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## **Palm Oil: Winning Ways and Challenges to Market Access<sup>1</sup>**

When Malaysian palm oil production was undergoing rapid expansion driven by the agricultural diversification policy of the 1960s, many strategies had to be introduced to ensure that adequate market was created to absorb the additional supply. With successful penetration, opposition from competitors appeared in the form of anti-tropical oils campaigns especially in the US. Again, many strategies were employed to diversify the market away from the US, for example, by investing in refineries in consuming countries, while nutritional studies were carried out to refute the health insinuations. In the next phase of challenges relating to increasing supply of palm oil from Indonesia and the price-depressing effects of import duty by India, a 'Blue Ocean' strategy was employed to create new demand via the bio-diesel industry. Future prospects for market access will continue to depend on our ability to face challenges using innovative strategies. These may include branding efforts and the provision of effective brand support activities.

### **1. Introduction**

The Malaysian palm oil industry emerged strongly in the 1960s as a result of a planned attempt at agricultural diversification and poverty eradication among the rural populace. Production of palm oil increased rapidly from 91,793 tonnes in 1960 to 2.6 million tonnes in 1980. This first phase presented an interesting insight into the approaches used to promote the market development for palm oil. The question then was how the rapid increase in supply could be efficiently marketed. At the time, Europe was the only major market for palm oil. It was up to manufacturers there, who had the refineries and processing plants, to re-export the finished products to Middle East countries and other markets.

### **2. Early strategies: 1960-1980**

Strategic planning was used to look at ways to create market opportunities to accommodate increased palm oil supply from massive investment in oil palm cultivation from 1960-1980. The first step was to abolish the inefficient pooling marketing system and to establish a more liberal system. Next, analysis showed that developing countries such as India, Pakistan and those in the Middle East did not have sufficient refining capacities to import and process crude palm oil (CPO) from Malaysia. It was decided to encourage the establishment of refineries so that developing countries could import larger quantities of processed palm oil for direct consumption.

<sup>1</sup> This is an edited version of the paper presented at PIPOC, Aug 26-30, 2007, Kuala Lumpur

Because of the resultant increase in demand, producers were able to enjoy a price increase while refiners who put up their plants in the 1970s and 1980s obtained lucrative refining margins. Even though the production and supply of palm oil were increased, price continued to increase, a unique achievement (Figure 1) when the expectation is that an inverse relationship usually occurs between supply and prices for commodities.

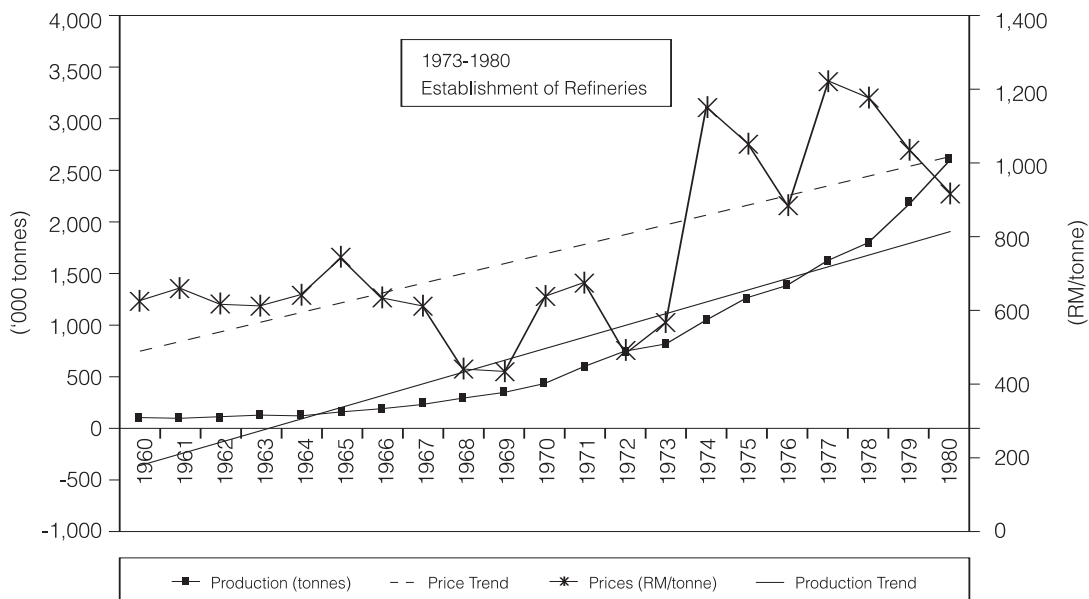
**3. Strategies against new threats:  
1980-2000**

During the second phase, from 1980-2000, palm oil was seen as a major competing product by other oilseed producers such as the American Soybean Association (ASA). Smear campaigns on tropical oils conducted by the ASA in the late 1980s caused palm oil prices to suffer a big discount to soybean oil. With the US reducing its palm oil imports due to adverse publicity, it was necessary for the Malaysian industry to identify new markets. At the same time the scientific truth to refute the smear campaign had to be established.

Malaysia began investing in refineries in major consuming countries – China, Vietnam, Pakistan, Egypt, UK, US, Mexico and lately in The Netherlands – to export more palm oil products. Malaysian exporters also began to understand the demand pattern for oils and fats in those countries. Where possible and viable, palm oil was exported to create new demand and push up prices. The search for new outlets was aided by rapid establishment of oleochemical plants in the late 1980s and early 1990s. This boosted demand and price recovery for palm oil (Figure 2), and the additional revenues enabled producers to withstand competition despite the discount in prices as a result of the smear campaign.

Numerous nutrition research projects were commissioned by the Malaysian Palm Oil Board (MPOB) in the major consuming countries to counter the negative allegations on the health attributes of palm oil in food. It took about 15 years and 160 nutritional studies all over the world for palm oil acceptance to be re-established. The winning strategy was to show that hydrogenated fats, when used in the diet, were the main culprit in adverse health effects because of the presence of TFA. Research

**Figure 1: Annual Production vs Average Price of Malaysian Palm Oil, 1960-1980**



shows that TFA increases the bad LDL cholesterol and reduces the good HDL cholesterol. This essentially limits the potential use of liquid oils which have to be hardened by hydrogenation for making solid fats products such as margarine and shortenings. In essence, the anti-palm oil campaign backfired. Instead of palm oil requiring to be labelled, it is the liquid oils which now have to be labelled. As a consequence, demand for palm oil has increased sharply especially in the US.

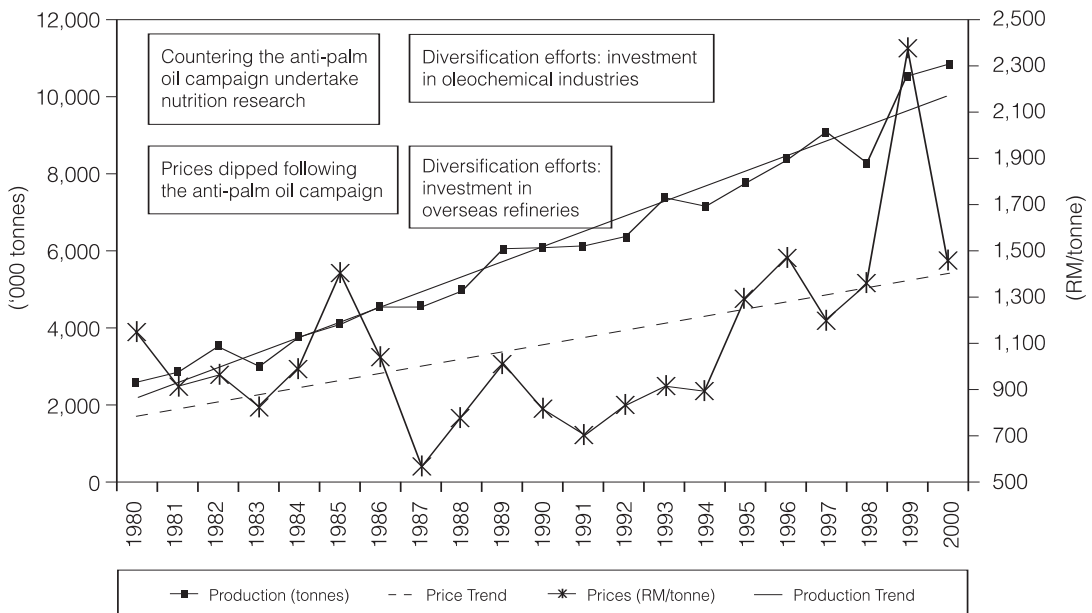
To be doubly sure of the nutritional acceptance of palm oil in the US, research was conducted which showed that using 50% palm oil blended with local oils provided an improved cholesterol ratio which reflects a health benefit. The finding was patented and approval obtained from the Food and Drug Authority for this functional claim to be printed on labels of blended palm oil products sold in the US under the brand *Smart Balance*. Research was the tool used to overcome the negative image of palm oil, but extra research on hydrogenated fats helped establish the truth on what causes the cholesterol level to be elevated.

The winning strategy was fortified by other nutritional studies which showed that palm olein has similar cholesterol-lowering effects compared to olive or canola oil. Imports of palm oil not only increased sharply in the US but also in other countries especially in Iran where awareness on the undesirable effects of TFA has led to more palm oil being used as an alternative to hydrogenated oils. Increase in demand led to higher prices, as evident in the diminishing discount of palm oil prices relative to soybean oil.

**4. 'Blue Ocean' strategy: Post-2000**

The third phase in market expansion came after 2000. India, as a large importer, was able to reduce prices by imposing discriminatory import duty on palm oil, higher than that on soybean oil. Malaysian suppliers had to compete with Indonesian exporters by reducing prices in order to enter the Indian market. Palm oil was again selling at a big discount to soybean oil. As described in the book 'Blue Ocean Strategy' by Kim and Mauborgne, (2005), the market was becoming a red ocean with cut-

**Figure 2: Annual Production vs Average Price of Malaysian Palm Oil, 1980-2000**



throat competition. It was necessary to look for a 'blue ocean' opportunity where competition was not as intensive. It was decided that the bio-diesel industry should be developed to offer such a strategy and create new demand.

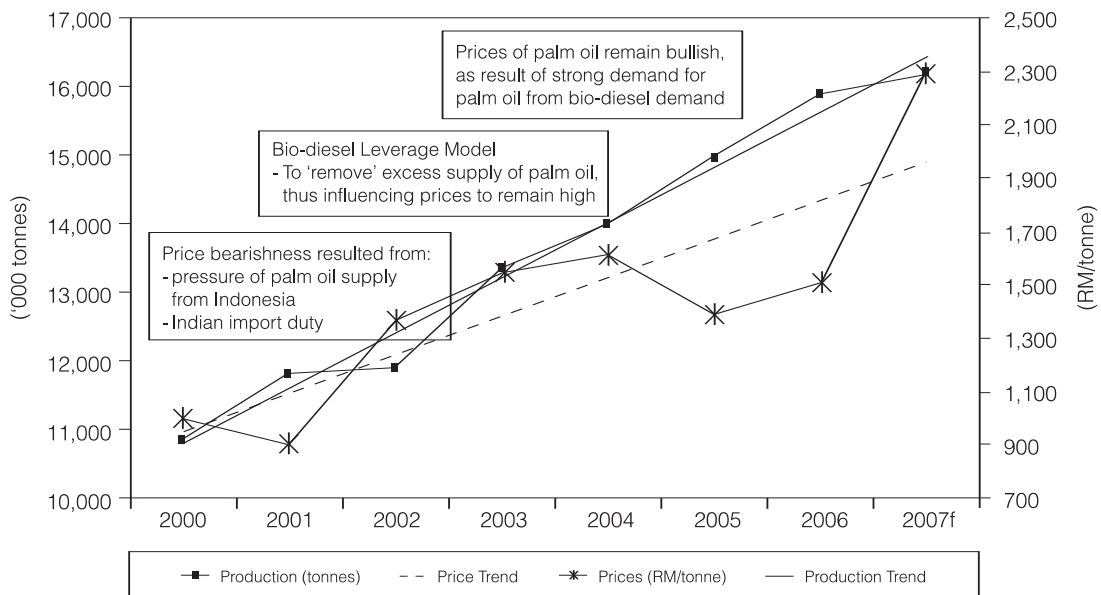
There is now potentially unlimited need for palm oil. If its price dips below that of crude petroleum, large quantities can be sold at a profit to the fuel industry. The past pattern of competition with Indonesian palm oil or soybean is no longer relevant as there is insufficient supply of vegetable oils to meet the volume needed for the food and fuel industries. Instead, palm oil producers have to deal with new 'blue ocean' customers from the fuel and transport industries, and comply with demands for a sustainable supply of fuel raw materials.

For palm oil suppliers, the beneficial outcome of the bio-fuel strategy is an increase in palm oil prices (Figure 3). By creating potential demand which will help reduce palm oil stocks, price is bound to increase. This will neutralise the price-depressing effects of import duty. The 'blue ocean'

bio-fuel strategy is so strong that imposition of import duty no longer leads to price reduction. Instead, the duty imposed will result in higher prices for palm oil products for end consumers in the importing country, thereby causing inflation. To prevent such undesirable outcomes, India had to recently reduce its import duty on palm oil.

To ensure that the bio-fuel strategy can be sustained, Malaysia has passed a bio-fuel law which will enable palm oil to be used for making bio-diesel which can be blended locally with petroleum diesel. Plants have been built to ensure sufficient capacity to produce palm bio-diesel in case of a supply glut. In this way, the price of palm oil will closely track that of crude petroleum. Palm oil will continue to be used for food as long as its prices are above those of crude petroleum. If the price drops lower than that of crude petroleum, a profit margin will exist, encouraging its use for bio-diesel. Since bio-diesel demand is unlimited in view of the large fuel industry, palm oil prices have to move up above those of crude petroleum to make the use of bio-diesel non-viable again in favour of its use in food.

**Figure 3: Phase of Market Development - Post-2000**



## 5. Other winning ways

### ***Free enterprise agri-business***

Malaysia's policy of free enterprise allows oil palm to be planted as the main crop to occupy agricultural land as long as it provides the highest return to investment. This market-driven policy favours cultivation of oil palm as the core crop on a large scale. The land tenure system should favour palm oil producers in operating without intervention. This will ensure an efficient crop allocation pattern and profitability of commercial operations.

### ***Scale of operations***

The Malaysian palm oil industry has been able to remain in competition because of economies of scale derived by large private plantations and the organised smallholder sector. The plantation sector must continue to be allowed to plant oil palm so long as the crop is profitable. The smallholder sector, both organised and independent, is contributing significantly to national output. For the latter, an amalgamation plan must be provided through group farming, co-operatives or nucleus estates to ensure operations at an economic scale. One strategy is to encourage the organised smallholders to own 20 acres for each family instead of 10 acres at present, to provide adequate level of family income in the future.

### ***Versatility of palm oil products and its by-products***

Palm oil enjoys acceptance due to its versatility in terms of technical performance and nutritional functionality. It is highly in demand for food preparation and products like frying oil, bakery fats, vanaspati or vegetable ghee, and confectionery and snack foods. Palm oil can be used in non-food applications for making soaps and detergents, toiletries and cosmetics, and other industrial uses. Such versatility is not normally present in other food bases.

Fuel applications add to the market potential. Palm oil can be blended with petroleum fuel (medium fuel oil) for use as boiler fuel in power plants. Its fraction, palm olein, can be blended with diesel to operate diesel engines in power plants or vehicles. These new ways were discovered by extensive research activities undertaken especially at the MPOB. Palm oil can be regarded as a strategic renewable product in the fuel and oleochemical/petrochemical sectors in view of the expected depletion of petroleum resources.

The oil palm is a prolific producer of biomass or fibre products. These are available regularly throughout the year from the plantations in the form of empty fruit bunches (EFB) and fronds. During replanting, large quantities of trunks and fronds are made available and this can be processed into making plywood, medium density fibre board or pulp. It implies that, if fully exploited, the oil palm industry can easily widen its revenue generating base to become more competitive, with the oil almost becoming a by-product.

### ***Commercialisation of R&D***

Sustainability of the industry will depend on continuing improvements in productivity and maximum exploitation of technologies to generate more economic activities and revenues. To achieve and accelerate the full potential of the many innovations that are not yet commercialised, venture capital is required from the government or private sector.

### ***Free of GMO and TFA***

Palm oil holds all the advantages against competing oils and fats over two issues - Genetically Modified Organisms (GMO) and TFA. Soybean is mainly produced with GM materials. There is growing resistance from consumers, especially in Europe, over the use of GM products and legislation is being introduced to label such food. Palm oil is non-GMO and can gain

access to markets which demand a GMO-free food base. Similarly, growing concern over TFA on health grounds has served palm oil well. Foods containing TFA must be labelled in the US and Europe. The trend towards compulsory labelling (with its negative health connotations) is emerging in developing countries like India.

### ***Global strategy in economic activities***

The Malaysian palm oil industry's global presence enables it to maintain a leading position in the oils and fats market. In the area of plantations, many Malaysian companies have invested in Indonesia which has large tracts of land and ample labour. The companies are in a good position to establish distribution and product manufacturing activities abroad as they have a strong supply base. Establishment of refineries and oleochemical plants has been very successful. This global enterprise strategy lends to a competitive edge.

## **6. Major challenges**

### ***Productivity***

Data for CPO production shows a stagnating yield pattern over the last decade. The current yield is 18.88 tonnes of fresh fruit bunches (FFB) per hectare per year, which showed even a decline by 0.5 % compared to 18.99 tonnes FFB/ha/year in 2005. The smallholder sector, both organised as well as independent, contributed to the stagnation. In order to raise productivity incrementally until achieving the national yield target of 35 tonnes/ha/year by 2020, both immediate and long term strategies must be implemented. These relate to a larger scale of operation, extension of proper application of fertilisers, good harvesting standards, replanting to the optimal age profile and refraining from planting on marginal soils. If the productivity target can be achieved, competitiveness of Malaysian palm oil will be enhanced.

### ***Labour shortages***

Unlike in the 1960s and early 1970s, when labour was both abundant and cheap, the supply of human resources – especially from the domestic source – has declined tremendously. The industry is relying heavily on labour sourced from neighbouring countries. Such labour is relatively difficult to obtain, while wages and the cost of acquisition are expensive. The alternative, which is mechanisation, becomes increasingly more inevitable. Many field operations such as weeding, transportation and fertiliser applications are mechanised. One of the most important plantation activities, harvesting, is still done manually. However, research into the design of a workable mechanical harvester is being pursued.

### ***Limitation of land***

Land utilisation is guided by the National Agricultural Policy with the Government placing 19.4 million ha (60%) under forest and 6.5 million ha (20%) under agriculture including plantation crops. The remaining 6.9 million ha are for other uses. The progress in oil palm planting has slowed down in recent years due to the limited availability of suitable land. Most new plantings now occur in Sabah and Sarawak. Sarawak has 65% of its land under forests and has only been able to develop less than 5% of its land area for agriculture, on which oil palm is grown.

Some members of the British Parliament whom MPOC met recently are calling for states like Sarawak to stop further development, in order to conserve forests and the environment. The call is rather unethical when records show that the UK has knowingly developed 70% of its land for agriculture leaving less than 12% under forest. Unfortunately, no NGO openly asks the UK Government to reverse the situation even though over-developed agricultural land can be easily reforested to help reduce global warming if desired. In the

future, it is likely that Malaysian investors will open plantations in countries where land and labour are available, provided the climate is suitable for oil palm. Participating in such countries will also help overcome local sources of competition.

### ***Sustainability issues***

Addressing environmental problems remains extremely important and urgent. The anti-palm oil lobby and competitors would wish to link production expansion to loss of forest areas, natural habitats, carbon dioxide emission and global warming issues. In essence, this creates new trade barriers for palm oil, particularly in Europe and the US. As a result of pressure, the US state of Oregon has legislated a ban on palm oil as feedstock for its bio-fuel programme.

Palm oil is grown on legitimate agricultural land just like soybean and rapeseed are grown on approved agricultural land in developed countries. It defies logic as to why the oil palm – which is far more capable of reducing carbon emission than soybean or rapeseed – has to undergo declaration or certification of sustainability, when no such conditions are applied to oils from developed countries or other oils from developing countries. It is anticipated that such discrimination will backfire as many studies already acknowledge that soybean and rapeseed are inferior in carbon emission reduction properties and sustainability.

### ***Branding and brand support***

Buyers view Malaysia as a reliable supplier of palm oil products. The 'Brand Malaysia' concept is applicable to palm oil as it is an important export commodity. Assurances of consistent quality and excel-

lent after-sales service and support are provided by agencies such as the MPOB, especially the Technical Advisory Service Group, and MPOC via its regional offices. This constitutes effective 'brand' support. It is expected that Malaysian palm oil will be differentiated into a better 'brand' to continue attracting customers.

## **7. Optimistic outlook**

Malaysian palm oil production stood at 15.8 million tonnes last year and is expected to rise to 16.5 million tonnes this year. More than 90% of this is exported, accounting for 57% of world trade in palm oil. In 2006, export earnings amounted to RM31.8 billion compared to RM5.4 billion in 1990. This stellar performance has been achieved within the context of increasing production and exports, with prices remaining attractive. Because of effective market development strategies, it is likely that prices will hover close to the international crude petroleum price, which should remain high. This close correlation implies that, for 2007 and from 2008 onwards, palm oil producers can expect higher revenues.

## **Reference**

Kim WC and Moubourge R (2005) *Blue Ocean Strategy*, Harvard Business School Publishing Corporation, Press, 240pp.