

マレーシアにおける 2035 年までのパームオイル需給展望と 輸出見通し

A Study on Malaysia's Palm Oil Position in the World Market to 2035

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1. Introduction

Palm oil is an important and versatile raw material for both food and non-food industries. In recent years, rising oil prices along with strong intention to reduce greenhouse gas emissions of transport sector has driven up demand for palm oil as an important raw material for transport biofuel, owing largely to its price and productivity competitiveness compared with other vegetable oils. Malaysia is now the world's second top producer of palm oil, supplying about 12.8% of the global consumption of vegetable oils in 2009/10. Between 2006 and 2010, Malaysia exported more than 642 thousand tons of palm biodiesel, directing mainly to Europe and USA. In domestic market, palm oil plays an important role in supporting Malaysia's economy. It dominates the local edible oil market, and is the indigenous raw material to oleochemical and food industries in Malaysia. With its large and growing palm oil industry, Malaysia has the potential to play a major role in the world food and biofuel markets. This paper aims to perform quantitative analysis on (1) domestic supply and demand outlook of Malaysia's palm oil, including biodiesel demand; and (2) its ability to supply to the global markets to 2035 in the context of restricted expansion of palm oil plantation area.

2. Methodology

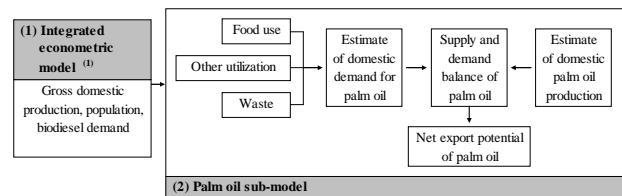
Fig. 1 showed the schematic flow of this study. We developed and linked a palm oil sub-model with our integrated econometric model for this study. The variables projected in this study are (i) domestic production of palm oil, (ii) domestic demand of palm oil for food, other uses, and waste. Table 1 summarizes assumptions underlying the projections of this study. Projection period is from 2007 to 2035. Data are obtained from FAOSTAT and MPOB's statistics.

3. Results and discussions

Domestic palm oil production is projected to rise by about 55% between 2007 and 2035, increasing from 15.8 million tonnes in 2007 to 20.5 million tonnes in 2020, and 24.6 million tonnes in 2035. Domestic demand of palm oil for food consumption, industrial non-food uses and biodiesel will increase to 1.39 million tonnes in 2035, up from 0.38 million tonnes in 2007. This however, only amount to 5% of total palm oil production in 2035 as showed in Fig. 2.

Malaysia has been the leading exporter of palm oil, reflecting the country's large production and refining capacities,

its small domestic market for palm oil, and an export tax structure that favors export of palm oil products rather than CPO. Palm oil available for exports is expected to increase to 23.2 million tonnes in 2035, up from total exports of 15.9 million tonnes in 2007. With this, Malaysia is expected to remain a formidable competitor in the world vegetable oil and biofuel markets.



⁽¹⁾ Gross domestic production, population, biodiesel demand are adopted from our results in Gan et al., 2011.

Fig. 1 Overview of this study.

Table 1 Main assumptions for this study.

Macroeconomic indicators	1990-2007 (Actual)	2007-2020	2020-2035	2007-2035	
I. Indicator (annual growth rate, %)					
Gross Domestic Production	6.3	4.7	4.0	4.3	
Population	2.5	1.5	0.9	1.2	
II. Indicator (level)					
2007 (Actual)	2010	2020	2030	2035	
Per capita GDP (USD/capita)	4,884	5,439	7,307	9,891	11,488
Crude oil prices (USD/BBL)	68.3	52.3	114.3	159.6	188.6
Palm oil related assumptions					
2007 (Actual)	2010	2020	2030	2035	
FFB yield (tonnes/hectare)	18.5	19.4	21.9	24.7	26.2
Plantation area (hectare)	4.3	4.7	4.7	4.7	4.7
Palm oil prices (CIF Rotterdam Price) (USD/Metric Tonne)	780.0	945.7	1,033.5	1,308.5	1,472.3
Conversion ratio of FFB to palm oil	5:1	5:1	5:1	5:1	5:1

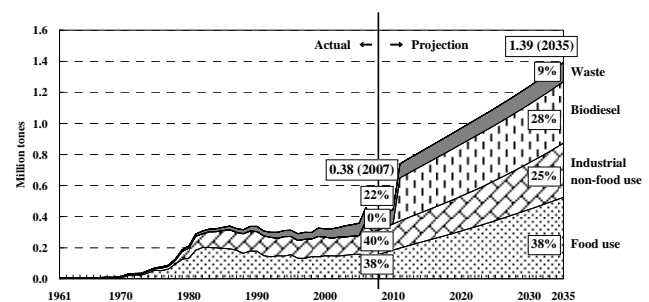


Fig. 2 Domestic demand for palm oil to 2035.

4. Conclusion

Our projections indicate that domestic production of palm oil will increase to 25 million tonnes in 2035 through yield improvements. Domestic demand for palm oil will account for only 5% of total production in 2035, with a surplus of over 23 million tonnes available for exports. However, it is essential for palm oil producers to address concerns about the sustainability of palm oil production and trade barriers to maintain and strengthen its role in the growing global food and biofuel markets.

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