

# AN OUTLOOK OF TIMBER-BASED INDUSTRY AND FOREST RESOURCE MANAGEMENT IN SARAWAK

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## Abstract

The objective of this paper is to highlight the key initiatives planned and executed by both Forest Department Sarawak and Sarawak Timber Industry Development Corporation (STIDC) to further enhance the management of the forests and the development of the timber industry in Sarawak. The development of the timber industry in Sarawak has progressed over the years in tandem with the dynamic and structured forest management policies implemented by the State. The forest management policies will continue to be reviewed to ensure and enable it to meet all the core functions, including the continuous supply of wood to support the domestic downstream processing industry, which is the socio-economic function of our forests. The key strategic initiatives identified and implemented in forest management are to certify all management of productive permanent forest estates areas by the year 2022, restore degraded areas, improve the performance of forest plantation programmes and leverage research through collaboration with renowned researchers and universities. In addition, suitable digital technology is applied to collect data, monitor initiatives implemented, curb illegal activities as well as enhance delivery services to the industry to improve efficiency and transparency. The timber industry will be restructured to optimize the utilization of the anticipated increasing volume of logs harvested from the fast-maturing planted forests. This is to support the target to transform Sarawak into a major supplier of not only primary timber products but also high value-added timber products especially engineered wood and furniture. Ultimately, the refined forest management policies implemented will continue to sustain the timber industry as one of the major economic sectors in Sarawak.

Keywords: STIDC, Sarawak Timber Industry

## 1.0 Overview

Forestry and timber industry represent an important socio-economic sector in Sarawak in terms of economic, social and environmental contributions. For the past 100 years, the forests in Sarawak has been managed sustainably to ensure that they remain as a source of feedstock to supply adequate raw material both for domestic and commercial purposes. The timber industry, in particular, contributed RM6.31 billion in royalty, premium, and cess revenue over a ten-year period, from 2010 to 2021. In addition, it also provides employment, creates business opportunities and facilitates road access for the rural communities.

On 7<sup>th</sup> February 2022, YAB Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari Bin Tun Datuk Abang Haji Openg, Premier of Sarawak launched the Sarawak Post Covid-19 Development Strategy (PCDS) to charter the course of actions to be taken from 2019 to 2030 to make Sarawak a developed State by the year 2030. The key goal of PCDS is to elevate Sarawak's economy from RM136 billion in 2019 to RM282 billion in 2030. This is achieved by ensuring that the State economy grows at a rate of

8 percent per annum. It is to create about 195,000 new jobs, raise household income to RM15,047 and facilitate the efforts to reduce urban and rural development gaps.

Forestry and timber industry has been identified as one of the sectors energizing the core engine of growth alongside manufacturing, agriculture, tourism, mining and services. This reflects the significant contribution and roles of this sector to the future socio-economic development of Sarawak. The PCDS aspiration for the forestry and timber industry sector is to make it to be globally recognized in sustainable management of tropical forest management and biodiversity conservation while enhancing rapid growth of the timber industry.

This paper will highlight key initiatives planned and executed by Sarawak as efforts to further enhance the management of the forests and development of the timber industry to achieve the PCDS aspirations.

## **2.0 Forest Resource Management**

**2.1 Land Use Policy** - Sarawak has a total land area of 12.44 million hectares. Based on the Sarawak Land Use Policy, a total of 7 million hectares of the State forested areas are being allocated for sustainable forestry and conservation purposes. This figure comprises six (6) million hectares of Permanent Forest Estates (PFEs), for sustainability and timber production and one (1) million hectares as Totally Protected Areas (TPAs) for conservation. The remaining 5.44 million hectares are mainly for agriculture and other development purposes. As of 2021, about 62% or 7.72 million hectares of Sarawak's landmass are still retained under forest cover.

**2.2 Sarawak Forest Policy** – The State Government has approved the revised Sarawak Forest Policy on 12<sup>th</sup> December 2019 to tally with the ever-changing demand of our forest. The salient points of the revised Forest Policy are:

- i. Provision of sufficient forest area and marine ecosystems for the benefit of the present and future generations of Sarawak;
- ii. Management of PFEs for the benefit of economy, social and environment in accordance with the principles of Sustainable Forest Management (SFM);
- iii. Emphasize on good management of forest areas within the State land and alienated land; and
- iv. Sustainable production of forest resources for the needs of domestic and export markets.

**2.3 Forest Certification** – Sarawak's aspiration for the forestry sector is to be globally recognized in sustainable management of tropical forest management and biodiversity conservation. Under the PCDS 2030, the forest management goal for Sarawak is to certify about 4.5 million hectares of its long-term forest timber licenses within the natural forests and 178,000 hectares of its forest plantation areas. To achieve this, the "Policy Direction on Forest Management Certification (FMC) in Sarawak" was approved on 10<sup>th</sup> September 2019. One of the driving initiatives is to make it mandatory for all long-term forest timber licenses within PFEs in Sarawak to obtain certification by end of this year. To date, 13 Forest Management Units (FMUs) and 6 Forest Plantation Management Units (FPMUs) have been certified with a total area of 1.27 million hectares and 94,966 hectares respectively. This will facilitate the supply of certified raw material for timber downstream activities in Sarawak. Ultimately, this will project good forest management practices image, resulting in wide global acceptance of logs and timber products exported from Sarawak. Certification is necessary if the Sarawak forest and timber manufacturing sector is to maintain and grow the market access in the longer term.

**2.4 Sarawak Timber Legality Verification System (STLVS)** – Legality Verification of logs and timber products in Sarawak is regulated through STLVS that endorses legality compliance with the existing State’s laws, regulations, rules and procedures governing licensing, harvesting, transporting, manufacturing and trading of logs and timber products. This inter-agencies STLVS is regulated by agencies under the Ministry of Natural Resources and Urban Development (MUDeNR) such as Forest Department Sarawak (FDS), Sarawak Timber Industry Development Corporation (STIDC) and Harwood Timber Sdn Bhd (HTSB). STLVS has been widely accepted by the buyers as proof of legality compliance for logs and timber products exported from Sarawak.

**2.5 Forest Plantation** – Commercial tree plantation programme started in Sarawak in 1998. The main objective is to produce about 15-20 million m<sup>3</sup> of logs from forest plantations to sustain the development of timber-based downstream processing industry in Sarawak. This will reduce the burden of over-reliance on wood from natural forests. Sarawak has issued 48 licences for planted forests with a total area of about 2.1 million hectares. However, the estimated plantable area after deducting unplantable area due to soil conditions, steep terrain, community land or claim and other natural features is about 1 million hectares. As of the end of 2021, the total area that has been planted is about 551,704 hectares. Species planted are *Acacia* species, *Falcataria moluccana*, *Eucalyptus* species, *Neolamarckia cadamba* and others. Sarawak is still unable to fully realise the planned potential of forest plantations to produce high quality, high productivity and financially viable plantation sector since plantation development work started.

**2.6 Reforestation Programme** – Sarawak is implementing the Greening Sarawak Campaign to plant 35 million seedlings for a period of 5 years between 2021 to 2025. During this period, Sarawak aims to plant 7 million seedlings annually to enhance the vegetation of degraded areas. Four (4) nurseries at Sabal, Pending, Sg Sebiu and Niah are entrusted to produce 7 million seedlings per year to support this programme. Apart from Forest Department Sarawak’s own initiatives, the programme is conducted in collaboration with other government agencies, NGOs and local communities through the Le Tour Greening Campaign.

**2.7 Regulatory Framework** - Sarawak has also amended its Forest Ordinance in 1996 to include the provision to strengthen forest law enforcement and planted forest. At present, all duties, functions and responsibilities in managing and regulating the development of forest areas in Sarawak are guided by the Forests Ordinance, 2015 (Chapter 71). The Director of Forests has also delegated the power from Section 62 of the Forests Ordinance, 2015 effective 2<sup>nd</sup> January 2019 to the General Manager of STIDC for the issuance all sawmill licences in Sarawak. This is in line with the State government’s aspiration to streamline the agencies roles and responsibilities.

There is also consideration being made to include provision in the Forest Ordinance, 2015 (Chapter 71) to promote green economy such as carbon reduction project in Sarawak.

**2.8 Collaboration** – Sarawak has long benefited from collaboration with international communities in the field of sustainable forest management. Some of the notable collaborations are the Heart of Borneo Initiatives (HoB), Forest Landscape Restoration (FLR), leveraging of latest technology in forest management and exploration into forest beyond timber concept. The enormous responsibility and challenges ahead in managing our forest and forest resources make it necessary to maintain and renew collaborations with many past and present partners. Sarawak also welcomes new collaborations and partnerships to further enhance and support the sustainable management of forests in the State.

## 3.0 Timber Industry

### 3.1 Current Situation

- a. **Raw material availability** – Timber industry is a resource-based industry. It is critical to ensure adequate and sustainable feedstock to support the processing capacity. The timber industry has been relying on supply of logs from three main sources, namely domestic natural forests, domestic planted forest and importation. Production of logs from natural forests has gradually declined from its peak of 20 million cubic metres in 1990 to 2.3 million cubic metres in 2021. This has adversely affected the operational capacity of the existing timber processing mills as these mills were installed to mainly process large diameter logs from natural forest. On the other hand, the log production from planted forests has improved from about 5,000 cubic metres in 2011 to 1.5 million cubic metres in 2021. The volume of imported logs has also been on an upward trend, reaching about 0.4 million cubic metres in 2021. Sarawak still allows 20% of the logs from natural forest to be exported. In 2021, export volume of logs was about 0.5 million cubic metres.
- b. **Industry Capacity** – The total annual installed capacity of licensed timber primary processing mills in Sarawak is about 11.2 million cubic metres. However, the actual installed capacity of active mills is about 6 million cubic metres. The industry was operating below the potential capacity due to constraints in the supply of logs.
- c. **Export Earnings** – Timber and timber products are the fourth largest contributor to State export earnings after natural gas, petroleum and palm oil products. The export earnings from timber products has declined from its peak of RM7.2 billion in 2000 to RM3.9 billion in 2021. This downtrend export earnings trend is parallel with the declining trend in log production from domestic sources.
- d. **Major products** – Sarawak has been known as one of the largest exporter of tropical plywood in the global market. In 2021, export value of plywood was RM2.15 billion, which is about 60 percent of the RM3.89 billion total export earnings. Other major products are sawn timber (RM435 million), fibreboard (RM334 million) and woodchips (RM214 million). Export of furniture was about RM48 million.
- e. **Market** - Sarawak is blessed to be surrounded by countries with vibrant economic growth and high population. It is no surprise therefore that countries in the Asia Pacific regions like Japan, India, China, Taiwan, Korea, Philippines and Vietnam are the major buyers of timber products from Sarawak. About 82% or RM3.2 billion of the export values are generated from these countries.

### 3.2 Future Aspiration

- a. **Growth in Export Earnings** - In the PCDS, the timber industry is expected to generate an annual export value of RM8 billion by 2030. This is to be achieved by developing more value-added products such as furniture, plywood-based products, bamboo-based products and engineered wood products.
- b. **Key Focus** – The industry will be restructured to not only process timber from natural forests but also planted timber species. Generally, planted logs had different characteristics as these are young fast-growing trees with smaller diameters. As such, the industry needs to be transformed into high value-added processing utilizing the diverse raw material that is made

available to the industry. The industry needs to invest in technology upgrades to process small diameter log peelers (lathes), improve grading, transportation and storage of plantation logs, seasoning/water and heat treating of the acacia plantation logs to improve the veneer quality and the recovery rates, develop efficient veneer drying schedules, proper glue formulations and pressing/drying schedules. Apart from revitalizing the existing industry, there will be focus shift to develop the following industry:

- (i) **Plywood based** - To intensify effort to use plywood as input material to produce high value timber products like panel furniture, housing components and industrial products.
  - (ii) **Furniture industry** – The export of furniture products from Sarawak in 2021 was only about RM50 million, way below the national furniture annual export figure of about RM11 billion. However, Sarawak has the potential of developing furniture industry utilizing rubberwood and acacia wood from the plantation. To facilitate a competitive business environment, two furniture parks will be developed in Sarawak. Furniture lab and design centre are also in the pipeline to support the furniture industry. Aggressive investment and product promotions will be carried out to attract both domestic and foreign direct investments.
  - (iii) **Engineered wood** – Sarawak is also promoting the development of engineered wood industry to process planted wood into high value products such as oriented strained board, glulam and laminated veneer lumber.
  - (iv) **Bamboo-based products** – There is vast potential to utilize bamboo to produce products such as handicrafts, biochar, activated carbon, furniture, panels, composites and even cosmetics. The task is to harness the potential of these untapped abundant bamboo resources to catalyze new economic growth for Sarawak.
- c. **Raw material supply** – Domestic source of raw material will be from natural forests and planted forests. Log production from planted forest (2 – 3 million m<sup>3</sup>) will support the existing industry. New growth is to be catalyzed by producing high value-added products using raw material from planted forest. Sarawak also targets to develop about 12,000 ha of bamboo plantation, both through commercial planting and community participation to supply raw material for non-timber forest products-based industry. The raw material quota for local processing will be reviewed according to the requirement of the industry. In addition, the industry is allowed to import raw materials for value-added processing to meet the market requirement.
- d. **Young designers** – Sarawak is implementing the SayD'signers program to train 100 young designers for the furniture industry by 2030. This program is conducted in collaboration with local and foreign universities, industry players and government agencies.

## 4.0 Leveraging on technology

**4.1 Forest Management** - With a forested area of more than 7 million hectares, difficult geographical conditions such as river alignments, hills and mountains provide a constraint in ensuring that forest management activities are implemented based on SFM. To overcome these challenges, the State government has taken the approach of using technology extensively in all aspects of management, enforcement and collection of timber tax over the past two decades. Some of the key initiatives taken are:

- a. Establishment of Timber Enforcement and Administration Management System (TEAMS) by FDS to combat illegal logging and to improve log legality verification system from natural forest, which includes Sarawak Logs Tracking and Forest Revenue System (REVLOG), Vehicle and Vessel Tracking (UbiQtrac), Enterprise Forest Information Management System (EFIMS) and Investigation Paper Tracking System (IPTS);

- b. Merging of Log Tracking System (LoTS) and Royalty Billing System (RBS) into REVLOG and introduced state-wide in 2016;
- c. Forest Licensee Portal has been introduced in 2021 for online timber transactions;
- d. Continuous Monitoring and Surveillance (COMOS) initiative to address illegal logging in natural forest and extended to planted forests to deter exploitation of natural/ecological buffer (waterways, conservation area); and
- e. Satellite-based mapping of planted areas in LPF based on Dec 2019 – Jan 2020 planting progress report.

**4.2 Digitisation of Work Processes** – To enhance efficiency and transparency in services rendered, the State agencies developed online systems for core business processes. These online systems has enabled the industry to operate even when Movement Control Order was imposed during the Covid-19 pandemic. Some of the services rendered online are E-Transaction for management personnel, Daily Production Return (DPR), royalty assessment, issuance timber export/import licences, Registration Certificates and Grading Certificates.

## **5.0 Research & Development (R&D)**

Sarawak needs a successful and pragmatic R&D to develop good silviculture practices to lift plantation productivity. This is vital to ensure the long-term financial feasibility of the plantation forest sector. Similarly, R&D is required in support of value adding to plantation grown timber. Sarawak has to embark on applied R&D to improve the planted land size and production yield of the forest plantation. This should include an aggressive R&D program for Planted Forest to review the potential of planting trees in LPF areas considered too remote, too steep or poor soils to be financially viable. Collaborative R&D with LPF holders are to be conducted to support planting of short rotation species but with focus on high quality silviculture, especially site preparation and maintenance follow-up work. Develop pilot scale plantations testing alternative species and regimes, including long rotation Eucalyptus and other fast-growing indigenous species. This includes the establishment of seed production areas for selected both exotic and indigenous tree species to produce high quality planting materials for the industry. Sarawak shall strengthen links for collaboration with other national and regional research institutions to narrow the knowledge and technology gaps in key research areas.

## **6.0 Conclusion**

The reformation and transformation of the forestry and timber industry are timely in an effort to overcome challenges posed by the unprecedented Covid-19 Pandemic and the transition period of migrating from natural forest based into planted forest based downstream processing. It is also relevant to enhance the readiness and competitiveness of the industry to capitalise the projected growth in the global timber market demand. This could reposition Sarawak as the leader in tropical forest management and producer of high value-added timber products in this region. The sector will continue to provide business and job opportunities for the people contributing to make Sarawak a developed State by 2030. The target is to generate an export earnings of about RM8 billion by 2030 from timber-based products.

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