ECONOMIC AND SOCIAL ASPECTS OF PALM OIL INDUSTRY: Indonesia's Palm Oil Trade in the Context of Economic Liberalization

Aspek Sosial Ekonomi Industri Minyak Sawit: Perdagangan Minyak Sawit Indonesia dalam Konteks Liberalisasi Ekonomi

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ABSTRAK

Makalah ini bertujuan untuk mengkaji perdagangan minyak sawit di pasar dunia, faktor-faktor yang mempengaruhi industri dan perdagangan minyak sawit Indonesia, dan bagaimana dapat memberikan sumbangan dan manfaat bagi pembangunan pertanian berkelanjutan. Minyak sawit dan minyak inti sawit merupakan sepertiga dari total produksi minyak dan lemak dunia. Selama dasawarsa terakhir, stok, produksi, impor, dan ekspor kelapa sawit dalam perdagangan dunia telah meningkat lebih dari dua kali lipat baik volume maupun nilainya. Selain sebagai produsen utama di dunia, Indonesia dan Malaysia merupakan dua eksportir utama minyak sawit di pasar dunia dengan pangsa pasar lebih dari 80 persen. Ditambah dengan permintaan minyak goreng, permintaan produk turunan minyak sawit yang terus bertambah menciptakan tantangan dan peluang baru bagi Indonesia dalam memperbaiki daya saing di pasar internasional. Indonesia masih terus dapat memanfaatkan kesempatan tersebut jika dapat menyikapi permintaan dunia yang terus bertambah dan membenahi fasilitas produksi di dalam negeri. Kebijakan industri minyak sawit Indonesia harus diarahkan, dilaksanakan, dan diberdayakan menuju industri hilir. Perhatian dunia terhadap kerusakan lingkungan telah mendorong didirikannya forum RSPO dan Indonesia merespon melalui ISPO untuk mendukung pembangunan berkelanjutan. Sebagai produsen utama, hal ini hanya sesuai jika Indonesia menjadi penentu dan referensi harga minyak sawit berkelanjutan yang diperdagangkan di pasar dunia.

Kata kunci: *Indonesia, minyak sawit, perdagangan, pasar dunia, liberalisasi ekonomi, lingkungan, berkelanjutan, pembangunan, ISPO*

ABSTRACT

This paper aims to assess the palm oil trade in the world market, factors affecting Indonesia's palm oil industry and trade, and how it can contribute to and benefit the sustainable agriculture development. Palm oil and palm kernel oil make up a third of total world production of oils and fats. During the last decade, the stock-production-import-export of palm oil in the world trade has increased to more than double in volumes and values. Other than being main producers, Indonesia and Malaysia are the two major exporters of palm oil in the world market with total shares of more than 80 percent of the total world export. Coupled with increasing demand for cooking oils, growing demand for palm oil derivatives-products has created a new challenge and opportunity for Indonesia to increase its competitiveness in the world market. Indonesia has and could continue to seize the opportunity to meet the increasing world market demand provided it can increase the ability to translate the new world market demand and adjust it to its domestic production facilities. The Indonesian policies of palm oil development must be directed, implemented and enforced with the focus to the downstream industries. The world concern of environmental degradation has triggered an RSPO forum and Indonesia responded through the ISPO to support the sustainable development. As the main producer, it is only fitting if Indonesia becomes and sets a price reference for sustainable palm oil traded in the world market.

Keywords: *Indonesia, palm oil, trade, world market, economic liberalization, environment, sustainable, development, ISPO*

INTRODUCTION

The recent World Bank report stated that up to the second quarter of 2010, Indonesia was identified as one among three countries that enabled to speed up their export performances to the level as similar to the level prior of the global economic crises. Palm oil contributed to those incredible achievement and was included among the upper or top 23 percent Indonesia's export commodities which had a positive shares and growth rate (22 products) nationally. The share and growth rate of fats and vegetable oils to Indonesian exports are 20.4 percent and 20.2 percent respectively (TPI-*Tinjauan Terkini Perdagangan Indonesia,* 2010 and World Bank, 2009). The oil palm plantations and industries in Indonesia also contribute to the labor absorption which means becomes the key industry for rural development and poverty alleviation (Lokollo *et al*., 2007).

This paper analyzes the Indonesia's palm oil trade, factors affecting it, opportunity, constraint and prospect of it in the world market, and policy note to enhance the trade contribution of palm oil products to the benefit of sustainable agriculture development.

TREND AND FUTURE-OUTLOOK OF PALM OIL TRADE

According to the Oil World Trade in 2008, the global production of oils and fats stood at 160 million tonnes. Palm oil and palm kernel oil were jointly the largest contributor, accounting for 48 million tonnes or 30 percent of the total output. Soybean oil came in the second with 37 million tonnes (23%). About 60.3 million tonnes or 38 percent of the oils and fats produced in the world were shipped across oceans. Of the oils and fats exported around the world, palm oil and palm kernel oil make up close to 60 percent (Oil World, 2010). Indonesia and Malaysia made up the two major producing countries of palm oil in the world.

A recent empirical study shows that estate crops are still the main and an important source of Indonesian non-oil and gas foreign exchange revenues. Palm oil is among the highest share of the estate crops (*Direktorat Jenderal Perkebunan*, 2009). Palm oil industry is one of the most important industries in Indonesia which also functions as labor absorption in the rural areas.

For the past two decades or so, areas planted with oil palm and production grew annually at a rate of 13 percent and 15 percent respectively. In the recent three years (2008-2010), areas planted are 7.4, 7.5 and 7.8 million hectares, whereas the corresponding production increase to 17.5, 18.6 and 19.8 million tonnes.

Indonesia and Malaysia make up the two largest countries of more than three-quarter shares of palm oil trade in the world market. Other countries such as Papua New Guinea, Ivory Coast, Nigeria, Zaire, Cameroon and Columbia made up a quarter of the world' share.

The Indonesian export of CPO and its derived products increased significantly during past decades. In 2008 was 13.8, was 15.5 in 2009, and 18.0 million tonnes in 2010.

Indonesia as the main and major producer country in the world has a growing rate coefficient of trade (export-import) of 4.12 percent since the year 2000; which was above the world's rate at 3.8 percent. Major consumers of CPO in the world are West European Countries, China, Pakistan and Indonesia, with consumption lies between 1.8 and 4.0 million tonnes yearly (*Direktorat Jenderal Perkebunan*, 2009).

The world market of CPO is expected to grow significantly as rapid and strong demand for cooking oils and other derived products are coming from the developing countries; whilst developed countries experiencing an increasing demand for bio-diesel.

The export of palm oil in the world market has increased tremendously in this past three decades; from just 0.8 million tonnes in the early 70's to 26.5 million tonnes in the late 80's and to 66.8 million tonnes during 90's. During the last three decades, in trend, the rate went from 11.03 percent to 11.47 percent and to 8.96 percent. Presently, palm oil has occupied the largest share of vegetable oils traded in the world market. Oil World Statistics (1993 and 2003) stated that palm oil shares were 30 percent – 50 percent of total vegetable oils traded, whilst soybean oils export was between 16 percent – 20 percent.

In the 1950's, African countries such as Ivory Coast and Nigeria were among the largest export countries of palm oil to the world market with their shares up to 70 percent of the total world export; whereas Asian countries were only supplied up to 30 percent. In the 80's onward, the situation has changed, African countries' share was just around 10 percent while Indonesian and Malaysian shares had increased to 80 percent and other countries in the world' share was just around 10 percent (Susila *et al*., 1995).

The two largest exporting countries of palm oil in the world are Malaysia and Indonesia. Malaysia's share has increased tremendously during the past three decades, while Indonesia experienced increasing trend in export with the share of just 15 percent – 20 percent of the world export.

The world importer of palm oil have shifted from just West European countries, United States, and South Asian countries to the East Asian countries, North African and Middle-East countries. Nevertheless, countries within the European Economic Community (EEC) are still the major and largest importer countries of the palm oil in the world. The new emerging importing countries for the last decade are Japan, India, Pakistan and the Middle-East countries.

Previously, palm oil trade in the world had faced the tariff restrictions among countries. Nevertheless, as trade liberalization is taking its place, tariffs could no longer be posed as options for trade among countries. High quality standard of products and its new-derivatives has become the new trade restrictions. Meanwhile, the export-subsidy policies of developed countries and the production of soybean oils as competitor within the vegetable oils had posed a challenge for the palm oil industries. Recently, another issue has just triggered the world-wide attention that is the environmental and sustainable development of palm oil.

Indonesia's palm oil industry is also facing the competitiveness with other major producing countries in the world. Starting with the efficiency in the plantation, after-harvest-processing, marketing and transportation, will affect and determine the price of palm oil domestically and in the world market. The higher the efficiency in all stages, the higher the degree of competitiveness.

FACTORS AFFECTING PALM OIL TRADE (TECHNICAL, ECONOMIC AND SOCIAL FACTORS)

Indonesia and Malaysia are the two major exporters of palm oil in the world market presently with total share of more than 80 percent of the total world's export. In 2007, the world total, Indonesia and Malaysia volumes were 38,164, 16,891 and 15,740 million tonnes respectively. In 2008, the Indonesian export of CPO was recorded at 14,875 million tonnes with the value of US$12,376 million, whereas the export of kernel palm oil (KPO) was 3,850 million tonnes with the value of US$1,734,658 million. Therefore, in total the palm oil export of Indonesia in 2008 was 18,141 million tonnes with the value of US$14,110,229 million. Meanwhile, within the same year (2008), the Indonesian import of total palm oil (CPO and KPO) was 10 million tonnes with the value of US$8,953 million (*Direktorat Jenderal Perkebunan*, 2009).

The world major importing countries of palm oil in the world are China, European Union, India and Pakistan. In 2007, statistics showed that those four countries had make up of almost half (50%) of world total import. The USA's import has also increased but remain steady, while the emerging importing countries are Saudi Arabia, Japan, Turkey, and Bangladesh (Badan Pusat Statistik, 2008).

From technical views, factors affecting the production of palm oil (faced by the major producing countries) are the slower development of new planting areas. In Malaysia, there were restriction in the new plant areas as consequences of labor shortages and suitable areas for oil palm, and therefore the business orientation moved to the down-stream industries of palm oil. Malaysian industry of palm oil produces not only Crude Palm Oil (CPO) but also in the form of Processed Palm Oil (PPO) as demanded by importing countries. In Africa, the slower development of new plantation areas was due to the lack of capital. Ivory Coast and Nigeria are among the two major palm oil producers of African countries experiencing a slower rate of growth due to lack of capital beside the anomali climate and dry weather.

Economic model of Indonesian palm oil constructed by the ICASEPS team (Susila *et al*., 1995) shows that factors affecting production of CPO are area of production, CPO price and exchange rates. Those factors indicated the short-term response of production to prices, irrespective to the in-elasticity of the coefficient (elasticity coefficient 0.08). The model also explains that the price of rubber influences the oil palm area of production, meaning that there are competition between rubber and oil palm in land acreage as natural resources as factors of production.

From economic views, several empirical studies had shown there were competitiveness among producers in the world market and how they response to adjust the changing demand determined their shares to captive the market. For market in West Europe, the short-term and long-term elasticities of market shares of Indonesia and Malaysia are -2.11 and -7.71, and -2.39 and -8.12 respectively (Susila *et al.*, 1995). This means Indonesia had to compete with Malaysia to maintain and to captive each of their market in West Europe. The coefficient for Indonesia shows that with 1 percent increase in price ratio of Indonesian palm oil could decrease 2.39 percent of its market share in West Europe market in the short term, and decrease 7.71 percent in the long run. Indonesia coefficient reflects the ability to adjust its share due the changing prices is 0.31, which means that it takes 0.31 year to adjust, whereas Malaysia and the rest of the world coefficients were found to be 0.26 and 0.44 (Drajat *et al*., 1995 and Malian *et al.*, 2005).

Indonesia's palm oil export can be categorized into four Harmony System (HS code) as follow:

HS code 151110000: Crude Palm Oil;

HS code 151190000: Other Palm Oil;

HS code 151321000: Crude Oil of Palm Kernel; and

HS code 151329000: Other Palm Kernel Oil.

In 2007, the palm oil export of Indonesia consisted of 47 percent other palm oil with volume of 6.17 million tonnes; 43 percent crude palm oil with volume of 5.70 million tonnes; 8 percent of crude oil of palm kernel oil (1.11 million tonnes), and 2 percent of other palm kernel oil (0.23 million tonnes). The five main countries of destination of Indonesia's palm oil export are India, the Netherlands, Singapore, Germany and Malaysia. In 2007, the volume of export to India amounted to 2.74 million tonnes (48%) with the value of US$1.8 billion. The export volume to the Netherlands was 0.57 million tonnes (10%) with the value of US$370.1 million. The export volume to Singapore was 0.49 million tonnes (9%) with the value of US$318.4 million. The export volume to Germany was 0.29 million tonnes (5%) with the value of US$179.9 million; and to Malaysia was 0.26 million tonnes (5%) with the value of US$174.3 million.

Indonesia has also imported palm oil from the world market. In 2007, Indonesia imported other palm kernel oil (HS 151329000) of 3.18 million tonnes (74%) at the value of US$ 3.94 million; other palm oil (HS 151190000) volume at 1.06 million tonnes (25%) at the value of US$ 1.02 million, and small amount of crude palm oil (HS 151110000), volume at 7 tonnes (0.2%) with the value of only US$11 thousand.

As the fourth largest population country, Indonesia's domestic demand has played major role in Indonesian palm oil trade. The government policy on domestic market obligation had triggered and raised some objections of some; thus indicate the strategic role of government to coordinate, to synchronize and to harmonize private, semi-private and smallholders' estates in producing palm oil as one of the strategic commodities nation-wide. Only through this cooperation and collaboration, the Indonesian palm oil competitiveness in the world market can be increased (*Direktorat Pangan dan Pertanian, Bappenas,* 2006).

Growing demand from developed countries for the most recent derived-products processed from palm oil has created a new challenge and opportunity to increase Indonesia palm oil competitiveness in the world market. Meanwhile, in many developing countries, the demand for cooking oils has experienced an increasing trend. The use of animal as sources of fats and oils had decreased tremendously and being replaced by the vegetable fats and oils. As consequences, the total demand for palm oil in the world increases. Accessibility in transportation and economic liberalization are the two major factors affecting the palm oil trade between countries in the world market.

Egypt and Turkey are among the two potential importing countries of palm oil in the world market with a growing rate of demand up to 36 percent for the last 5 - 10 years. Beside Pakistan and India, Indonesia is also included as major consumers of palm oil at a volume of 5 - 6 million tonnes (2007). In the last five years, the growth rate of consumption is 12.9 percent per year.

DIVERSIFICATION OF PRODUCT DEVELOPMENT AND THEIR PROSPECTIVE MARKET

The processing stages of the palm oil since harvest from the tree (fresh bunches) are as follows: sterilization, shedding off the bunches, pressing-milling-grinding, clarification and purification, standardization and waste-management. Palm oil after being produced went through the whole processes containing ALB-content level of 3 percent – 5 percent, water content 0.15 percent, and dirt-solid waste content 0.02 percent.

Other than the traditional demand for CPO, new emerging demand of derived products for palm oil has created many opportunities and challenges for Indonesia as one of the leading country producing palm oil. Improving and upgrading the palm oil products from just CPO toward more processed-one to meet the demand of food and cosmetics industries in the world market has to become the focus to be strive-for by the Indonesian producers.

As concern toward the environment and sustainable development, a forum named Roundtable for Sustainable Palm Oil Development (RSPO) was established in 2004-2005. Indonesia supported the forum through the Indonesia Sustainable Palm Oil (ISPO) and majority of plantations within the country have complied the sustainable palm oil development regulation in their plant activities.

Diversification of palm oil products became crucial as one way to adjust and to meet the new demand of the world market, which can also function as to mitigate the risk of price volatility of just one product.

OPPORTUNITY, CONSTRAINT AND PROSPECT OF PALM OIL IN THE WORLD MARKET

Soybean oils, rapeseed oils, and sunflower oils are among major competitors of palm oil. The government policies of producer countries (of soybean oils, rapeseed oils and sunflower oils) can pose as trade barriers in the form of tariff restriction, export subsidies, other form of subsidies and high quality standard, against the palm oil producer countries.

As one of the main producer countries, Indonesia has the opportunity to expand its market share in the world market. In 2007 and 2008, Indonesia has kept its share in the world market at 45 percent (17 - 19 million tonnes of volumes). The five major importers of palm oil in the world market are China, India, West Europe, Pakistan, and USA. The new emerging importer countries are Egypt, Turkey, Japan, and Saudi Arabia.

The new derived-demand of palm oil comes in the form of demand for personal-care and food industries. During the last decade, the share of palm oil in the total vegetable oil and fat consumption was recorded at 15-38 percent. Palm oil has the advantage of its physical characteristics in both low and high temperatures compared to other vegetable oils. Beside its physical characterictics, the price of palm oil had historically been lower than other vegetable oils. Therefore it has created a new demand for food industries, such as demand for hydrogenated oils in food products (i.e., noodles industries in East Asia and snack processed food in the USA and Europe). Therefore, opportunity for palm oil lies in the new emerging demand of those industries in the world market. Another new demand opportunity comes from the biofuels industry. Traditionally demand for cooking oils has also increased as the population grows.

The advantage and superiority of palm oil is that palm oil produces up to 10 times more oil per unit area as soybeans, rapeseed, and sunflowers. Palm oil produces 38 percent of vegetable oil output on 5 percent of the world's vegetable-oil farmland.

Compared to other vegetable fats and oils, palm oil price is the lowest; CPO price is only 93 percent (or 10% lower than) of soybean oil price; is 85 percent of rapeseed oil; and is around 78 percent of coconut oil price.

From health-concern standpoints, vegetable fats and oils demand will grow significantly to substitute the demand for fats and oils of animal products. World market has set the high quality standard of palm oil, therefore the producer countries have to compete in adjusting their production capacity to meet the demand (i.e., ALB content of palm oil has to be less than 3%).

West European countries which traditionally have been the main export destination of Indonesian palm oil have now been replaced by China and South Asian countries. Nevertheless, the Netherlands, Germany and Ukraine are still major destination of Indonesian palm oil exports.

POLICY RECOMMENDATION TO ENHANCE THE TRADE CONTRIBUTION OF OIL-PALM PRODUCT FOR THE BENEFIT OF SUSTAINABLE AGRICULTURE DEVELOPMENT

Rising demand for the palm oil drives the producers to increase their areas of plantation through clearing large areas of tropical rain-forest. Damage to this tropical rain-forest, is now claimed to contribute to environmental degradation. Indonesia as one of the main producers of palm oil has taken steps to secure the sustainable development of its owned oil palm plantations. In

response to recent development related to REDD+, Indonesia announced a two-year moratorium on new concessions to clear natural forests and peat lands, and in May 2010 Norway committed contribution of $ 1 billion to the program.

Meanwhile, a forum called RSPO gathers growers, processors, food companies, investors and NGOs to address the environmental problem. Its purpose is to produce the industry into producing "sustainable" palm oil, product that is certified as not involving the destruction of sensitive areas. Nevertheless, certified supply and demand have grown slowly. In the first year of trading only 30% of sustainable oil was sold as such. In 2010, sustainable purchases represented most of the two million certified tonnes produced. RSPO has then struggled to set standards for greenhouse-gas emissions from plantations. Its members account for only 40% of production. RSPO came to commitments on 8 principles and 39 criteria for sustainable palm oil development (RSPO, 2005).

Indonesia at least exported 16 - 18 million tonnes of CPO to the world market at the value of US$ 13-15 billions. Palm oil was also set as one of national-strategic commodities. Therefore the sustainable development of oil palm plantations within the country became top priority in the national agenda and policy.

The private sectors and the Indonesian palm-oil association had asked and had urged the government to assess, to synchronize and to revise all the rules, laws and regulations regarding the centralized and decentralized governments, so as to harmonize inter-departmental programs and activities related to the palm oil development. All efforts have to be focussed to the laws and regulations enforcement and has to be alligned to the standard operating procedures of Good Agricultural Practices (GAP). Indonesia has to have CPO trade-standard such as a procurement contract arrangement, includes product specifications and a national standard of products (SNI). Indonesia also needs to have a commodities stock exchange' place at which become the international prices reference for palm oil traded in the world market. With Indonesia price set as leading reference, the Kuala Lumpur (Malaysia) and Rotterdam (the Netherlands) prices are no longer needed (*Kompas, 23 Oktober 2010*). As major producer of palm oil, Indonesia's ports of loading both for export and for domestic purposes - have to be set and put in order – as medium and long-term policy options. Increasing the degree of competitivenes of the products and expanding market penetration have to become the two main goals of the Indonesia's palm oil industries to maintain its existence as the major player in the world market.

CONCLUSION

Palm oil is one of the prime export commodities of Indonesia trade to the world market. Its share and contribution to the Gross National Product and national earnings are among the highest. As the main and major producer country in the world, Indonesia' growth rate coefficient of trade (export-import) was found above the world's rate.

Palm oil has occupied the largest share of vegetable oils traded in the world market with shares were 30 percent – 50 percent of total vegetable oils traded, whilst soybean oils export is between 16 percent and 20 percent. The export of palm oil in the world market has increased tremendously for the past three decades with growth rate went from 11.03 percent to 11.47 percent and to 8.96 percent.

Indonesia has and could continued to seize the opportunity to meet the increasing world market demand provided it can increase the ability to translate the new world' market demand and

adjust it to its domestic production facilities. The new derived-demand for palm oil comes in the form of demand for personal-care products and food industries. Therefore, the policies of palm oil development must be directed, implemented and enforced with the focus to the downstream industries. The world concern of environmental degradation has triggered an RSPO forum and Indonesia responded through the ISPO to support the sustainable development of oil palm plantations and industries. As the main producer, it is only fitting that Indonesia becomes and sets a price reference for sustainable palm oil traded in the world market.

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