

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES  
OF WILD FAUNA AND FLORA



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SUMMARY REVIEW OF MERBAU (GENUS *INTSIA*) FROM MAJOR RANGE STATES

1. The attached document has been submitted by the Scientific Authority of Germany\* and prepared by TRAFFIC.
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## Review of merbau from major range States

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### EXECUTIVE SUMMARY

In recent years, possibly in the context of the international attention to the growing problem of illegal logging and related trade and its negative impact on forests and tree species, there has been increased willingness to extend international collaboration and co-operation between producing and importing countries. CITES has increasingly been accepted as a useful tool to complement strategies for sustainable management of timber species and for combating illegal trade through the verification of permits in CITES provisions.

The sustainability of harvest of many tropical timber species currently is not well documented and there is a lack of relevant national, and to some extent localized, data on management, harvest and trade, which might be used as a basis for sustainable management. Some species may be under threat because of detrimental levels of use and international trade. Scientifically sound data are needed to inform policy, regulation, management and trading decisions, and even to fulfil the current listing criteria of CITES, if that is the intention.

Reports from non-governmental organizations have raised concerns about the scale of illegal trade in merbau, a timber from nine species in the genus *Intsia* and there is concern over the sustainability of harvests from natural merbau populations. The study on which this report is based, funded by *Bundesamt für Naturschutz*, the German Federal Agency for Nature Conservation (BfN), aimed to investigate in detail the international trade in merbau timber and to provide scientific and current data on the population status, harvest management and trade in these species. The report offers recommendations to promote the sustainable management of harvest and trade in merbau, particularly in the range States of Papua New Guinea, Indonesia and Malaysia, but also in selected merbau consuming countries.

Trees of *Intsia* species are widely dispersed, from East Africa where they were introduced, through tropical Asia, to the tropical islands of the Pacific Ocean and northern Australia. The most widespread species is *I. bijuga*. In general, harvesting of merbau is not adequately controlled in a majority, if not all the range States. This is because merbau is not a target species for management and enforcement but falls under general forestry administration. Lack of data

shows there is considerable uncertainty over whether management and trade are sustainable. The major problem in trying to determine the sustainability of merbau harvest is the lack of forest inventories, as most range States do not conduct national forestry inventories. Assessment of merbau resources is critical to verifying the sustainability of harvests.

When it comes to trade data, Indonesia and Papua New Guinea have incomplete trade data on exports of merbau logs and processed merbau products. In some cases, sets of data from different sources but for the same trade do not correspond. Malaysia has more comprehensive merbau trade data than other range countries. All in all, available data and observations from range States show that a significant portion of merbau is harvested to feed export demand. China is the only importing country with specific HS codes (codes of the Harmonized Commodity Description and Coding System) to track merbau imports. Of the countries examined, China appears to be the largest importer of merbau, followed way behind by Europe. There is a need to compare and analyse statistics between export and importing countries owing to the significant discrepancies found even in the limited merbau statistics available: China's merbau import data do not match corresponding export data. Problems of data discrepancy between export countries and import countries are common and cannot easily be solved.

## **Country information**

### ***Malaysia***

According to the Forestry Department of Peninsular Malaysia, using peninsula-wide forestry inventory data, there are 1.1 million merbau trees with a diameter at breast height (dbh) more than 45 cm, with an estimated volume of 5.1 million m<sup>3</sup>. Sabah and Sarawak do not have such detailed inventory data. Peninsular Malaysia has the highest merbau log production of the three regions of the country by far, but accounts for less than 2 % of total log production in Peninsular Malaysia. In Sabah, merbau only accounted for 0.5 % of total log production from 2000 to 2004. In Sarawak, the amount was even lower, at 335 m<sup>3</sup>–1955 m<sup>3</sup>, from 2000 to 2004. Merbau sawn timber comprised 2.5 % to 4.0 % of total sawn timber volumes exported from 2000 to 2004 by Peninsular Malaysia.

### ***Indonesia***

The estimated coverage of merbau in Indonesia is almost 33 000 000 hectares (ha), with an estimated volume of 6.17 m<sup>3</sup>/ha. The provinces of Papua and West Papua alone had 49.5 % of the total merbau in Indonesia in the 1980s. Merbau from islands in Indonesia enters the supply chain along with merbau from these provinces, but not much information is available about production, harvest and trade systems in place to ensure legal sourcing or sustainability of the resource from these islands.

Allegations about illegal logging in Indonesia, in particular in Papua, are a major cause for concern. The Indonesian Government has made a strong effort to curb illegal logging, through strengthening the policy and legal framework, changes in monitoring procedures and enforcement efforts. Even so, further review and streamlining of Indonesia's numerous regulations

governing the forestry sector, issued by a number of ministries and provinces, would be beneficial. Measures to ensure legal timbers as the first step towards sustainability are in the pipeline. In Papua, the total merbau log production in 2002 was just over 251 000 m<sup>3</sup>, accounting for around 52 % of all log production from Papua. This production could be conducive to illegal logging, as the capacity of the forest industry is very high. The tenure of local communities could be strengthened to allow greater negotiation rights for forest access by logging companies.

While the authorities are taking measures to control licensing, forestry operations and trade in important timber-supplying provinces (e.g. Papua), movement of illegally sourced logs and timber to export markets continues. Many merbau logs harvested in Papua and West Papua are destined for inter-island trade within Indonesia but this trade is not monitored and controlled.

### ***Papua New Guinea (PNG)***

In PNG, the issue is one of making strong efforts to ensure the laws and procedures are comprehensive and full compliance. An estimated 5 % of production forests in PNG contain merbau. PNG exported 1.5 to 2.0 million m<sup>3</sup> of logs annually from 2000 to 2005. Merbau accounts for 6.4 % to 10.9 % of total wood products exported during the same period.

### ***Importing countries***

**China** in recent years has recorded statistics for merbau, the timber being a valuable import for local industry. These are useful data which provide a valuable tool to assist exporting countries to determine if any procedural loopholes are being exploited or if illegal export exists, using China's import statistics as a starting reference point.

This study showed that **Japan** is a small player in the trade and consumption of merbau. In Japan, the trade is mostly conducted by small, independent, direct-importing companies. **Singapore** and the **USA** do not capture merbau in their HS codes as there is no specific code for merbau products.

**European Union (EU)** statistics do not record species-specific information for merbau. A rough estimate of the volume of merbau timber that entered the EU in 2005 is about 30 000 m<sup>3</sup> with a round wood equivalent volume of 50 000 m<sup>3</sup>. Fifty per cent of the estimated amount was probably supplied direct from Indonesia. Almost all the remainder was probably supplied, in roughly equal total volumes, by Malaysia and China. Imports from the other range States, primarily PNG, are likely to have amounted to less than 5 % of the total. The EU does not appear to import as much processed merbau direct from range countries. However, if the export of flooring from China is an indication, the EU could be indirectly importing merbau products re-exported from China after processing there, although China's statistics do not cover processed merbau or composite materials and are not linked to import data.

The demand for merbau for flooring materials is set to continue in the EU and developed countries elsewhere, although civil society campaigns to gain consumers' recognition of the issues related to illegal logging of merbau may have an impact on consumer demand. Large companies that sell flooring, possibly made from merbau, would as a result seek to obtain legal merbau where possible.

The price trend appears to be upwards as a result of restrictions in supply. This is the result of enforcement actions carried out mainly in Indonesia and should reach a peak if it has not done so, before falling to a more stable price range in line with the limited legal supplies, for example from Malaysia. Other species will take over as substitutes for merbau when the price of merbau makes it unprofitable to use in lower-end flooring.

Unsustainable trade will continue as long as merbau round logs and products are logged in PNG and Indonesia without forest management plans. Until this change, the challenge to stop over-exploitation of merbau rests squarely with the range countries, and the implementation of domestic regulations within their own borders.

A possible international mechanism that could provide proof of legality is a CITES listing for merbau, either in Appendix II or III. This would mean that a CITES permit or certificate has to accompany shipments of merbau. Such controls will not be easy to implement as merbau is exported in various forms. Logs, timber and sawn wood, should be readily recognizable, but for more processed products, such as parquet and doors which may have been varnished or treated, identification by Customs and other non-timber experts will pose a challenge to the effective implementation of CITES. Two workshops, one held in Yokohama in November 2006 with an international gathering, and another in Jayapura, Papua, in January 2007 for a provincial discussion of the findings of this study, did not dismiss CITES as irrelevant to the control of merbau trade. Both groups considered the merits of CITES but further examination of the advantages and disadvantages was recommended. The groups also called for greater awareness of CITES among various stakeholders, including governments, industry and civil society.

## **Recommendations**

The following are offered as recommendations, based on the analysis above, for short- and long-term strategies for merbau conservation:

### ***Strengthening national and international co-ordination***

- There is an urgent need to strengthen the implementation of existing laws to control the licensing and management, and to regulate the harvest of this high-quality timber where applicable.
- Good communication is strongly encouraged at central and provincial government level, to implement country policy and legislation effectively.

- Statistical information between different agencies within a producer country such as Indonesia differs widely. Greater co-ordination and comparative analysis is required in-country to narrow the discrepancies in data without compromising data quality. A review of the internal systems and procedures for data-collection, and identification of useful statistics should be a high priority.
- There are only a few regional or international co-operation avenues to exchange intelligence on illegal shipments, cross border co-operation, enforcement training workshops, etc., which may help the Customs authorities and forestry agency officials to carry out their duties effectively and efficiently. It should be possible to work within ASEAN (through the Senior Officials on Forestry or ASOF), the Asia FLEG Task Force and other fora to bring forward merbau as a specific item for discussion and action, within the context of timber trade in general. Merbau has already been brought to the attention of the international community and taking specific co-operative action on this genus would help the timber sector in general.

#### ***CITES listing***

- CITES Appendix III could potentially provide a useful international instrument to collect merbau trade data. Failing this, countries should create national HS codes for merbau products. In the short term, to reduce the gap in statistical discrepancy, producing countries and China should institute a prior notification and/or verification process for merbau shipments.
- Producer countries Indonesia, Malaysia and PNG should explore further the option of using a CITES listing for merbau, if this would assist in monitoring, control and enforcement of international merbau trade. Awareness of CITES in Papua, West Papua and PNG should be improved, including by highlighting that CITES is not a prohibition on trade, but a tool to assuring sustainable trade.

#### ***Further research***

- Forest inventories are lacking or obsolete in producer countries. There is an urgent need to define local distribution, density/volume and population viability in natural forest clearly, especially for PNG and Indonesia. Resources should be made available to these producer countries to take on this task.
- Feasibility studies into the potential of the wood processing industry in Papua, West Papua and PNG, and an assessment of potential wood yield and of technical ability should be carried out in those locations, for example by ITTO or FAO. In this way, the prospects for venturing into secondary/semi-processed wood products and for wood yield will have been assessed prior to any possible eventual export ban on merbau logs.

- Scientific research on merbau should be conducted by the relevant national and regional forestry research organizations in PNG, Indonesia and Malaysia, the main exporting countries, to address the following important areas:
  - a) the impact of exploitation on merbau populations, to create a time-series model and to predict population trends based on volume;
  - b) regeneration capacity in logged-over areas;
  - c) silviculture treatment in natural forest;
  - d) merbau population density and distribution.