25-YEAR PROJECTION OF TIMBER PRODUCTION FOR SABAH

Robert C. Ong¹, Musa Salleh² & Paul Leo Lohuji²

¹Forest Research Centre, Sabah Forestry Department, Sabah (MALAYSIA) ²Sabah Forestry Department (MALAYSIA)

E-mails: robert.ong@sabah.gov.my, musa.salleh@sabah.gov.my, paulleo.lohuji@sabah.gov.my

Abstract

Although forestry revenues generated from timber production have declined due to dwindling timber resources, it remains an important part of Sabah's economy. The long-term sustainability of timber production is of great concern, particularly to the wood-based industry. As such, the Sabah Forestry Department carried out a 25-year projection (2021–2045) of timber production for Sabah. This projection was based on input from all timber producers in Sabah, namely the Sustainable Forest Management Licence Holders. Production over the next five years will continue to come from salvage logging of areas earmarked for forest plantation development. However, planted timber trees will become increasingly important thereafter. Production from plantation-grown timber is expected to peak in year 2035 and sustained at a level of about 7 million m³ per year from a fully regulated forest plantation-estate of 400,000 *ha*. In the long term, production from the natural forests will only sustain a yield about 100,000 m³ per year. In addition, smallholder tree farms are also expected to become an increasingly important source of timber supply.

Keywords: Timber production, sustainable forest management licence holders, plantation-timber, smallholder tree farms

INTRODUCTION

Timber production in Sabah comes from 3 sources, forest reserves, state lands, and private lands. But by and large, most current timber production comes from forest reserves (Commercial Forest Class II), with the largest volume coming from salvage logging of areas earmarked for ITP development. Salvage logging is not a sustainable source of timber production. Much of Sabah's production forests have been licensed out to private companies under long-term concessions or Sustainable Forest Management License Agreement (SFMLA).

Sabah's Permanent Forest Estate can be broadly classified into production and conservation. Within the production forests, about 580,000 *ha* has been designated for industrial tree plantation (ITP) development, whereas about 420,000 *ha* is designated for natural forest management (NFM).

Timber production in Sabah has been on the decline due to depleting timber resources. In 2021, Sabah produced about 1.13 million m³. This declining trend is of great concern to the sustainability of the wood-based industry. In order to address this issue, the intensification of industrial tree plantation development is recommended. The long-term projection of timber production is necessary in order to allay the concerns of the industry, and to assist preparing a strategy for long-term sustainability. As such, a short-term study was carried out by the Sabah Forestry Department in 2020 to come up with a 25-year projection of timber production for Sabah.



Figure 1: Zoning of forests in Sabah, and other key areas, for timber production

METHODOLOGY

All 26 SFMLA licensees were asked to make a 25-year projection of timber production based on their forest management plans and long-term schedule of activities. These activities mainly include production from three main logging activities, extraction from (1) naturally managed forests, (2) industrial tree plantations, and (3) salvaged logging of areas earmarked for ITP development. The results of this exercise were then used to produce the composite figures used in this paper. The licensees who participated in this exercise are given in the inset table below. Production from other sources, such as state lands and private lands are not included in this study.

RESULTS

The results of this exercise as shown in the figures below (Figures 2-5) clearly point towards industrial tree plantations as the principal source of timber in Sabah, producing about 85% of total production beginning in year 2035. Natural forest production is projected to dwindle between 85,000 m³ to 130,00 m³ annually beginning in year 2040. Overall, total timber production from all sources is expected to stabilised at about 8.4 million m³ annually.

No.	Licensee
1	Rakyat Berjaya (Maxland S/B, FMU 16)
2	Rakyat Berjaya (Asiatic Organic Farm, FMU 24 & 26)
3	Rakyat Berjaya (Indah Serimas S/B, FMU 16)
4	Rakyat Berjaya (Empayar Kejora S/B, FMU 23)
5	Rakyat Berjaya (Beta Bumi S/B, FMU 16)
6	Rakyat Berjaya (Usahawan Borneo Greenwood)
7	KTS Plantations
8	Sapulut Forest Development
9	Bornion Timber
10	Zillion Fortune
11	Timberwell Bhd
12	TSH Resources Bhd
13	Jawala Plantation industries
14	Lembaga Tabung Haji
15	Lebihasil
16	Maxland
17	Gerak Saga
18	Warisan Majuria
19	Asian Forestry Company
20	Jayakuik
21	Sabah Forest Industires
22	Lagenda Aktif
23	First Greenworld
24	Top Quantum
25	Total Degree
26	Persona Majukaya

Table: List of licensees included in the timber production projection study



Figure 2: 25-year projection of timber production for Sabah from natural forest management (NFM)



Figure 3: 25-year projection of timber production for Sabah from planted forests.



Figure 4: 25-year projection of timber production for Sabah from planted forests.



Figure 5: 25-year projection of timber production for Sabah from all sources.

DISCUSSION

The projections given in this paper depend entirely on data and information provided by SFMLA licensees. Each licensee may use different yield figures (e.g. 150 m³ha⁻¹ or 200 m³ha⁻¹). Therefore, the accuracy of these projections is uncertain. Nevertheless, they are largely based on their long-term plans at achieving sustainability and the diligent implementation of planned activities. Licensees are required to update their projections annually to ensure that projections are realistic, and close monitoring by the Forestry Department is important in this respect.

A 15-year Action Plan (2022-2036) on Forest Plantation Development was launched in March 2022 to guide forest plantation development in Sabah. And a special Steering Committee on Forest Plantation Development and Monitoring was formed in June 2022 to oversee the implementation of this plan.

Although not accounted for in the projections, smallholder timber production has great potential to become an important source of raw material for the wood-based industry. Success in smallholder forestry has been demonstrated in the Philippines, Indonesia, and Vietnam. The Forestry Department recently initiated a smallholder support program in order to promote tree planting on private lands. Interests shown has been encouraging.

CONCLUSION

Timber production in Sabah is projected to peak and stabilized at slightly above 8 million m³ annually. This is expected to come largely from a fully regulated planted forest estate. Salvage logging will not likely feature in production figures, unless new areas are allocated for ITPs. Timber extraction by selective logging from the natural forests is expected to be minimal. The results of this exercise clearly point towards industrial tree plantations as the principal source of timber in Sabah. Success will depend on the diligence of licensees in field implementation. With the right encouragement and government policy, and given that labour shortage remains as an important constraint, production forestry is expected to remain an important sector of Sabah's socio-economic landscape.

REFERENCES

Sabah Forestry Department. 2022. Action Plan On Forest Plantation Development (2022-2036). 37 p.

Sabah Forestry Department. 2020. Annual Report 2020. 344 p.