OCCASIONAL PAPER

Towards responsible and inclusive financing of the palm oil sector

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After the harvest, smallholder oil palm cultivation in Riau.
Photo by Retno Kusumaningtyas/Profundo

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Acronyms

ABS	The Association of Banks in Singapore
BPDP-KS	Indonesian Oil Palm Estate Fund
CPKO	Crude palm kernel oil
CPO	Crude palm oil
EP	Equator Principles
ESG	Environmental, social and governance
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FELDA	Federal Land Development Authority
FFB	Fresh fruit bunch
FSP	Financial service provider
GDP	Gross domestic product
IPO	Initial public offering
ISPO	Indonesian Sustainable Palm Oil
IUP	Plantation business permit
KKPA	Primary Cooperative Credit for Members
KPENRP	Credit for development of bioenergy and plantation revitalization
KUR	Credit for smallholder (or for small and medium enterprises)
MPIC	Ministry of Plantation Industries and Commodities (Malaysia)
MPOB	Malaysian Palm Oil Board
MPOC	Malaysian Palm Oil Council
MPOCC	Malaysian Palm Oil Certification Council
MSPO	Malaysian Sustainable Palm Oil
OJK	Indonesian Financial Services Authority
PIR	Nucleus plasma scheme
PORIM	Palm Oil Research Institute of Malaysia
PORLA	Palm Oil Registration and Licensing Authority
PRI	Principles for Responsible Investment
RSPO	Roundtable on Sustainable Palm Oil
SME	Small and medium enterprise
SRI	Socially responsible investing

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Summary

Through different drivers, including consumer pressure to adopt sustainable production practices, government regulations addressing social and environmental responsibility, and changes in risk appreciation, many financial service providers (FSPs) are beginning to acknowledge the business case for responsible investment. This trend is reflected in a growing number of initiatives promoting the adoption of Environmental, Social and Governance (ESG) standards by FSPs.

Although sustainability initiatives and government regulations increasingly acknowledge the importance of smallholders in the palm oil sector, this is not commonly reflected in conditions set by FSPs when providing financial services to commodity-related industries. Additionally, the way ESG standards are included in these conditions can differ greatly from one FSP to the next. Due to their significant role in the palm oil sector (40% of total land coverage of oil palm plantations is managed by smallholders), this oversight appears to be a major challenge to initiatives aiming to make the whole palm oil sector more sustainable. Moreover, it means that issues concerning smallholders are left largely unaddressed, whether they are issues to do with the social and economic wellbeing of smallholders and their families, or the potentially destructive expansion strategies and land-right conflicts too often associated with the palm oil sector.

This report provides an overview of recent market trends in palm oil and the role of smallholders in the supply chain. It also summarizes Indonesian and Malaysian Government policies and international initiatives related to FSPs and the development of the palm oil sector, and provides an analysis of the ESG policies of the 15 largest financiers of 15 palm oil companies over the period from 2006 to 2015.

The report shows that European and US FSPs are further along than their counterparts in Asia in adopting policies that include environmental and social risk assessments as part of the process of providing financial services to companies in the palm oil sector. Attention to smallholder inclusion, however, is insufficient in the policies of all FSPs that are included in the report.

Although developments are ongoing, it is clear that players in the oil palm sector still require a significant shift in thinking on the benefits of including ESG standards in cultivation and production processes. FSPs themselves as well as sustainability initiatives such as the Equator Principles (EP), Principles for Responsible Investment (PRI), Roundtable for Sustainable Palm Oil (RSPO), Soft Commodity Compact, etc., can play a significant role in pushing these standards, by including them in the conditions they set when providing financial services. Realistically, however, only part of the FSPs active in the oil palm sector will be susceptible to standards pushed in the public domain, making it necessary for a spectrum of different measures and incentives to take the sector closer to sustainable practices, both environmental and social.

Government regulations and policies can go a long way to shift the balance in favor of more sustainable businesses, and ensuring that there is a more meaningful integration of smallholders into supply chains. The lack of specific banking regulations emphasizing sustainability issues geared towards the oil palm sector should be considered a hindrance in utilizing government regulations to their full extent. The differences between European and US versus Asian FSPs' adoption of ESG standards as well as the markets they finance meanwhile, represents a risk of two parallel but separate financial systems emerging, likely affecting the entire supply chain. Efforts of both government and nongovernment organizations (NGOs) should put greater emphasis on preventing the further development of such a two-tiered marketplace, with different quality requirements for palm oil.

Introduction

Financial service providers (FSPs) have been identified as important drivers behind sustainability commitments in commodity production and trade. This influence arises from their capacity to demand the adoption of higher Environmental, Social, and Governance (ESG) standards within a company. This is often achieved by making financial services such as credit facilities, underwriting of stock and bond issues, or direct investments conditional on compliance with ESG standards. The increasing integration of ESG standards into financing decisions can be attributed largely to an increased appreciation by FSPs of the reputational, financial, and compliance risks associated with the financing of socially and environmentally unsustainable companies and projects.

Socially responsible investing (SRI) involves some of the most explicit integration of ESG standards in the financial services industry. SRI strategies shape how asset managers invest their portfolios, typically with the objective of reconciling financial returns with sustainability objectives. Another financial instrument typically subject to ESG standards is project finance, which often involves the adoption of due diligence frameworks such as the Equator Principles to evaluate the social and environmental risks of projects. Most multilateral development banks adopt similar due diligence frameworks to inform financing decisions. Although project finance only constitutes a small proportion of corporate financing, many banks are also increasingly extending these frameworks to general corporate purpose loans.

Consumer activism campaigns in North America and Europe exposing FSP financing of unsustainable practices and increasingly stringent public disclosure requirements by governments prompt many FSPs to integrate ESG standards into investment screening, monitoring, and engagement activities. Moreover, many FSPs are beginning to acknowledge the business case for responsible investments, with social and environmental performance often correlating positively with financial returns. The increased risk of liability when FSPs and their clients fail to comply with jurisdictional legal requirements further encourages FSPs to screen supply chain actors on the basis of whether or not they comply with ESG standards. These shifts in the FSPs' stance on ESG standards are reflected in and partly driven by the growing number of initiatives promoting the adoption of ESG standards by FSPs. At the same time, however, there appears to be a gap between acknowledging the necessity of including such standards in current business practices, and translating this into tangible FSP policies and conditions set for providing financial services to the palm oil sector.

In the palm oil sector, smallholders account for 40% of agricultural land used for palm oil cultivation, producing 30% of the world's total production (SPOTT 2016) on that land. Although smallholders account for a significant proportion of production, they do not commonly appear as a significant factor in conditions set by FSPs when providing financial services to commodity-related industries. At the same time, the relationship of smallholders with the plantation companies they work with, or the processing companies they supply, has a significant influence on the social and economic wellbeing of smallholders and their families in many countries. With smallholders playing such a significant role in the palm oil sector, these factors appear to be a major challenge to initiatives aiming to stop sourcing from unsustainable suppliers and making the whole of the palm oil sector more sustainable. Additionally, it leaves issues concerning smallholders largely unaddressed, whether they are issues to do with social and economic wellbeing of smallholders and their families, or the potentially destructive expansion strategies and land-right conflicts associated with the palm oil sector.

This research was conducted to generate a better understanding of the role FSPs can play

in strengthening the economic position of smallholders in the palm oil supply chain. It aims to advance the social and economic position of smallholders and the communities to which they belong. In addition, if their position is strengthened, smallholders can contribute to the adherence to ESG standards of entire specific commodity supply chains, as improved socio-economic status will advance their ability to produce crops more sustainably. In investigating the relationships of FSPs and different types of financial instruments, this study aims to establish how FSPs influence the adherence to ESG standards and the inclusion of smallholders in sustainable palm oil production. This study will also aim to provide insight into the areas where FSPs can better include these standards. This knowledge will enable government agencies, NGOs as well as FSPs to more constructively engage ESG issues and issues related to smallholder inclusion.

Section 1 provides an overview of recent market trends and the role of smallholders in the palm oil supply chain. Section 2 gives a summary of Indonesian and Malaysian policies related to the development of the palm oil sector. Section 3 provides overviews of the FSPs that finance the development of the palm oil sector in Indonesia and Malaysia and an analysis of the policies they have put in place to limit environmental and social risks. Additionally, it explores how smallholders' issues are taken into consideration within these policies. Finally, Section 4 analyses the gaps and opportunities for FSPs towards stimulating the adoption of ESG standards and smallholder inclusion in the palm oil sector.

1 The economic context of palm oil and the role of smallholders

1.1 Market for palm oil

Global demand for palm oil has consistently increased over the past two decades. This increase has been led in part by health concerns from consumers who push manufacturers to replace animal fats high in cholesterol and often high in trans fats with healthier options. Exports from producing countries increased significantly from 600,000 tons in the early 1960s to around 8.5 million tons in the early 1990s. This increase has continued to this day. In 2015, around 46 million tons of palm oil were traded in the global market (USDA n.d.). Figure 1 presents an overview of the global export of palm oil.

Malaysia and Indonesia have dominated the global export market for oil palm since the mid-1960s. Combined exports for palm oil and palm kernel from both countries accounted for about 90% of world exports over the last five years. Table 1 presents figures on exports of palm oil and palm kernel from Indonesia and Malaysia compared with the world export market.

Until 2011, Malaysia was the world's leading exporter of palm oil. Since then, Indonesian palm oil exports have surpassed Malaysia's. Following the example of its neighbor, Indonesian palm oil production increased massively, with production aimed at both domestic and international markets. From 2005, Indonesia has been the largest producer of palm oil in the world. Over the past five years, the country has contributed over 50% of worldwide palm oil production, accounting for 30.3 million tons annually on average (USDA

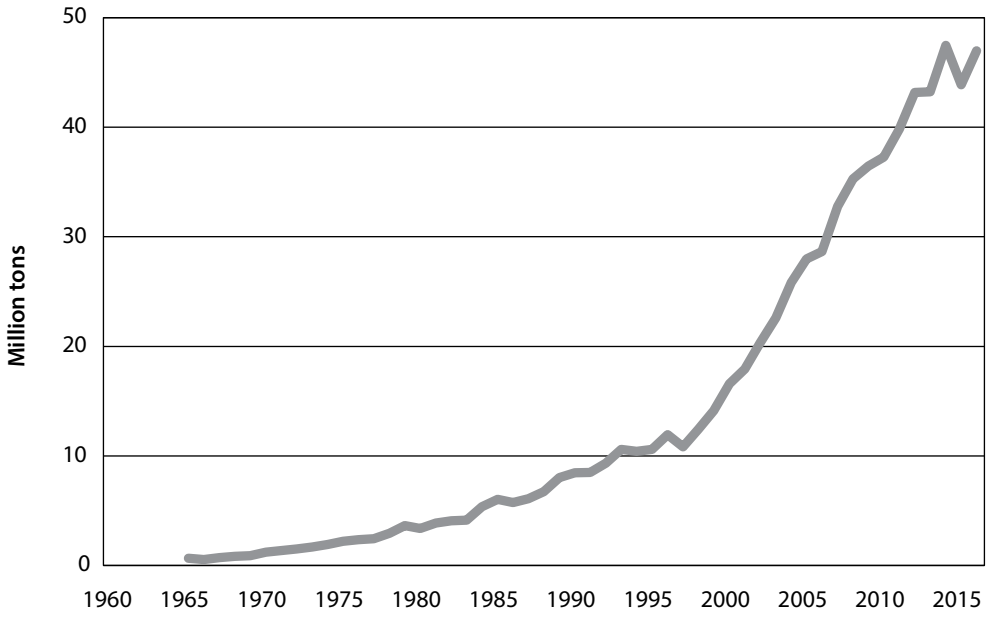
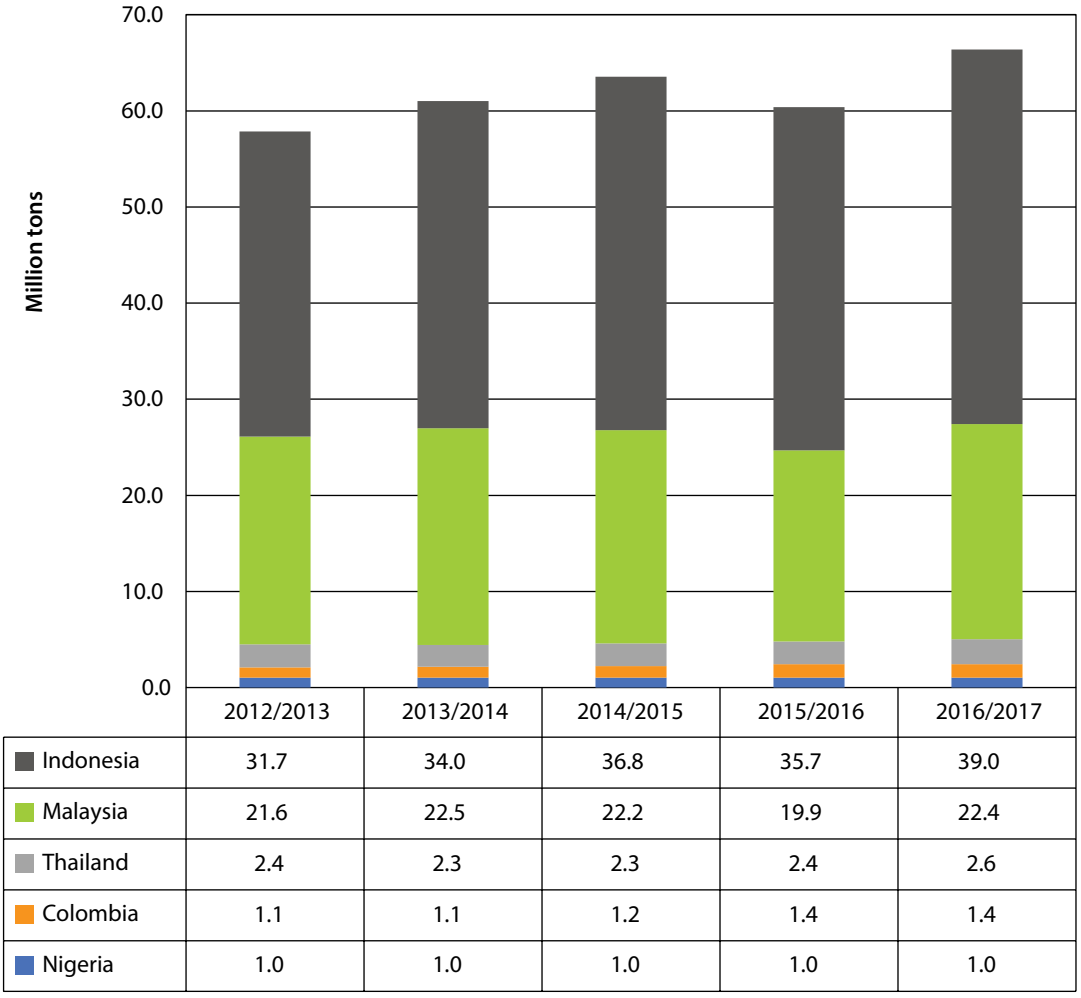


Figure 1. Global export of palm oil.
Source: Author elaboration based on USDA Foreign Agricultural Service, PS&D (n.d.(a))

Table 1. Export of palm oil and palm kernel, in million tons.

Country	2012	2013	2014	2015	2016
Indonesia	22.1	23.2	27.7	24.7	27.4
Malaysia	19.7	18.4	18.5	17.6	18.6
Rest of the world	4.6	4.5	4.5	4.6	4.0

Source: Author elaboration based on USDA Foreign Agricultural Service, PS&D (n.d.(a))



	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Indonesia	31.7	34.0	36.8	35.7	39.0
Malaysia	21.6	22.5	22.2	19.9	22.4
Thailand	2.4	2.3	2.3	2.4	2.6
Colombia	1.1	1.1	1.2	1.4	1.4
Nigeria	1.0	1.0	1.0	1.0	1.0

Figure 2 . Five largest palm oil producing countries.

Source: Author elaboration based on USDA Foreign Agricultural Service, PS&D (n.d.(b))

n.d.). Figure 2 gives an overview of the five largest palm oil producing countries over the past five years.

The recent dynamics of the palm oil market have mainly been driven by a combination of an increasing population and a rise in the gross domestic product of developing countries, particularly India and China. In 2016, Asian countries accounted for about 66% of total palm oil consumption, far outweighing Europe and the United States. Figure 3 gives an overview of shares in global palm oil consumption in 2016.

Indonesia is not only the largest producer and exporter of palm oil; it is also the biggest consumer. Since 2010, the country has been the biggest global consumer of both palm and palm kernel oil. In

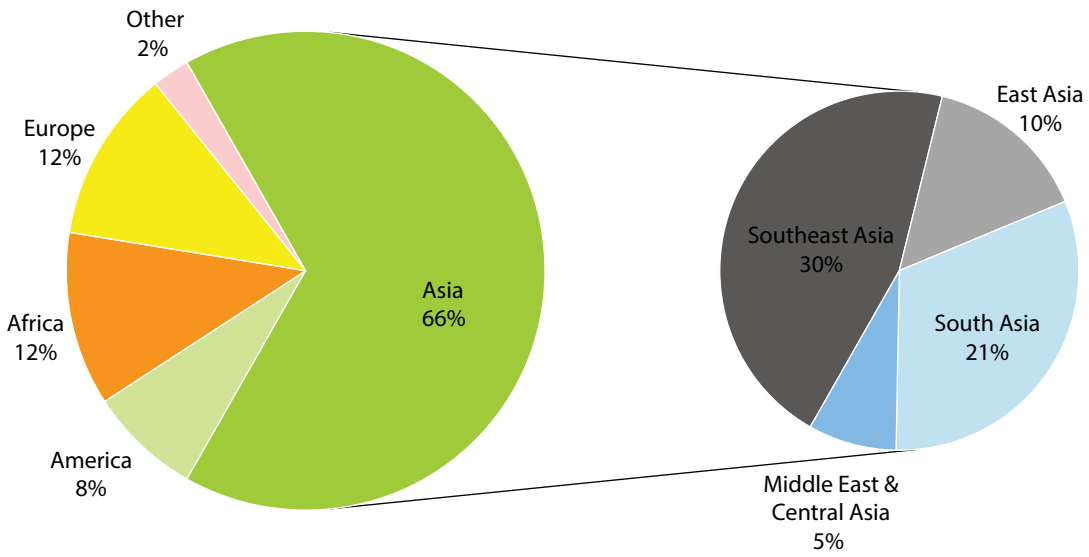


Figure 3 . Palm oil consumption by region, 2016.
Source: Author elaboration based on USDA Foreign Agricultural Service, PS&D (n.d.(c))

Table 2. Consumption of 10 largest consumers, in million tons.

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Growth
Indonesia	5.3	5.5	6.1	7.4	8.6	9.7	10.8	9.6	11.6	11.7	121%
India	4.5	6.0	6.0	6.1	7.3	8.6	8.5	9.4	9.2	10.3	129%
European Union	5.4	5.9	5.8	5.3	6.2	7.5	7.2	7.4	7.3	7.3	35%
China	5.6	6.1	6.4	6.2	6.3	7.0	6.2	6.3	5.4	5.7	2%
Malaysia	4.0	4.0	3.8	3.6	3.6	3.9	4.3	4.5	4.6	4.8	20%
Pakistan	1.8	1.9	2.0	2.1	2.1	2.3	2.5	2.7	2.7	3.0	67%
Thailand	1.0	1.4	1.4	1.6	1.7	1.9	2.1	2.2	2.3	2.5	150%
Nigeria	1.5	1.5	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.9	27%
United States	1.2	1.3	1.3	1.2	1.3	1.5	1.5	1.4	1.6	1.6	33%
Bangladesh	0.8	0.9	0.9	1.0	1.0	1.0	1.2	1.3	1.4	1.5	86%

Source: Author elaboration based on USDA Foreign Agricultural Service, PS&D (n.d.(c))

2016, the USDA Foreign Agricultural Service reported Indonesian domestic consumption of palm oil and palm kernel at 11.7 million tons (compared with a production of 39 million tons). India was the second biggest with domestic consumption of palm oil and palm kernel reported at 10.3 million tons, followed by Europe which had a regional consumption of 7.3 million tons. Malaysian domestic consumption in 2016 meanwhile, was 4.8 million tons (compared with a production of 22.4 million tons). Over the past 10 years, Thailand, India and Indonesia have shown extensive growth in domestic consumption of palm oil, with growth rates of 154%, 130% and 120% respectively, from 2007 levels. Details on the growth of domestic consumption of palm oil and palm kernel from 2007 are presented in Table 2.

India is the largest importer of palm oil and palm kernel, followed by Europe and China. While China initially was one of the great drivers in

Table 3. Ten largest importers of palm oil in million tons.

Country	2012	2013	2014	2015	2016	Growth
India	8.7	8.0	9.4	9.0	10.1	16%
Europe	7.5	7.6	7.6	7.3	7.3	-3%
China	7.2	6.1	6.3	5.3	5.7	-21%
Pakistan	2.2	2.7	2.8	2.7	3.1	41%
USA	1.6	1.5	1.4	1.7	1.6	0%
Bangladesh	1.0	1.2	1.3	1.5	1.5	50%
Egypt	1.0	1.1	1.5	1.2	1.5	50%
Malaysia	0.9	1.2	1.4	1.4	1.4	56%
Philippines	0.6	0.6	0.8	0.8	0.8	33%
Russia	1.0	0.5	1.1	0.9	0.9	-10%

Source: Author elaboration based on USDA Foreign Agricultural Service, PS&D (n.d.(d))

export growth in palm oil, the volume of imports into China has not expanded over the last five years, even showing a slight decrease in the last two years. A similar trend is visible for Europe. Over the past five years, the volume of palm oil and palm imports in Malaysia, Egypt, Pakistan and Bangladesh has grown extensively. Table 3 presents the 10 largest importers of palm oil and palm kernel over the last five years.

Palm oil is mainly used in food preparation and industrial food production. An estimated 80% of palm oil is used for this purpose, while about 15% is used in personal care products. A small amount of palm oil (about 5%) is used in biodiesel (IUF 2015).

The use of palm oil in biodiesel is likely to increase, while many countries, including Indonesia and Malaysia, aim to increase the overall use of biodiesel in their energy consumption. The Food and Agriculture Organization of the United Nations (FAO) projects that approximately 38 billion liters of biodiesel will be produced annually by 2020, and about 41 billion liters by 2025. Biodiesel production in 2015 was approximately 30 billion liters (OECD/FAO 2016).

European countries have greatly increased the use of palm oil for biodiesel in recent times. In 2010, only 8% of palm oil exported to Europe was used for biodiesel, while in 2015, this share increased to 46% (Neslen 2016). European countries plan to power 10% of public transportation with renewable energy by 2020. As part of the strategy, 7% of the 10% can be filled with biodiesel, with an option to increase this quantity to over 7%, given proper consumer information (EBTP n.d.).

1.2 Main producers, traders and buyers of palm oil

The palm oil supply chain is complex, with palm oil (half-) products moving from one company to the next several times as they move along the supply chain. Fresh fruit bunches (FFBs) are transported from plantations to mills which are commonly located nearby, for processing into crude palm oil (CPO). The FFBs must arrive within 48 hours of harvesting to prevent the fruit from becoming spoiled. The CPO is then transported to a refinery for further chemical processing and manufacturing (Schuster Institute for Investigative Journalism n.d.). Afterwards, the refined palm oil and palm kernel oil are used in the production of consumer goods (everyday brand-name products) that can be found on supermarket shelves. Figure 4 represents a simplified palm oil supply chain.

There are about 17 million hectares of oil palm plantations in Indonesia and Malaysia combined. Most of these plantations are already at production age. In Indonesia, the area of the plantations continues to increase and is expected to surpass 13 million hectares by 2020. Most Indonesian plantations are located on Sumatra, which is estimated to account for almost 70% of the total plantation area in Indonesia. The remaining plantations are largely found on Kalimantan, while plantation expansion is mainly occurring in Kalimantan and West Papua (Indonesia Investment n.d.).

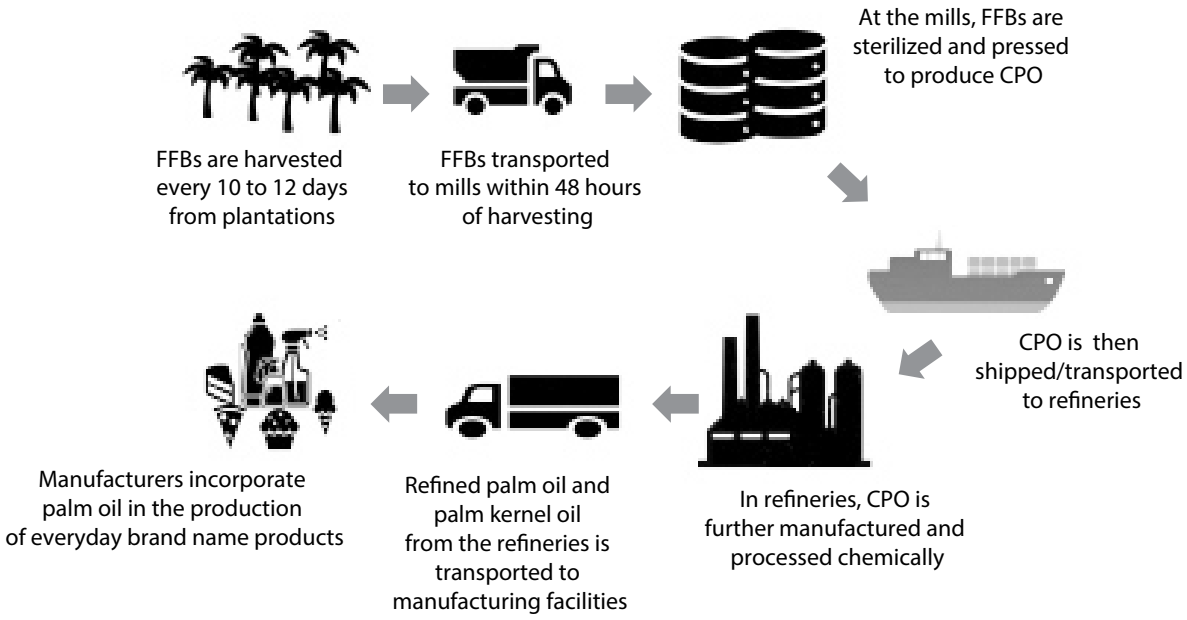


Figure 4. Palm oil supply chain.

Table 4 . Oil palm plantation area in Indonesia and Malaysia.

Country	Plantation area (million hectares)	Harvested area (million hectares)	Portion of smallholders
Indonesia	11.3	9.2	40%
Malaysia	5.7	4.9	41%
World	-	20.2	-

Sources: USDA Foreign Agricultural Service, PS&D (n.d.(e)), BPS (2016) and WAGs (2012)

In Malaysia, a large proportion of oil palm plantations have been established in the states of Sabah and Sarawak, accounting for about 45% of plantations in the country. The rest of the plantations are located in a further 10 states of Malaysia (Suhaila 2012). Unlike in Indonesia, land availability for further oil palm plantations in Malaysia is limited (note that the intended availability in land here is not quantified in terms of the quality or legality for use of the land). Table 4 presents the extent of oil palm plantations in Indonesia and Malaysia, also indicating the percentage of smallholder farms in relation to the overall plantation area.

In both Indonesia and Malaysia, larger companies manage the majority of oil palm plantations. Smallholder farmers manage approximately 40% of these plantations. Research conducted by Profundo and TuK Indonesia (*Transformasi untuk Keadilan Indonesia*) in 2015 found that about 31% of the total area of oil palm plantations in Indonesia was controlled by 29 tycoon families through only 25 oil palm groups. The study identified the most important tycoon family-controlled groups as Sinar Mas, Salim, Jardine Matheson, Wilmar and Surya Dumai (Winarni and Van Gelder 2015). In Malaysia, this trend can also be seen to a more modest extent. Table 5 presents a list of the biggest stakeholders in the palm oil sector in Indonesia and Malaysia.

Fresh fruit bunches (FFBs) from plantations are to a large extent processed by company-owned mills to produce crude palm oil (CPO) and palm kernel. Most of these mills also receive FFBs from smallholder plantations in their vicinity. Many companies have integrated palm kernel crushing facilities in the mill complex to produce crude palm kernel oil (CPKO). The CPO and CPKO are refined and fractioned to produce a variety of edible oils and fats and non-food applications. Refined palm oil is usually used for producing cooking oils while palm kernel oil is the main

Table 5. Large oil palm plantation holders in Indonesia and Malaysia.

Parent	Company	Base country	Group land bank (hectares)	Plantations in Indonesia and Malaysia (hectares)	Planted (hectares)	Matured (hectares)
Sime Darby	Sime Darby	Malaysia	1,000,000	629,486	512,719	441,641
Sinar Mas	Golden Agri Resources	Indonesia/ Singapore	705,606	n.d.	485,606	460,336
Felda	Felda Global Venture	Malaysia	431,622	395,918	325,299	259,417
Sampoerna	Sampoerna Agro	Indonesia	425,000	240,000	127,000	7,700
Salim	Indofood Agri Resources	Indonesia	353,476	300,633	246,359	187,400
Wilmar	Wilmar International	Singapore	331,000	248726	224,090	n.d.
Jardine Matheson	Astra Agro Lestari	Indonesia	n.d.	n.d.	297,862	258,545
Batu Kawan	KLK	Malaysia	270,000	201,394	200,148	174,822
Genting	Genting Plantation	Malaysia	238,376	238,376	100,379	n.d.
Harita	Bumitama Agri	Indonesia/ Singapore	n.d.	207,000	164,177	122,474
Surya Dumai	First Resources	Indonesia	n.d.	207,575	178,338	n.d.
Darmex Agro	Darmex Agro	Indonesia	n.d.	200,000	n.d.	n.d.
Kencana Agri	Kencana Agri	Singapore	n.d.	193,574	67,927	36,868
IOI	IOI Corporation	Malaysia	n.d.	184157	114,746	145,992
Royal Golden Eagle	Asian Agri	Indonesia	n.d.	164,956	164,000	n.d.
Austindo	ANJ	Indonesia	n.d.	157,921	47,733	39,058
Bakrie	Bakrie Sumatera Plantations	Indonesia	n.d.	154,464	88,664	n.d.
Prajwal	Eagle High Plantations	Indonesia	n.d.	n.d.	153,250	n.d.
Perkebunan Nusantara	Perkebunan Nusantara III	Indonesia	159,758	105,221	107,776	86,022
Anglo-Eastern	Anglo-Eastern Plantations	UK	126,611	122,243	61,064	47,390
DSN	Dharma Satya Nusantara	Indonesia	n.d.	135,422	90,083	51,700
Musim Mas	Musim Mas	Singapore	n.d.	130,382	100,000	n.d.

Source: Data presented in this table are sourced from the related companies' publications, i.e. annual/sustainability reports (2015/2016), webpages, presentations, and press releases

feedstock for the production of oleochemicals. Table 6 presents a list of companies operating mills, refineries and other processing industry of palm oil in Indonesia and Malaysia.

Companies in the plantation sector, CPO mills and refineries often use vertically integrated business models to lower the cost of trading palm oil internationally. For example, Wilmar International Ltd., as one of the biggest stakeholders in the sector, operates a broad range of businesses, including oil palm cultivation, oilseed crushing, specialty fats, oleochemical, biodiesel, fertilizer manufacturing, edible oil refining, processing and packaging for the end-consumer, merchandising, transport and trading. Wilmar even operates its own ships to transport the commodity. Although they are often split up into subsidiaries, the

Table 6. Mills and refineries in Indonesia and Malaysia.

Company	CPO mill	Refinery	Oleochemicals	Specialty fats	Biodiesel
Wilmar	46	97	19	16	13
Sime Darby	61	11	n.d.	1	1
Golden Agri Resources	45	6	1	9	1
Indofood Agri Resources	14	5	n.d.	n.d.	n.d.
IOI	15	4	n.d.	n.d.	n.d.
Musim Mas	14	17	2	8	2
Asian Agri	20	4	n.d.	2	1
KLK	22	4	n.d.	3	n.d.

Source: Data presented in this table are sourced from the related companies' publications, i.e. annual/sustainability reports (2015/2016), webpages, presentations, and press releases

Table 7. Major traders of palm oil, 2015.

Company	Palm oil revenue (USD billion)	Market share palm oil trade	Estimated palm oil volume (million tons)
Wilmar International	15.6	43%	20.5
Musim Mas	6.0	18%	8.6
GAR	5.4	14%	6.7
IOI	2.9	11%	5.2
Cargill	n/a	4%	1.9
Others		10%	4.8

Source: Adapted from Kuepper, B., et al. (2017)

company groups basically control almost the entire supply chain for this commodity across the region (Wilmar n.d).

Wilmar, Musim Mas Group, Golden Agri-Resources (GAR) Ltd., IOI GROUP and Cargill, Inc. dominate the global palm oil market. In 2015, these five traders accounted for roughly 90% of the global palm oil trade. Wilmar is currently the biggest trader of palm oil with a market share of about 43%. Table 7 presents an overview of major traders in the global palm oil market.

The principal buyers of palm oil can be categorized as manufacturers, food service companies and retailers. In Indonesia and India, the two largest palm oil consuming countries, retailers are the largest buyers of palm oil. Palm oil in both countries is mostly used as edible oil for domestic and commercial consumption. Only a small share is used as raw material for consumer goods such as soap bars, cosmetics, detergents and shampoos. Oils and fats in India are mostly sold by independent small grocers (WWF 2011). In Europe, palm oil is mainly used as edible oil, in personal care products and in the biofuel industry. The consumption of edible palm oil in this region has been decreasing over the past few years although total European consumption of palm oil keeps increasing. This increase is mostly caused by the growth of biodiesel production in European countries (CBI n.d).

Consumer goods manufacturers are also important buyers of palm oil. They produce a wide variety of products, from soap to cookies. About half of all packaged products sold in supermarkets contain palm oil. Multinational companies, such as Unilever, Proctor & Gamble (P&G) Co., PepsiCo Inc., Nestlé S.A., etc., purchase palm oil in large quantities for use in their production processes.

Table 8. Important consumer companies of palm oil.

Company	Base country	Palm oil used (annual, tons)
Unilever	Netherlands	1,513,265
P&G	USA	493,677
PepsiCo	USA	452,743
Nestlé	Switzerland	417,834
Unigrà	Italy	315,000
Mondelēz	USA	289,255
Ferrero	Italy	181,000
Colgate-Palmolive	USA	174,328
Godrej	India	150,000
Reckitt Benckiser	UK	125,843
McDonald's	USA	122,669
FrieslandCampina	Netherlands	107,500
ConAgra Brands	USA	102,728
Kao	Japan	100,000

Source: WWF (2016)

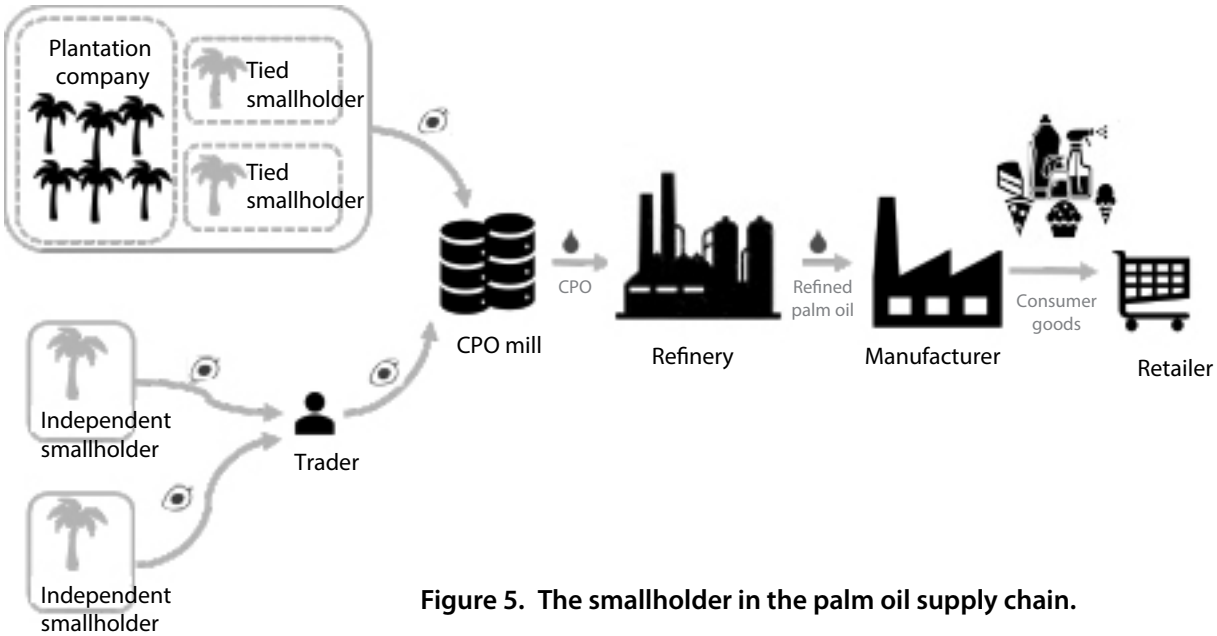


Figure 5. The smallholder in the palm oil supply chain.

Table 8 provides an overview of consumer goods companies that use large quantities of palm oil (the list also includes one food service company, McDonald's Corp., as its consumption is on par with some of the major consumer goods companies).

1.3 The smallholder in the palm oil supply chain

The Roundtable on Sustainable Palm Oil (RSPO) defines a smallholder as a farmer who owns and derives most of his or her income from a plantation of less than 50 hectares, also providing the majority

of labor on the farm. The Malaysian Government classifies a smallholder as a farmer who owns a plantation of less than 100 acres (40.46 hectares) and the Indonesian Government classifies a smallholder as a farmer who owns a plantation of 25 hectares or less (Omar et al. n.d; The Ministry of Agriculture Republic of Indonesia 2013). Smallholders in the palm oil sector act as farmers producing fresh fruit bunches (FFBs) for the mills. They sell their harvest to mills near their plantations as freshness is a key criterion in palm oil production. Figure 5 illustrates the position of the smallholder in the palm oil supply chain.

Principally, there are two types of smallholders in this sector: independent smallholders and tied smallholders.

1.3.1 Independent smallholders

Independent smallholders are farmers without a fixed contract with any companies or mills. They are usually dependent on local traders or local mills to sell their FFBs. The establishment of independent mills, which usually provide a market for smallholders and local traders, often stimulates the development of independent smallholders (IFC 2013).

Although independent smallholders have more freedom in managing their plantations, they face a number of challenges in receiving limited institutional, technical and financial support, and lack knowledge regarding best practices and new technologies. They often have no access to good seedlings or fertilizers and thus are likely to be less productive and produce a lower quality of FFBs. Overall, independent smallholders are unlikely to benefit from direct relationships with local mills, and their reliance on traders to purchase and transport their FFBs to the mills means they commonly receive a low price (WAGs 2012).

1.3.2 Tied smallholders

Three types of organizational models of tied smallholders exist (Climate Policy Initiatives 2015):

- Individual partnership scheme: Smallholders manage plantations individually with a contract to sell their FFBs to a nucleus company. The smallholder can buy seedlings and fertilizers from the nucleus company.
- Company-managed scheme: Smallholders hand over their plantations to a nucleus company to manage it for them, receiving a share of the profits, which is distributed via a cooperative.
- Cooperative scheme: Smallholders form a cooperative to manage their plantations (plasma) collectively, sharing profits and risks. They sell their FFBs to a nucleus company. Smallholders can also work on the plantation for a salary, while receiving their profit share as members. In addition, they can also manage their own independent plots alongside the plantation, while benefitting from access to seedlings and fertilizers, and being able to sell their FFBs to the mill through the cooperative.

Smallholders in partnership schemes have less autonomy over plantation management. However, due to guaranteed good quality seedlings and the availability of fertilizers, their plantations are often more productive than those of independent smallholders. Each type of partnership scheme has its own advantages and disadvantages. A study conducted in the province of Central Kalimantan comparing these three schemes, showed that the cooperative scheme generated better income for smallholders per hectare of their plantation. This scheme is considered successful in managing risks and delivering reliable benefits to smallholders (Climate Policy Initiatives 2015).

The organization of smallholders in partnership schemes brings various benefits such as reduced transaction costs, increased productivity, formalized land tenure and improved access to formal and affordable credit. In Indonesia, only organized farmers are eligible to apply for a number of government subsidies available to smallholder farmers, such as smallholder credit (KUR) and replanting funds. The organization of farmers is also supposed to increase the opportunity to implement more sustainable cultivation practices. However, in practice, this is not a prerequisite for success in this area.

Improved productivity does not necessarily mean a reduction in environmental impact because it can actually stimulate the expansion of plantations to forested or peatland areas by existing or new farmers. Smallholder organizations should therefore be equipped with effective landscape planning and guidance to avoid unwanted outcomes (Daemeter Consulting 2015).

2 National palm oil policies

Palm oil is an important contributor to gross domestic product (GDP) in Indonesia and Malaysia. In 2015, the palm oil sector accounted for 5% to 6% of Malaysia's GDP and generated foreign income of approximately 69.3 billion Malaysian ringgit (MYR) (USD 16.1 billion) (Clean Malaysia 2015). In the same year in Indonesia, this sector accounted for 2.2% of the country's GDP (Perera 2015) and generated foreign income of approximately 231.4 trillion Indonesian rupiah (IDR) (USD 17.8 billion) (Tempo 2017). As a result, the governments of Indonesia and Malaysia recognize the important contribution of the palm oil sector to development, and are actively stimulating the growth of domestic industries and exports in the sector.

2.1 Indonesia

2.1.1 Sector policy overview in Indonesia

The palm oil industry in Indonesia started in Deli, in the northern part of Sumatra, in 1904 under the Dutch colonial government. After Indonesian independence, particularly from the 1970s, state-owned plantations started to develop rapidly. By the end of that decade, the number of smallholder farmers in this sector also began to increase, due to the availability of financial support from the World Bank. In the 1980s, the development of the sector increased further as it was combined with transmigration projects[1] promoted by the government. The government also used the development of plantations to open up isolated areas, mainly in Sumatra and Kalimantan.

In the late 1970s, the government started to stimulate the development of oil palm plantations under a nucleus–plasma scheme (locally known as PIR; *Perkebunan Inti Rakyat*), combining big plantation companies as a nucleus with smallholder plantations as their plasma. However, the development of such new plantations was relatively modest until the mid-1990s, when the demand for edible oils began to increase rapidly, domestically, in Europe and in other emerging markets, such as China and India. Development was further boosted by foreign investment, after the Indonesian Government implemented a new policy that opened the door to foreign investors following the Asian economic crisis of 1997. The land area of oil palm plantations increased rapidly from covering around 200,000 hectares in the 1980s to covering over one million hectares in the 1990s. Figure 6 illustrates the development of oil palm plantations in Indonesia.

The Indonesian Government regulates the palm oil sector under Ministerial Decree no. 98/Permentan/2013, issued in October 2013. It places the power to grant business permits (IUP; *Ijin Usaha Perkebunan*) for plantations of more than 25 hectares with the regency leader (*bupati*), mayor (*walikota*) or governor, depending on the characteristics of the plantation area. Previously, local governments only had the power to grant permits to companies for plantations under 1000 hectares, while the Ministry of Agriculture granted permits for plantations of more than 1000 hectares. Under the legislation, local governments can now also grant permits for oil palm plantations over 1000 hectares, putting the development of new plantations largely in their hands.

1 Transmigration was a scheme created by the Indonesian Government to ease overpopulation on Java and Bali by moving people to the less populated areas of Indonesia, such as Sumatra, Kalimantan and other islands known as the outer islands. The government provided land, money and fertilizers for a period of up to 18 months to those who moved under this scheme in order to allow them to establish a small farm. The main aims of transmigration were: to create a balanced demographic spread in Indonesia; to eliminate poverty by providing land for the landless; and to exploit the outer islands of Indonesia.

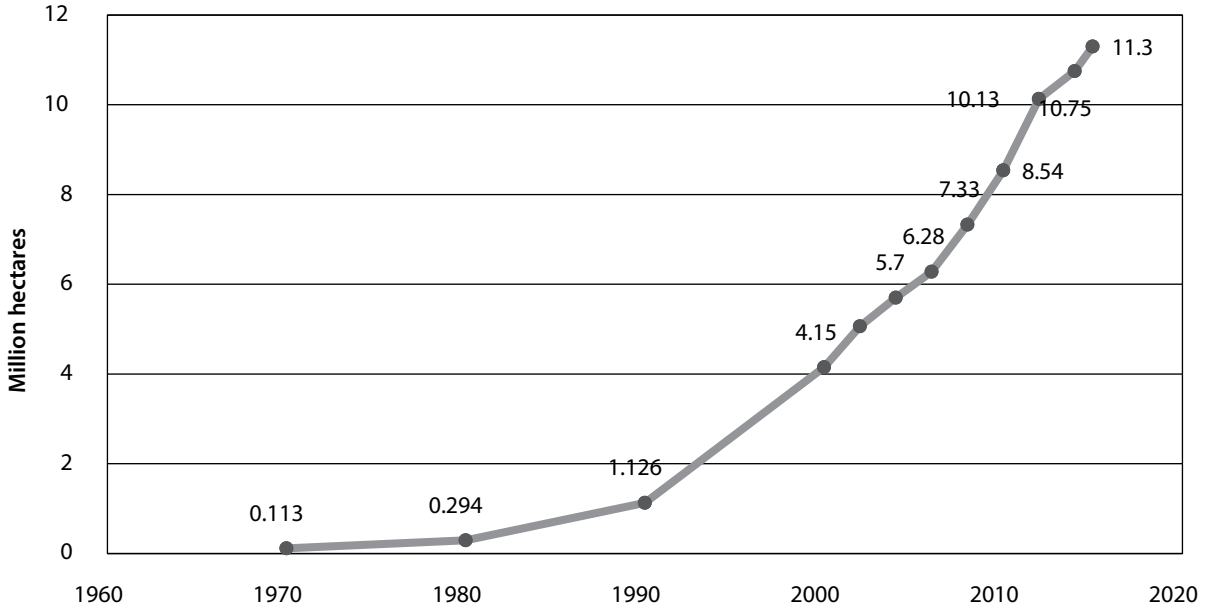


Figure 6. Development of oil palm plantations in Indonesia.

Sources: BPS-Statistic Indonesia (2016) and Directorate General of Estate Crops of Indonesia (2014)

The processing industry for palm oil in Indonesia has also grown extensively during the same period. The Indonesian Government sees the palm oil sector as one of the most important sources of export revenue. In 2015, palm oil exports generated foreign income of approximately IDR 231.4 trillion (USD 17.8 billion) (Tempo 2017). The country has an ambitious target to produce 40 million tons of palm oil by 2020 (Reuters 2013).

The development of oil palm plantations has, alongside the simultaneous rise of timber plantation development in the country, resulted in a vast loss of forest cover in Indonesia. In 2005, the Indonesian Government signed the first moratorium on forest-to-plantation conversion, endorsed by the International Monetary Fund (IMF). However, this moratorium has not been followed up with a proper regulation to support its implementation. In 2011, the Indonesian Government signed another moratorium, this time under the scope of a Letter of Intent with the Norwegian Government, to stop issuing new permits for the conversion of natural forests and peatlands for a period of two years. This moratorium has been extended twice and is currently still in effect (Indonesia Investment 2016). The latest extension was declared by President Joko Widodo in April 2016, and will be in effect for another five years (Jacobson 2016). Furthermore, in December 2016, the President signed a new regulation (PP. No. 57/201) placing a permanent moratorium on peatland ecosystem exploitation, prohibiting new land from being cleared until a protection and cultivation zoning system is established (Antara 2016).

Regardless of the implementation of these moratoriums on plantation development in forested areas, the growth in oil palm plantations remains strong. Oil palm plantation expansion continues to rise, with an average annual growth of the plantation area of 6.4% over the past 10 years (Directorate General of Estate Crops of Indonesia 2014; BPS 2016). Figure 7 provides an overview of oil palm plantation development in Indonesia from 2005 until 2015.

Formerly, Indonesia focused mainly on the export of raw palm oil (and other raw commodities). However, from 2011 the country has shifted its priority to refined products higher up in the value chain. To spur growth in downstream industries, export taxes on refined palm oil products were cut in recent years. Meanwhile, the export tax on crude palm oil (CPO) ranges from 0 to 22.5%

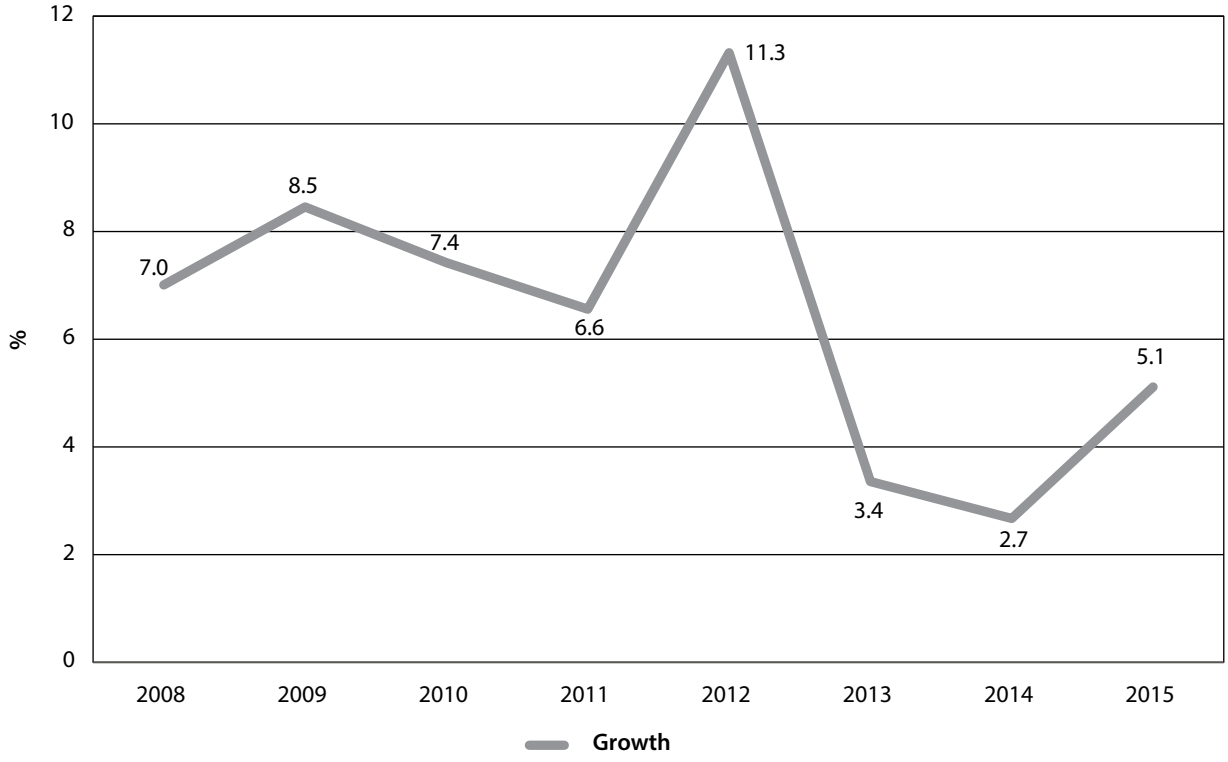


Figure 7. Annual growth of oil palm plantation area in Indonesia.
Sources: BPS-Statistic Indonesia (2016) and Directorate General of Estate Crops of Indonesia (2014)

depending on the international palm oil price. To determine taxation levels, the government has set a threshold of USD 750 per ton. The government sets a benchmark, which is reviewed monthly, for the CPO price based on international and local CPO prices. When this benchmark drops below the threshold of USD 750 per ton, the export tax is zero percent. When it is set between USD 750 and USD 800, then a USD 3 per ton export tax is applied, and when the benchmark price is set between USD 800 and USD 850, then the export tax rises to USD 18 per ton (Indonesia Investment 2017).

The low global price of CPO forced the Indonesian Government to mostly implement a zero percent CPO export tax from October 2014. In May and October 2016 only, exporters paid an export tax of USD 3 per ton (Aria 2016). From January 2017, the global price for palm oil increased and the government set the price benchmark for CPO at USD 788.3, obliging exporters to pay an export tax of USD 3 per ton. In February 2017, the amount increased to USD 815.5 and the government applied an export tax of USD 18 per ton (Indonesia Investment 2017).

The period of no export tax revenue on CPO in 2014 and 2015 prompted the Indonesian Government to impose a USD 50 levy per ton on crude palm oil exports and a USD 30 levy per ton on exports of processed palm oil products. Initially, the Indonesian Government had planned to impose this levy only if the benchmark CPO price were to fall below the USD 750 per ton threshold; however, currently the government imposes both the levy and the CPO tax on exports even though the benchmark CPO price is above USD 750 (Prawita 2015). When the benchmark CPO price is below USD 750 the levy is at the aforementioned (fixed) amount. When the benchmark CPO price is above the threshold of USD 750 the levy decreases proportionally as the CPO export tax increases. Figure 8 illustrates the implementation of the export tax and levy for CPO and its derived product.

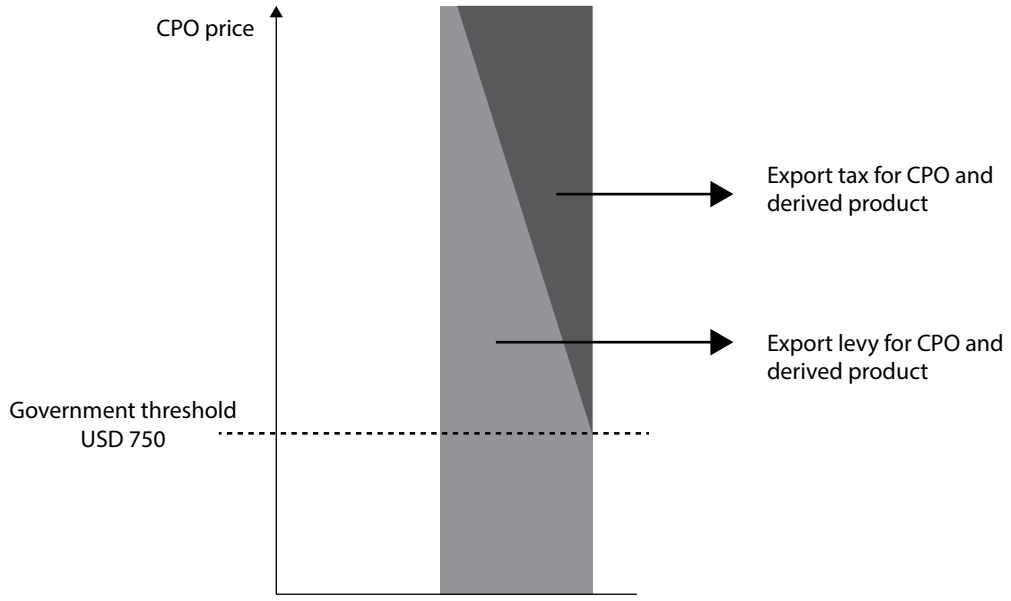


Figure 8. Export tax and levy for CPO and its derived product.
Source: Prawita (2015)

The Indonesian Government uses most of the funds raised through the CPO levies to finance ambitious programs, such as the biodiesel subsidy program. The funds raised in this way are referred to locally as the "CPO fund." In 2014, the government increased the mandated amount of palm oil blending into diesel fuel sold domestically, from 7.5% to 10%, and regulated that power plants can mix in 20%. The increases were related to the low price of CPO at that time. The use of CPO in national biodiesel consumption was expected to increase demand for vegetable oil to support the level of CPO prices. In February 2015, the government raised biofuel subsidies from IDR 1500 per liter to IDR 4000 per liter in an attempt to protect domestic biofuel producers (Listyorini and Suhana 2015). The subsidies were needed to compensate biodiesel producers for the price difference between regular diesel and biodiesel related to low global petroleum prices from the middle of 2014.

The Indonesian Government shows great interest in biofuel. Biofuel is seen as a way to reduce the country's reliance on fossil fuels and at the same time to provide an additional market outlet for palm oil. In 2006, the Indonesian Government aimed to incorporate 5% biofuel into overall national energy consumption by 2025 (Ministry of Energy and Mineral Resources 2007). In 2015, mandatory biodiesel blending was increased by the Ministry of Energy and Mineral Resources from 10% to 15% for transportation and industrial uses, and to 25% for electricity uses as of April 2015. Furthermore, the plan is to increase mandatory blending to 30% for transportation, industrial and electricity uses by 2020 (Ministry of Energy and Mineral Resources 2016). Under the same mandate, the government aims to establish a national energy mix of 23% renewable energy in 2025, and biofuel is expected to contribute 26% to this overall target (Paryanto 2015). Palm oil will likely be the principal source for biofuel production as the development of other biofuel source crops, such as Jatropha, have failed in Indonesia.

Currently in the Indonesian palm oil sector, bad quality seedlings in smallholder farms and aging plantations throughout the sector, both leading to low productivity, form significant challenges. Thus, the Indonesian Government has implemented revitalization programs to help businesses and farmers to overcome these challenges. The government also allocated part of the CPO fund to finance replanting, research and the development of human resources in the palm oil sector. The Indonesian Palm Oil Estate Fund (BPDP), was

set up to manage the CPO fund. In 2015, BPDP has allocated IDR 400 billion (approximately USD 29.5 million) to support the regeneration of aging plantations with low productivity. The programs give priority to smallholder farmers with plantations up to four hectares. However, the dissemination of funds has been held back by several issues, such as difficulties in determining the criteria for possible recipients and unclear land ownership among smallholder farmers. By November 2016, only 4% (IDR 16 billion, or approximately USD 1.18 million) of the available funds were distributed (Ribka 2016). In Subsection 2.1.2 further information is provided on smallholder financing derived from the CPO fund.

Global environmental groups campaigning against the deforestation and destruction of peatlands caused by oil palm plantation development have urged the Indonesian Government to take serious measures towards improved management of the palm oil sector. In 2009, the government established the Indonesian Sustainable Palm Oil (ISPO) certification system to boost the global competitiveness of Indonesian palm oil, while at the same time supporting the Indonesian commitment to reduce greenhouse gas emissions. The ISPO certification is mandatory and applies to all oil palm plantations in Indonesia, both for companies and smallholder farmers, although requirements differ. Independent bodies conduct the certification process based on assessment criteria provided by ISPO (ISPO n.d.).

2.1.2 Smallholder development in the Indonesian palm oil sector

Development of the smallholder palm oil sector in Indonesia was initiated in the late 1970s, when the Indonesian Government selected the commodity as part of its transmigration programs. With financial support from the World Bank, the government implemented policies to support the development of nucleus–plasma grower schemes (also known as *Perkebunan Inti Rakyat* or PIR). Under these schemes, companies develop small-scale oil palm plantations – known as 'plasma' – for smallholders in an area around the company plantation, which is known as the 'nucleus' area. Initially these programs implemented a land allocation of 20–80, being 20% for the nucleus plantations and 80% for the plasma plantations. Later the programs were adjusted to a division of 40–60, being 40% of the land for the nucleus plantations and 60% for the plasma plantations. The central government allocated forested area (classified as conversion forests) for this program.

Typically, smallholders within transmigration programs consisted of migrant families from Java. Each family would receive a two-hectare oil palm plantation, as well as one hectare of land to cultivate other crops. The plasma families usually received support from the nucleus company in the period when their plantations were not yet producing crops through employment as laborers in the nucleus plantation. The Indonesian Government stopped the expansion of the nucleus–plasma schemes in 2001 after the country went through an extensive decentralization process towards greater regional and local government control earlier in that year (Zen et al. 2005).

In 1995, the Indonesian Government introduced the KKPA scheme (*Koperasi Kredit Primer untuk Anggota* – Primary Cooperative Credit for Members) as a general rural microfinance program. This scheme was extensively applied in the palm oil sector, replacing the nucleus–plasma scheme. This scheme was initially intended to improve the nucleus–plasma scheme after it became apparent that it often resulted in unfair treatment of smallholders. Through the KKPA scheme, cooperatives could borrow up to IDR 50 million (approximately USD 4500) from banks with, at the introduction of the scheme, an initial subsidized interest rate of 16%. Since it was introduced, the government has used the CPO fund to increase the subsidy on the interest rate (currently 9%) and there are plans to raise the subsidy further (Tempo 2016). Table 9 presents the comparison between nucleus–plasma (PIR) and KKPA schemes.

In 1999, the Indonesian Government introduced another type of smallholder scheme known as *Pola Kemitraan* (partnership model). A number of different partnership models exist under this scheme, which in general reduced the active involvement of the smallholders in plantation management (IFC 2013).

In 2013, the Ministry of Agriculture of Indonesia issued Ministerial Decree no. 98/Permentan/2013, which currently regulates permit issuance to plantation companies and companies managing

Table 9. Comparison of the nucleus–plasma (PIR) and KKPA schemes.

Main features	Nucleus–plasma (PIR) scheme	KKPA scheme
Participants	Individual farmers selected by regional government or transmigration minister.	Farmers united under a cooperative (KUD).
Development of plantation through government/bank financing and/ or self-financing. Development costs include direct development costs from the preparation stage up to the transfer of ownership/ management stage, also including interest.	Yes	Yes
Financing arrangement with banks.	A direct loan agreement between the nucleus and the bank up to planting of the plasma plantation. Immediately after planting, the agreement is terminated and a new agreement between the plasma farmers and the bank is established, with the nucleus company acting as a guarantor for the loan.	A loan agreement between the cooperative and the bank with a corporate guarantee provided by the nucleus to the bank.
Obligation of the farmers to sell FFBs to the nucleus once the plasma plantation becomes mature.	Yes	Yes
Active involvement in the management of the plantations (weeding, purchase and application of fertilizer, etc.)	Yes, the plasma manages independently the purchase and the application of the fertilizer, and other plantation maintenance activities.	The nucleus company manages all the maintenance of the plantations, with the plasma farmers paying a management fee.
The conversion price during the transfer is determined by the government	Yes	Yes

Source: Adapted from PriceWaterhouseCoopers (n.d.)

processing industries in the palm oil sector. This decree stipulates that plantation companies (*Ijin Usaha Perkebunan Budidaya* – IUP B holder or plantation business permit holder) must facilitate the development of smallholder plantations for an additional minimum 20% of the size of the plantation concession. These smallholder plantations are located outside the company's concession area. The smallholder plantations must be established within three years of receiving the permit. This decree will therefore likely support further expansion of smallholder plantations in the country.

Since January 2015, smallholder financing in the palm oil sector has been conducted through the KUR program (*Kredit Usaha Rakyat*, or credit for small and medium enterprises). This program is aimed at new plantation development and replanting. It replaced the earlier KPENRP program (*Kredit Pengembangan Energi Nabati dan Revitalisasi Perkebunan*; Credit for bioenergy development and plantation revitalization). The KUR program is 100% funded by commercial banks. Financial institutions providing funds through this program are: BRI, Mandiri, BNI, Bank Sinarmas, Maybank, Bank Bukopin, BTPN, OCBC NISP, Bank Permata, Bank Panin, BCA, Bank Artha Graha, BPD Kalbar, BPD NTT, BPD Bali, BPD DIY, BPD Sulselbar, Bank Jateng, BPD Sumatra Utara, Bank Jatim, BPD Sumbar, BPD Riau Kepri, Bank

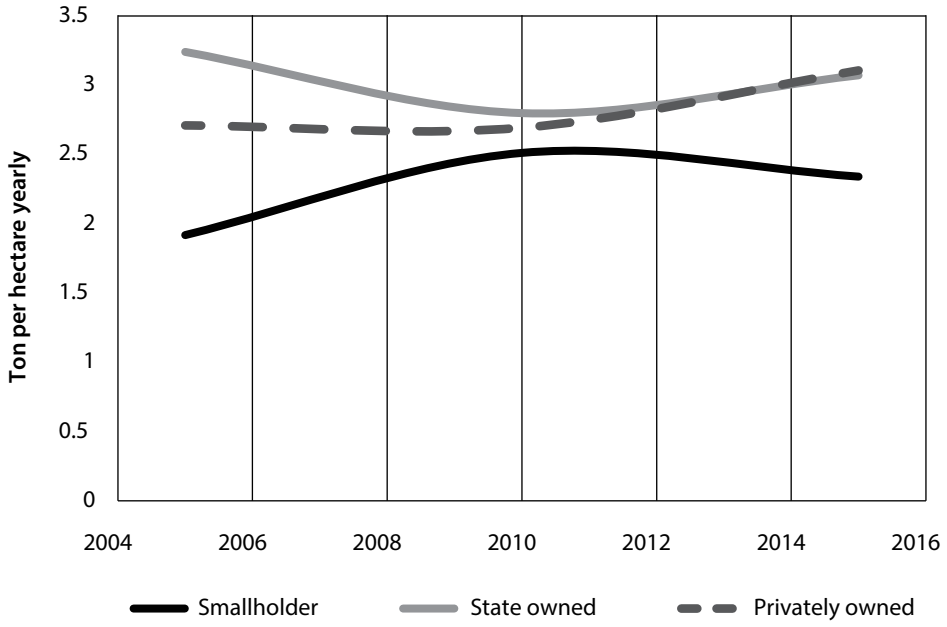


Figure 9. Plantation area and production volume by ownership type.

Note: This figure does not include the waiting period before production begins on new plantations and therefore does not provide accurate productivity levels. The figure is intended merely to show overall trends in productivity.

Source: BPS (2016)

Jambi, Bank Kalbar, Bank Kalsel, Bank NTB, Bank Sumselbabel, Bank Papua, Bank Lampung, BRI Syariah, BCA Finance, Mega Finance, FIF and Adira Finance (KUR n.d.)

The KUR scheme provides a maximum loan of IDR 500 million per farmer. The period for the loan varies depending on the lender, e.g. a maximum of 10 years for Mandiri (Mandiri n.d.). The interest rates of loans also vary based on the providing bank. Since January 2016, the Indonesian Government has subsidized interest payments by smallholders, holding them to a 9% annual rate (Tempo 2016). There were plans to increase the subsidy to reduce the annual interest rate to 7%; however, by early 2017, no steps had been taken to implement this plan (Simorangkir 2017).

Productivity of smallholder plantations is commonly lower than for those operated by private companies, mainly due to poor quality seedlings and inadequate application of fertilizers in smallholder plantations, particularly when they are first established. In 2015, smallholders in Indonesia managed approximately 40.5% of the total oil palm plantation area in Indonesia, the equivalent of about 4.5 million hectares. However, these plantations only contributed 34.1% of the country's total production (BPS 2016). Figure 9 provides an overview of plantation productivity derived from data provided by the Indonesian Statistical Agency (BPS).

The low productivity of smallholder plantations and aging plantations prompted the Indonesian Government to initiate a financing support program to help smallholder farmers conduct plantation regeneration. In 2016, the government implemented a replanting subsidy for selected smallholder oil palm plantations. The fund was allocated from the CPO fund (government revenue from CPO and palm oil related product export levies and taxes), which is managed by *Badan Pengelola Dana Perkebunan Kelapa Sawit* (BPDP-KS; or the Indonesian Oil Palm Estate Fund). Under this program, each farmer receives a subsidy of IDR 25 million per hectare or about 40% of the total cost of replanting. The other 60% of costs are to be covered through bank loans. In the distribution of subsidies, priority is given to farmers with plantations smaller than four hectares,

with funds being distributed through farmer groups with total land holdings of less than 300 hectares (Chandra 2016).

The process for the allocation of subsidies involves negotiations between the bank and BPDP-KS over the costs for replanting. If the bank does not agree to provide the loan, a subsidy will not be granted (Rommy 2016). Farmers eligible to apply for the replanting subsidy from BPDP-KS must meet the following criteria (Rommy 2016):

- farmers with membership in a farmer group or independent farmers who are a member of a cooperative
- plantation must be at least 25 years old
- farmers must have a loan agreement from a bank for the 60% not covered by the subsidy before proposing replanting
- farmers must provide proof of land tenure (land ownership) on the land to be replanted as part of the bank's loan application process
- farmer group or cooperative must present a guarantee that the replanting program will only produce high quality oil palm
- farmer group or cooperative's plantations must have the potential or be eligible to get ISPO certification.

In 2016, the government allocated IDR 400 billion of the CPO fund to finance smallholder plantation replanting programs. However, until November of that year, only IDR 16 billion (4%) was distributed. In 2017, more funds were allocated for these programs, raising the total amount to about IDR 1 trillion. The funds are intended to support the replanting of approximately 40,000 hectares of smallholder plantations (Fauzi 2016). The replanting of aging and low productivity plantations is considered an urgent matter in the Indonesian palm oil sector. The chief of the BPPD-KS stated that Indonesia needs to replant 300,000 hectares annually (Primadhyta 2015).

2.2 Malaysia

2.2.1 Sector policy overview in Malaysia

Commercial palm oil cultivation in Malaysia started in 1911, when a French landowner started planting oil palm in the Selangor area after his coffee plantation had failed. Most oil palm plantations were owned by British landowners managing relatively small plantations (about 200 hectares each). The expansion of oil palm plantations was modest until 1957 when the government started to regard palm oil as a commodity and shape the development of the sector. In 1960, the Malaysian Government took initiatives to diversify the economy from rubber and tin production to industrialization and the

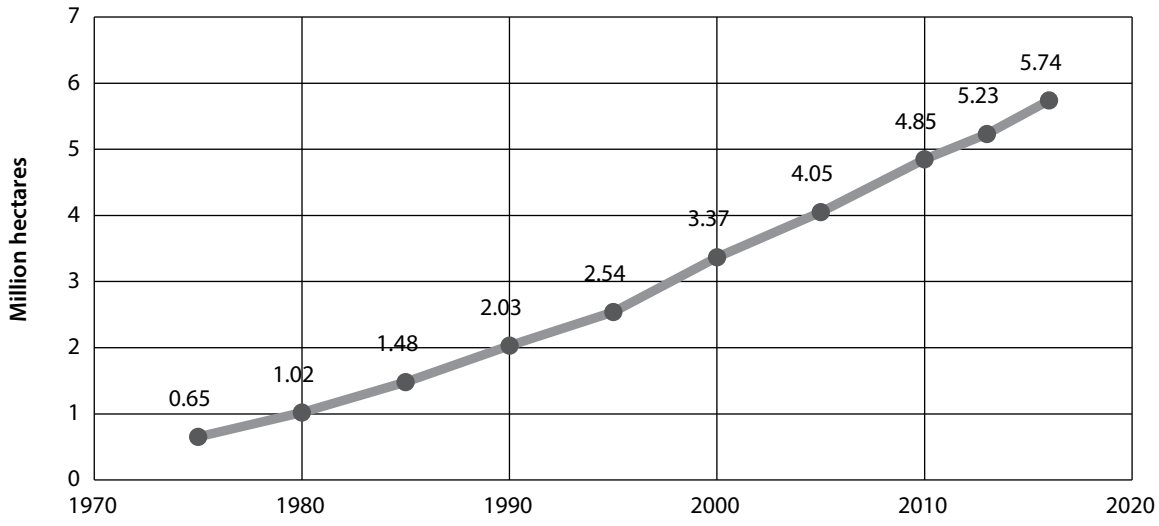


Figure 10. Development of oil palm plantations in Malaysia.
Source: MPOB (n.d.)

cultivation of alternative crops. Palm oil was selected as one of the preferred commodities. Due to the low price of rubber in the 1960s, plantation owners also increasingly converted their rubber plantations into oil palm plantations. The introduction of successful commercial plantation schemes increased the planted area from about 54,000 hectares in the 1960s to 3.4 million hectares in 2000 and 5.08 million hectares in 2014. Most plantations are located in Sabah and Sarawak states, accounting for 45% of the total plantation area in the country (Abazue et al. 2015). Figure 10 presents an overview of palm oil development in Malaysia.

The Malaysian Government established three organizations to support the development of this sector. These organizations are Malaysian Palm Oil Council (MPOC), Palm Oil Registration and Licensing Authority (PORLA) and Palm Oil Research Institute of Malaysia (PORIM). MPOC was established mainly to promote the Malaysian palm oil industry in the global oils and fats market. PORLA's main assignment was to set quality standards for palm oil products to ensure a high-quality export product. Meanwhile, PORIM was established to develop technology for efficiency increases in the palm oil sector and to stimulate the use of palm oil. In 2000, the latter two organizations merged to form a new agency, Malaysian Palm Oil Board (MPOB). This new agency is placed under the Ministry of Plantation Industries and Commodities (MPIC) and has become the most important agency in Malaysia responsible for the promotion and development of the sector (MPOB n.d.).

In the 1970s, the Malaysian Government shifted the orientation of the industry from CPO exports to focus more on refined products from palm oil. Taxation and incentives supported the implementation of this policy. To support the development of downstream industries while simultaneously sustaining upstream development, the palm oil industry was selected for sectoral support under the Industrial Master Plan in 1986 (IMP1). IMP1 focused on improving the management of refinery and processing industries to boost Malaysian palm oil in the global market. As a result, Malaysia became a hub for downstream palm oil processing. By 1996, the capacity of downstream processing exceeded the supply of CPO in the country. The second Industrial Master Plan of Malaysia (IMP2) guided the expansion of oil palm to the eastern part of Malaysia while at the same time, due to limited land availability, the government encouraged the private sector to seek raw materials from abroad (Sime Darby 2009). Many Malaysian companies invested and developed new plantations in the neighboring country, Indonesia, or looked even further away to invest, for instance in Africa. So far, the expansion into Indonesia has been more successful. Malaysian investors manage almost 25% of oil palm plantations in Indonesia (Suhaila 2012).

To make the downstream industry more attractive, the Malaysian Government also provides tax incentives for the industry. In 1976, the government started applying export taxes on CPO to stimulate the production and export of processed products. Neutralized, bleached and deodorized palm oil is fully exempt from export tax, while for CPO, the government applies a 10% to 30% export tax, depending on market prices (USDA 2012). In addition, the government also gives a two-year 40% corporate income tax reduction for investment in this industry, which can also be extended, and a tax reduction on excess profit and development taxes over an eight-year period. Palm oil refineries that obtained 'pioneer status' could also apply for a tax holiday for seven years. There were nine palm oil refineries receiving a tax holiday between 1969 and 1974 (Rasiah and Shahrin 2005).

In late 2015, the Malaysian Government allocated MYR 100 million (approximately USD 22.7 million) as an incentive towards replanting oil palm plantations to aid the revitalization of the sector. The funds are aimed at the oil palm plantation companies in the country. The incentive was distributed on a 'first-come, first-served' basis, with the funds being handed out in two stages: first an incentive of MYR 1500 (approximately USD 341) per hectare was distributed for an initial 33,000 hectares, followed by a further incentive of MYR 1000 (approximately USD 227) per hectare for another 50,000 hectares (USDA 2015).

The Malaysian Government is also interested in the production of biodiesel. Initially, the promotion of biodiesel production was aimed at stabilizing the CPO price and seen as a new opportunity for the export market of palm oil. In 2006, the government established the National Biofuel Policy

(NBP), which focuses on the commercialization, usage, research, technology and export of biodiesel (IEA 2015). The NBP succeeded in stimulating the establishment of biodiesel refineries in the country. At present, there are 25 biodiesel plants in Malaysia, with a total capacity of 2.6 million tons. However, currently these refineries produce at less than 10% of their capacity (Suhaila 2012).

In 2007, the Malaysian Parliament passed the Biofuel Industry Act, which included provisions for the Ministry of Plantation Industries and Commodities to implement a biodiesel blend mandate. The act was initially intended to introduce B5 (a 5% blend of biodiesel) in 2008. However, the plan was not realized until June 2011. The Malaysian Government further stimulated the use of palm oil in biodiesel by introducing B7 (a 7% blend of biodiesel) in the market in 2015, aiming to boost palm oil consumption amid low CPO prices at that time. A B10 mandate was slated for implementation in 2015 for the transport sector. However, this plan was delayed until the end of 2016 because of opposition from manufacturers of diesel vehicles, which claimed that the 10% blend would have adverse effects on engine and lubrication systems (USDA 2016).

Similar to Indonesia, the Malaysian Government also promotes a national certification scheme for oil palm plantations, independent and organized smallholders and palm oil processing facilities. The scheme is known as the Malaysian Sustainable Palm Oil (MSPO) certification scheme. Unlike ISPO in Indonesia, the MSPO is a voluntary certification system. It was started in 2015 and is executed by independent certification bodies, based on assessment criteria provided by the Malaysian Palm Oil Certification Council (MPOCC) (MPOCC n.d.(a)). As of February 2017, approximately 245,000 hectares of plantations were certified under the MSPO certification scheme (MPOCC n.d.(b)). From February 2017, the MPOCC appointed MSPO as a mandatory certification system in Malaysia, comparable to ISPO in Indonesia. Plantation companies that are already Roundtable on Sustainable Palm Oil (RSPO) certified must obtain MSPO certification by 31 December 2018, while companies without RSPO certification will be given more time to obtain the MSPO certification, until 30 June 2019 (MPOC n.d.).

2.2.2 Smallholder development in the Malaysian palm oil sector

The palm oil sector in Malaysia has also been selected as a development tool in the country's poverty alleviation programs. The government established two rural development agencies to drive the development of large plantation areas through land rehabilitation programs and opening up new lands. In the palm oil sector, these agencies are:

- Federal Land Development Authority (FELDA)
- Federal Land Consolidation and Rehabilitation Authority (FELCRA) (Suhaila 2012).

The FELDA program selected poor and landless families to join the program and resettled them in newly opened areas to manage oil palm plantations. The agency allocated a four-hectare plot, a house, and a garden plot located within a larger management block of land. FELDA provided the physical infrastructure, management and advisory. In addition, FELDA also made available financial supports (e.g. loans), plantation inputs, such as seeds, fertilizers, and pesticides and also buys the harvests from the plantations. The settlers in turn worked on the management block of land, and participated as equal owners with no rights over any particular plot of land. FELDA over the years has restructured to accommodate the changing trends in the palm oil business. The FELDA management of settler schemes has remained, with new lands developed into 'non-settler' plantations owned by its subsidiaries and worked by laborers who earn wages and bonuses at similar rates to those who work on private plantations. Most of the workers are immigrants from Indonesia, and FELDA employs them on a contractual basis. Currently, 'non-settler' schemes manage nearly 40% of FELDA's total plantation area (Abazue 2015).

Oil palm plantations managed by FELDA accounted for 30% of the total plantation area in the country from the late 1970s to the late 1980s. This share dropped in late 1980s when FELDA's expansion slowed down while the development of new plantations by private companies continued. In 2016, FELDA managed approximately 700,000 hectares of oil palm plantations, mainly in Peninsular Malaysia (MPOB 2016).

Local communities turn their land over to be fully managed under the FELCRA management

scheme, receiving dividends in exchange. FELCRA pays the dividend twice a year for 10 to 15 years depending on the development cost of the plantation. FELCRA also encourages the local community to work on these plantations under labor contracts. The dividend amount received by each family varies based on the size of the land contributed to the project (King 2005). In 1997, FELCRA was privatized and underwent a name change to FELCRA Berhad. In 2016, FELCRA managed approximately 173,000 hectares of plantations (MPOB 2016).

As in Indonesia, the production of smallholder oil palm plantations in Malaysia is also typically lower than those owned by private companies. To increase production and regenerate old plantations, the Malaysian Government provides incentives to smallholders who want to replant their plantations. For the period from 2011 to 2013, the Malaysian Government allocated MYR 1.02 billion (approximately USD 230 million) to support smallholder replanting in this sector. Smallholders with a plantation of less than four hectares can apply for a replanting fund of MYR 9000 (approximately USD 2000) per hectare. Smallholders with plantations of less than 2.5 hectares are eligible to apply for a management assistance fund of MYR 500 (approximately USD 113) per month for two years while they replant their plantation (Borneo Post 2012). The program was extended until 2014 because fewer smallholders applied for it than originally anticipated (ETP n.d.). In 2015, the government announced the allocation of a further MYR 41 million (approximately USD 9.2 million) for this program. The funds provide support of MYR 7000 (approximately USD 1500) per hectare for oil palm land in Peninsular Malaysia and MYR 9000 per hectare in Sabah and Sarawak (New Straits Times 2014).

3 The role of financial service providers in oil palm development

International and domestic financial service providers (FSPs) play a crucial role in the development of the palm oil sectors in Indonesia and Malaysia. FSPs include commercial and investment banks, asset managers and institutional investors such as pension funds, insurance companies, etc. These FSPs provide the majority of funds for companies' initial operations and further business expansion. This section provides an overview of the FSPs that finance the development of the palm oil sector in Indonesia and Malaysia and an analysis of the policies they may or may not have put in place to limit environmental and social risks, as well as the role smallholder issues play within these policies.

3.1 Financing of large plantations, mills and traders

In general, FSPs provide funds in the form of loans, shares and bonds. Below is an explanation of what these types of financing entail in relation to the palm oil sector.

- Corporate loans
  A company can obtain a loan from FSPs to finance its operation. In most cases, commercial banks provide either short-term or long-term loans. Short-term loans (including trade credits, current accounts, leasing agreements, etc.) mature in under a year, and are mainly used as working capital for day-to-day operations. On the other hand, a long-term loan has a maturity date of at least one year, but usually three to 10 years. A company can use the loan to finance all types of activities. Long-term corporate loans are useful to finance expansion plans, which only generate rewards after a certain period. Often, long-term loans are extended by a loan syndicate, which is a group of banks brought together by one or more arranging banks. The loan syndicate will only undersign the loan agreement if the company can provide certain guarantees that payment of interest and loan repayments will be fulfilled.

- Revolving credit facility
  Another type of loan is a revolving credit facility, which provides a company with an option to take up a loan from a bank (or more often: a banking syndicate) when it has an urgent financing need. It is somewhat like a credit card. Companies have the option of using the revolving facility up to a certain limit. Revolving credits are often negotiated for a period of five years and then renewed, but many companies renegotiate their revolving credit facility every year with the same banking syndicate. Amounts, interest rates, fees and participating banks can change slightly every year. Although revolving credit facilities are hardly ever fully called upon for a loan, the syndicate of banks providing the facility have an obligation to provide the entire amount of money when the company asks for it. Therefore, even if a company never uses the facility, the banks are still involved with the company during the period of the revolving credit facility and provide the company with the money if they are asked for it.

- Project finance
  Project finance is a specific long-term loan. The proceeds of this loan can only be used to finance a specific project, such as the development of a refinery, harbor facilities, road, etc. Project finance is often extended by a banking syndicate, like corporate loans. However, unlike corporate loans, the repayment of a project finance loan is dependent upon the revenues it is expected to generate. Project finance is a niche market for financing projects under specific circumstances. For example, if

the project is very large compared with the size of the owner, or if some project owners do not have cheaper financing options available.

- Share issuances
  A company listed on the stock exchange can increase equity by issuing shares, which can attract many new shareholders or increase the equity of existing shareholders. These shareholders can be private investors as well as institutional investors. The first time a company offers its shares on the stock exchange, it is called an initial public offering (IPO). When a company's shares are already traded on the stock exchange, a new issuance is called a secondary offering of additional shares. To arrange an IPO or a secondary offering, a company needs the assistance of one or more (investment) banks to promote the shares and find shareholders.

- Bond issuances
  Issuing bonds can best be described as cutting a large loan into small pieces, and selling each piece separately. Bonds are issued on a large scale by governments, but also by corporations. Similar to shares, bonds are traded on the stock exchange, but they are also sold on the capital market, to private investors as well as institutional investors. Banks rarely buy any bonds. However, to issue corporate bonds, a company needs the assistance of one or more (investment) banks which underwrite a certain amount of the value. Underwriting is in effect buying with the intention of selling to investors. The buyer of each bond is entitled to repayment after a certain number of years, and to a certain amount of interest each year until the repayment of the bond. Still, if the investment bank fails to sell all bonds it has underwritten, it will end up owning the bonds.

In 2016, Chain Reaction Research (CRR) conducted a financial investigation to identify the financiers of 15 major palm oil companies (see Table 10). The investigation examined financial transactions (loans and issuance of shares and bonds) relating to these 15 companies from 2006 to 2015. The FSPs identified therein form the basis for further study within the context of our current research.

The investigation showed that Japanese-based FSPs had provided the largest amount of loans,

Table 10. The 15 palm oil companies selected for CRR study.

Company	Country of origin
Asian Agri	Indonesia
Astra Agro Lestari	Indonesia
Bumitama Agri	Singapore
Felda Global Ventures	Malaysia
First Resources	Singapore
Genting Plantations	Malaysia
Golden Agri-Resources	Singapore
Indofood Agri Resources	Singapore
IOI Corporation	Malaysia
Kencana Agri	Singapore
KLK	Malaysia
Salim Ivomas Pratama	Indonesia
Sawit Sumbermas Sarana	Indonesia
Sime Darby	Malaysia
Wilmar International	Singapore

followed by FSPs based in Singapore and Europe. Meanwhile, bond and share issuances for the 15 companies mostly came from FSPs based in Malaysia, followed by FSPs based in the United States and Europe. Figure 11 presents an overview of the distribution of sources of the funds in the selected companies. It represents 72% of the total loans recorded in the period from 2006 to 2015, and 88% of the most current bond and share issuances for these 15 companies. Table 11 provides an overview of the investment of the top 15 financiers identified within the research.

Companies (plantations, mills, refineries and traders) usually use the funds raised from these FSPs to finance their own operations or business expansions, and not for any activities related to smallholders. Plantation companies in Indonesia and Malaysia with a commitment to developing smallholder plantations (within the nucleus–plasma scheme) use other sources of funding to establish these smallholder plantations. Financing is usually provided by local banks through various credit schemes, such as KUR, often in combination with government subsidies (the KUR scheme and related government subsidy is explained in Subsection 2.2.2). Typically, these local banks manage these schemes in an equivalent manner to the financing of small and medium enterprises

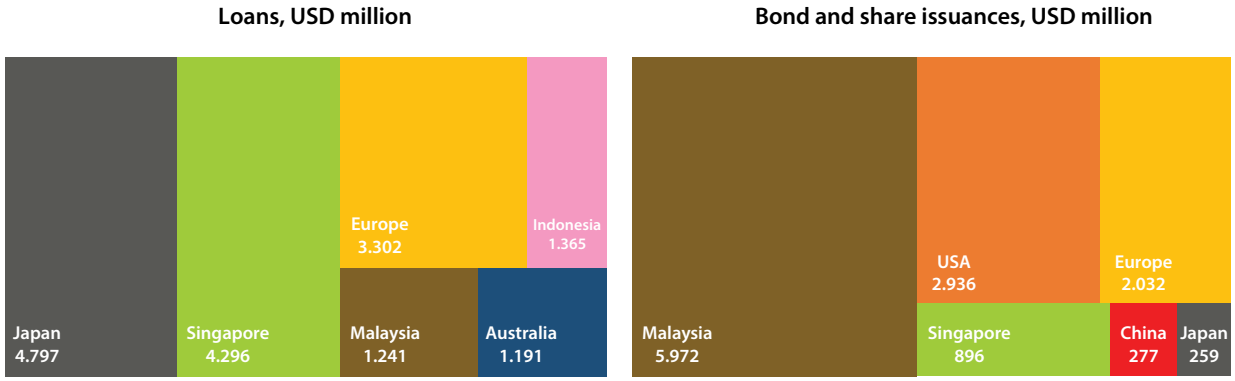


Figure 11. Distribution of sources of funds in the 15 selected companies.
Sources: Adapted from Chain Reaction Research (2017), Thomson Reuters Eikon (n.d.), Bloomberg (n.d.(a)) and Bloomberg (n.d.(b))

Table 11. Top 15 loan providers and top 15 bonds and shares issuers.

Country	FSP	Loans (USD million)	Bonds and shares (USD million)
Australia	ANZ	537	-
	Commonwealth Bank	654	-
China	CITIC	-	277
Europe	BNP Paribas	811	368
	Credit Suisse	-	628
	Deutsche Bank	-	617
	HSBC	1,660	419
	Rabobank	830	-
Japan	Mitsubishi UFJ	1,800	259
	Mizuho	1,213	-
	Sumitomo Mitsui	1,784	-
Indonesia	BCA	665	-
	Mandiri	700	-
Malaysia	CIMB	718	2,165
	Maybank	523	1,862
	RHB	-	1596
	Public Bank	-	349
Singapore	DBS	1259	458
	OCBC	2422	439
	UOB	614	-
USA	Citigroup	-	1494
	Morgan Stanley	-	721
	JPMorgan Chase	-	721

Sources: Adapted from Chain Reaction Research (2017), Thomson Reuters Eikon (n.d.), Bloomberg (n.d.(a)) and Bloomberg (n.d.(b))

(SMEs). Smallholders or cooperatives (a group of smallholders) are the debtors of such financing, with the plantation companies only acting as guarantors for the loan.

3.2 Sustainable palm oil and smallholder inclusion

Sustainability issues in palm oil production have received serious attention from various stakeholders. Several reports and NGO campaigns have stated that the development of oil palm plantations often take place at the expense of rich forests, which are also habitats of many endangered species in Indonesia and Malaysia (Rainforest Rescue n.d.). Additionally, recurring fires, which create severe haze problems in the region and beyond are often connected to irresponsible business practices within the sector. Furthermore, the massive expansion of oil palm plantations often coincides with conflict situations with local communities.

Consumer pressure towards sustainable production practices and government regulations on social and environmental responsibility have led stakeholders in this sector to conduct business more responsibly. Several FSPs have also begun to acknowledge the potential for a viable business case for responsible investment, while also showing an increased appreciation by FSPs of the reputational, financial, and compliance risks associated with the financing of socially and environmentally unsustainable companies and projects. A growing number of initiatives promoting the adoption of ESG standards by the FSPs reflects this trend. Subsection 3.2.1 will evaluate policies applied by FSPs when investing in this sector and the involvement of FSPs in initiatives that promote sustainable practices in the palm oil sector.

3.2.1 Investment policies of financial institutions

Conditions set by financiers when providing financial services to palm oil related companies provide safeguards for them against investing in unsustainable businesses. The details of these conditions reflect the awareness of FSPs on existing issues related to palm oil production and for the possible social, environmental and human rights' consequences of their investments. One step towards determining whether a FSP pays particular attention to sustainability issues related to their investment in the palm oil sector is by identifying whether it has publicly available ESG policies in general and policies on the palm oil sector in particular. Furthermore, the presence of conditions on certification and smallholder inclusion can be examined.

Research into the top 15 financiers of the 15 selected companies in the palm oil sector showed that FSPs from Australia, Europe, Japan and the United States mostly have a publicly available policy that provides safeguards limiting investment-related environmental and social risks. One FSP from Indonesia and one FSP from Malaysia have ESG policies, although they are very general. Two FSPs from Singapore claimed to have integrated ESG policies into their risk assessment and credit decision processes. However, no publicly available policies could be identified.

Analysis of publicly available policies of the FSPs shows that European FSP policies are commonly more detailed in addressing environmental and social issues related to their investment in the palm oil sector. FSPs from this region often have palm oil sector-specific policies. Among the three FSPs from the United States, two have palm oil sector specific-policies. These FSPs have policies that are comparable to those of the European FSPs. Japanese FSPs and Australian FSPs do not have palm oil sector specific-policies, but they have general policies aimed at limiting environmental risks or they have stated that they adopt international covenants for financiers to reduce the risk of environmental destruction and human rights violations resulting from financing and investment.

Further analysis on palm oil sector specific-policies of FSPs from Europe and the United States showed that they universally apply the requirement of RSPO certification on their financing in the palm oil sector. However, most of these policies only address FSP clients and do not explicitly extend to out-growers/smallholders. BNP Paribas is the only FSP with a palm oil sector-specific policy that includes relevant smallholder issues in its clients' business practices. BNP Paribas uses the client's policies related to smallholders as assessment criteria in financing (BNP Paribas n.d.). Table 12 presents the results of a detailed policy analysis of the financiers of the selected palm oil companies.

Table 12. Policies of top 15 financiers of the selected palm oil companies.

Country	Financial institutions	ESG policy	Palm oil specific	RSPO certification	Smallholder inclusion
Australia	ANZ	●	-	-	-
	Commonwealth Bank	●	-	-	-
China	CITIC	-	-	-	-
Europe	Deutsche Bank	●	●	●	-
	Credit Suisse	●	●	●	-
	BNP Paribas	●	●	●	●
	HSBC	●	●	●	-
	Rabobank	●	●	●	-
Indonesia	BCA	-	-	-	-
	Mandiri	●	-	-	-
Japan	Mitsubishi UFJ	●	-	-	-
	Mizuho	●	-	-	-
	Sumitomo Mitsui	●	-	-	-
Malaysia	CIMB	-	-	-	-
	Maybank	●	-	-	-
	RHB	-	-	-	-
	Public Bank	-	-	-	-
Singapore	DBS	-	-	-	-
	OCBC	●	-	-	-
	UOB	●	-	-	-
USA	Citigroup	●	●	●	-
	Morgan Stanley	●	-	-	-
	JPMorgan Chase	●	●	●	-

This study revealed that there is no relation between the value of financial services provided by FSPs to the selected companies and the results of the assessment on FSPs' policies. The regions where FSPs are based are more likely to influence policies and conditions set by these FSPs. Figure 12 shows the relationship between policy assessment scores and the value of financial services provided by the FSPs to the selected companies by country/region.

Financiers from countries where the majority of funds originate, such as Japan and Singapore, do not have adequate policies to limit the risk of financing unsustainable practices in the palm oil sector. The three Japanese FSPs state that they conduct environmental and social risk assessments under the Equator Principles. Although they have general forestry related policies, they are written in a very nonspecific manner and do not provide sufficient safeguards for their investments in the palm oil sector (Mizuho 2015).

Meanwhile, Singaporean FSPs included in this study are members of the Association of Banks in Singapore (ABS). In October 2015, ABS launched guidelines on responsible financing, defining the minimum standards on practices to be integrated into bank business models in Singapore. UOB and OCBC stated that they have integrated ESG conditions as suggested in the guidelines; however, detailed ESG polices were not published (OCBC 2015).

One of the Singaporean FSPs, OCBC, stated that it has adopted the UN Global Compact; however, the published environmental policy only states what OCBC does in its own business practices, not what is expected from recipients of its financial services (OCBC n.d.).

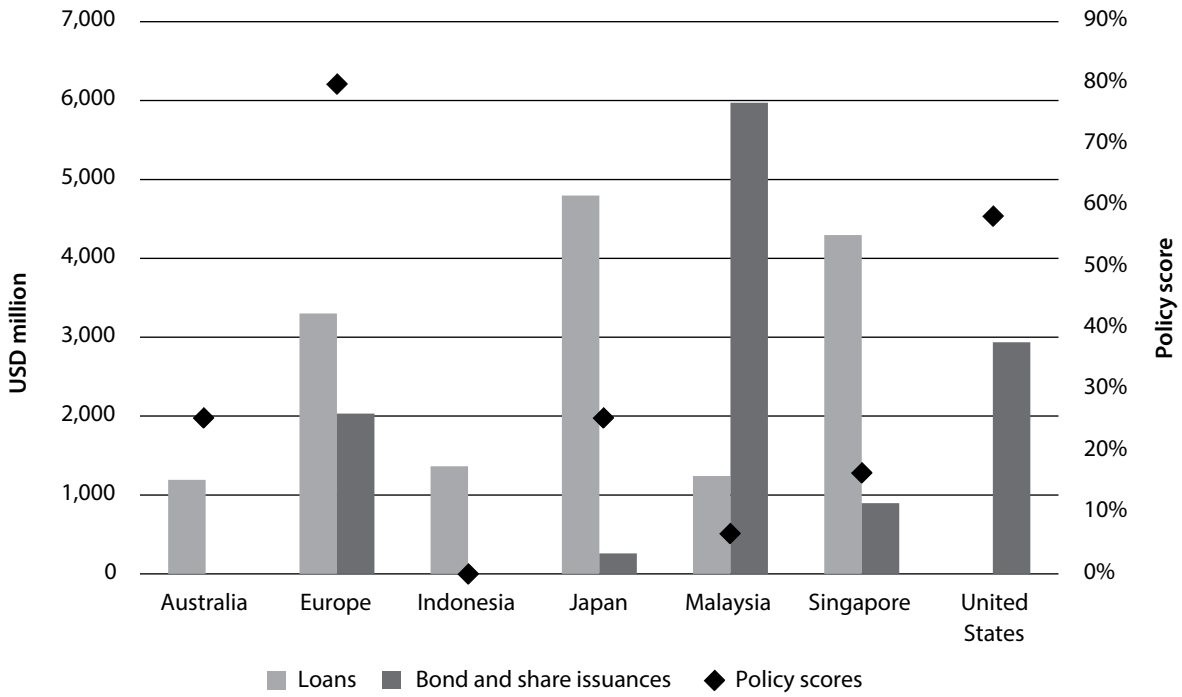


Figure 12. Value of financial services and policy assessment scores.

Note: The policies of FSPs were scored on four topics, namely: whether they have an ESG policy; whether they have a palm oil specific policy; whether they require RSPO certification; and whether they require smallholder inclusion. Each policy identified is scored 25%. The scores represent the average scores of FSPs in that particular country/region

The FSPs from Indonesia and Malaysia, where the selected palm oil companies also operate, were also found to have inadequate policies to limit the risk of financing unsustainable practices in the palm oil sector. One of the Malaysian FSPs, Maybank, stated that the bank has Responsible Lending Guidelines for its financing (Maybank 2016). One of the Indonesian FSPs, Mandiri, stated that it has set up a Guideline for Technical Analysis of Environmental and Social Risk in Lending, which is used as a reference when analyzing environmental risk within a credit analysis. However, neither guideline is publicly available and therefore cannot be assessed.

In November 2015, both Indonesian FSPs in this study pledged to participate in the implementation of the Sustainable Finance Roadmap 2014-2019 launched by the Indonesian Financial Services Authority (OJK) in the previous year. Participating FSPs assisted by OJK and the World Wide Fund for Nature (WWF) Indonesia are expected to develop a framework for the integration of sustainable financing principles into their business practices. The following targets were established to be achieved in the 18 months from January 2016 (WWF Indonesia n.d.):

- Identify the current level of sustainable financing applications of the FSP.
- Set FSP targets for enhancing sustainable financing integration.
- Develop and establish a sustainable financial policy framework at the cooperative level.
- Improve and determine sectoral financing policies for the palm oil industry (as the palm oil sector has been selected as a pilot project for the implementation of sustainable financing).

However, this pledge so far has not been followed by any concrete policy articulation for investment in the palm oil sector by these FSPs.

3.2.2 Financial institutions and sustainable initiatives

Various global initiatives have been established to provide guidelines and promote the adoption of Environmental, Social and Governance (ESG) standards by FSPs towards sustainable financing. In recent times, these initiatives have moved beyond addressing general

environmental, social and governance issues in business practices alone, to pay attention to palm oil sector specific issues. Some of the initiatives of note are described in more detail below.

- Equator Principles
  The Equator Principles (EP) were launched by a group of leading banks in 2003 to provide sustainable principles in the project financing market. The World Bank's subsidiary, International Finance Corporation (IFC), supported the initiation of these principles. EP relates to project financing, a specific type of company financing intended for large, complicated projects. The principles are intended to recognize, assess and control the social and environmental risks of project financing. For this purpose, the risk assessment procedures and the Performance Standards of the IFC are followed (EP 2011). Currently, 89 FSPs have adopted EP.

- Principles for Responsible Investment
  A group of asset management companies, investment funds and pension funds, supported by the United Nations Environment Program (UNEP) Financial Initiatives and the United Nations Global Compact, launched the Principles for Responsible Investment (PRI) in 2006. PRI focuses on the environmental, social and governance (ESG) implications of investments and promotes the integration of ESG standards in investment decisions. Currently, 1702 institutional investors (pension funds, insurance companies and asset management companies) have signed up to PRI. Many of these companies are subsidiaries and sister companies of large banks (PRI n.d.).

  The PRI secretariat coordinates with a group of 28 investors to establish an investor working group on sustainable palm oil. This sustainable palm oil working group is active in raising awareness on palm oil sector issues among investors. The group also encourages RSPO certification in palm oil business practices. A number of investors in this group expects all palm oil companies they invest in to adopt sustainable agricultural practices, to become members of the RSPO and to adopt a time-bound plan to certify all their plantations (PRI 2013).

- Roundtable on Sustainable Palm Oil (RSPO)
  In 2004, RSPO was established under Article 60 of the Swiss Civil Code. At present, this multi-stakeholder platform has more than 3000 members, including oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/investors, and NGOs. In 2007, RSPO adopted the Principles and Criteria for Sustainable Palm Oil Production and launched the RSPO Certification System. The Principles and Criteria for Sustainable Palm Oil Production are based on guidelines established by the Food and Agriculture Organization of the United Nations (FAO) and the International Labor Organization (ILO). In 2016, RSPO introduced additional criteria under the name RSPO NEXT (RSPO n.d.(a)). Although the RSPO regularly receives criticism on the way it conducts its certification and the way in which specific cases brought to them are addressed, at present the RSPO Certification System is the only type of certification widely adopted by stakeholders in the palm oil sector.

- Ceres Coalition
  The Ceres Coalition is a multi-stakeholder coalition that promotes the inclusion of environmental and social factors in financing. The coalition comprises more than 130 institutions from investors, environmental and social advocacy groups and other public interest organizations. In January 2017, a group of nonprofit organizations and investor groups, convened by Ceres, launched the Reporting Guidance for Responsible Palm (Ceres n.d.).

- Soft Commodities Compact
  Soft Commodities Compact is an initiative of the banks that are involved in the Banking Environment Initiative (BEI) and the Consumer Goods Forum (CGF). This compact aims "to lead the banking industry in aligning with the CGF's resolution to help achieve zero net deforestation by 2020 (BEI 2016)" The banks involved in the Soft Commodities Compact (compact banks) made two commitments, which are:
  - financing the transformation of supply chains
  - raising industry-wide banking standards.

> By 2020, the compact banks intend to have their customers' operations achieve the same internationally recognized means of verification that the CGF has prioritized. For palm oil, the starting point is RSPO certification (BEI 2016).

Participation of FSPs in the abovementioned initiatives shows whether or not they pay attention to the environment and social risk of their investments in the palm oil sector. Although being a member of an initiative, or stating adherence to their principles does not guarantee sustainable financing practices, it at least shows an awareness of some of the issues that need to be considered when investing in the palm oil sector.

Among the financiers of the 15 selected companies in the palm oil sector, most European financiers are signatories or have adopted related initiatives in the palm oil sector. All of the European financiers are signatories of PRI. They are also signatories of EP and RSPO members, except for Deutsche Bank. However, Deutsche Bank is one of the FSPs that adopted the Soft Commodities Compact. Other European financiers that adopted the Soft Commodities Compact are BNP Paribas and Rabobank.

Table 13. FSPs' participation in related sustainable financing initiatives.

Country	Financial institution	EP	PRI	RSPO	Ceres coalition	Soft Commodities Compact
Australia	ANZ	●	●	●	-	-
	Commonwealth Bank	●	●	-	-	-
China	CITIC	-	-	-	-	-
Europe	Deutsche Bank	-	●	-	-	●
	Credit Suisse	●	●	●	-	-
	BNP Paribas	●	●	●	-	●
	HSBC	●	●	●	-	-
	Rabobank	●	●	●	-	●
Indonesia	BCA	-	-	-	-	-
	Mandiri	-	-	-	-	-
Japan	Mitsubishi UFJ	●	●	-	-	-
	Mizuho	●	●	-	-	-
	Sumitomo Mitsui	●	●	-	-	-
Malaysia	CIMB	-	-	-	-	-
	Maybank	-	-	-	-	-
	RHB	-	-	-	-	-
	Public Bank	-	-	-	-	-
Singapore	DBS	-	-	-	-	-
	OCBC	-	-	-	-	-
	UOB	-	-	-	-	-
USA	Citigroup	●	-	●	-	-
	Morgan Stanley	-	●	-	-	-
	JPMorgan Chase	●	●	-	-	●

All of the Japanese and Australian financiers are signatories of both EP and PRI. Only one financier from Australia, ANZ, is a member of the RSPO. Other financiers from these countries are not members of RSPO and have not adopted the Soft Commodities Compact. Two of the financiers from the United States are signatories of EP and two are signatories of PRI. Among the US financiers, one (Citigroup) is a RSPO member and one (JPMorgan Chase) adopts the Soft Commodities Compact. Meanwhile, none of the financiers from China, Indonesia, Malaysia or Singapore is active or participating in these initiatives. Table 13 presents an overview of the financiers' participation in related sustainable financing initiatives.

4 Gaps and opportunities analysis

4.1 FSP performance on ESG standards and smallholder inclusion

When assessing the performance of FSPs regarding stimulating sustainable practices in the palm oil sector, it is important to realize the drivers causing these FSPs to adopt, for instance, ESG standards with respect to the financial services they provide. These drivers should similarly be identified with regard to their relationship with smallholders.

As noted in this study, European and US FSPs are more advanced than their Asian counterparts in adopting policies to include environmental and social risk assessments within the processes they follow when providing financial services to companies in the palm oil sector. RSPO certification is a common requirement for financing by FSPs from Europe and the United States, while they also often have sector specific policies for their investments, including for the palm oil sector. These policies are often presented within policy frameworks for agriculture and forestry, but are sometimes also presented as separate policies addressing the palm oil sector, such as in the case of BNP Paribas (n.d.). Some FSPs even go one step further. For example, HSBC supports sustainable businesses in the palm oil sector through the development of a specific product called discounted finance for RSPO-certified palm oil, which has been offered to its clients since July 2014 (HSBC 2014). This product was initiated by HSBC to provide incentives towards sustainable palm oil trade by encouraging them to achieve RSPO certification more rapidly.

It is apparent that one of the reasons for European and US FSPs to make environmental and social aspects part of the assessment criteria for providing financial services is driven by the domestic interests of these FSPs, i.e. the public profile of their own businesses and the businesses to which they extend financial services. This in turn is reflected in their focus on the oil palm companies rather than smallholders. Without sufficient attention paid to the significant role of smallholders in cultivation practices in the discourse on sustainable practices in the domestic arena in Europe and the United States, it is unlikely that FSPs will adopt more comprehensive policies, which take risks and opportunities that smallholder practices in the palm oil sector provide under consideration. But even where European and US FSPs may in future gain a better perspective on the importance of smallholders within the palm oil sector, the way they currently operate in the Indonesian and Malaysian market puts them at a disadvantage in comparison with national and local banks in reaching smallholders directly. These FSPs therefore will have to adopt different strategies to bridge this divide. Clearly, the primary way to address this will lie in the conditions they set for the companies they invest in or to whom they offer financial services, while perhaps also other instruments, such as supporting micro finance institutions, may be a way forward.

While European and US FSPs play a significant role in the global palm oil market, it should be noted that overall, palm oil consumption in these regions is significantly less than from the combined Asian countries, both in terms of exports to (other) Asian countries and in terms of domestic consumption of palm oil in the producing countries. This is equally the case in financial services. Although the investments and financial services provided by European and US FSPs are significant in monetary terms, relative to Asian FSPs they are far smaller. A leading role for European and US FSPs in the adoption of ESG standards in investments should therefore not be overestimated in its potential overall influence

on realizing market-wide sustainable practices in palm oil. European and US FSPs can, however, put pressure on peers to push for benchmarks in sustainable financing, with the aim of creating a more level playing field. Additionally, they can pressure organizations such as OJK in Indonesia to take steps to create comparable policies and regulations for national and local FSPs.

Clearly, there are limits to the pressure that European and US FSPs can apply within producing countries, as reflected in recent statements from the Indonesian Ministry of Agriculture suggesting a reduction or stopping of palm oil exports to Europe in favor of seeking out other markets, particularly in Asia, where environmental considerations are less stringent. It has been suggested that the extent of European environmental demands does not compare to the relatively limited exports of palm oil going to Europe (Hidayat 2016). This sentiment was repeated at the passing of a resolution in the European Parliament in April 2017 that countered the impact of unsustainable palm oil production, but interpreted by both Indonesia and Malaysia as a protectionist measure to favor equally unsustainable competing crops grown in Europe (European Parliament 2017).

When considering the Asian FSPs, public opinion (consumers, NGOs, international treaties) on environmental issues plays a less significant role than in Europe and the United States. This appears to be a major hurdle in addressing poor practices in oil palm cultivation and palm oil production, but from the differences in social needs in the oil palm producing countries with those in Europe and the United States, it logically follows that Asian FSPs require a different viewpoint and approach in order to move them to tackle existing challenges.

Clearly, Asian FSPs are still lagging far behind in terms of the awareness that they show and the attention that they pay to include safeguards for environmental and social risks in palm oil sector investments. A report published by WWF in 2015 stated that leading financial institutions listed in Singapore, Indonesia and Malaysia insufficiently disclose the ESG policies they may or may not have in place. Indonesian banks perform relatively better than banks in Malaysia and Singapore in this respect, while overall, the Singaporean banks disclose the least relevant information on their ESG adoption (WWF 2015). Japanese FSPs meanwhile, find themselves somewhere between other Asian FSPs and the European and US FSPs, as they do commonly have forestry sector-specific policies, with these policies usually stating they adhere to the Equator Principles for their risk assessments.

For Asian FSPs, particularly those from the palm oil producer countries, presently financial drivers are dominant in their decision-making processes, while to a lesser extent they will consider social drivers (wanting to avoid getting caught up in social and land conflicts) and environmental drivers (demands from international markets and buyers on the implementation of sustainable practices). As mentioned previously, the Asian export and domestic markets where environmental concerns are still less prominent than in Europe and the US, actually represent a bigger share of the world market in palm oil. Therefore, it is also those markets where the most progress could be achieved in realizing more sustainable production and processing methods for palm oil. In this, it is important to realize that national and local governments in Indonesia and Malaysia alike, have a significant vested interest in the palm oil industry, and will influence decision making in FSPs for better or for worse. Positive policy and regulatory development to increase sustainability and smallholder participation should therefore be stimulated.

With financial drivers predominant in the domestic palm oil market of the producing countries, a short-term view on investment prevails, making ESG standards, on paper at least, more of a hindrance than part of the long-term investment strategy that can support sustainable cultivation and production processes. What makes the challenge of reverting from a short-term investment strategy to a generally accepted long-term one, is the presence in the market of both FSPs and producers willing to close their eyes to environmental and social issues plaguing the palm oil sector. As these FSPs and producers stand outside government subsidy structures relating to smallholders, farmers that produce within this financial setting will not be very aware and will see little opportunity towards sustainable practices.

It follows that no one solution will suffice to lengthen strides towards establishing an economically, environmentally and socially sustainable sector as a whole. And where issues of smallholder inclusion are so strongly linked to the direction the sector takes, addressing them will also depend on a diverse set of incentives and measures to move things forward.

4.2 FSP influencing of ESG standards and smallholder inclusion

Though developments are ongoing, it is clear that those involved in the oil palm sector still require a significant shift in their thinking on the benefits of including ESG standards in their cultivation and production processes. FSPs can play a significant role in pushing these standards, by including them in the conditions they set when providing financial services. Realistically, however, only some of the FSPs active in the oil palm sector will be susceptible to standards pushed in the public domain, making a spectrum of different measures and incentives necessary to take the sector closer to the desired sustainable practices, both environmental and social. Therefore, the question is: What measures and incentives should or could be implemented, both geared at the sector as a whole and at inclusive measures to stimulate smallholders to adopt production standards mirroring the ESG standards required of plantation companies?

It is important to reiterate that the relative influence of European and US FSPs in the palm oil sector is limited when compared with Asian FSPs (see Figure 11). Having said that, the FSPs included in this study can play a significant role in promoting the adoption of ESG standards as well as pushing for inclusion of smallholders in conditions set for plantation companies requiring financial services. This factor does require these FSPs to increase their awareness on the specifics of the role that smallholders play in the palm oil sector, and how FSPs can stimulate the achievement of an environmentally and socially sustainable sector by including smallholders in the conditions they set for financial services. It is therefore not enough for European and US FSPs to deal with the bigger plantation companies without looking at how they source their FFBs. Given that most European and US FSPs included in this study are RSPO members, and given that RSPO is the only body with a comprehensive oil palm sector-specific certification, it is the logical vehicle where these FSPs can promote and stimulate sustainable practices in palm oil and smallholder inclusion. With smallholder inclusion being one of the key topics on the RSPO's 14th roundtable meeting in November 2016 (European Palm Oil Alliance 2016), there is no excuse for these FSPs to continue to underestimate the role of smallholders in the oil palm sector, and thus ignore that a portion of the palm oil produced by the companies they are financing is most likely not produced sustainably. FSPs should therefore realize that if they want to avoid financing unsustainable practices, they cannot only set conditions for the companies they provide financial services to themselves; they also have to push these companies into helping the smallholders that cultivate crops for them to produce sustainably. That is not to say the RSPO is not without its own challenges. It too should continue to develop as well as make smallholder inclusion in certification a priority.

With Asian FSPs, different challenges need to be addressed. Included among these is the relative lack of knowledge available on environmental and social, as well as smallholder issues concerning the palm oil sector. While the large FSPs will likely have some knowledge available at the upper management level, in lower management structures (to the local level), it is less likely this knowledge exists. Similarity exists in smaller FSPs that only operate on a regional or local level in Malaysian and Indonesian domestic markets. Without access to the necessary knowledge and information on social, environmental and smallholder issues relating to the palm oil sector and how to tackle them, progress will remain elusive. Educational programs at various levels in FSP organizations are therefore of paramount importance to stimulate ESG standards in the oil palm sector. While NGOs will have a role to play in supporting greater knowledge sharing and education in the oil palm sector, making education and/or knowledge sharing an additional prerequisite in granting government subsidies through existing (smallholder) schemes, such as the KUR interest subsidies and replanting program subsidies could be an effective course of action.

A further challenge lies in encouraging Asian FSPs to take an active role in addressing ESG

issues in the palm oil sector, including issues of smallholder inclusion, through the financial services they provide. While keeping in mind the provisos already made on the RSPO itself, taking up an active membership of the RSPO should be considered a primary step for Asian FSPs to undertake. This would mean taking an active part in round table discussions and sustainable initiatives regarding oil palm to advance knowledge and awareness of developments in the oil palm sector. Membership naturally does require FSPs to adhere to certain sets of rules, such as abiding by the RSPO code of conduct, but also by establishing a relevant internal policy, requiring or encouraging clients to be members of the RSPO and promoting it as the preferred certification standard for their clients, and reporting progress on an annual basis. On the other hand, it helps the FSPs reduce reputational risks by giving them a stake in the development of sustainable palm oil and highlighting their commitment to financing sustainable business. Meanwhile, committing to having clients that have or are willing to adopt RSPO certification will minimize related environmental and social risks that can potentially harm investments by the FSPs.

It is not enough though, for FSPs to develop policies on the palm oil sector, either within the context of the RSPO or not. It is equally important that they can show how these policies affect the way they expedite their financial services in the palm oil sector to include monitoring and reporting on activities, employee education on their policies, and by showing the impact the policies have on their financing portfolio. It should be apparent that transparency on policies and policy execution is a key aspect of this process, and in addition an argument for active membership of the RSPO and all that this entails. At present, several Asian FSPs in this study state they have policies to address ESG issues, without actually making these policies publicly available. This lack of transparency makes such statements at the very least suspect, reflecting badly – rightly or wrongly – on the FSPs involved.

FSPs in Indonesia and Malaysia are usually also direct financiers of smallholder farmers via various financing schemes. The challenge here is how to utilize this existing relationship to promote sustainable practices in oil palm. It is clear that the FSPs are generally aware of issues surrounding smallholders, even if this knowledge may be limited to certain sections of their organization. Conditions set for smallholders by FSPs when extending credit (i.e. KUR in Indonesia) are to a large degree put forward through government regulations. These conditions include clear land tenure proof for smallholder lending, which to some degree helps in preventing smallholder plantations being developed on forested, protected or conflicted land. This is where the opportunity to add conditions on sustainable practices and RSPO certification exists; even more so should the FSPs become active members of the RSPO.

4.3 The role of governments and NGOs

Government regulations and policies can go a long way to shift the balance in favor of more sustainable businesses and to ensure a more meaningful integration of smallholders in supply chains. Government policies can be structured to ensure that sourcing from sustainably run smallholder plantations is more financially competitive than business as usual. This can be achieved either by introducing incentives or punishments to producer companies, or by introducing schemes that underwrite FSPs' investments and financial services for sustainable practices and smallholder inclusion. However, governments can also go beyond incentives based purely on immediate financial rewards or penalties.

For Malaysia and Singapore, the lack of a banking regulation geared towards the oil palm sector with particular emphasis on sustainability issues, should be considered a hindrance in utilizing government regulations to their full extent. Meanwhile in Indonesia, the launch in 2014 of the Sustainable Finance Roadmap 2014-2019 by OJK provides governmental guidelines to include sustainability issues in financing. In November 2015, both Indonesian FSPs in this study pledged to participate in the implementation of OJK's sustainable finance plans, with the palm oil sector having been selected as a pilot project for this roadmap. However, this pledge has so far not been followed by any concrete policy articulation for investment in the palm oil sector by either of these FSPs, indicating that work still needs to be done to move from idea to action in this regard too.

While many global FSPs are increasingly acknowledging the business case for responsible investment in palm oil, with ESG performance often showing a positive correlation to financial return, ESG integration can also have unwanted consequences. Palm oil companies that adhere to ESG standards can source financial services from FSPs driven by responsible investment opportunities, whereas those companies that can or will not adhere to ESG standards are dependent on FSPs that put less importance on sustainability. Thus, there is the risk of two parallel but separate financial systems coming into existence, likely affecting entire supply chains, creating a two-tiered marketplace for palm oil, each characterized by different quality requirements. Due to the sector appearing unlikely to bridge this gap independently, government intervention is highly likely to be necessary to encourage ESG standards' adoption over non-adoption and all the negative consequences this entails.

Some of the issues addressed in this study should perhaps also give rise to NGOs aiming to highlight environmental and social issues in the palm oil sector to evaluate their chosen strategies. Most European and US NGOs in particular, seem to put too great an emphasis on the significance of European and US FSPs in the palm oil sector when considering the relatively smaller consumer share that these regions represent. This is especially true where Asian FSPs currently appear less inclined to adopt ESG standards in the financial services that they provide to oil palm companies, while at the same time having a more direct link to and awareness of the importance of smallholders to the sector. Additionally, a significant number of producing companies and (local) FSPs shun ESG standards in their practices, placing the smallholders connected to them outside efforts towards more sustainable practices. Certainly, NGOs can play a significant role in creating awareness and in educating FSP staff members and smallholders alike, instructing them on sustainable practices in palm oil production and the importance of the adoption of ESG standards. More importantly, perhaps, they should seriously consider increasing their focus on that part of the palm oil industry that currently shuns ESG standard adaptation altogether, and address the abovementioned risk of two parallel but separate financial systems existing simultaneously, and likely affecting the entire supply chains for palm oil, creating a two-tiered marketplace, each with different quality requirements.

5 Conclusions

Clearly, actors in the oil palm sector still require a significant shift in thinking on the benefits of including ESG standards in its cultivation and production processes. FSPs themselves as well as sustainability initiatives such as Equator Principles (EP), Principles for Responsible Investment (PRI), Roundtable for Sustainable Palm Oil (RSPO), etc., can play a significant role in pushing these standards, by including them in conditions they set when providing financial services. Realistically, however, only some FSPs active in the oil palm sector will be susceptible to standards pushed in the public domain, making a spectrum of different measures and incentives necessary to take the sector closer to achieving both environmental and socially sustainable practices.

Research shows that European and US FSPs are more advanced than their Asian counterparts in adopting policies that include environmental and social risk assessments within processes they follow when providing financial services to companies in the palm oil sector. However, they currently focus mainly on businesses rather than smallholders. As a result, they appear to lose sight of the importance that smallholders play in the sector. Additionally, the research shows that the relative importance of European and US FSPs' financial services and consumer markets for palm oil in Europe and the US is far smaller than those in Asia.

For Asian FSPs, the research shows that at present, financial drivers are dominant in decision-making processes, with most of the production going to the Asian export and domestic markets where such environmental concerns are still less prominent. Due to the differences between European and US versus Asian FSPs' adoption of ESG standards as well as the markets they finance, there is the risk of two parallel but separate financial systems emerging, likely affecting entire supply chains. Both government and NGO efforts should put greater emphasis on preventing the further development of such a two-tiered marketplace characterized by different quality requirements for palm oil.

National and local governments in Indonesia and Malaysia alike need to step up the influence they exert on decision-making processes within FSPs by gearing policy and regulatory development towards increasing sustainability and smallholder participation and supporting international initiatives in this sector. The lack of a banking regulation geared towards the oil palm sector with particular emphasis put on sustainability issues, should be considered a hindrance in utilizing government regulations to their full extent. Other activities, such as the launch in 2014 of the Sustainable Finance Roadmap 2014-2019 by the Indonesian Financial Services Authority (OJK), and adopted by a number of Indonesian FSPs, does provide governmental guidelines governing the inclusion of sustainability issues in financing, although concrete policy articulation and implementation is needed for such activities to create actual progress on the ground.

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The global palm oil sector faces ongoing threats to sustainability caused by deforestation, peatland development, labor rights violations and land right conflicts. Additionally, integrating smallholders into sustainable palm oil supply chains continues to be a challenge for the industry. Financial service providers (FSPs) could play a role in stimulating sustainability commitments from the palm oil companies they finance. Their potential influence stems from their capacity to set environmental, social and governance (ESG) conditions for financial services. This research shows that European and US FSPs are further along than their counterparts in Asia in adopting policies that include ESG risk assessments as part of the process for providing financial services. However, attention to smallholder inclusion is insufficient in the policies of all FSPs included in this report. Differences between European and US versus Asian FSPs in adopting ESG standards, as well as the unique markets they finance, present a risk that two parallel but separate financial systems could emerge. Efforts by both government and nongovernmental organizations should emphasize the prevention of a two-tiered marketplace with different quality requirements for palm oil. All actors in this sector still require a significant shift in thinking on the benefits of including ESG standards in cultivation and production processes. In palm oil producing countries, the lack of specific banking regulations emphasizing sustainability concerns regarding the sector forms a further hindrance to positive developments.

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