2.2 Local timber demand and chainsaw milling in Papua, Indonesia

AGUS ANDRIANTO, KRYSTOF OBIDZINSKI and HERU KOMARUDIN

The forestry sector in Papua has experienced rapid changes since the fall of the New Order Regime in Indonesia in 1997, the establishment of Special Autonomy in Papua in 2001 and the creation of four regencies from the existing Merauke Regency in 2002. Most forest logging companies, operating under Hak Pengusahaan Hutan (HPH) licences, had suspended or terminated operations due to lack of capital, conflicts with local people or failure to pay timber royalties (Papua Provincial Forestry Agency 2005). The vacuum created by the absence of HPH logging was filled by small-scale logging licences (IPK-MA) issued by the Governor of Papua (Papua Provincial Forestry Agency 2006). The rapid proliferation of IPK-MA logging, associated smuggling of timber to China (Telapak 2005), and growth in small-scale chainsawing for local use caused the Ministry of Forestry and the national police to undertake security sweeps to curb illegal logging practices; these were part of Operasi Hutan Lestari (OHL, Sustainable Forest Operations). The government faces a dilemma: eradicating illegal practices restricts the supply of timber for local development.

The data used in this article originate from research carried out in cooperation with WWF-Indonesia, Almamater Foundation, Merauke Regency Forestry Agency and Tropenbos International-Indonesia. Additional data come from interviews and surveys conducted by CIFOR between 2006 and 2008.

Forestry sector in Merauke Regency

In 2004, forests in the Merauke Regency cover 4.7 million hectares (ha), comprising 1.3 million ha production forests, 1.5 million ha nature reserve, 1.4 million ha conversion forest, 0.3 million ha protection forest and 0.2 million ha for other purposes (Regional Office of Forestry Planning Agency 2005).

Agus Andrianto, Krystof Obidzinski and Heru Komarudi work for the Forests and Governance Programme, Center for International Forestry Research (CIFOR), Indonesia.
Before Merauke Regency was divided in 2002 into four regencies (Asmat, Boven Digoel, Mappi and Merauke), the forestry sector was the main source of its income (Merauke Regency Planning Agency 2008). There were 11 logging concessions in natural forest, covering 2,663,400 ha, from which the Annual Allowable Cut (AAC) was set at 1.3 million m³/year. Ten industrial timber plantations (Hutan Tanaman Industri, or HTI) covered 1.3 million ha, although none of them were fully established. Before the onset of Special Autonomy in 2001, Merauke Regency had two plywood mills with combined capacity of 200,000 m³/year¹ and many sawmills. In 2002, all HPH concessions and plywood mills were located outside the Merauke Regency and most of the inactive HTI plantations remained in the smaller Merauke regency.

In 2005, Merauke Regency produced 1,050 m³ of sawn wood. Just one year later, in 2006, only 440 m³ of sawnwood was recorded (Merauke Regency Forestry Agency 2007). Agency staff explained that this was a result of the OHL operation, which reduced the supply of raw material. In the same year the police confiscated 8,580 m³ of illegal timber. This is an enormous increase in comparison to 2004, when the police seized only 16 m³ (Merauke Regency Forestry Agency 2007).

During this period the population of Merauke Regency is continuously increasing, particularly as a result of incoming migration. This contributes to a steadily increasing demand for wood for housing. A large gap exists between the rising demand for wood and the lack of sources of legal wood, exacerbated by a lack of response or planning by government policy-makers to ensure an adequate supply of legal wood.

Legal framework
Chainsaw operations have been carried out in Merauke for a long time to meet local needs, especially in areas where no HPH forest companies operate. Forestry regulations specify two types of licences for chainsaw operations: commercial and non-commercial.

Commercial activities
The following permits cover commercial activities:
- the Permit for the Right to Harvest Resources from Customary Law Forests (Hak Pemungutan Hasil Hutan Masyarakat Hukum Adat, or HPHMHA),² which is known in Papua as the Permit to Harvest Customary Law Forest Timber (IPK-MA);³ and
- the Permit for Use of Timber from Privately Owned Forests (Ijin Pemanfaatan Kayu Rakyat, or IPK-R).⁴

IPK-MA permits were intended for harvesting of wood for no more than one year from a forested area no larger than 1,000 ha. These permits have not been issued since 2005. IPK-R permits are issued for harvesting and using wood from forested areas that have been made available for non-forestry purposes by the Forestry Department. The permit is valid for one year and can be extended. Both types of permit generally involve timber companies or logging contractors partnering with local communities.
Non-commercial activities

Non-commercial use of wood resources is covered by a Forest Resource Harvesting Permit (Ijin Pemungutan Hasil Hutan Kayu, or IPHHK). The permit has two conditions: no more than 20 m³ of wood can be harvested within a one-year period and the harvested wood must be for personal use and cannot be sold. In practice, however, it is commonly accepted that timber extracted under this permit is sold and traded locally. In addition, loggers often surpass the 20-m³ maximum; their surplus is illegal timber.

The most common forms of illegal practices associated with timber harvesting and processing under these permits are extraction in excess of the volume allowed and repeated use of the same documents for timber extraction.

The Ministry of Forestry has recently put into effect a new regulation intended to provide local government with legal ways to meet the local demand for timber. The regulation requires concessions to allocate timber for local needs. It reconfirms the need for regency heads to make an inventory of local timber needs and issue appropriate permits, particularly areas having no natural forest logging concessions, such as Merauke. It also allows certain regencies to source or supply timber from/to neighbouring regencies in case of surplus or shortage.

Supplying local sawmills

Chainsaw operators work with two main parties: land-owners and wood buyers. They are mostly individuals, but can also be furniture producers or sawmill operators. Chainsaw operators usually work for bosses based in Merauke who have established relations with sawmills and construction contractors. As hired labourers, chainsaw operators work with businesses that possess IPHHK permits, so that they do not have to obtain these permits themselves.

Before they can start felling trees, chainsaw operators must report the results of an area survey to their bosses. If the operation is feasible, based on harvest potential and ease of log transport, the chainsaw operator approaches the customary land-owners for permission and establishes a contract with them to log the timber for an agreed payment. The boss then arranges permits at the Forestry Agency and coordinates with other parties to transport the timber from the forest to Merauke City. The IPHHK is issued in the name of the land-owners.

At the logging location, the chainsaw operator cuts the type and size of trees stipulated in the order from Merauke. Chainsaw operators usually work in groups of two or three loggers assisted by a helper. They camp for several days in the forest until they meet their target. Only those logs covered by an authorization letter from the Merauke Forestry Agency can be transported legally. These logs are usually destined for legally registered industrial sawmills in Merauke.
The demand for wood in Merauke

The wood coming into Merauke City originates from chainsaw operations in Jagebob, Kurik, Semayam and Sota sub-regencies. A 2006 survey of local sawmills and other timber consumers estimated that 100 chainsaw operators linked to IPHHK permits were working in the forest to produce logs, boards and blocks of various sizes to supply the city’s needs.

The survey also found that Merauke Regency needed 3,627 m³ of sawn wood annually to meet the local demand (WWF 2007; Almamater 2007). The largest demand came from 18 sawmills in Merauke; they produced 2,551 m³ of timber products per year. The timber demand for construction was estimated at 700 m³ per year, and the woodworking industry required another 376 m³ annually (Table 1).

Table 1. Domestic demand for sawn wood in Merauke City 2006

<table>
<thead>
<tr>
<th>demand</th>
<th>number</th>
<th>source of timber</th>
<th>quantity of lumber (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sawmill</td>
<td>18</td>
<td>chainsaw and delivery operator</td>
<td>1,785</td>
</tr>
<tr>
<td></td>
<td></td>
<td>chainsaw operators</td>
<td>434</td>
</tr>
<tr>
<td></td>
<td></td>
<td>authorities</td>
<td>332</td>
</tr>
<tr>
<td>furniture-making and woodworking</td>
<td>14</td>
<td>sawmill</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td></td>
<td>chainsaw operator</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td></td>
<td>chainsaw and delivery operator</td>
<td>98</td>
</tr>
<tr>
<td>projects</td>
<td>4</td>
<td>sawmill</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>chainsaw operator</td>
<td>50</td>
</tr>
<tr>
<td>individual use: housing, school and military dormitory construction</td>
<td>n/a</td>
<td>sawmill, chainsaw operator, chainsaw and delivery operator</td>
<td>600</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td></td>
<td>3,627</td>
</tr>
</tbody>
</table>

Source: Survey by Sahul office of WWF Indonesia, 2006.

The survey produced more extensive data than that available from the Forestry Agency, mainly because the sawmills report only the lumber they mill from legal sources. Since OHL operations began, however, Merauke sawmills have primarily sourced their raw materials from chainsaw operators operating under IPHHKs, which are dispersed and do not appear in official statistics. The sawmills likewise do not report orders for sawn wood or lumber from other parties, or profits from these milling services and storage. The Forestry Agency assumes that the volume of timber used for construction in Merauke roughly corresponds to the volume of timber allowed under IPHHK permits. They do not receive or record any data on sawn timber used for government projects or the construction of private houses.
Drivers and impacts of chainsaw operations

Merauke’s rapid development requires a large amount of wood, especially for construction and furniture making. The lack of forest concessions and plantation forest operations in Merauke motivates wood processing industries in Merauke to source wood from chainsaw operations through collaboration with local community land-owners.

Wood-based enterprise owners in Merauke say that chainsaw milling is the only solution to meet timber demand since the IPHHK is the single permit available in the area. They do not want to invest in developing forest concessions and plantation forests due to comparatively low commercial timber stock, marshy forests with high precipitation rates, inadequate infrastructure and difficulties they have encountered gaining access to forest land that is owned under customary law. They perceive exploitation costs as too high and the potential for adequate supplies of quality wood as too low.

Because wood-based forest resources are in limited supply, infrastructure is lacking and getting a permit other than IPHHK is complicated, chainsaw milling is widespread. Since the implementation of OHL security operations, however, which seek to control the misuse of IPHHK permits, the number of chainsaw operations, which had been the solution to the high demand for wood has declined.

Chainsaw milling has many social and economic impacts. Indigenous groups have increased income from compensation agreements with operators. The customary private land-owners are in a relatively strong position to negotiate with operators; conflicts arise mainly from technical issues and are easily resolved. This is often not the case when dealing with managers of capital-intensive undertakings such as forest concessions, which can cover thousands of hectares and may involve government officers. In Boven Digoel Regency, for example, where forest concessions and wood-use permits (IPK) operations are located, conflicts between communal landowners, forest concessions and IPK holders occur frequently (Kontras 2004).

The IPHHK, which serves as a legal framework for chainsaw operations, does contribute to state income, although the process is burdensome for the operators. The formal costs of legal chainsaw operations under IPHHK consist of permit processing costs of Rp 35,000 (US$4.2) per permit; Forest Resource Provision costs of Rp 26,500/m³ (US$3.2); and transportation costs of Rp 10,000 (US$1.2) per trip. According to the report of the Merauke Forestry Agency, sawn wood production reached 400 m³ in 2006. This contrasts sharply with the survey data obtained by WWF-Indonesia and Almamater Foundation, which indicates that sawn timber production was 3,380 m³. This means substantive potential tax revenue losses.

So far, chainsaw operations in Merauke have had relatively minor environmental impacts, far less than the extensive deforestation and degradation associated with HPH logging concessions and IPK-MA operations in the Merauke region. Only specific tree species and trees of a certain size are taken. Also, no heavy equipment is used to transport the cut wood from the forest.
However, chainsaw milling is inefficient and wasteful for two reasons: the quality of the wood produced is poor; and wood waste left behind in the forest can exceed 50% of total volume cut. Chainsaw operations under IPHHK permits are not required to replant or preserve the remaining trees, which has potentially serious long-term implications for sustainability. Due to the rising demand for wood and the resulting expansion of uncontrolled chainsaw operation activities, the remaining natural forest will likely come under increasing pressure.

Conclusions and recommendations

So what are the options for fixing the current flawed situation, considering that chainsaw operations are an important part of fulfilling the demand for wood in Merauke Regency and since other sources remain unavailable?

Chainsaw milling is a proven way to meet local needs. Although it is authorized only for domestic use under the IPHHK, chainsawn lumber is being sold commercially. Despite the permit’s misapplication, the local government maintains it because there are no forest concessions or plantation forests in Merauke Regency to address the local timber demand. Albeit inappropriate, chainsaw milling is the only way to meet timber demand and is supported by the majority of stakeholders involved in wood-based industries at the local level. At every point, harvesters, transporters from forest to city and the sawmills have patrons who take care of the administrative aspects and ensure their operations are secured.

The Merauke government has paid little attention to the local demand for timber. It needs to formulate a comprehensive plan on how to meet this demand. The process should include identifying and inventorying all land owned under customary law that has the potential to be covered by the IPHHK. Assistance should be provided to empower the communities who exercise customary law to engage in more effective collective action through business cooperatives and associated institutions. The local government should also seek to procure timber from neighbouring regencies such as Boven Digoel or Mappi.

A deeply rooted long-running problem such as this is not easily overcome. Solving the problem will require a comprehensive policy that does not give rise to new problems. In the short term, we recommend that licensing continue under the IPHHK (which to some extent may be allowed for commercial purposes) but that its implementation practices are better controlled. All activities by logging teams need to be registered, as does all wood removed from the forest. The amount of sawn wood from sawmills needs to be regularly recorded. With thorough documentation, for example, the current practice of using the same permit for several logging locations can be curbed and periodic forestry law enforcement checks conducted.
Over the long term, stipulations in the IPHHK can be expanded to include mandatory replanting and cultivating trees in all logged areas. This is particularly important in degraded areas where most of the timber comes from. At the same time, government authorities in Merauke need to establish and enforce additional regulations for the local wood-based industry governing timber quality standards, pricing and production methods.

The difficulties with managing and monitoring the IPHHK system will have important implications for the implementation of the Forest Law Enforcement, Governance, and Trade (FLEGT)-Voluntary Partnership Agreement (VPA) in Indonesia. The integrity of FLEGT-VPA depends on an effective implementation of the timber legality verification system. Irregularities with IPHHK identified in Merauke are widespread elsewhere in Indonesia and therefore constitute a serious challenge to the VPA. Steps must be taken to ensure that IPHHK and related logging operations do not undermine FLEGT-VPA.

Endnotes
1. See also the list of primary forest industries in Papua Province as of January 2010 at www bpphp17 web id/database/data%200110/D2.htm.
2. Ministry of Forestry and Plantations Decision Letter No. 327/Kpts-II/1999 (SK 327) provided customary law communities with the right (HPHH-MHA) to cut, transport and sell wood.
3. The issuance of the Permit to Harvest Customary Law Forest Wood (IPK-MA) was based on Papua Province Governor’s Decision Letter No. 22.2/3386/SET, 2002, and the Papua Province Forestry Agency Head Decision No. Kep. 522.1/1648 Tahun 2002. In this case the IPK-MA is defined as a permit to harvest the specific types of wood in the specific amounts stipulated in the permit issued to the holders of communal land under customary law that is intended to curtail environmental damage and preserve the basic function of the forest.
4. The Permit for Use of Timber from Privately Owned Forests (IPK-R) is based on Papua Province Forestry Agency Decision Letter No. 522.5/1401, issued in 2001.
5. The Forest Resource Harvesting Permit (IPHHK) is authorized by the Ministry of Forestry Decision Letter No. 6886/KPTS-II/2002.
6. The Ministry of Forestry’s Regulation No P. 7/Menhut-II/2009 concerning the guidelines for meeting local demand for timber
7. The survey was carried out from July to September 2006 by WWF-Indonesia and the Almamater Merauke Foundation. See WWF 2007 and Almamater Foundation 2007.
References


