

# ***A STUDY ON MALAYSIA'S PALM OIL POSITION IN THE WORLD MARKET TO 2035***

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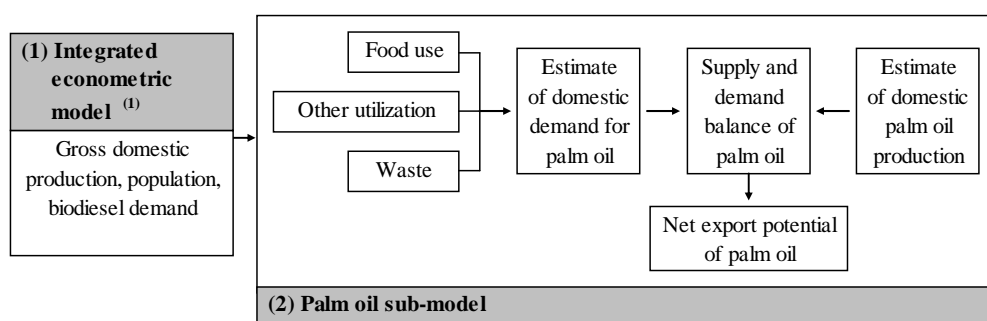
## **Overview**

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 (USDA, 2011). Between 2006 and 2010, Malaysia exported more than 642 thousand tons of palm biodiesel, directing mainly to Europe and USA (F.O.Licht, various issues). 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.

## **Methods**

Figure 1 showed the schematic flow of this study. Palm oil data from 1961 to 2007 are obtained from FAOSTAT. Palm plantation area and fresh fruit bunch (FFB) yield data from 1975 to 2009 are obtained from official statistics of Malaysia Palm Oil Board (MPOB, 2009). Population and economic growth to 2035 are adopted from our study in Gan *et. al.*, 2011. Projection period is from 2007 to 2035.

Domestic supply of palm oil is estimated using exogenous assumption on FFB yield per hectare as announced in government's plan, assuming a restricted expansion of palm oil plantation area in response to concern and arguments over the sustainability of palm oil production. Hence, plantation area is assumed to remain constant till 2035 and FFB yield per hectare is assumed to reach 26.2 tons in 2035. Future increment in palm oil production is achieved through improvement of FFB yield per hectare.



<sup>(1)</sup> Gross domestic production, population, biodiesel demand are adopted from our study in Gan *et. al.*, 2011.

Figure 1 Overview of this study

Domestic demand for palm oil comprises food use, other utilization and waste. Palm oil for food use is derived as a share to food consumption of vegetable oils, where food consumption of vegetable oils is estimated as a function of population and GDP, and the share of palm oil is estimated with logistic function. Other utilization namely industrial demand for non-food uses is projected as a function of the GDP. Waste (post harvest to retail) is projected as a proportion of total palm oil supply (namely production plus imports) as per the FAOSTAT. Palm oil potential available for export is derived as the balance between domestic supply and demand of palm oil.

### Tentative Results

Domestic supply of palm oil is anticipated to increase from 16 million tons in 2007 to 25 million tons in 2035. Domestic food use amounted to less than 5% of total palm oil production in 2009/10. The demand for palm oil for edible use is expected to continue to rise with population and GDP growth. Non-food industrial use of palm oil is expected to increase consistently with GDP growth. On palm biodiesel, the government implements the proposed mandatory blend of 5% of palm oil biodiesel in the domestic market in June 2011, starting with federal territories of Kuala Lumpur and Putrajaya and 3 other states of Selangor, Negeri Sembilan and Malacca before its full implementation nationwide. According to our study in Gan *et. al.*, 2011, nationwide implementation of B5 is anticipated to need only 400,000 tons of palm oil per year in 2035, a small fraction of total palm oil output. With an expected exportable surplus of 20 million tons of palm oil in 2035, Malaysia will remain a formidable competitor in the world biofuel and vegetable oil market.

### References

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