DESK STUDY

"Encouraging the Utilization of CSPO in Indonesia"

Promoting Green Lifestyle for Responsible Consumption and Production in Indonesia towards Zero Deforestation

ibcsd

Indonesia Business Council For Sustainable Development

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List of Abbreviations

CPO : Crude Palm Oil

CSPO : Certified Sourcing Palm Oil

CSPO : Certified Sustainable Palm Oil

RSPO : Roundtable Sustainable Palm Oil

ISPO : Indonesia Sustainable Palm Oil

PKS : *Perkebunan Kelapa Sawit* (Palm Oil Plantation)

PKO : Palm Kernel Oil

PDB : *Produk Domestik Bruto* (Gross Domestic Product)

PBS *: Perkebunan Besar Swasta* (Large Private Plantation)

PBN *: Perkebunan Besar Negara* (Large State Plantation)

PR *: Perkebunan Rakyat* (Smallholding)

IBCSD : Indonesia Business Council for Sustainable Development

FMCG : Fast Moving Consumer Good

HCV : High Conservation Value

IUCN : Internasional Union for Conservation Nature

Kemenperin : *Kementerian Perindustrian* (Ministry of Industry)

NGO : Non-Govermmental Organization

SECTION I

Background

1.1. Context of Desk Study

Palm Oil (*Elaeis spp.*) is a type of Arecaceae plant species or family palma used for commercial agriculture. Since the decade of the 70s, vegetable oil-producing plants began to be developed in Indonesia, 20 years later, precisely at the beginning of the 90s palm oil plant growing rapidly into one plant in the plantation industry other than cloves, rubber, coffee etc. Recorded in the era of 90 years, the total area of oil palm plantations in Indonesia reached 1.126.677 Ha with palm oil production (Palm Oil) reached 2.412.612 tons. The development of width and yield of palm oil Indonesia from year to year has continued to increase, and in year 2016 reached 11,914,499 Ha with result of production of CPO reached 33.229.381 ton (Source: Plantation Statistics Indonesia 2015-2017). The total area of palm oil holding is managed by three categories of management, including PR/Smallholders, PBR/Government and PBS/Private. Of the three types of concessions, PBS controls 50.77% of Indonesia's palm oil area, PR 37.45%, and PBR is only 11.67% (2016 Palm Oil Outlook).

If looking at the data, the leap of palm oil development in Indonesia both in terms of area and from the production side produced, the palm oil industry in Indonesia can be said to have strategic value. According to the Center for Agricultural Data and Information System Secretariat General - Ministry of Agriculture in GDP Sector Analysis Agriculture in 2015, the palm oil commodity in the plantation sub-sector in 2014 has contributed to a narrow agricultural GDP of 16.69%, a value well above other plantation commodities such as rubber and other gum producers of 4.76%, coconut 1.44%, sugarcane and other sweetening plants by 1.08% and other plantation commodities by 10.30%.

Other data sourced from the Sustainable Palm Oil Action Plan of 2018 - 2023 (2017) stated that in 2015 this commodity accounted for 8% of GDP in the form of the third largest export value (USD 18.1 billion or equivalent to 13.7% of total exports of Indonesia). In the same year, this commodity has contributed IDR 22.27 trillion in state revenue in the form of taxes; while in 2016 it has contributed IDR 11.7 trillion of state revenue from export levies through the Palm Oil Plantations Funding Agency (BPDP-KS).

The high level of state revenue from the palm oil industry can not be separated from the high level of demand for palm oil consumption both in Indonesia and in the world. The level of palm oil consumption is caused by the growing variants of product derived from producers, such as food, cosmetics, and fuel. In general, the consumption of CPO in Indonesia shows an increasing trend. In 2002 the consumption of palm oil was only 1.69 million tons, and increased quite sharply to 4.2 million tons in 2015 with average growth reaching 7.52% per year. Meanwhile, Indonesia's exports in the form of crude palm oil, others of crude palm oil, palm kernel oil and other core oils reached 32.54 million tons worth US $ 17.36 billion (2014 Palm Oil Outlook 2016).

The magnitude of the potential possessed by palm oil, at the same time also raises various issues, both socially and environmentally; Deforestation, greenhouse gas (GHG), social conflict and resulting loss of unique habitat and unique biodiversity are the impacts of the industry. These issues essentially require separate treatment to ensure that palm oil still has great prospects in the market, the industry has a responsibility to stop illegal and irresponsible practices and ensure that palm oil is produced sustainably.

Initiatives towards a sustainable palm oil industry have emerged, the Roundtable on Sustainable Palm Oil (RSPO) established on the initiative of global palm oil stakeholders was formed in 2004, with the aim of promoting the growth and use of sustainable palm oil products through credible global standards. While in Indonesia, the government through the Ministry of Agriculture has established the Indonesian Sustainable Plam Oil (ISPO) in order to increase the competitiveness of Indonesian palm oil in the world market and to participate in fulfilling the Government of Indonesia's commitment to reduce greenhouse gases and to pay attention to environmental issues .

Ideally, palm oil products that meet sustainable standards and criteria will become more competitive due to the global pressures that are starting to put sustainable products on the issue of climate change. This is an urgent for palm oil business in Indonesia to ensure that palm oil products can still compete in the international market. Awareness of sustainable palm oil products should not only be at the producer level but also from consumers who need to be aware that their choice will determine policy makers at stakeholder levels both government and companies. The process of adopting sustainable palm oil (CSPO) by companies will be faster if consumers can encourage businesses to use only sustainable palm oil in their business supply.

Therefore, in addressing the above issues, IBCSD through Green Lifestyle program encourages manufacturing industry to retail to be able to utilize CSPO. As a start of the program, a study is needed to map stakeholders, existing initiatives, firm commitments, constraints and opportunities to encourage sustainable palm products to develop appropriate strategies for the situation.

1.2. Study Objectives

This study has an objective to provide analysis as a reference for mapping actors involved in the palm oil value chain and related stakeholders. Furthermore, this study also has an objective to provide an analysis that can be used as the basis for the development of programs that can mainstream green lifestyle on palm oil-based products. There are two main parts of the study objectives:

1. **Identification of Stakeholders**: identification of key actors in the palm oil value chain that can have a significant impact on supporting eco-friendly lifestyles including value chain mapping from producers, refiners to retailers. In addition, it also maps other supporting actors that contribute to the value chain
2. **Mapping the company's commitment** from refineriy to retail in the utilization of CSPO.

1.3. Methodology

The desk study method consists of collecting data and information through examination and analysis of data and information using secondary data, in the form of internal/external documents of the company, CSPO related legislation (RSPO and ISPO), reports, statistical data, literature studies, maps and so on.

1.4. Output

The expected outputs of this study are:

1. **Actors mapping** along the value chain of producers from refinery to retail
2. **Information on corporate and consumer commitments** to obtain sustainable palm oil products and practices or improvements
3. **Identification of opportunities and constraints** in obtaining sustainable palm oil products by the actors involved in general
4. **Strategic recommendations** in encouraging the sustainable utilization of palm oil based on these findings

SECTION II

CPO Potentials and Sustainable Palm Oil Products Development (Certified Sustainable Palm Oil)

2.1. Potential Area and Palm Oil Productivity (CPO)

Currently, Indonesia and Malaysia are the world's largest producer of palm oil, with the contribution value of 85% of global palm oil production. According to Plantation Statistics Indonesia[1], the area development and the products of Indonesian palm oil production from 1970 to 2010 has continued to increase. 1990 was the peak of palm oil plantation development in Indonesia. Increasing the extent and productivity of palm oil, presented in the table below:

Table 1: Area and Production of Palm Oil (Crude Palm Oil), by Status of Enterprises in the Last 5 Decades

Year	Area (Ha)			Total	Production (Ton)			Total
	PR/ *Smallholder*	PBN/ *Government*	PBS/ *Private*		PR/ *Smallholder*	PBN/ *Government*	PBS/ *Private*	
1970	-	86.640	46.658	133.298	-	147.003	69.824	216.827
1980	6.175	199.538	88.847	294.560	770	498.858	221.544	721.172
1990	291.338	372.246	463.093	1.126.677	376.950	1.247.156	788.506	2.412.612
2000	1.166.758	588.125	2.403.194	4.158.077	1.905.653	1.460.954	3.633.901	7.000.508
2010	3.387.257	631.520	4.366.617	8.385.394	8.458.709	1.890.503	11.608.907	21.958.120

Source: Plantation Statistics Indonesia - Palm Oil Commodities 2015- 2017

[1] Source: Plantation Statistics Indonesia 2015-2017

In 2016, the area of oil palm plantations reached 11,914,499 Ha with CPO production reaching 33,229,381 tons. The following is a broad diagram and the productivity of oil palm 2016 by business status:

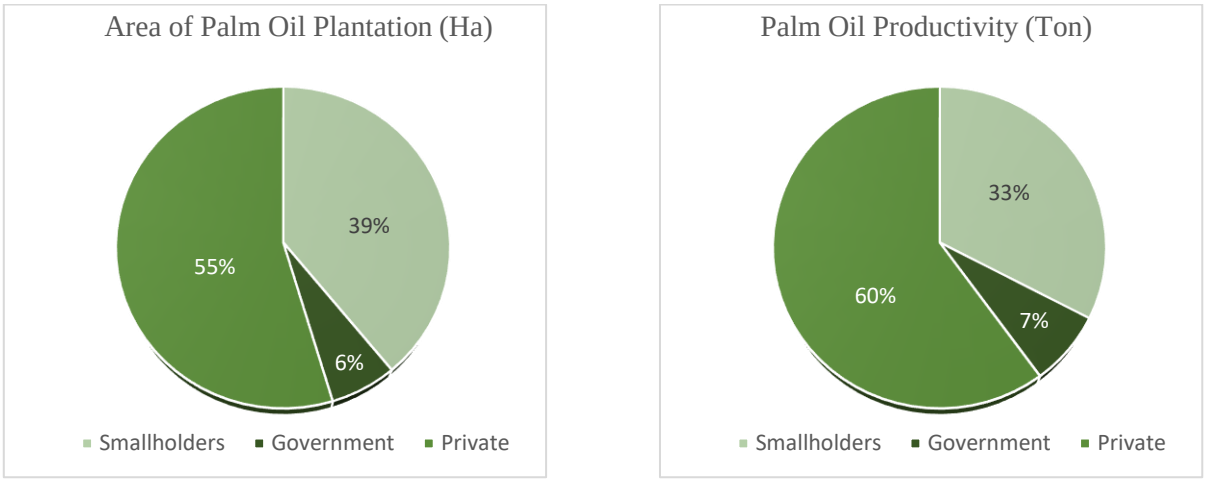

Figure 1. Area and Palm Oil Production (Crude Palm Oil), Based on the Status of Enterprises in 2016 (Source: Plantation Statistics Indonesia 2015-2017)

With its huge potential and production, Indonesia has become the largest producer and exporter of palm oil in the world. Indonesia's palm oil export trends show an increase every year, as the world's total population reaches 9 billion. This results in increased consumption of palm oil based products such as food products, cosmetics and biodiesel. In detail the increase of Indonesian palm oil (CPO) exports in 2011-2016, are presented in the following table:

Table 2. Volume and Value of Palm Oil Export (CPO) Year 2011-2015

Year	Crude Palm Oil		Others of Crude Palm Oil		Jumlah / Total	
	Volume / Volume (Ton)	Nilai / Value (000 US$)	Volume / Volume (Ton)	Nilai / Value (000 US$)	Volume / Volume (Ton)	Nilai / Value (000 US$)
2011	10.428.085	10.960.993	6.008.117	6.300.255	**16.436.202**	**17.261.247**
2012	7.262.831	6.676.504	11.588.006	10.925.676	**18.850.836**	**17.602.180**
2013	6.584.732	4.978.533	13.993.244	10.860.317	**20.577.976**	**15.838.850**
2014	5.726.820	4.206.741	17.165.567	13.258.163	**22.892.387**	**17.464.905**
2015	7.788.550	4.388.094	18.679.014	10.997.181	**26.467.564**	**15.385.275**

Keterangan: *) Sementara / Preliminary - Statistik Perkebunan Indonesia 2015-2017

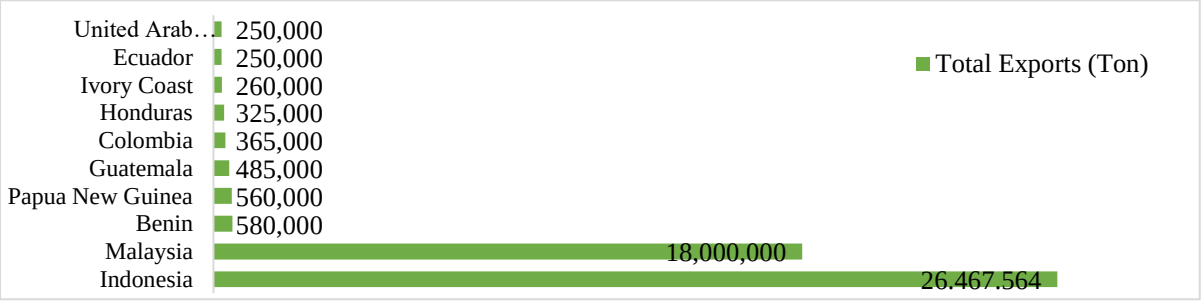

Figure 2. The largest exporter countries of palm oil (processed data sources)

Palm oil is the largest contributor to state revenue (GDP) from the agricultural sector. According to the Agricultural Data and Information System Center of the Secretariat General

- Ministry of Agriculture in Agriculture Sector GDP Analysis 2015, said that palm oil commodities in plantation sub-sector in 2014 have contributed to a narrow agricultural GDP of 16.69%, this value is far above commodities of other plantations such as rubber and other sap producers amounted to 4.76%, coconut 1.44%, sugarcane and other sweeteners of 1.08% and other plantation commodities by 10.30%. Referring to GDP data, the palm oil commodity has a strategic value in the growth of the country's economy.

2.2. Description of Sustainable Palm Oil Plantations

The development of palm oil plantation industry in Indonesia, at the same time also causes negative impacts for social and environment. The expansion of palm oil plantations has resulted in the destruction of tropical rain forests, rising greenhouse gases, declining biodiversity of important species, displacement of local people or inadequate compensation of the people living in the area. Not to mention working conditions in plantations that often do not follow international standards or even follow local legal standards.

To minimize the negative impacts, initiations have emerged for sustainable palm oil management. Global support (especially the European Union) through Roundtable on Sustainable Palm Oil (RSPO) established in 2014 formulates the rules for its members to apply sustainable palm oil management practices. While in Indonesia alone, the government is committed to encourage sustainable palm oil development through the Regulation of the Minister of Agriculture No.19 of 2011 which was updated with Regulation of the Minister of Agriculture no. 11 of 2015 on the implementation of Indonesia Sustainable Palm Oil certification system (ISPO).

Sustainable Palm Oil Plantation Development is an obligation that must be implemented by the government and palm oil plantation companies in the effort to preserve the environment, improve economic activities, social and enforcement of Indonesian law in the field of palm oil plantation.

Sustainable PKS management trends show a positive trend from year to year, the number of PKSs that have been certified either through RSPO or ISPO has increased. According to the Directorate General of Plantation in International Conference on Indonesia Sustainable Palm Oil (ISPO) as of January 2017 mentioned that of 1600 companies that have been operating in Indonesia, as many as 266 PKS companies and two community plantations have been certified ISPO with a total area of 1.4 million Ha. Based on the publication of entitled Palm Oil Plantation Company Directory 2016 - Data per December 2017 there were 88 companies adding to the total number of 1,688 active companies, as many as 346 ISPO certified companies. The production of palm oil (CPO) from 346 ISPO certified companies was recorded at 8.757 million tons or 24% of Indonesia's total CPO production.

Meanwhile, according to Roundtable on Sustainable Palm Oil (RSPO), the area of sustainable palm oil in Indonesia in June 2017 amounted to 1.72 million Ha. The amount is only about 14% compared to the total area of palm oil plantation which reached 11.67 million ha. Based on RSPO data, there are 139,123 self-help farmers with 333,345 hectares of certified land. Self-

help farmers in Indonesia, have been certified with 111,816 certification with an area of 190,064 hectares as of 30 June 2017. As of 30 November 2017, there are 10 groups of self-help farmers getting RSPO certificates, spread across Riau, Jambi, Central Kalimantan, North Sumatra and South Sumatra. With a total area of 4,358 hectares with 1,761 farmers. Globally, the total RSPO certified plantation covers 3.2 million hectares in 16 countries, up 14% as of June 30, 2016-30 June 2017. For Indonesia, the certified area increased from 1.547.241 to 1,719,606 hectares and the highest compared to Malaysia, South America and other countries, the extent of RSPO certified land is presented below:[2]

Table 3. RSPO-certified area - global/international (2017)

Sustainable Palm Oil Plantation in the Country	Area in 2016 (Ha)	Area in 2017 (Ha)
Indonesia	1,540,000	1,720,000
Malaysia	756,590	945,620
Amerika Latin	258,180	286,680
Asia Pasifik (selain ketiga wilayah)	235,950	230,360
Afrika	32,380	55,150

Note: RSPO data – Source: https://katadata.co.id

The data from WWF in Palm Oil Buyers Scorecard-Measuring Progress of Palm Oil Buyers (2016) states that up to July 2016 the average global production of sustainable palm oil products reaches 11 million tons. While other data states that as of May 2015, the production capacity of crude palm oil (CPO) which is certified sustainable palm oil (CSPO) reached 12.74 million metric tons, a figure of about 690 thousand tons compared to 2014 recorded 11.95 million metric tons or just 18% of the world's palm oil. Of the total global CSPO production capacity from 2008 to March 2015, Indonesia produced 51% of the world's total production. From the number of 12.74 million metric tons of CSPO that can be absorbed by the global market is still relatively low only around 48.6%.

Meanwhile, in Indonesia the absorption of certified palm oil production is very low, every year Indonesia is able to produce as many as 9 million CSPO, CSPO Indonesia's new production can supply 15% of world demand, absorbed by the domestic market of 6 million tons and the rest CSPO marketed with standard CPO.[3]

[2] http://www.mongabay.co.id/2017/12/05/ketika-rspo-dorong-perluasan-sertifikasi-kebun-sawit-petani-kecil/

[3] http://republika.co.id/berita/ekonomi/ritel/13/10/30/mvh7p5-sawit-ramah-lingkungan-butuh-pasar

SECTION III

Key Actors in Encouraging Sustainable Palm Oil Products in Palm Oil Value Chain

3.1. Value Chain and Supply Chain of Palm Oil Industry

Palm oil is considered as one of the plantation commodities that has the potential of developing derivative products quite a lot. Observing the structure of the palm oil industry and its derivatives, generally can be seen in the picture below.

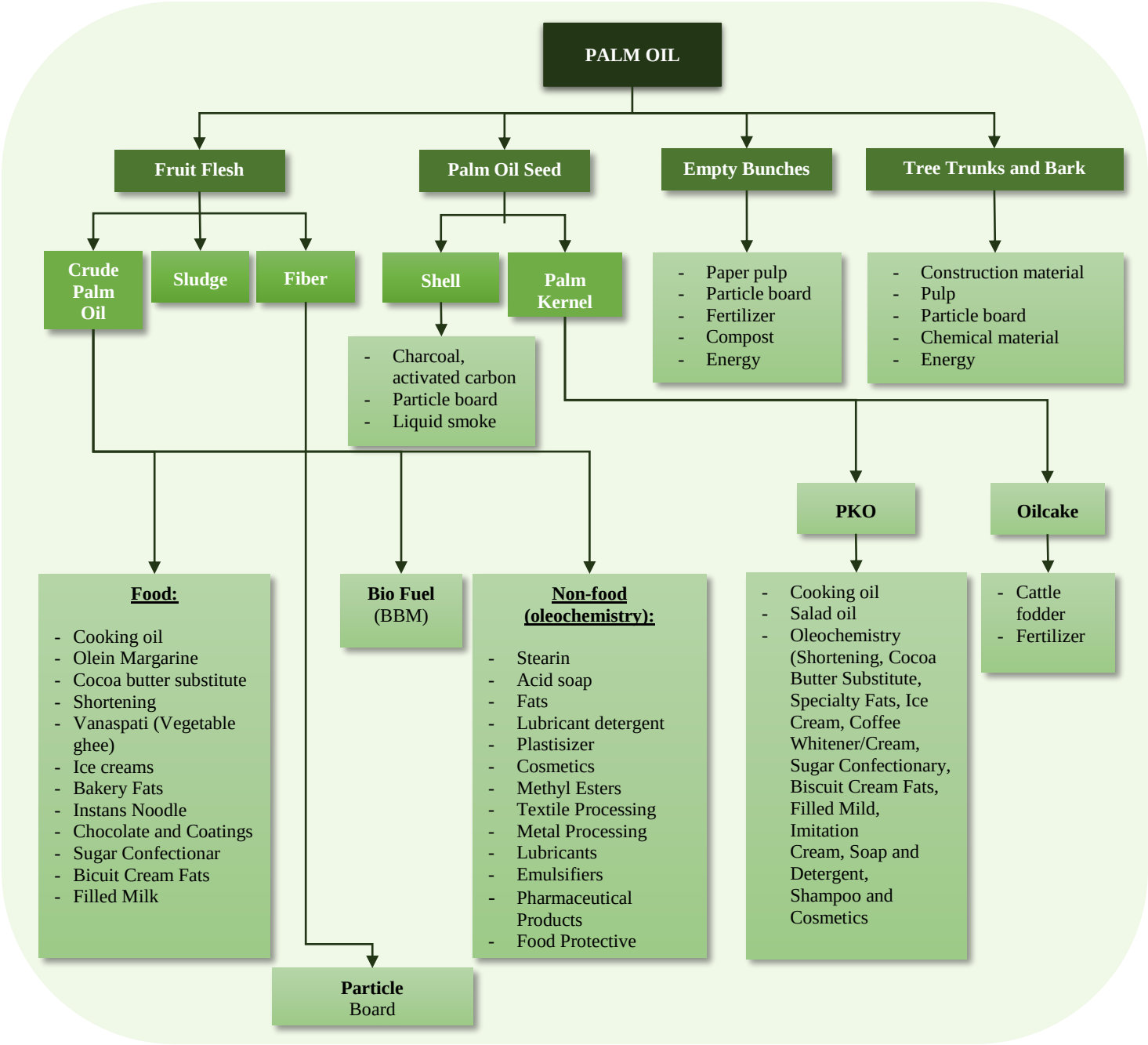

Figure 3. Chart of changes in the value of palm oil into a derivative products (value chain)

Based on the value chain (**Figure 3**), palm oil has two main types of products namely palm oil (CPO) and palm kernel oil (PKO). Both of these oils, almost 80% into raw materials of food products, while the rest are used as raw materials for non-food purposes.

Derived Products From Upstream to Downstream Industries:

Upstream industries of palm oil plantations produce primary products in the form of palm oil and palm kernel oil. Both types of products are then developed into various downstream industry products. *In essence, the two products belong to a type of fatty acid esters and glycerol called triglycerides. Triglycerides of palm oil (CPO) contain a lot of palmitic acid, linoeleat, stearate, and glycerol. Meanwhile, triglycerides of palm kernel oil (PKO) contain lauric, myristic, stearate, glycerol, and slightly palmitate.* Both palm oil and palm kernel are sources of food energy, such as cooking oil, margarine, shortening, and vanaspati as well as carbon sources in the oleochemical industry. This use is related to the nature of the vegetable carbon compound which is relatively more readily biodegradable in nature compared to derived petroleum derived compounds (Pratomo & Puraka, 2008).

In the downstream industry, there are several other finished products, both food and non-food. Food products produced include cookies, breads, biscuits, chocolates, confectionery, ice cream, full-milk dairy (filled milk), coffee whitener (coffee mate), and instant noodles. In the pharmaceutical industry, its use is mainly on vitamin A and E products. Meanwhile, for non-food products such as soap, cream lotion, shampoo, "metallic soap" for lubricating oils and paint blends, lubricants and surface rust in the cold rolling mill industry, floatation agents used to separate copper or cobalt seeds from steel, the car body industry, as well as the printing, wax, and crayon printing industries (Pratomo & Puraka, 2008).

The many uses and derivative products of palm oil is what causes palm oil to be one of the commodities that sell well in the international market. Especially at this time also developed energy source of power plants and biofuels (biodiesel). Palm oil becomes one of the relatively very economical raw materials to be developed as raw material for biodiesel. The oil content produced by oil palm is the largest compared to some other products. In this case, bio-energy companies also play an increasingly large role in the palm oil sector.[4]

Judging from the product development process, each product has a different production chain trip. The product supply chain is an activity that starts from raw materials to after-sales handling and includes activities that occur due to supplier-linkages and consumer linkages, these activities are separate but interdependent activities.

In detail, Supply Chain of palm oil industry can be seen in **Figure 4**. Supply Chain of Palm Oil Industry.

[4] Sustainable Palm Oil Financing Guidelines - Palm Oil Sustainability Finance Practices Guidelines - Vol. 1; Ojk; No Year

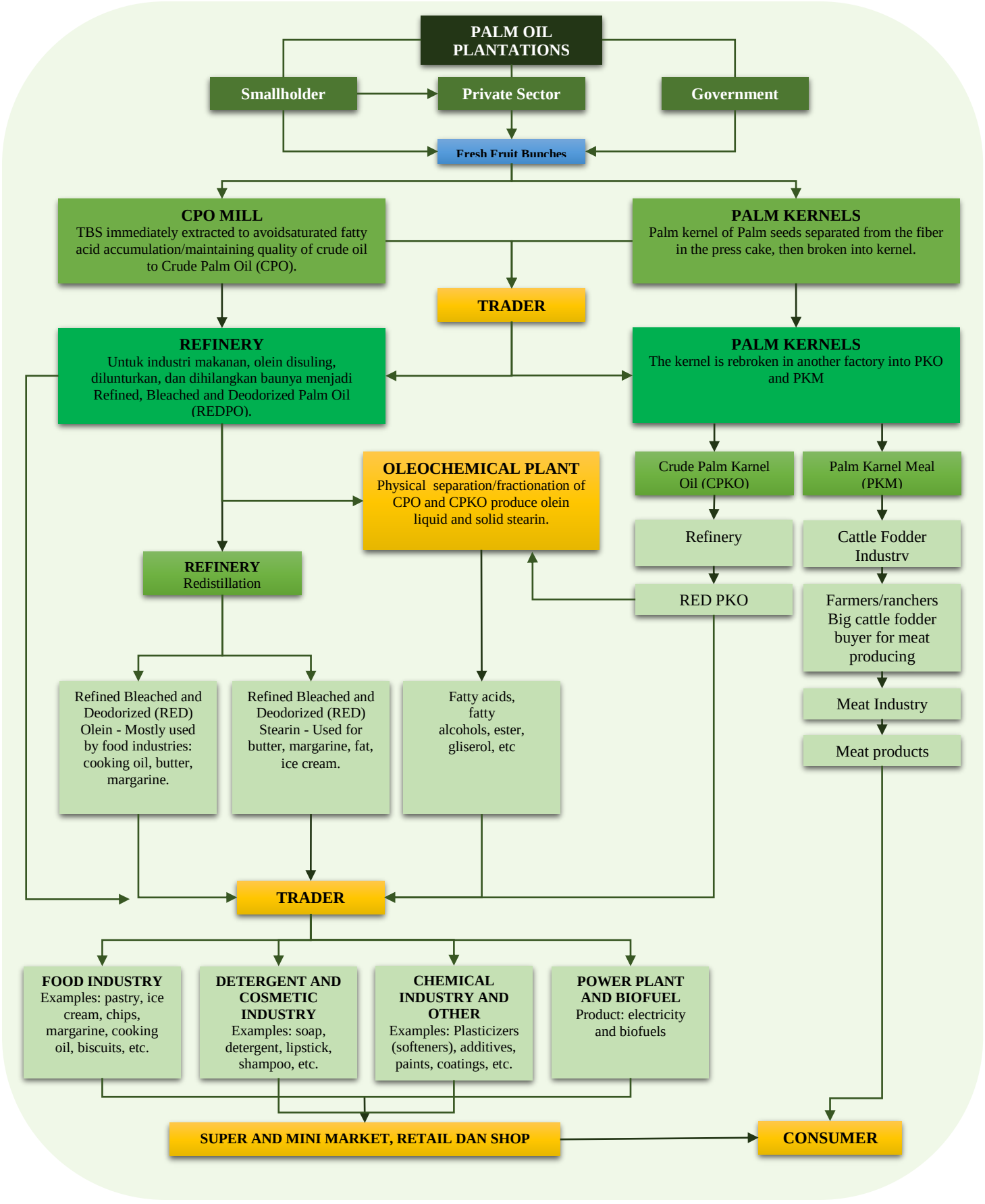

Figure 4. Supply Chain of Palm Oil Industry

3.2. Key Actors and Their Roles in Promoting Sustainable Palm Oil Industry

Referring to **Figure 4** above, key actors affecting the sustainable palm oil industry can be classified into two: **Internal Actors**, the main actors/directly involved in the supply chain of the palm oil industry including suppliers, manufacturers, distributors, retail stores, and customers. While **External Actors** are actors supporting/indirectly running the supply chain of industries such as Government, banking and civil society groups (NGOs). The role of key actors, both internal and external, will be integrated and influenced to encourage sustainable palm oil industry supply chain, from on farm, production to product marketing to consumers. Here is a key actors chart on the supply chain of sustainable palm oil industry:

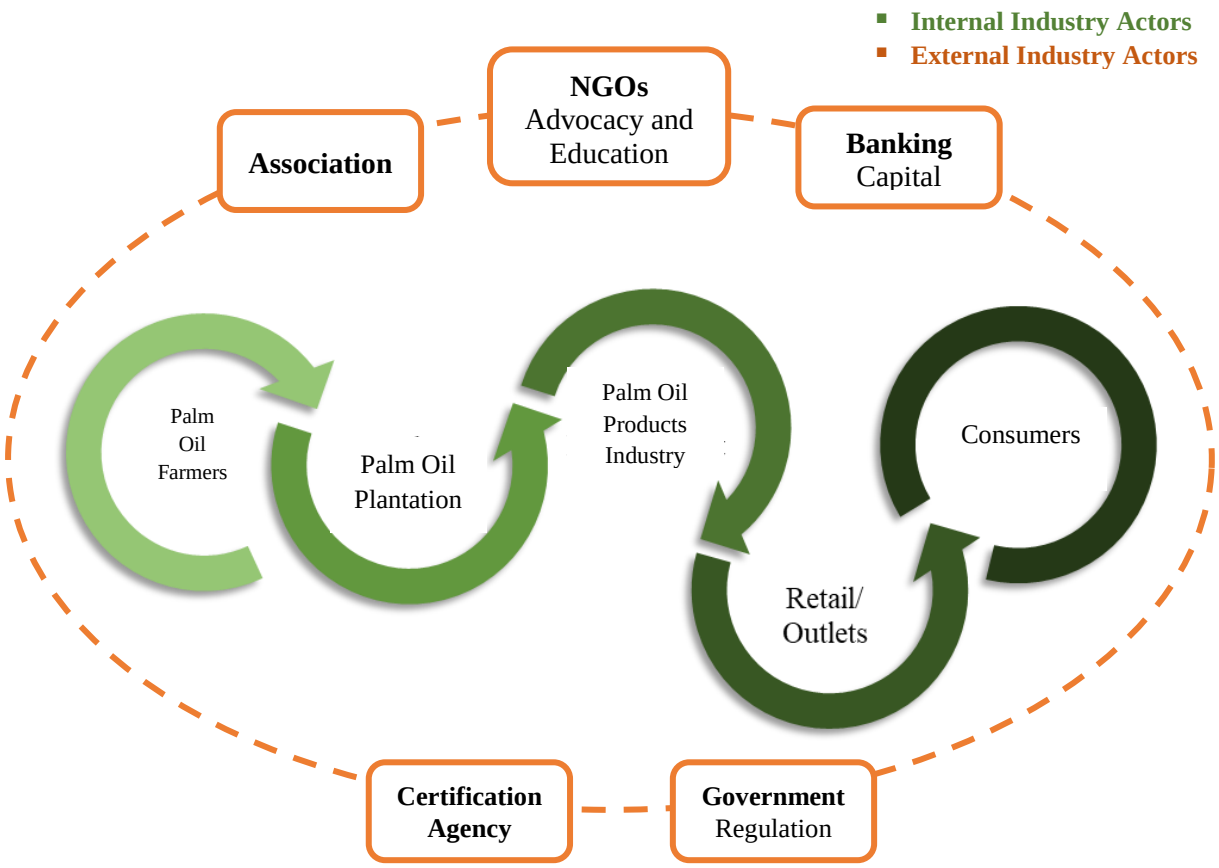

Figure 5. Map of internal and external key actors in the palm oil industry

Actors in the internal and external circles of the palm oil industry play an important role in building a sustainable palm framework. These actors can influence market policies and demands through the provision of products using sustainable palm oil. The role of the manufacturing and retail industries is crucial in determining the direction of consumers' will, when brand owners and retailers integrate sustainable criteria for palm oil product purchases and only want to buy sustainable palm oil supply, it will force palm oil producers (PKS) to provide it.

Literacy on the label of raw materials (CSPO Logo) is the key consumer awareness of products made from palm oil and its derivatives. Products that use palm oil are not limited to the use of oil alone, but also in their derivative products. Until now, no specific label or description indicates that the product is sold using palm oil derivatives, especially fatty acid-type oleochemical derivatives such as stearate and glyceryl (Philadelphia Zoo, 2017).

The absence of supporting information states that these names are derived products of palm oil causes consumers to be not aware that many products other than foods that use palm oil and its derivatives. While the awareness of the many products that use palm oil and its derivatives play an important role in consumer education for sustainability issues, regardless of how much palm oil or its derivatives are used by companies in their products.

The internal actors of the palm oil business should be more active in educating consumers on products that use palm oil so that consumers are aware of the many products that use palm oil and derivatives that can change the community's perspective on the magnitude of the impact of palm oil on the environment. External actors can create enabling conditions in support of the development of sustainable palm oil industry.

Based on the analysis, here are some roles of some important actors in pushing the supply chain of sustainable palm oil:

A. Internal Actors:

1. Manufacture and Retail Industry

   Industry and retail may take a proactive role to obtain certification (CSPO), although the use of the certification logo is not yet required by the government. The more industries that use the certification logo, the more aware the user will be of the logo of food and non-food products made from raw palm oil and its derivatives.

   Industry and retailers should provide explicit information on the content of palm oil derivatives and include a certification logo on each product made from palm oil, so consumers will understand what the role of palm oil is in the products they use. It can also create a stigma in companies that acquire sustainable palm oil as a good company and companies that use conventional palm oil as a bad company that can lead to consumer preferences in buying sustainable products.

   Mapping of supply chains is also important in the quest for sustainability. The manufacturing industry must map out the supply chain of palm oil to monitor and ensure that palm oil from PKS applies the principles of sustainability.

   However, the complexity of the supply chain in the palm oil industry makes the business of a company ineffective in ensuring sustainable production in such a short time. There is a need for industry collaborations that share a common vision of sustainability issues so that collaboration between manufacturing and retail companies can accelerate the adoption of sustainable palm oil (Wollmuth and Ivanova, 2014).

2. Certification Agency

RSPO: The Roundtable on Sustainable Palm Oil (RSPO) established in 2014 formulates the rules for its members towards sustainable palm oil. The RSPO Certification System is built to ensure the company practices sustainable palm oil production practices and provides assurance that the resulting CPO products come from sustainable palm oil.

ISPO: Based on Minister of Agriculture Regulation No.19 of 2011 which is updated with Regulation of the Minister of Agriculture no. 11 of 2015 on the implementation of Indonesia Sustainable Palm Oil certification system (ISPO) on Indonesia Sustainable Palm Oil Certification System (ISPO).

Both independent certification bodies develop sustainable palm production principles to ensure palm oil companies and palm oil plantation businesses have applied sustainability principles and criteria in each value chain of production.

Table 4. Principles of sustainable palm oil management

Principle	ISPO	RSPO
Principle 1	Legality of plantation business	Commitment to transparency
Principle 2	Plantation management	Comply with applicable laws and regulations
Principle 3	Protection of primary natural forests and peatlands	Commitment to long-term economic and financial viability
Principle 4	Environmental Management and Monitoring	Use of best and proper practices by plantations and factories
Principle 5	Responsibility to workers	Environmental responsibility and conservation of natural resources and biodiversity
Principle 6	Social responsibility and community economic empowerment	Responsibility to workers, individuals and communities from plantationa and factories
Principle 7	Continuous improvement of business	New plantation development with responsibility
Principle 8		Commitment to continuous improvement in key areas of activity

3. Consumers

End users of palm oil products determine market and industry attitudes toward sustainability issues as it is consumers who determine demand for goods. Consumers can play an important role in increasing sustainable palm production. Manufacturing firms tend to respond to market demand as a strong signal for business transformation including in meeting the needs of sustainable products. If consumers are aware and only want to buy products that use certified palm oil then the company can certainly respond by producing products that from sustainable sources.

B. External Actors

4. Government

A number of important regulations that have been implemented by the Indonesian government indicate that Indonesia is moving towards a fundamental change in the palm oil sector, ensuring palm oil contributes more to sustainable development. This trend will continue and increase in the coming years in line with Indonesia's steps to meet the legally binding global commitments under the Paris Agreement and a growing national awareness of sustainability issues.

- Moratorium on new permits on primary forests and peatlands: In 2011, President Susilo Bambang Yudhoyono issued a moratorium on new permits in primary forests and peatlands valid for two years as part of efforts to reduce deforestation and emissions. The moratorium has been extended three times and is now valid until 2019 after it was renewed in 2017 by President Joko Widodo.
- ISPO as mandatory certification: Still in 2011, the Indonesian government certifies the Indonesian Sustainable Palm Oil (ISPO) certification, a legality standard that only covers applicable regulations. This scheme is mandatory for palm oil companies and updated in 2015.
- Maximum coverage of palm oil: In order to overcome corruption and concentration of control in the palm oil sector, in September 2013 the Indonesian government established the rule that a maximum palm oil company holds a 100,000 hectare concession per province.
- Indonesia's global climate commitment: Indonesia announces nationally determined contribution (NDC) under the Paris Agreement on Climate Change by 2015 by setting an unconditional emission reduction target of 29 percent of the business as usual scenario by 2030. To achieve this target, stricter land use is likely to be enforced as 63 percent of Indonesia's GHG emissions come from land use change and forest and peatland fires.
- Moratorium on peatland clearance and oil palm expansion: After the fire and haze crisis of 2015, President Joko Widodo tightened the ban on peatland clearing, including on existing concession areas, and announced a five-year moratorium on all new palm oil permits. In 2016 the government issues new regulations on peatland protection followed by the establishment of a Peatland Restoration Agency.

5. NGOs

NGOs are groups that play a role in monitoring, educating, campaigning and advocacy especially on sustainable palm oil issues. Example: "WWF campaign **#BeliYangBaik** to encourage the presence of sustainable palm oil-based products in the Indonesian market". The campaign recently launched by WWF Indonesia (June 10, 2015) invites consumers to be more wise in playing its role by buying environmentally friendly products and making positive changes in lifestyle

6. Associations - (GAPMMI, Consumer Goods Forum)

In Indonesia, GAPMMI has not really touched the business aspect of sustainability. GAPMMI is still struggling with the costly challenges of bank interest in Indonesia in supporting the downstream F&B industry, regulatory constraints on raw material imports, land constraints, logistics, SME readiness, and international standards adjustment for the needs of the domestic export industry. But abroad, the food and beverage association (F&B) has already discussed the aspect of sustainability.

Consumer Goods Forum, an Institute that encourages producers and retailers of consumer goods to be able to conduct business practices for efficiency and positive change in industries that benefit buyers, consumers and the world without constraining competition. Has worked on issues of environmental and social sustainability, global social compliance programs, and the value chain and standards.

7. Banking

   Regulation on Sustainable Finance: In July 2017, the Indonesian Financial Services Authority (OJK) issued a regulation on sustainable finance. This rule requires all issuers of shares and bonds in the Indonesian stock market, including a large number of palm oil companies, to begin reporting on sustainable business strategies and practices as well as managing their social and environmental risks.

3.3. Consumption and Production Patterns of Sustainable Palm Oil Products

Sustainable palm oil products in Indonesia are very small compared to the total production produced annually, from 33 million tons produced only 9 million tons certified. This is because not all producers of palm oil (PKS) practice sustainable palm oil (CSPO). On the other hand, domestic market absorption is also relatively low, from 9 million tons only able to be absorbed by the domestic market of 6 million tons. The low demand of sustainable palm oil market, not only determined by upstream and downstream industries, consumers as the end product value chain also holds a role in encouraging the development of sustainable palm oil products (Demand customers).

At the global level it is known that consumers want to choose more sustainable products, both from social and environmental aspects. Based on research from Nielsen in 2016, in Asia Pacific demand for sustainable products is increasing. In addition, consumers who want more environmentally friendly products are higher than socially friendly products.

The correlation between consumer demand and sustainable product sales results, from 1300 brands in 13 categories in 13 countries considered as a market, companies that implement good promotional strategies experienced a 4% increase in product sales, whereas companies claiming only sustainable products without promoting with a a good marketing strategy then the increase is only 1%. Based on data from the sale of sustainable products, some non-food companies such as Caterpillar, GE and several other companies from year to year have increased, had dropped in 2011, then in 2013 to 2014 there was a significant increase up to 26%.

While the reverse conditions in Indonesia, from the results of studies conducted by RSPO and Daemeter in the palm oil document from consumer point of view: good and bad impacts (2015) indicate that consumer considerations in Indonesia in buying products are not influenced by such products are environmentally friendly as the results of Nielsen (2016), but the main factor in choosing a product is its product price, specialty, and quality. While food products or

products for children, consumers pay more attention to the nutritional content. Indonesian consumers' understanding of the impact of oil palm on the environment and society is still very low at only about 16%.

Nevertheless, the results of the study noted that Indonesia's market opportunity for sustainable palm oil products is still open, as seen from 27% or equivalent to 7,9 million consumers are ready to support and switch to sustainable palm oil products. Even more than 60% say they are willing to pay much more for sustainable palm oil products.

Efforts towards consumers who are concerned about the environmental impacts of sustainable palm oil-based product utilization in Indonesia, independent institutions such as RSPO and ISPO are the driving force for upstream industry, hence the downstream sector (consumer-industry) of support for Sustainable Consumption and Production (SCP). SCP is a global agreement adopted at the Rio+20 2012 conference, in which the adoption of SCP is a continuation of the Rio Declaration in 1992 regarding changes in consumption and production patterns. SCP is aimed at improving the quality of life of Indonesians through changes in production and consumption behavior that are environmentally friendly and sustainable. SCP provides a number of important benefits, including: First, changes in the efficient and environmentally friendly consumption patterns of society; Second, prevention of pollution and environmental destruction; Third, the growing capacity of environmentally friendly products and services industries.

3.4. Shifting Company's Commitment to Sustainable Palm Oil Products

Large companies which are Fast Moving Consumer Goods (FMCG) such as Nestlé, PepsiCo, Coca-Cola, Unilever, Danone, General Mills, Kellogg's, Mars, Associated British Foods, and Mondelez are companies that are often highlighted in ongoing palm oil discussions. This is because the company is the holder of the most brands for products in the market, so their need for palm oil is also high. The company's initiative to take internal policies related to the sustainable palm oil supply chain strongly influences the response of palm oil suppliers and other actors in the FMCG industry.

After the formation of RSPO and the widespread deforestation issues occurring in developing countries where oil palm plantations have many environmental NGOs demanding that manufacturers and retailers only obtain sustainable palm oil. This is because manufacturing and retail companies are buyers of palm oil that creates supply and demand mechanisms so they have the option of not buying palm oil from MCC that is found to be unlawful and uncertified. Certainly the role of manufacturing and retail companies is vital for pressuring the MCCs to apply sustainable practices to their business processes.

There are three main things in measuring the commitment of manufacturing and retail companies in the use of sustainable palm oil that is sustainable oil acquisition, transparency, and industrial reform (Greenpeace, 2016). Manufacturing and retail companies must ensure that the supply of palm oil obtained comes from certified palm oil producers (CSPO). In addition, manufacturing and retail companies are more transparent in issuing the names of oil producers, so that the public and interested parties can track the supply chain for palm oil acquisition. Finally, business transformation does not make the issue of sustainability a jargon/greenwashing but integrated in the company's overall practice.

Commitment to Sustainable Palm Oil Product in Europe:

Changes consumption and production patterns of sustainable palm oil products (CSPO) in Europe, Many influenced by policies and commitments between parties (government and corporation) in the use of sustainable palm oil products. Policy and commitment in table 5, plays an important role in influencing patterns of consumers using sustainable palm oil products (CSPO). In Europe, has not been definitively mapped consumers want sustainable palm oil products. This is consistent with the statement of European directors and the involvement of RSPO, "We do not accurately know where CSPO ends due to trading and is subject to commercial contracts, but many end up in Europe and very little in Asia".

Thus, the European market being the most potential market to absorb sustainable palm oil products compared to the Asian market. The needs of consumers palm oil in the European market continues to experience increased, especially for the basic ingredients of food. it is proved that the import value of RSPO imports to the EU is increasing rapidly from about 300,000 tons in 2012 and 2,5 milion tons in 2016 (ESPO 2017).

European market will continue to grow into a potential market as an importer of palm oil with RSPO standard, this is expressed in the commitment of European countries and industry players to ensure 100% use of sustainable palm oil in Europe in food, feed and oleochemical sectors by 2020.

Table 5. Commitment to Sustainable Palm Oil Products in Europe 2020

No	Country	Comitment to Sustainable Palm Oil Products in Europe
1	Belgium	• The Belgian Alliance for Sustainable Palm Oil (BASP) was founded in 2012. Its membership comprises of sector federations and direct company members. The total number of companies involved is approximately 500, representing SME's and large manufacturers in the whole value chain (for food and oleochemicals). BASP reached the goal of 100% certified sustainable palm oil (CSPO) in 2015 and is currently working towards more ambitious targets in the area of traceability, forest and peatland protection, and support for smallholders for 2020. • Certified Sustainable Palm Oil means that the palm oil has been certified according to RSPO principles and criteria and that the palm oil is being traded in conformity to one of the three RSPO-approved trading systems: Segregation, Mass Balance or Book & Claim.
2	Denmark	The Confederation of Danish Industry-led initiative made a commitment in June 2014 to buy 100% CSPO by 2016, including the purchase of GreenPalm certificates, and to have 100% segregated certified palm oil by 2018. In 2016, more than half (53%) of the companies involved in the Danish initiative used over 90% Segregated certified palm oil and a quarter of the companies (27%) used over 90% Mass balance certified palm oil. Substitution is also a dominant strategy in Denmark.

No	Country	Comitment to Sustainable Palm Oil Products in Europe
3	France	• Consisting of 12 members (including global leaders such as Nestlé and Unilever and medium- sized companies such as Labeyrie Traiteur Surgelés and Royale Lacroix), the Alliance has two main goals: to give French citizens information on palm oil; and to encourage the use of palm oil produced in highly sustainable conditions, by mobilising the industry as a whole. • Alliance members have also made two major commitments: to use 100% RSPO-certified palm oil in their products by the end of 2015; and use 100% sustainable palm oil, according to stricter criteria, by 2020. Stricter criteria include traceability, no peat, no deforestation and no conflict.
4	Germany Austria Switzerland	• The members of The German Palm Oil Forum (FONAP) have made a public commitment that by the end of 2014 they will use only certified sustainable palm oil in their products, in all supply chain options. • Owing to the different chemical properties and the resulting application profiles of palm oil, palm kernel oil and their corresponding derivatives, different courses of action are required to achieve the Forum's eventual goal: 100% segregated, certified palm oil and palm kernel oil for the markets in the target area (Germany, Austria and Switzerland). In all cases, the 'tipping point' – the point in time when the amount of certified oil supplied to Germany and Europe exceeds the amount of non-certified oil – should be reached as soon as possible. • All members have specified their commitments for the years 2015 and beyond. Besides the commitment on the use of 1005 certified palm oil, there are new commitments with regard to the use of specific supply-chain options for specific products and also towards taking bigger responsibilities for their own supply chains.
5	Italy	On 29th October 2015 the European Palm Oil Conference (EPOC 2015) held in Milan welcomed the launch of the Italian Union for Sustainable Palm Oil (Unione Italiana per l'olio di palma sostenibile). The Union has just begun work on the task of raising awareness of the benefits and contribution of certified sustainable palm oil for the food industry. Industry associations such as Aidepi and Assitol and manufacturers such as Ferrero and Nestlè are already members of the Union, and its aim is to achieve the 100% CSPO goal by 2020. President of the Italian Union is Giuseppe Allocca.
6	Netherlands	DASPO members commit themselves to: 1) maintain the commitment towards the level of 100% sustainable palm oil processed in the Netherlands and destined for the Dutch market. 2) Stimulate their members to use physical sustainable palm oil, palm kernel oil, fractions and derivatives in RSPO (Identity Preserved, Segregated and Mass Balance) - or equivalent - to process or buy for the Dutch market. 3) To plea for, and stimulate the continuous improvement of certification systems for sustainable palm oil such as the RSPO - or equivalent - in line with relevant developments.

No	Country	Comitment to Sustainable Palm Oil Products in Europe
7	Norway	Members of the National Initiative in Norway have committed to either reduce use of palm oil in products or to use only RSPO CSPO by 2015. They have further committed that by 2018 any palm oil products used will be segregated and traceable. The Norwegian commitment applies both to imports of palm oil or finished products consumed in Norway.
8	Poland	Poland is an important palm oil importer in the Central and Eastern Europe region. Palm oil is the main imported and second most consumed vegetable oil in the country after rapeseed oil. The EU is the major trading partner for Poland as most of its palm oil is imported from the EU.
9	Spain	The Spanish Foundation for Sustainable Palm Oil was established in June 2017. The foundation's aim is to balance the palm oil debate in Spain on health and sustainability issues, and to promote the uptake of sustainable palm oil. The Foundation will work to ensure that all companies in Spain that use palm oil in their products will use 100% sustainable oil before the end of the decade.
10	Sweden	• The main goal of the Swedish initiative on sustainable palm oil is to achieve 100% CSPO in the Swedish food sector by the end of 2015, via any supply chain delivery method, including Book & Claim. • There is a separate initiative within the detergent industry which is adopting a similar statement to that of the food industry. • While other sectors are not currently part of the initiative, the retailers have adopted their own individual commitments, but not through an association as there are only three or four major retailers in Sweden.
11	United Kingdom	• The commitment made by these organisations is to achieve 100% sourcing of sustainable palm oil from credible sources by the end of 2015. • Agricultural Industries Confederation (AIC) feed sector committee confirmed in 2014 that their companies would purchase sustainable palm oil for all new contracts procured from autumn 2014 • In 2017 the private sector and NGOs reconfirmed their pledge by signing the commitment to support a 100% sustainable palm oil in Europe by 2020. Depending on baseline trade data used, the share of sustainable palm oil imported into the UK was 86% or 108% in 2015.

Source: Making sustainable palm oil the norm in europe – Progress report on the import and use of systainable palm oil in europe – ESPO, November 2017

SECTION IV

Challenges in Promoting Sustainable Palm Oil Products

Manufacturing and retail industries have an important role in pressuring palm oil producers to implement sustainable practices. However, there are not many manufacturing and retail industries that produce derived products made from certified palm oil, this is caused by various factors:

a. **Price.** Price factor is the main consideration for using sustainable palm oil products. Many manufacturing and retail industries are expressing their reluctance to use certified palm oil products due to high prices (WWF, 2013). Certified palm oil is 8-15% more expensive than uncertified palm oil (Maritzova, 2014). Price is an important factor in the absorption of sustainable palm oil products, especially in business entities, the price of expensive basic materials will make products sold to the market to be higher than similar products. So companies are reluctant to use certified palm oil especially with the lack of external incentives from governments and consumers that could be compensated from higher certified oil prices.

b. **Incentive.** In addition, the common difficulty in manufacturing for sustainable palm oil use is the absence of incentives in terms of regulation. The Indonesian government has yet to require manufacturers and retailers to include certification logos on palm oil products and their derivatives so companies prefer not to use sustainable palm oil products except for multinational companies such as Unilever, Nestle, Danone and Coca Cola.

   The absence of the certification label liability rule leaves no incentives in regulatory terms resulting in no reward and punishment mechanism that can effectively force the manufacturing industry to use sustainable palm oil products.

c. In demand, **consumers in Indonesia are not currently aware of the importance of certified products**, especially lower middle class people who are sensitive to price changes. Data from Deloitte show that sustainable products are usually sold at a higher price than regular products (Deloitte, 2009). In general, the lower middle class more prioritize the economic value than the sustainable value of a product.The results of research conducted by RSPO and Daemeter (2015), consumer consideration in buying the product is determined by the affordable price, privilege and quality. While the environmental impact is not a consideration of Indonesian consumers.

SECTION V

Closing

5.1. Conclusion

Indonesia is the largest producer of palm oil in the world and contributes 16.69% of GDP from a narrow farm. The high level of state revenue from the palm oil industry can not be separated from the high level of demand for palm oil consumption both in Indonesia and in the world. At the same time, it also raises various issues, both socially and environmentally; Deforestation, greenhouse gas (GHG), social conflict and resulting loss of unique habitat and unique biodiversity are the impacts of the industry. Initiatives towards sustainable palm oil industry have emerged in the form of Roundtable on Sustainable Palm Oil (RSPO) and Indonesian Sustainable Palm Oil (ISPO) with the aim of promoting the growth and use of sustainable palm oil products. The year 2016-2017 shows the increasing trend of the number of MCC areas that have been certified RSPO or ISPO.

The sustainable palm oil industry has the opportunity to develop, it needs synergy and collaboration between stakeholders ranging from PKS, manufacturing and retail industries, government, banking and consumers. Each of these stakeholders has a strategic role in encouraging increased production of sustainable palm oil.

Consumers as end users of palm oil derivatives products can suppress PKS, manufacturing and retail industries as producers for sustainable palm oil production. The government as a regulator may require manufacturers and retailers to apply the use of palm oil that applies the principles of sustainable palm oil production from upstream to downstream.

5.2. Suggestion

Based on the desk research in formulating strategies to encourage palm products that utilize CSPO need to be reviewed are the following points:

1. The need for synergy and commitment among key actors in encouraging the application of sustainable palm oil production
2. Upstream paradigm shifts need to be supported by the same awareness in the downstream industry. Increased oil production in the certified upstream sector requires expansion and deepening in the downstream sector in order to increase the amount of production to be absorbed by the market
3. Education through campaigns, workshops, as well as through massive product marketing media
4. Regulations governing the provision of incentives (rewards and punishments) that can effectively force the manufacturing industry to use sustainable palm oil products.
5. Given the size of smallholders' significant plantation areas, it is necessary to support all key actors for Smallholders to have the same awareness to certify

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