPHHK will stop.
- For imported wood coming from the donation of donor countries, the Forestry Minister requires that the delivery process is G to G, not from the government of donor country to NGO.
- Wood supply process for donations needs cooperation between BRR, Forestry Office and Urban and Settlement Office.

2. Vice Head of Nanggroe Aceh Darussalam Forestry Office - Husaini

- When IPHHK is finished, the only source of timber will be HPL (lain) and community forests. This wood supply will be small compared to current production.

3. Head of Research and Development Centre for Sumatra Region of MoF - Sriyono

- For wood procurement from imports of donated wood, the regional as well as central government issue the policy that the agreement is only between government of Indonesia and government of donor country.

- Based on data from WWF, Greenomic and BAPPENAS, it is predicted that timber demand for reconstruction is around 1.15 million m³.
- The stock of seized logs is 92,690 m³ as well as 2,072 m³ sawn timber. MoF is planning coordination between Coordinating Minister for People Welfare, Transportation Minister, Forestry Minister and Attorney General in supplying the seized log, which comes from some provinces outside Aceh.
- Mr. Sriyono suggests reactivation of 6 companies which still own HPH, namely:
 1. PT.Aceh Inti Timber
 2. PT.Aceh Alas Aceh Perkasa
 3. PT.Kruing Sakti
 4. PT.Wiralano
 5. PT.Lamuri Timber
 6. PT.Raja Garuda TimberData from: BPK Dephut 2005

- It is targeted that the 6 HPHs could produce 401,814 m³ timber/year.
- The proposal is still pending Yearly Working Plan (RKT) from the Governor.
- The MoF is targeting 5 million ha of Industry Crop Forest (HTI) over the next 5 years.
- The presently addressed problem is land shortage. A land-clearing activity is planned in the non production forest (forest not included in production forest estate). The timber produced from land-clearing activity will be used to add to the supply for reconstruction activity.
- MoF also suggests coconut tree utilization and technological support for wood preservation.
- MoF's policy is to minimize overseas timber import excluding the donation to avoid negative image towards Indonesian market.

4. FAO Aceh Area Coordinator - JJ Franc de Ferriere

- We face double challenge at the moment: 1) substantial increase of wood demand, and 2) how to protect forest resources.
- Suggesting immediate utilization of seized wood due to urgent demand in wood supply.
- The legal aspect of the seized wood needs to be settled soon.
- The clear standard needs to be stipulated to select eligible suppliers.
- JJ Franc de Ferriere asks the MoF to immediately issue official statement about their stand in Aceh reconstruction, i.e., in terms of procedure and support of wood supply as well as policy made to improve forest resources management.

5. Executive Director of Indonesian Ecolabeling Institute (LEI) - Taufiq Alimi

- The barrier encountered in the forest production is that there is no clarity of the border, and the timber producers always manage to avoid responsibility when an irregularity takes place.
- LEI possess a mechanism of wood certification, and it already has the cooperation of donors and 10 certified timber producers.
- Assessment of legal wood supply can be made by cooperation between LEI, BRR and Dinas.
- He informed that in Provinces of Riau and Jambi, there are non production rubber forests, but the community has no fund for cutting and transportation.

- Suggesting support and reactivation of HPH and in line with this, socialization and application of verification mechanism.
- Suggesting community-based forest management.

6. World Bank Envoy - John Clark

- The seized woods stored in the warehouse pending legal settlement is suggested to be utilized immediately. There is sense of urgency here since many Aceh people still living in awful condition.
- In terms of international competitive bidding, the government regulation which only permits wood purchase within Indonesian territory (by donors/NGOs) needs to be arranged not to violate the free trade regulation.

7. FAO Consultant - George Kuru

- Provided overview of FAO wood supply programme.
- Stated FAO commitment to assisting Gol and timber industry in sustainable forest management and legal wood supply.

APPENDIX 12. DRAFT POSITION PAPER FROM THE TIMBER WORKING GROUP

Draft Position Statement on International Cooperation on the Reconstruction of Aceh and North Sumatra

This paper outlines the position of the undersigned NGO's who are committed to the rapid and sustainable restoration of normality for the communities affected by the Tsunami and earthquakes in the region over the past six months.

Our priority is to re-house the disaster-affected communities in earthquake resistant housing as quickly as possible. We also aim to ensure that the monies entrusted to us by public and private sources in no way threaten the welfare, livelihood and natural resource base for future generations throughout Indonesia.

We have pledged to rebuild approximately 100,000 homes, thereby restoring dignity and security to approximately 300,000 Indonesian citizens from Aceh and North Sumatra, using resources in a responsible and sustainable way.

Within this context we are committed to prioritising procurement of seasoned timber from companies that demonstrate sustainable management practices with a transparent and accredited chain of custody from source to consumer.

We appreciate the ongoing efforts made by both The Ministry of Forestry and BRR to support our efforts, including the possibility of releasing confiscated timber and the use of plantation grown timber to meet this increased demand.

We, respectfully request the Government of Indonesia to permit us to:

1. Procure our timber from legal and sustainably managed forests throughout Indonesia that are subject to independent third party accreditation;
2. Build with timber from plantation sources treated to meet building standards;
3. Procure suitable timbers from legal and sustainably managed forests sourced from other countries that are also subjected to independent third party accreditation;
4. Avoid taking any action that threatens the integrity of either the Leuser ecosystem, gazetted National Parks or other ecologically sensitive areas;
5. Access timber currently held by the Public Prosecution Service.

In order that we can quickly respond to the needs articulated by tsunami and earthquake- affected communities and the individuals and organisations that are contributing to the Government's reconstruction programme.

30 June 2005
