

World Palm Oil Supply, Demand, Price and Prospects: Focus on Malaysian and Indonesian Palm Oil Industries

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ABSTRACT

The oils and fats sector had shown that both its production and consumption had increased at almost the same rate in the past. Any differences between them will indicate either an oversupply or shortage situation of oils and fats in the world; oversupply occurred when production exceeded consumption and shortage when the situation was reversed. Thus, world production and consumption of oils and fats in 1976 were 45.9 and 47.3 million tonnes respectively (shortage) while in 2010 both were at about 171.2 million tonnes (almost equilibrium). Among the 17 oils and fats, palm oil has expanded the most in the production and consumption of the oils and fats. It began as one of the minor oils being produced and consumed in 1976 (1.6% and 6% of the world production and consumption of oils and fats respectively) and gradually surged to become the largest produced and consumed oil in 2010 (both at about 28% of the world production and consumption of oils and fats). Palm oil will continue to be the main oil produced and consumed due to its high productivity, cheaper price and healthiness. Its production in Malaysia is expected to be about 18.33 million tonnes while Indonesia will produce about 24.91 million tonnes in 2011. As Malaysia has a constrain to expand its oil palm area due to lack of suitable land, increase in future production is expected to be through increase in its productivity. Palm oil price is associated closely with its main competitor, soyabean oil, and lately crude petroleum price also had an influence. However, there are other factors that need to be considered in evaluating price of palm oil. Taking them into consideration, price is projected at RM 3217 t in 2011 with the first half of year being higher than the second half.

INTRODUCTION

Production of world's oils and fats has increased at almost the same rate as consumption in the past. Any differences between them will

indicate either an oversupply or shortage situations; for example oversupply occurred when production exceeded consumption and conversely shortages occurred when there was higher demand

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compared to supply. In 1976, there was a shortage of oils and fats when the production of 45.9 million tonnes was less than consumption of about 47.3 million tonnes. There was equilibrium in 2010 as supply and demand were balanced at about 171.2 million tonnes (Oil World, 2010). Records show about a 4% annual increase each in production and consumption for the past 32 years.

Among 17 oils and fats, palm oil has shown to have the fastest growth rate. From production of only 1.6% and consumption of 6% in 1976, palm oil production and consumption had grown to 26.6% and 26.8% in 2010 respectively, with significant contributions by Malaysia and Indonesia. Meanwhile, the increase in its consumption is mainly due to its advantages on prices over other oils and fats, especially its main competitor, soyabean oil. This paved the way for its importance in the oils and fats sector, making it always readily available to feed the world.

Due to the importance of palm oil, this article attempts to

highlight the world supply of palm oil by focusing on the two main producers, Malaysia and Indonesia. Their supply performance until 2010 is discussed in the article. The article also discusses world demand for palm oil and followed by a discussion on prices of palm oil and selected oils and fats in the world market. Subsequently, it highlights prospects of palm oil in both countries in terms of their production and prospects of palm oil price in 2011.

WORLD PRODUCTION OF PALM OIL

Palm oil, in general, is produced from a perennial plant, and once planted, will be in production commercially for 25 years or more. Due to the long life of the trees, its supply can be assured. In comparison, productions of oil from other perennial crops such as coconut and olive, however, have been fluctuating, while productions from annuals are affected by factors such as weather and diseases. Their planted areas can vary each year.

World palm oil saw a phenomenal increase in production in the past. From an average of 1.26 million tonnes during 1958 to 1962 period, its production surged to about 17.93 million tonnes during the period 1996 to 2000 and then to 45.10 million tonnes in 2009. This consequently increased its ranking from the 10th position to second and then first as shown in *Table 1*. It also outperformed soyabean oil production since 2005 (*Figure 1*). While it witnessed a sharp rise in production, some animal fats, such as butter, tallow and lard, showed only a mild increase in production, thus recording a drop in their rankings (*Table 1*).

In 2010, world palm oil production maintained its premier position (*Table 1*). However, its increase of 1.08% from 2009 production (45.10 to 45.59 million tonnes) was quite insignificant compared to the significant increase of soyabean oil production of 10.98% (36.10 to 40.06 million tonnes). Such increases are quite abnormal as that of palm oil (soyabean oil) is lower (higher) than its increases in the past which

TABLE 1. AVERAGE ANNUAL PRODUCTION OF MAJOR OILS AND FATS

	1958 - 1962		1996 - 2000		2009		2010	
	Rank order	Million tonnes	Rank order	Million tonnes	Rank order	Million tonnes	Rank order	Million tonnes
Total	-	29.16	-	103.45	-	163.94	-	-
Butter	1	4.21	7	5.75	7	7.12	7	7.16
Tallow	2	3.39	5	7.65	5	8.43	5	8.37
Soyabean	3	3.20	1	22.84	2	36.10	2	40.06
Lard	4	3.19	6	6.21	6	7.77	6	8.03
Groundnut	5	2.65	8	4.62	10	4.12	9	4.10
Cottonseed	6	2.26	9	4.00	8	4.69	8	4.60
Sunflower	7	1.90	4	9.14	4	12.97	4	12.28
Coconut	8	1.85	10	3.10	11	3.22	10	3.67
Olive	9	1.30	11	2.42	12	2.92	11	3.26
Palm	10	1.26	2	17.93	1	45.10	1	45.59
Rapeseed	11	1.13	3	12.56	3	21.34	3	23.51
Linseed	12	0.92	12	0.73	16	0.58	12	0.65

Source: 1958-1962 and 1996-2000 data is from Gunstone (Inform, 2000), 2009 and 2010 data from *Oil World*.

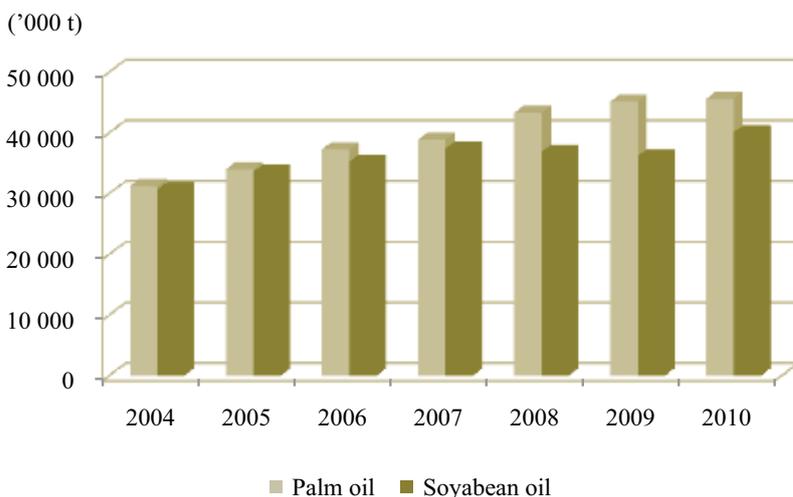
averaged at about 8.41% (4%) for the period of 2001 to 2009. Hence, the increase in world total oils and fats production in 2010 was mainly due to the increase in soyabean oil and other selected oils and fats, such as rapeseed oil, coconut oil, castor oil, sesame and linseed oil while palm oil saw only a marginal increase which is quite an abnormal situation.

The main contributors of palm oil are Malaysia and Indonesia with about 86.19% of the world production of palm oil and 22.94% of the world oils and fats production in 2010. Production from both countries had increased over time; Indonesia increased from 12.38 million tonnes in 2004 to 22.30 million tonnes in 2010, expanding at 10.30% annually while Malaysia from 13.98 to 16.99 at 3.31% (Figure 2). With the faster growth of Indonesia's plantings it has enabled the country to overtake Malaysia's production since 2006 to become the world's largest producer of palm oil.

Malaysian Production of Palm Oil

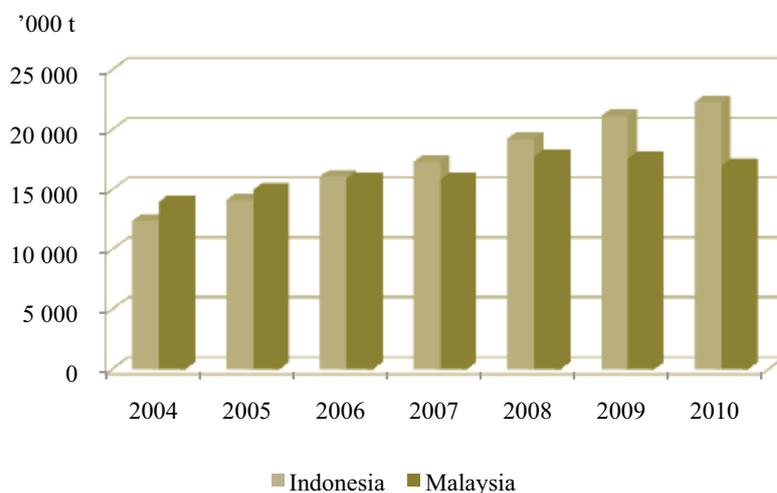
Crude palm oil (CPO) production in Malaysia had increased significantly from 92 000 t in 1960 to 16.99 million tonnes in 2010 (Figure 3). The production increased annually except in some years in which it dropped mainly due to the stress of the trees. Later the trees recovered with production increasing again. The annual growth rate of CPO production was high at 16.7% in the 1960s and increased at the highest rate in the 1970s at 19.6%. The high rates were mainly due to the young trees with rising yield. After the 1970s, the growth rates had declined; 9% in the 1980s, 5.9% in the 1990s and 4.9% in the next decade.

The growth in CPO production is related to the growth in planted areas in the country which had increased continuously from



Source: Oil World (various issues).

Figure 1. World production of palm oil and soyabean oil.



Source: MPOB and Oil World.

Figure 2. Palm oil production: Malaysia and Indonesia.

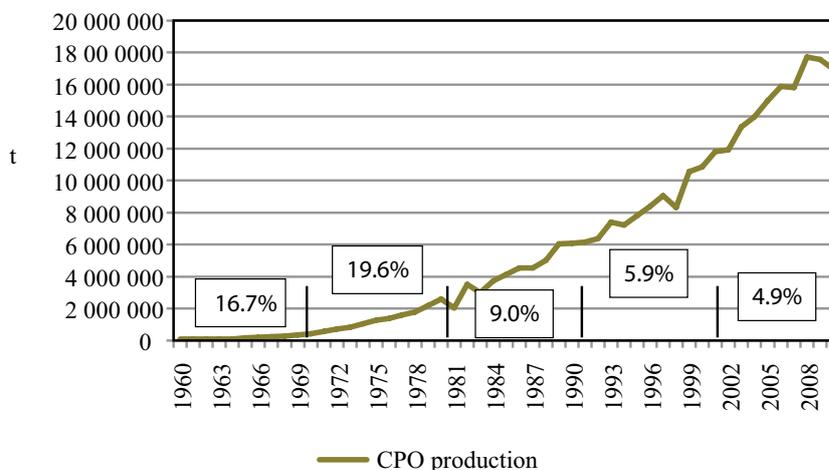


Figure 3. Malaysian crude palm oil (CPO) production and its annual growth rates (compounded).

55 000 ha in 1960 to 4.86 million hectares in 2010 (Figure 4). In the early part of the period, the areas expanded rapidly due to: 1) the government’s agricultural diversification programmes to overcome the country’s economic reliance on rubber and tin, and 2) the successful conversion of existing rubber plantations into oil palm estates as well as the opening up of new land areas under the government land schemes. These oil palm plantations are run mainly under the estates management system and organised smallholders schemes, through which the industry is able to utilise resources properly and

economically, and to correctly apply advanced management, planting techniques and high yielding materials. The country was successful in managing the plantations with the benefit of its experience and training from the days of managing plantations even in the rubber industry. The later part of the period saw a slower growth of area expansion mainly due to the limitation of areas in the country. There are few suitable areas left for oil palm, and in addition such areas might have to be shared with other crops.

The oil palm areas in Malaysia were owned by four different categories of ownership,

namely smallholders, organised smallholders (FELDA, FELCRA and RISDA), states and private companies. Among these, the private owners represented the largest proportion and their areas increased from 2.48 in 2006 to 2.93 million hectares in 2010 (Figure 5). The areas owned by smallholders also increased from 0.45 to 0.65 million hectares. The areas belonging to organised smallholders were more or less unchanged during 2006-2008 period but slightly increased toward 2010.

It is interesting to record here that CPO production exhibited a seasonal pattern. Production pattern was analysed monthly for the period of 1989 until 2009 and we could see a pattern which repeats every year (Figure 6). The production will usually decline in February from January to form the lowest production level of the year with the seasonality of 0.77 (Figure 7). Thereafter, it will uptrend until September which then forms the peak month with the seasonality index of 1.22. The production will then decline until December with the index of 0.94.

In 2010, however, production performance was quite abnormal, not following the pattern as shown in Figure 7. It is clear that there exist three distinct peaks (March, August and October) and three distinct troughs (February, April and September) during the year (Figure 8). This irregularity in the production pattern was much affected by the weather condition which occurred at the beginning of the year which was a spill-over effect of the bad weather from the end of 2009. (Production in 2009 declined due to bad weather which occurred critically at the end of the year.) If production were to follow normal pattern, it should rebound in 2010 as there was an increase in matured areas, but the weather had significantly caused the production

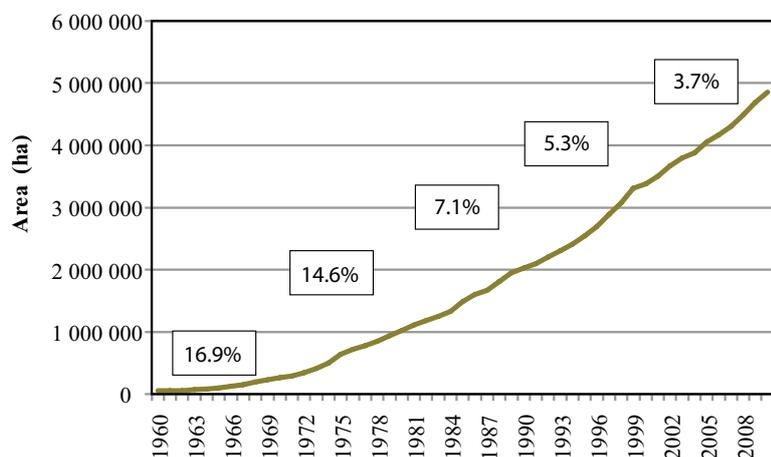


Figure 4. Oil palm planted areas in Malaysia and its annual growth rates (compounded).

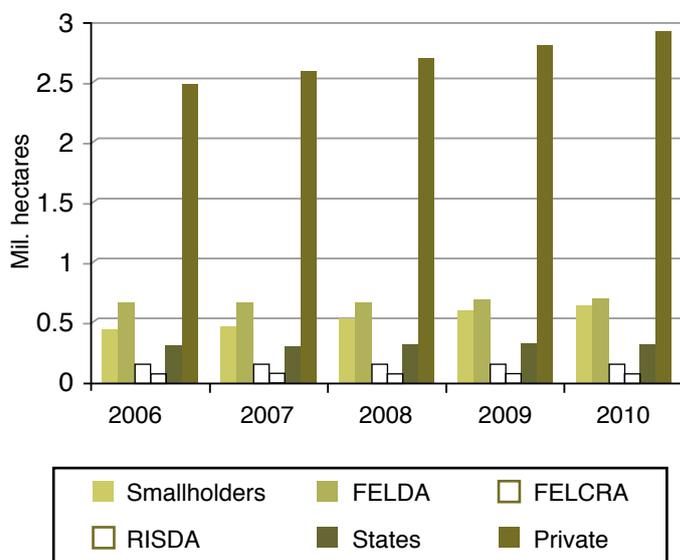


Figure 5. Oil palm planted areas by category.

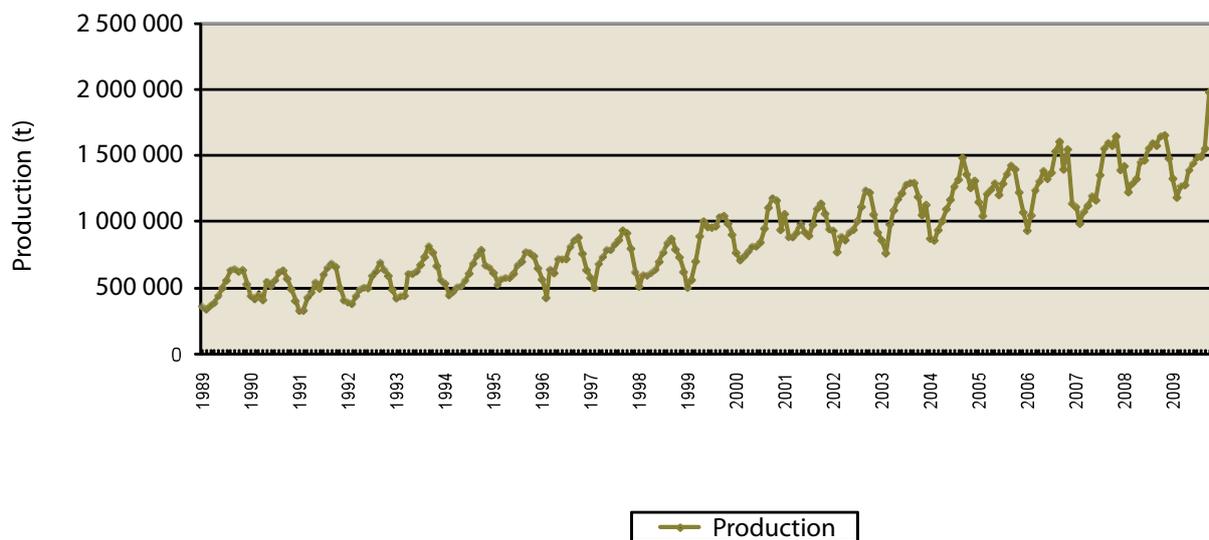


Figure 6. Monthly crude palm oil production cycles in Malaysia.

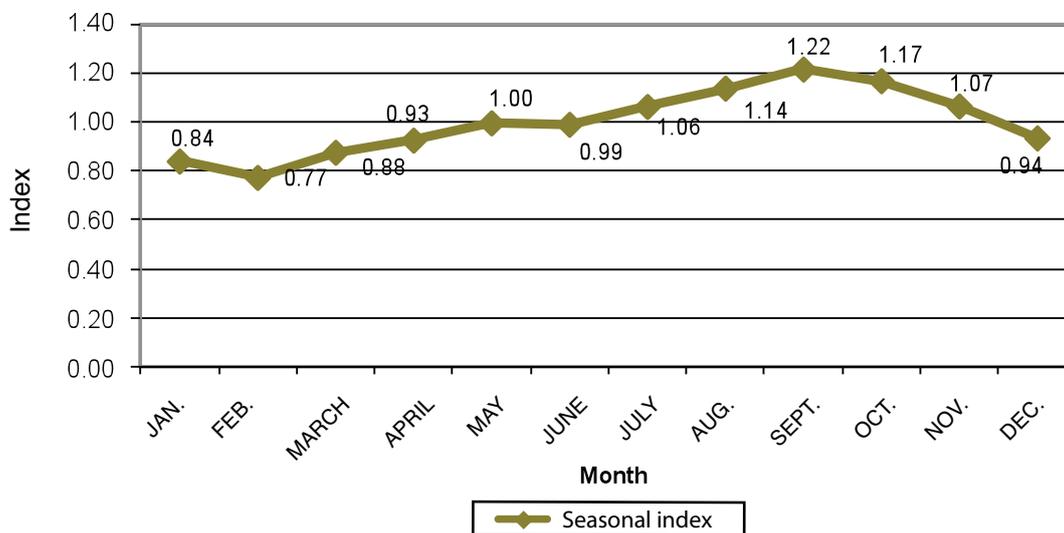


Figure 7. Seasonality index pattern of Malaysian crude palm oil production.

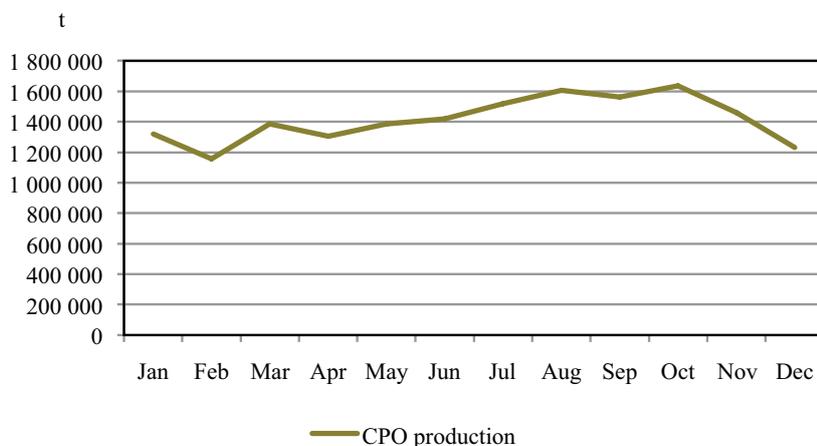


Figure 8. Malaysian production of crude palm oil (CPO) in 2010.

in 2010 to decline for the second consecutive year.

Indonesian Production of Palm Oil

Indonesia started its oil palm cultivation commercially in 1911 on the east coast of Sumatra Island. In 1969, production by this country was 180 000 t of CPO and 40 000 t of palm kernel (Derom, 2006). Prior to 1974, plantations were mostly run by smallholders and production was almost stagnant.

In 1974, the Indonesian government responded to the attractive high prices of palm oil in

the international market by forming state owned plantations (Nucleus Estates Schemes). As a result, oil palm areas began to expand in 1975 from Sumatra to Kalimantan and to Irian Jaya (Papua) with areas increasing from 295 000 ha in 1980 to 1.6 million hectares in 1995 and from 4.2 million hectares in 2000 to 6.07 million hectares in 2006 (IPOB, 2007) (Figure 9). In 2006, total growing areas were distributed among three groups, which included government holdings, private companies and smallholders. According to Indonesia Bureau of Statistics (BPS) in 2006, 45% of total palm area was owned by private companies, followed closely at 43% by smallholders, and the government owning the remaining 12%. In 2010, the area increased close to 6 million hectares.

Currently the land available for oil palm in Indonesia is about 26 million hectares extending from Aceh to Papua (Irian) (Hasibuan, 2006). The government has set a target to expand by 3 million hectares to produce additional 10 million tonnes of palm oil for domestic and export market. However, this effort needs a huge amount of investment of about USD 8.4 billion to USD 10.5

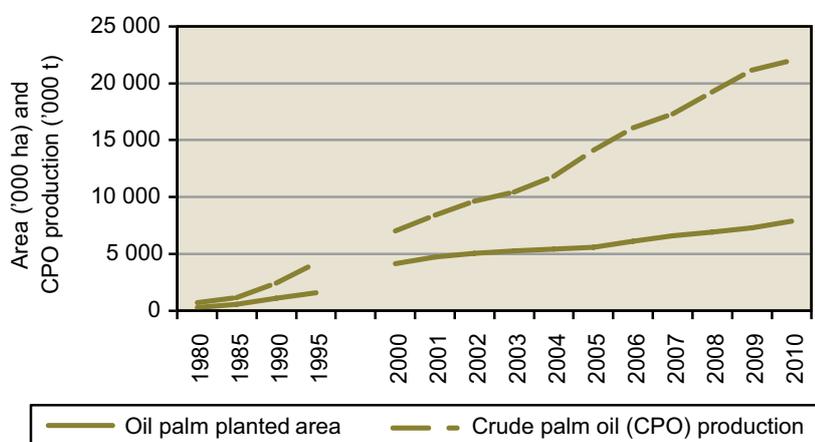
billion for the 3 million hectares expansion. China is interested to invest in oil palm and that will be a potential source of funds.

Indonesian oil palm productivity in 2006 varied among producers. Smallholders' productivity were low at 2.34 t of palm oil per hectare per year. This is because they can get 13 t of fresh fruit bunches (FFB) with an oil extraction rate (OER) of 18% (Derom, 2006). Small companies harvested 16 t of FFB with an OER of 19%, giving a productivity of 3.04 t of palm oil per hectare per year. Big companies, due to good management practice, can get 23 t of FFB per hectare per year with an OER of 24%. With this, their productivity was high at 5.52 t of palm oil.

Production of CPO in the country had increased as area expanded (Figure 9). However, the rate of increase is faster for production than that of area. The availability of land had allowed Indonesia to increase production from 180 000 t in 1969 to about three-quarter of a million tonnes in 1980 and grew further to about 4.2 million tonnes in 1995. In another portion of Figure 9, production was about 7 million tonnes in 2000 and rose to about 22.3 million tonnes in 2010 (MPOB, 2010). The rapid expansion of output

had led Indonesia to take over from Malaysia as the world's top producer since 2006 (Figure 2). However, it is a question now whether Indonesia can sustain this rapid growth in future. According to Derom (2007), future expansion plans had been hampered by uncertainties in the legal status of the available land and this might slow down future area expansion, especially beyond 2010.

Production of CPO is always larger than domestic consumption needs in Indonesia. The gap between the two, however, was smaller in 1999 but widened towards 2009. In 2010, the production had reached about 22.3 million tonnes while domestic consumption was only 4.86 million tonnes (Oil World, 2010) and it is expected that the proportion of domestic consumption will stay constant at around 22%-23% in the future (Derom, 2006). According to Derom (2006), this proportion of domestic demand is to fulfill the needs of about 230 million of population (Anon, 2006) for cooking oil. Average consumption of cooking oil is around 12 kg per capita per year, mainly contributed by refined, bleached and deodorised (RBD) palm olein and the small balance by coconut oil. Another portion of total demand for palm oil in the country is the export demand which had increased significantly from 10.4 million tonnes in 2005 to 16.45 million tonnes in 2010 (Oil World, 2010). Based on this development, Indonesia has a great potential as a big exporting country of palm oil in the world. In 2009, Indonesia exported 16.938 million tonnes, overtook Malaysia with an export volume of 16.66 million tonnes.

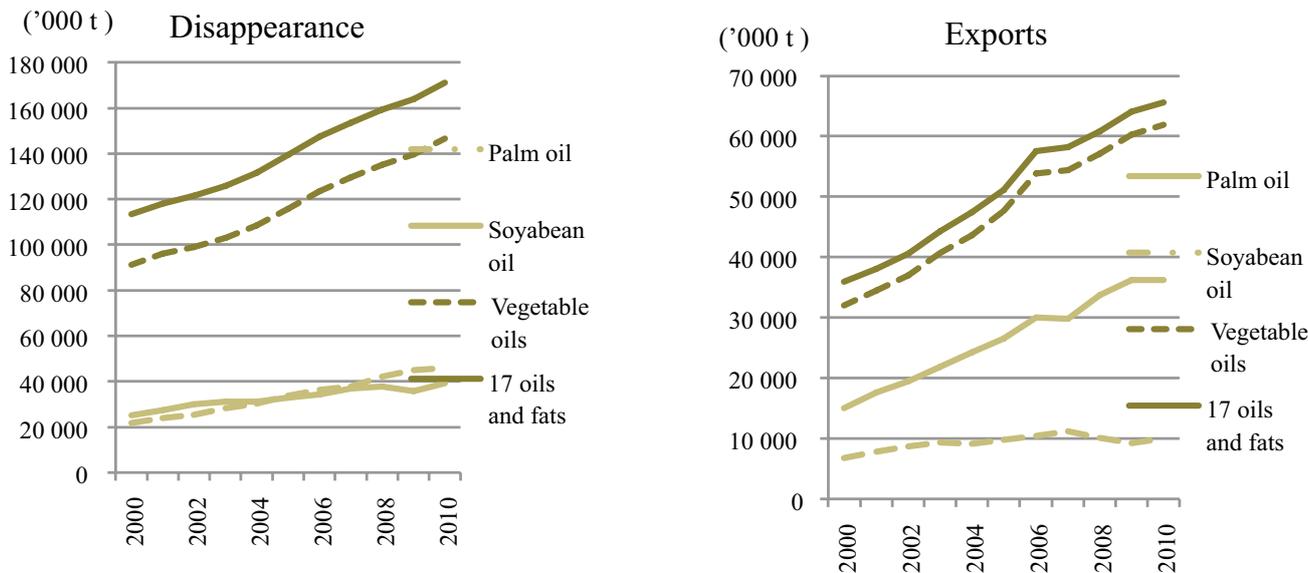


Source: Direktorat Jenderal Perkebunan, *Buku Statistik Perkebunan 2006* and *Oil World*.

Figure 9. Indonesia oil palm areas for 1980-1995 and for 2000-2010.

WORLD DEMAND FOR PALM OIL

Palm oil had gained popularity as



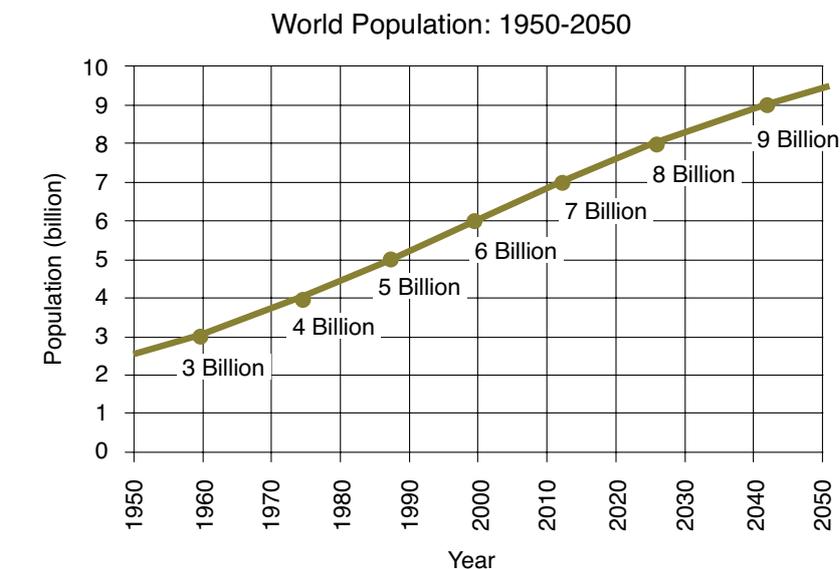
Source: Oil World (various issues).

Figure 10. World disappearance and exports of selected oils and fats.

it is being globally accepted. This is reflected by its world demand data which shows it overtaking soyabean oil since 2005 to be the largest oil being consumed in the world (Figure 10). It is clear that the trend for palm oil is much steeper than that of soyabean oil. Furthermore, palm oil consumption trend had followed closely those of vegetable oils and total 17 oils and fats.

In term of export, world palm oil exports also followed closely the exports of vegetables oils and oils and fats (Figure 10). In contrast, export of soyabean oil had more or less stagnant during the period of 2000 until 2010.

The popularity of palm oil can be due to it being versatile with many areas of application. It can be used in either food or non-food applications for a wide variety of products. It is being consumed all over the world. The gain in popularity is mainly due to several factors. One of them is the world population which had significantly increased from about 3 billion people in 1960 to about 6 billion in 2000 and to 6.9 billion people in 2010 (US Census Bureau) (Figure 11). From 2000 to 2044, the world population is



Source: U.S. Census Bureau, International Data Base, June 2011 Update.

Figure 11. World population statistics.

expected to increase by 50% in the next 45 years. Meanwhile, world demand for palm oil (and oils and fats) increased from 21.8 million tonnes (113.4 million tonnes) in 2000 to 45.9 million tonnes (171.1 million tonnes) in 2010. Developing and less developing countries are expected to have greater population growth.

Another important factor that will shape demand is the income of the world population. It is

expected that income from the developing countries will grow at much faster rates than that of the developed countries. This in effect will increase the per capita consumption of oils and fats, especially palm oil.

Biodiesel production has also played a role in affecting the demand for palm oil. The world is looking for alternative energy source due to rising concern over the environment and escalating

petroleum prices. As such, edible oils source is an alternative. Malaysia will allocate some of its production to this application. However, Malaysia will make sure that the supply for edible uses will be sufficient by controlling the licenses issued for this business.

Another important factor is the exchange rates. An exchange rate of RM 3.50 to the United States dollar (USD), for example, means that RM 3.50 is worth the same as USD 1. The exchange rate plays an important role in determining the volume of palm oil to be purchased which may ultimately have an indirect effect on price later on. Depreciation (appreciation) of RM will lower (increase) the USD value, thus enabling more demand for the commodity.

PRICES OF CRUDE PALM OIL AND SELECTED OILS AND FATS

The CPO prices in domestic and international markets are inter-related. In the international market, the increasing trade and continuous demand have made the prices to be very competitive with other oils and fats. Generally, they tend to have the same trend and volatility (Figure 12). Soyabean oil

price and stock are two common factors affecting the CPO price. Recently, crude petroleum price has also influenced CPO price. The rise in the petroleum price has caused many countries to consider using alternative renewable energy from vegetable oils. Consequently, this created additional demand, including palm oil.

In comparing the oils and fats prices, it should be remembered that the palm products could be in processed form while the other selected oils are quoted as crude oil. Furthermore, these prices can be either on free on board (FOB) or cost, insurance and freight (CIF). As a rule of thumb that can be used in bringing FOB prices to CIF, the following factors can be added:

- USD 60/t freight charges;
- 1% of FOB value for insurance; and
- 2% of FOB value as arrival loss.

(It is important to note that freight cost also depends on the size of the consignment.)

Thus, for comparative purposes, the average CIF landed prices for oils and fats in say, the European Union, in 2008 are illustrated in Table 2. These landed prices had taken into consideration the

common custom tariff specified for each oil or fat. Palm products such as RBD palm olein, RBD palm oil, CPO, were sold at a discount to soyabean oil, cottonseed oil, rapeseed oil, sunflower seed oil, and groundnut oil in the EU. The biggest discount was with groundnut oil while the smallest discount was with soyabean oil, its close competitor.

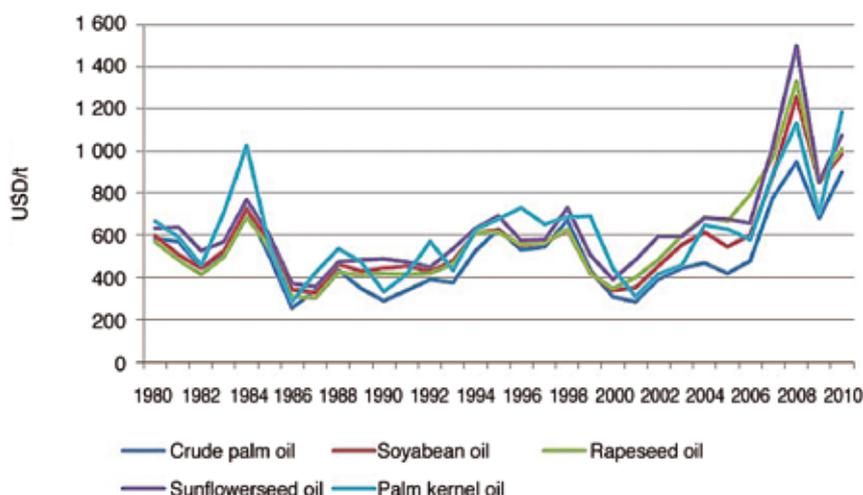
RBD palm olein and soyabean oil are two close substitutes due to their similarity in nature and characteristics. Thus, they become competitors with prices competing with one another. In the world market, it has become the tradition that RBD palm olein was always being discounted and sold cheaper to soyabean oil (Figure 13). The discounts ranged from USD 3 to USD 495/t during the past six years. This scenario shows a clear picture that palm olein is usually less expensive than soyabean oil.

In comparison, price movements varied more widely for oils and fats with different characteristics. For example, soyabean oil, coconut oil and tallow prices moved independently in the international market (Figure 14). These oils and fats have different characteristics and being used in different applications. As a result, their prices are not closely associated.

PROSPECTS FOR PALM OIL IN 2011

Malaysian Palm Oil

Malaysian CPO production declined for two consecutive years from 2009 to 2010 (Figure 15). That in 2009 was expected due to the boom in production in 2008 and causing stress on the trees in the following year. This is normal as it followed the long-term production trend. The decline in 2010, however, was really unexpected as it was much affected by vagaries of the nature.



Source: Oil World.

Figure 12. Prices of selected oils and fats.

TABLE 2. AVERAGE COST, INSURANCE AND FREIGHT (CIF) PRICES FOR OILS AND FATS AND PREMIUM/DISCOUNTS TO PALM OIL PRODUCTS, 2008

Name of oils/fats	Average CIF prices (USD/t)	CCT for edible oils (%)	Landed price	Premiums/discounts				
				RBD palm olein	RBD palm oil	Crude palm oil	RBD palm stearin	Palm kernel oil
RBD palm olein	1 067	9.0	1 163	-	NR	NR	NR	NR
RBD palm oil	1 006	9.0	1 097	NR	-	NR	NR	NR
Soyabean oil	1 258	9.6	1 379	-216	-282	-397	NR	NR
Cottonseed oil	1 553	9.6	1 702	-539	-606	-720	NR	NR
Rapeseed oil	1 329	9.6	1 457	-294	-360	-474	NR	NR
Sunflower seed oil	1 499	9.6	1 643	-480	-546	-661	NR	NR
Groundnut oil	2 109	9.6	2 311	-1 148	-1 215	-1 329	NR	NR
Palm kernel oil	1 130	10.9	1 253	NR	NR	NR	NR	NR
Coconut oil	1 224	10.9	1 357	NR	NR	NR	NR	-104
RBD palm stearin	891	10.9	988	NR	NR	NR	NR	NR
Tallow fancy bleached	885	6.4	942	NR	NR	NR	46	NR
Palm oil, crude	949	3.8	982	NR	NR	-	NR	NR

Note: NR - not relevant, CCT = common customs tariff.

Premiums are indicated by a positive sign; the other figures are all discounts, (based on landed price).

Source: *Oil World Annual 2009*; *Official Journal of the EC*, *Oil World Monthly-March 2009*.

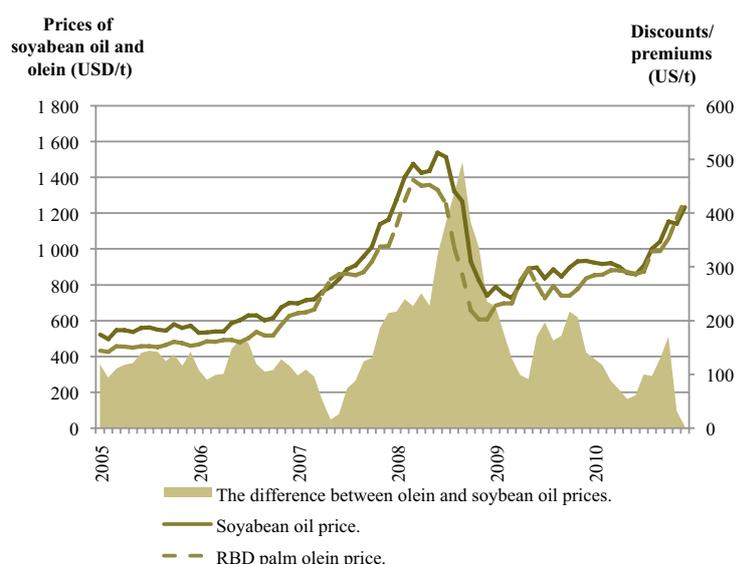


Figure 13. Prices of oils and fats with similar characteristics.

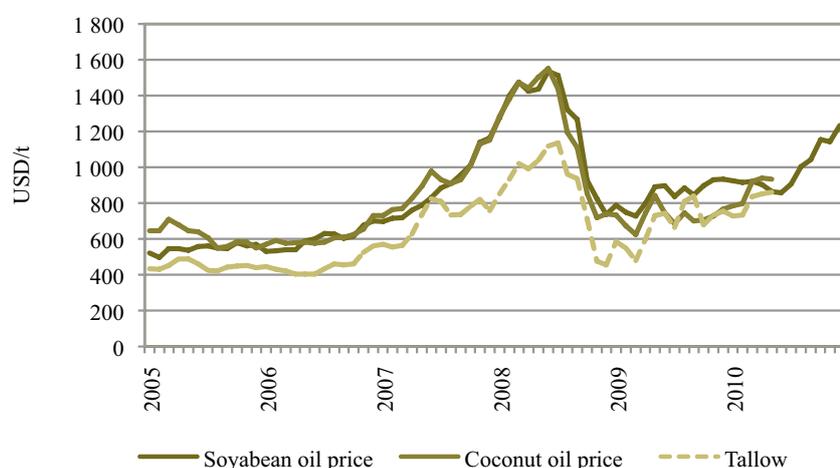


Figure 14. Prices of oils and fats with different characteristics.

The oil palm fruits were on the trees but were not collected due to bad weather.

An analysis shows that CPO production in 2011 is expected to correct and adjust its long-term trend as there will be continued increase in mature areas in the country. Total planted area in 2011 is expected to increase to 5.08 million hectares with mature areas expected at 4.41 million hectares (Table 3). This means that total planted area is forecast to increase by 4.74% while mature area by 5.04%. The largest percentage increase in mature areas and total planted areas will be in Sarawak with 14.5% and 11.94% respectively.

With the above development, CPO production in 2011 is expected to reach 18.33 million tonnes (Table 4). This has taken into consideration the effect of monsoon during the year. The increase in production is expected mainly due to the increase in matured areas. The production is expected to exhibit two peaks, *i.e.* July and September, mainly due to the reason that there will

be not much activity in August due to fasting month and the Hari Raya festival. If monsoon were not happen, then the production of palm oil in 2011 is expected to be 18.79 million tonnes.

Ending stock of palm oil in the country in 2011 is expected to close at 1.75 million tonnes in December (Table 4). High stocks are expected in August and in September, breaking the level of two million tonnes. While stock will fluctuate, export performance from August until December will be high, recording not less than 1.5 million tonnes. This will give

total export of 17.4 million tonnes for 2011.

Indonesian Palm Oil

Unlike Malaysia, Indonesian production of CPO performed strongly since 2000. Figure 15 shows its trend rising in a straight line, compared to Malaysian production which formed a less steep slope. Its production was about four million tonnes in 2005 and increased to 22.3 million tonnes (Oil World's estimate) in 2010. The country overtook Malaysia in 2006 with production at 16.1 million tonnes compared to Malaysian production

of 15.9 million tonnes (Figure 15). Furthermore, Malaysia faced three declines in production in 2007, 2009 and 2010, while Indonesia did not.

The prospect of Indonesia CPO production will continue to be good in 2011. Indonesia has a good land availability, so there is a great chance for the country to continue its production growth momentum in short-term. However, as mentioned earlier, getting Indonesian data is a problem. Hence, based on the land availability and past performance of the oil palm areas, estimates are made using various scenarios for 2007 until 2010 and for forecasting for 2011. Other sources such as *Oil World* wherever available is also shown in Table 5 for comparison purposes.

Indonesia is forecasted to have its planted areas growing to about 8.14 million hectares in 2011 from an estimated area of about 7.91 million hectares in the previous year (Table 5). Out of this, 7.62 million hectares are matured areas in 2011. As such, CPO production in the country is projected to reach about 24.91 million tonnes in 2011, based on an assumption of increasing matured area (Table 5).

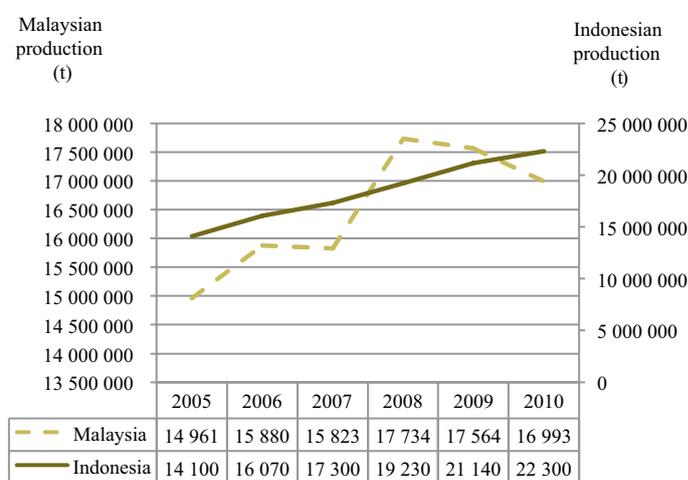


Figure 15. Crude palm oil production in Malaysia and in Indonesia (2005 to 2010).

TABLE 3. MALAYSIAN OIL PALM AREAS IN 2010 AND FORECAST FOR 2011

	2010 Actual areas (ha)			2011 Forecast areas (ha)*		
	Mature	Immature	Total	Mature	Immature	Total
	P. Malaysia	2 224 473	300 199	2 524 672	2 288 231	310 600
Sabah	1 261 154	148 522	1 409 676	1 305 400	150 500	1 455 900
Sarawak	716 586	202 832	919 418	820 500	208 700	1 029 200
Sabah & Sarawak	1 977 740	351 354	2 329 094	2 125 900	359 200	2 485 100
Malaysia	4 202 213	651 553	4 853 766	4 414 131	669 800	5 083 931
	Increase in areas in 2011 from 2010 (ha)			Increase in areas in 2011 from 2010 (%)		
	Mature	Immature	Total	Mature	Immature	Total
P. Malaysia	63 758	10 401	74 159	2.87	3.46	2.94
Sabah	44 246	1 978	46 224	3.51	1.33	3.28
Sarawak	103 914	5 868	109 782	14.50	2.89	11.94
Sabah & Sarawak	148 160	7 846	156 006	7.49	2.23	6.70
Malaysia	211 918	18 247	230 165	5.04	2.80	4.74

Note: *author's forecast.

TABLE 4. EXPECTED SUPPLY AND DEMAND OF PALM OIL IN 2011 (t)

Months	CPO production			Ending stocks			Export		
	Actual	Forecast*	Diff (%)	Actual	Forecast	Diff (%)	Actual	Forecast	Diff (%)
Jan	1 057 961	1 161 200	-8.89	1 418 500	1 351 200	4.98	1 222 067	1 000 600	22.13
Feb	1 094 339	999 900	9.44	1 481 244	1 249 900	18.51	1 114 593	1 002 593	11.17
Mar	1 416 403	1 459 400	-2.95	1 614 292	1 599 400	0.93	1 235 261	1 297 261	-4.78
Apr	1 529 985	1 508 000	1.46	1 670 934	1 548 000	7.94	1 344 680	1 409 680	-4.61
May	1 741 827	1 684 500	3.40	1 922 848	1 784 500	7.75	1 406 321	1 396 521	0.70
June	1 753 191	1 697 000	3.31	2 053 382	2 000 000	2.67	1 585 039	1 495 648	5.98
July	1 751 264	1 790 300	-2.18	1 996 317	1 908 622	4.59	1 729 518	1 608 415	7.53
Aug	-	1 610 000	-	-	2 012 888	-	-	1 698 178	-
Sept	-	1 745 000	-	-	2 129 924	-	-	1 784 101	-
Oct	-	1 619 000	-	-	1 918 268	-	-	1 571 525	-
Nov	-	1 580 000	-	-	1 861 087	-	-	1 561 451	-
Dec	-	1 480 000	-	-	1 748 315	-	-	1 553 653	-
Total	-	18 334 300	0.96	-	-	7.13	-	17 379 625	5.10

Note: the above is author's forecast.

* takes into consideration the effect of monsoon at the end of year; otherwise total production is estimated at 18.79 million tonnes.
CPO - crude palm oil.

TABLE 5. PAST PERFORMANCE AND PROSPECTS IN 2011 OF INDONESIAN OIL PALM AREAS AND PRODUCTION

Year	Estimated planted areas		Estimates of matured area from (million hectares)		CPO production (million tonnes)	
	Million hectares	Source	MPOB	Oil World	MPOB	Oil World
2007	6.91	MPOB	4.3	4.54	18.5	17.3
2008	7.20	MPOB	5.01	4.95	19.3	19.23
2009	7.55	MPOB	5.47	5.35	20.9	21.14
2010	7.91	MPOB	6.90	-	22.91	22.30
Forecasts						
2011	8.14	MPOB	7.62	-	24.91	-

Note: MPOB – Malaysian Palm Oil Board.

CPO - crude palm oil.

World Demand for Palm Oil

The demand for palm oil increased due to the wide applications and availability of the products. It is mainly exported by Malaysia and Indonesia since their local consumptions are low.

Based on past trend, palm oil export and consumption will continue to increase in 2011. Palm oil exports globally will increase to 45.62 million tonnes out of which Malaysian and Indonesian exports are expected to be about 17.38 and 19.12 million tonnes. Total exports of oils and fats are

TABLE 6. WORLD EXPORTERS AND CONSUMPTION OF PALM OIL AND SELECTED OILS AND FATS IN 2011

World exporters	('000 t)	Consumption	('000 t)
Palm oil:		Palm oil	47 100
Malaysia	17 380		
Indonesia	19 120		
Others	1 120		
Total palm oil exports	37 620	Soyabean oil	40 900
Other oils and fats	33 200	Other oils and fats	87 000
Total oils and fats	70 820	Total oils and fats	175 000

projected at 70.82 million tonnes (Table 6). Meanwhile palm oil consumption globally will increase further to 47.10 million tonnes and total consumption of oils and fats at 175.00 million tonnes.

Price of Palm Oil

World palm oil production has already overtaken production of soyabean oil. Palm oil will continue to lead with Malaysia and Indonesia being the major suppliers. However, Malaysia would likely face shortage of land for oil palm cultivation. Despite this, Malaysia has the edge of producing high yielding planting materials which will increase its production. Researches help the industry to grow, be competitive and sustainable in future. Most important of all, Malaysia has a long-term experience in the industry with product quality recognised internationally through Palm Oil Refiners Association of Malaysia (PORAM) specifications, with monitoring, research and development (R&D) agencies like MPOB ensuring further progress. Indonesia, on the other hand, will also continue to expand its palm oil as the country has much land availability and labour.

A number of relevant factors can be considered in affecting palm oil price. They can be categorised as long-term and short-term factors. The former have theoretical relationships and consistently affecting palm oil price. Among them include stock-usage ratio of oils and fats, exports of palm oil, price of soyabean oil, world supply and demand and production of palm oil. The short-term factors include market sentiments such as news about weather, war, trade barriers and price of crude petroleum oil which indirectly influences the availability of palm oil for edible purposes.

Incorporating the long-term factors into a price model will be quite a straight forward effort and forecasts can be made with a reasonable degree of accuracy. However, forecasting effort will be made more challenging with the short-term variables which ultimately will affect the accuracy of the forecasts. They are market sentiments which could not be quantified but can be proxied and are important to be incorporated. Hence, overall forecasting effort becomes very challenging.

Nevertheless, only significant variables will be considered in this forecasting exercise, namely soyabean oil price, crude oil price, Malaysian production of palm oil, and Malaysian exports of palm oil. For 2011, soyabean oil price is expected to be at USD 1300, crude oil price at USD 120 per barrel, Malaysian production of palm oil at 18.33 million tonnes, and Malaysian exports of palm oil at 17.4 million tonnes. Using these factors, there will be a downwards trend of price in 2011; the first half of year will be higher than the second half of year. The forecasts for palm oil prices show that palm oil price in 2011 is expected to be in the range of RM 3811 in February (actual) to RM 2806 in October per tonne (Figure 16). This

gives an average of RM 3217 t for 2011.

CONCLUSION

Compared to other oils and fats, palm oil has positive and better economic advantages. It is very versatile and advanced technology can increase its areas of applications that can lead to wide uses in food or non-food applications, thus increasing its demand. Research activities still continue in Malaysia to find new uses of palm oil, thus increasing demand in all consuming countries. Malaysia still has the potential to increase its output and exports, in addition to Indonesia which has greater potential.

As such, Malaysian production is expected to increase in 2011 to 18.33 million tonnes after declining for two consecutive years. Export is expected to reach 17.4 million tonnes while stock is going to close in December at 1.7 million tonnes. Indonesia is expected to produce 24.91 million tonnes while exporting about 19.12 million tonnes. As such, price of palm oil will be firmed in 2011 which will average at RM 3217 t which is higher than that in 2010.

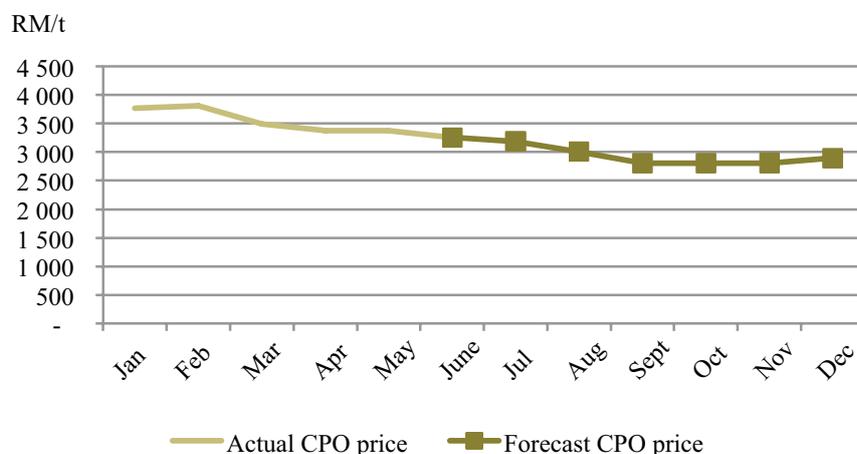


Figure 16. Forecast crude palm oil (CPO) price for 2011.

REFERENCES

ANON (2006). Extracted from http://www.trueknowledge.com/q/population_of_indonesia_2010.

DEROM, B (2006). Indonesian palm oil industry. Paper presented at the National Institute of Oilseed Products Annual Convention, on 21-25 March 2006 at the Sheraton Wild Horse Pass, Phoenix, Arizona, USA.

DEROM, B (2007). The rapid growth of world palm oil industry: an overview. Paper presented at Indonesian Palm Oil Conference and Price Outlook 2008, The Westin Resort, Nusa Dua Bali, Indonesia.

GUNSTONE, F D (1986). A change worth noting. Adapted from *Inform* (June 2000) Vol. 11(6): 599-600.

HASIBUAN, AKMALUDDIN (2006). *Industri kelapa sawit sebagai motor penggerak pembangunan ekonomi nasional*. Juli, Jakarta: Kadin Indonesia.

OIL WORLD. *Oil World Annual* (various issues).

US CENSUS BUREAU (2011). Extracted from <http://www.census.gov/population/international/data/idb/worldpopinfo.php>