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Mapping the Palm Oil Value Chain

Opportunities for sustainable palm oil in Indonesia and China



March 2020
UNDP China



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Summary Notes of Dialogue on Sustainable Palm Oil: Creating
Shared Value through a Sustainable Palm Oil Value chain

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List of abbreviations

ACOP	Annual Communications of Progress
ASFI	Asia Sustainable Finance Initiative
B20	Indonesia's biodiesel policy
BPDP-KS	Indonesia's Oil Palm Plantation Fund Management Agency
BMP	Best Management Practices
BPS	Statistics Indonesia (Badan Pusat Statistik)
CCFA	China Chain Store and Franchise Association
CFNA	China Chamber of Commerce of Import & Export of Foodstuffs, Native Produce and Animal By-products
CGF	Consumer Goods Forum
COFCO	China National Cereals, Oils and Foodstuffs Corporation
COP15	Fifteenth Meeting of the Conference of the Parties to the Convention on Biological Diversity
CPO	Crude Palm Oil
CPOPC	Council of Palm Oil Producing Countries
CSPO	Certified Sustainable Palm Oil
CSR	Corporate Social Responsibility
ESG	Environmental, Social and Governance
EU	European Union
EU RED	European Union Renewable Energy Directive
FAO	Food and Agriculture Organization
FELDA	Malaysia's Federal Land Development Authority
FFB	Fresh Fruits Batches
FoKSBI	Indonesian Palm Oil Platform (Forum Kelapa Sawit Berkelanjutan Indonesia)
FSC	Forest Stewardship Council
GAPKI	Indonesian Palm Oil Association (Gabungan Pengusaha Kelapa Sawit Indonesia)
GCP	Green Commodities Programme
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GGP	Good Growth Partnership
GHG	Greenhouse Gas
GIZ	German Development Agency
GMO	Genetically Modified Organism
HCSA	High Carbon Stock Approach
HCV	High Conservation Value
ILUC	Indirect Land Use Change
ISCC	International Sustainability and Carbon Certification
ISPO	Indonesian Sustainable Palm Oil

IUCN	International Union for Conservation of Nature
MoEF	Indonesia's Ministry of Environment and Forestry
MofCom	China's Ministry of Commerce
MPOC	Malaysian Palm Oil Certification Council
MSPO	Malaysian Sustainable Palm Oil
NAP	National Action Plan
NDPE	No Deforestation, no Peat, no Exploitation
NES	Indonesia - Nucleus Estates and Smallholder Project
NGO	Non-Governmental Organisation
OCBC	Oversea-Chinese Banking Corporation
P&C	Principles and Criteria
POIG	Palm Oil Innovation group
PSR	Indonesia's People's Palm Oil Rejuvenation Programme (Peremajaan Sawit Rakyat)
RA	Rainforest Alliance
RSB	Roundtable on Sustainable Biomaterials
RSPO	Roundtable for Sustainable Palm Oil
RTRS	Roundtable on Responsible Soy
SAN	Sustainable Agriculture Network
SCW	Sustainable Consumption Week
SDG	Sustainable Development Goal
SECO	State Secretariat for Economic Affairs, Switzerland
SOE	State Owned Enterprise
SPKS	Indonesia's Oil Palm Small Farmers Association (Serikat Petani Kelapa Sawit)
SPO	Sustainable Palm Oil
SSL	Indonesia's Sustainable Palm Oil School Programme
TBP	Time-Bound Plans
TFA 2020	Tropical Forest Alliance 2020
TRASE	Transparent Supply Chains for Sustainable Economies
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UOB	United Overseas Bank
USA	United States of America
USDA	United States Department of Agriculture
WWF	World Wide Fund



Executive Summary

02 Mapping the Palm Oil Value Chain

In recent years, the Government of the People's Republic of China has stepped up its advocacy for sustainable development, including green and sustainable consumption. President Xi Jinping announced China's determination to "build an ecological civilisation" in 2018. Among other environmental initiatives, he listed stepping up afforestation efforts, strengthening wetland conservation and restoration, and deterring environmentally damaging behaviour by enforcing tougher penalties.

As part of this commitment, China will host the Fifteenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP15) in 2020. The delegates of COP15 are expected to update current plans and set new goals and actions for the 2030 Agenda for Sustainable Development. COP15 presents an opportunity for China to take the lead within the international community with strong commitments backed by actions and support initiatives at home and abroad that reduce greenhouse gas emissions, as well as the negative biodiversity impacts caused by unsustainable demand for natural commodity imports, such as palm oil.

This Report therefore argues that palm oil could be a good example to demonstrate China's environmental leadership at COP15. Setting effective incentives for sustainable consumption at home, China would be at the vanguard of transformational changes. These actions would support China's leadership role in promoting sustainable global value chains in international governance and policymaking. They would also facilitate the transformation and strengthening of China's 'brand' and the competitiveness of its companies in global markets. Furthermore, as a major importer of palm oil and a potential overseas producer, China would exert a significant impact beyond its borders and along the whole value chain and play an important role in its sustainable development.

Palm oil production and issues within the sector exemplify the trade-off between economic development and environmental sustainability. In producing countries, palm oil has brought important economic benefits in terms of poverty alleviation, employment, income creation and infrastructure upgrades, not to mention significant revenues for governments. It is often referred to as the "golden crop".

Palm oil is the main agricultural export of the Republic of Indonesia and Malaysia, the two primary producers worldwide, and constitutes nearly 10% and 5% respectively of their total exports. In these two countries, the palm oil industry provides employment for around five million people and a further 11 million are indirectly dependent on it. Palm oil has helped governments to reduce poverty, supporting the achievement of Sustainable Development Goal 1 (SDG 1), and bringing about significant rural development.

Rural development in Indonesia and Malaysia, however, comes at a high cost in terms of among others,

environmental damage. In Indonesia, for example, 24 million hectares of the country's rainforest, representing 20% of the country's total rainforest cover, were destroyed between 1990 and 2015, leaving only 52% of the original rainforest intact. This is mainly the result of agribusiness expansion. Although, in recent years, deforestation rates have declined, there is still evidence to indicate that deforestation continues to occur. The use of fires to clear land further damages the local environment. The impact on biodiversity is severe with the conversion of primary and logged forest to palm oil crops causing an 83% reduction in species richness.

Multiple efforts to support the transition to more sustainable production have emerged, including creating sustainability standards. The Roundtable for Sustainable Palm Oil (RSPO) is considered the most successful and robust among standards and certification schemes. Mandatory national schemes, such as the Indonesian Sustainable Palm Oil System (ISPO), and the Malaysian Sustainable Palm Oil (MSPO) Certification Scheme, considered to be legal standards by the industry, often contain more lenient criteria and principles than the RSPO.

Sustainable palm oil can support the achievement of several of the SDGs both domestically and internationally. SDG 1 (no poverty), and SDG 2 (zero hunger) would mainly concern producing countries. However, sustainable palm oil would back economic growth (SDG 8) and responsible consumption and production (SDG 12) both in producing countries, such as Indonesia, and in consuming countries, such as China. Last, but not least, sustainable consumption would have positive effects on climate change (SDG 13).

Challenges are evident. Efforts to achieve agreement on sustainability standards are still at an early stage, their uptake modest and their impact on the environment limited. Overall, they have yet to drive a significant transformation of the sector.

The large number of stakeholders, as well as the complexity of the value chain, significantly weakens the leverage of individual stakeholders to effect meaningful change in industry standards. Allocating responsibilities and financial costs for the negative externalities, highly concentrated in the upstream production stage of the chain, is particularly challenging.

Demand for sustainable palm oil in key consumer markets is missing as awareness is low. Indonesia, India, the European Union and China are the major consumers. Together they account for 50% of global consumption. However, their demand differs significantly. Three quarters of the palm oil imported into Europe is certified as sustainable, while only 1% of China's imports are certified.

Developing country markets focus more on price competitiveness, with no or limited concern for sustainability. Increased demand from these markets is

driving segmentation, and the creation of large “leakage markets”. As long as demand for non-certified palm oil remains high, regulations and higher standards will be ineffective in meaningfully curbing unsustainable practices. Powerful market incentives are missing for stakeholders along the chain to meaningfully bring effective changes.

In China, conditions are moderately favourable for sustainable palm oil development, despite significant challenges to engage consumers, retailers, and manufacturers. These conditions include the commitment of the Government towards an “ecological civilisation”; the support of the relevant business associations, such as the China Chamber of Commerce of Import & Export of Foodstuffs, and Native Produce and Animal By-products (CFNA) and the China Chain Store and Franchise Association (CCFA), and their efforts to raise awareness; rising income and urbanisation rates that are changing consumption patterns; the strong presence of multinational companies with commitments for sustainability; and, finally, highly concentrated trading and retailing sectors.

The time is ripe for all stakeholders involved to build on these positive foundational elements to lead transformational change in the industry. Sustainable palm oil fits well within China’s national policies to promote green development and consumption. This is especially the case with the “consumption upgrade action plan” and “greening value chains” programmes launched by the Ministry of Commerce (MofCom), in collaboration with the Ministry of Ecology and Environment (MEE), and the Ministry of Agriculture and Rural Development (MARA), among others.

A clear policy signal, supportive of sustainable production and consumption, could be the game changer the industry is looking for. Ideally, it should come from the highest level of government and should cover not only palm oil but also other natural commodities. The main driver of deforestation is agriculture and changes in land use, of which palm oil is a part. Dealing with a single commodity would tackle only part of the environmental damages generated by agribusiness, possibly exacerbating them if demand is significantly shifted to (less productive) substitutes.

The Ministry of Commerce, with its mandate to regulate the sector, could extend green procurement guidelines to the palm oil sector. For instance, China could adopt supply chain standards for public procurement that circumvent deforestation by integrating clear ‘no-deforestation’ policies into their programmes. This could work as a powerful incentive for Chinese state-owned and private companies to adopt firm sustainability commitments, with a potentially much greater impact if coupled with active economic policies and incentives.

Policy signals, combined with effective mandatory standards and guidelines, could compensate for the

lack of demand by Chinese consumers, generating powerful incentives along the value chain. The Ministry of Ecology and Environment, within its COP15 mandate, could facilitate and support a public campaign in favour of sustainable palm oil. Indeed, pressure from the final consumer is needed. Reputational risk is an important source of pressure at the business level, one faced by Chinese companies seeking to enter foreign markets and compete against international brands both domestically and internationally. Company reputation is becoming a growing concern and an important element in business strategies as companies strive to succeed in the constant race to gain access to larger and more demanding consumer bases. In this respect, actions to raise awareness among the domestic consumer of the disruptive effects of unsustainable consumption and production are pivotal.

At the same time, signals and incentives should also come from other stakeholders too, in particular the financial market. As a capital-intensive sector, a key factor enabling corporate oil palm expansion is funding from financial institutions. The latter can be pivotal to turn around environmentally destructive practices and strengthen and improve sustainability standards across the supply chain. China, as the first issuer of green bonds since 2016, is well positioned to further leverage these instruments and support other countries in aligning private capital to sustainability and the 2030 Agenda’s goals.

A more transparent and efficient marketplace would also address another issue: the double-standards for multinational companies operating in China. Multinationals are the dominant players in trading as well as in a few consumer goods manufacturing sectors. A number of RSPO members have made commitments to ‘no-deforestation’ policies, but there is evidence that their Chinese and global supply chains differ. Enforcing sustainability standards, such as commitments to ‘no-deforestation’, can be challenging in China, due to low awareness and lack of final demand, a high price premium, combined with the price-consciousness of the Chinese consumer and the difficulties in traceability for certified palm oil.

Given its size and increasing importance as a palm oil end market, a significant shift towards sustainable palm oil in China would have significant implications upstream. It would provide much needed incentives for producers to strengthen the legality of sustainable palm oil and support the enforcement of standards. Concerted efforts for sustainable agriculture could also provide a platform for productive collaboration between producing and consuming countries based, among other things, on the exchange of innovation and technology, know-how and successful experiences in social and environmental sustainability.

At the industry level, a comprehensive and overreaching multi-stakeholder approach is necessary. The proliferation of different, small-scale initiatives has proven inefficient. While large in number,

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their limited area of impact makes them ineffective in the face of the complex palm oil value chain and its powerful and diversified embedded interests. By being at the cutting edge of an initiative for industry-wide sustainability, China could underwrite the promotion of investments by Chinese companies, leveraging existing platforms such as the South-South Cooperation framework and efforts towards greening the Belt and Road. Sustainability has been associated with increased productivity and efficiency, making it a win-win approach for all parties involved.

All parties should support a multi-step approach towards best practices. Mandatory national standards should provide the foundation, while enforcement is crucial for avoiding market leakages. Continued support and capacity building efforts from international organisations, non-governmental organisations (NGOs) and the governments of producing countries would be welcomed. The RSPO should strengthen enforcement in producing countries and promote awareness and capacity in China as a major importer and consumer of palm oil. The RSPO's 2018 revised 'Principles and Criteria' have been defined as "dramatic" and "significant" steps forward. Stricter implementation must follow in order to achieve a real transformation. Market leaders should nurture relevant associations, such as the Palm Oil Innovation Group, and continue to pursue excellence and innovation. Greater application of green finance should also be facilitated.

Capacity development is pivotal for stakeholders at all stages. International organisations, such as the United Nations, should first embrace the bold call for change and support policy signals, and then make them global goals. By leveraging its strong relationship and partnership with China, the UN and its associated agencies and networks can play an important role as a global facilitator. The UN, as the largest international organisation, is best placed to coordinate stakeholders and to provide valuable support in terms of expertise and capacity development. Long-standing national and international NGOs that are actively involved with initiatives for sustainable palm oil in China, such as the World

Wildlife Fund, can cooperate with the UN to help facilitate and support private and public initiatives along the whole value chain.

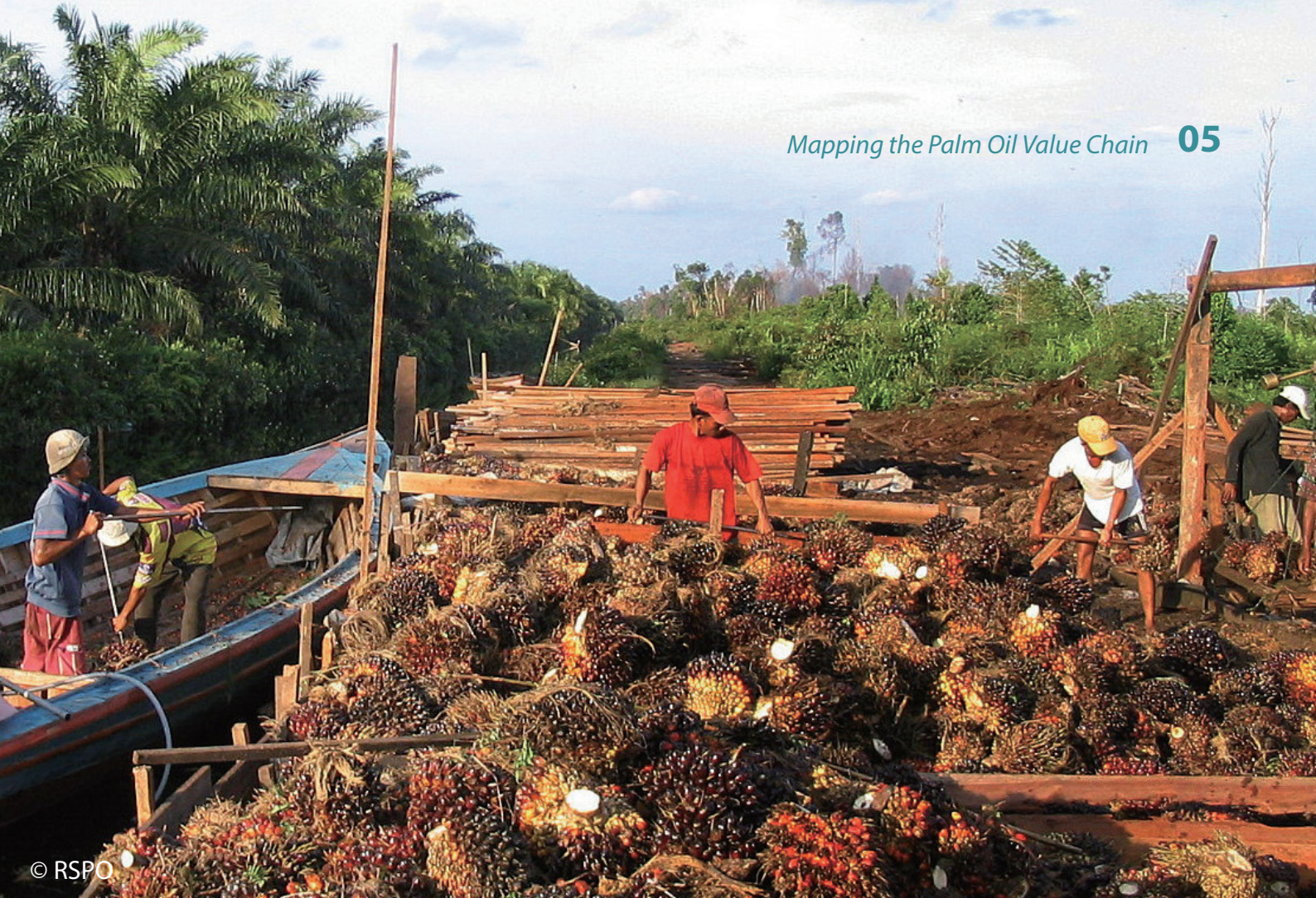
Long-term access to commodities is vital to all, and rests upon the sustainable management of resources within and beyond national borders. The time is ripe to create an "ecological civilisation", building on the new priorities recently announced by the Chinese Government. China's global exposure at events such as the COP15 and the Beijing Winter Olympics should be leveraged for maximum reach in order to chart a clear path to the meaningful transformation of the palm oil sector. Given the global reach of palm oil, collaboration between China and producing countries is pivotal to effectively achieving this goal, making it a win-win situation for all parties involved.

Against the background, context and market dynamics outlined above, the objective of this Report is to offer a mapping of the palm oil value chain, focussing on Indonesia as a producing country and China as a consumer market. The aim is to bring these two realities together, presenting the challenges and opportunities for sustainable palm oil, and identifying common ground for possible future collaboration. The empirical research is based on trade, national and international sector data, as well as interviews with representatives of palm oil companies, institutional actors and NGOs, conducted largely between November 2018 and January 2019. Methodologically, the Report applied a Global Value Chain approach to the data collection, by tracing the different actors in the value chain, such as owners, managers, and buyers' representatives, as well as supporting industry organisations and representatives of local government.

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1 "Ecological Civilisation" is a phrase enshrined in the Chinese Communist Party Constitution in 2012. It emphasises resource-efficient growth, conservation of the environment, and the harmony of people and nature. It constitutes the framework for China's efforts to lead climate change cooperation, promote energy transformation, and cultivate its renewable energy sector.

2 <https://www.pionline.com/interactive/china-leads-green-bonds-others-catching>



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Chapter 1:

Palm Oil Global Value Chain

1.1 Palm oil: an introduction

Palm oil³ is rather contentious and fully embodies the trade-off between development and food security on one side and significant impact on climate change and biodiversity on the other. In producing countries, palm oil has delivered important economic benefits in terms of poverty alleviation, employment, income creation and infrastructure upgrade, not to mention significant revenue income flows for governments. This, however, comes at a high cost in terms of environmental and social impact.

Today, palm oil represents around 33% of global vegetable oil production, having surpassed soybean (29%) and rapeseed (15%) (Statista, 2017). Its share in global vegetable oil production more than doubled over the last 20 years and 70 million tons of palm oil were produced in 2018

(USDA). Most palm oil is produced in Indonesia and Malaysia and consumed in Indonesia, the EU, India and China.

Palm oil is the most profitable among vegetable oils and commercial high-tree crops oil and has the lowest production costs. Land use efficiency is significantly higher than its substitutes (Chart 1); it has 6-10 times higher oil yields than other vegetable oil crops and is produced on under 10% of the land allocated to all oil crops (soy requires 40% of the global land allocated to produce just 22% of global vegetable oils). Thanks to its significantly higher oil yield and its lower price, palm oil is now the primary cooking oil in large parts of Asia, Africa and the Middle East. Changes in dietary patterns are also increasing demand; as the income and middle class of developing countries grows, demand for processed food increases, and palm oil is a main ingredient.

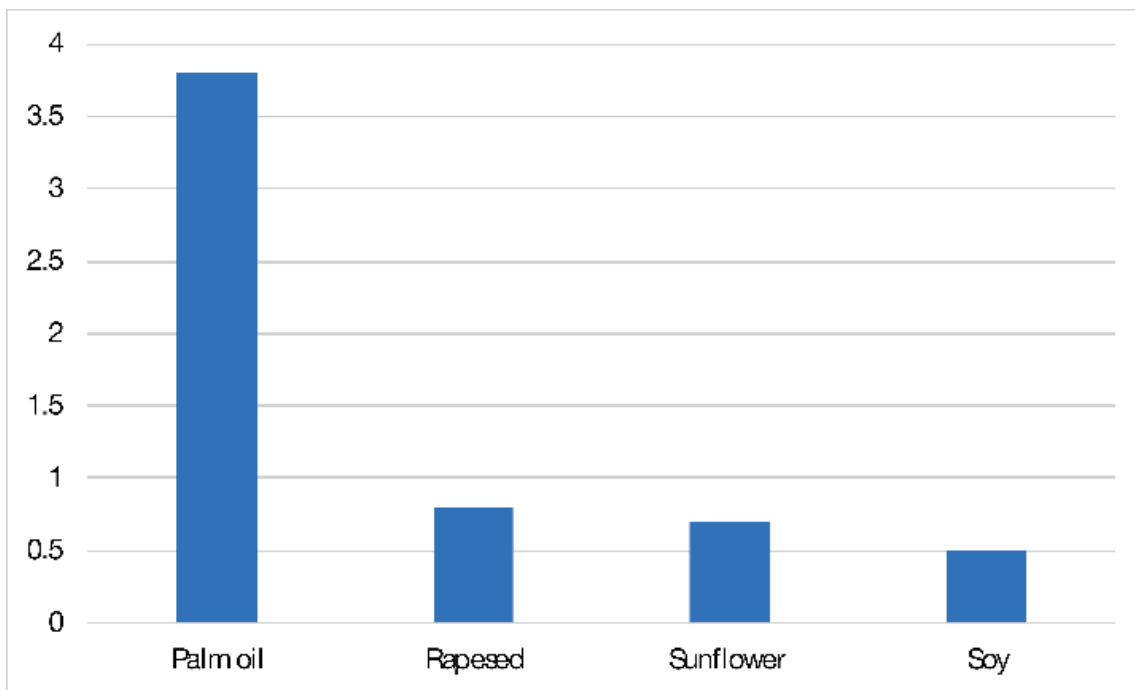


Chart 1: Palm oil is the most efficient vegetable oil (oil tons per hectare)
Source: <https://www.palmoilandfood.eu/en/palm-oil-production>

Palm oil delivers significant economic benefits in producing countries. Since the middle of the last century, Malaysia and Indonesia have benefited from palm oil expansion, as it is a key tool to fighting poverty and supports rural economies by bringing new jobs and income opportunities. Production also corresponded to a boost in the value of land, agricultural and manufacturing output and local GDP, with positive spillovers through local production and consumption linkages. At the regional and national level, large-scale oil palm plantations and associated processing

units are important economic development drivers, positively affecting infrastructure and stimulating the overall economy.

Palm oil has been a successful tool in contributing to UN SDG 1: no poverty, among others. Research shows that a 10% increase in the share of land given to palm oil corresponds to a 10% reduction in the poverty rate and narrows the poverty gap (Edwards, 2015). Positive spillovers and solid demand has pushed governments from other developing and emerging countries, such as Brazil, Peru and

in Central and Western Africa, to increasingly promote palm oil as a major contributor to poverty alleviation, food and energy independence.

Palm oil also benefits importing countries. In 2014, the palm oil industry contributed around USD 39 billion to global GDP, creating about three million jobs worldwide in importing countries, such as China and India⁴ (Europe Economics, 2016). The significant economic impact of palm oil for importing countries reflects the uneven distribution of rents, often seen in global value chains. Most of the value-added happens downstream, at the manufacturing and retailer level, in countries like China and India, rather than in the producing countries.

Palm oil, however, is also among the most politically sensitive natural commodities of our time, most infamous for its impact on the environment. Its rapid

expansion has been associated with extensive deforestation in Southeast Asia, which is significantly affecting biodiversity and greenhouse gas emissions, among others. It has also been associated with social concerns, the most important being land use rights, particularly in Indonesia, forced and child labour and poor conditions of labour, such as low wages, health and safety and gender discrimination.

Multiple efforts to support the transition to more sustainable production have emerged in response to the negative consequences of the booming palm oil value chain. Sustainability concerns are driving the current transformation in the sector, backed by strong pressures from multinational companies, NGOs and ultimately the end-consumer. Private and public initiatives, however, have yet to produce a significant change. Robust and increasing demand for cheap, natural commodities from developing countries is causing significant market segmentation.

1.2 Global production of palm oil

Global palm oil production has shown an upward trend for several decades. More recently, productivity improvements, favourable climate conditions (except in 2016, due to low precipitation levels) and area expansion, especially in new palm oil producing countries in Africa and Latin America, supported a healthy growth rate of around 4% (Fadhil Hasan, 2018). The USDA estimates global palm oil production will increase to 73 million tons in 2019, a 25% increase in four years. Estimates on hectares harvested vary, from the FAO's more conservative 21 million hectares of oil palm plantations in 2016, to a recent estimate of at least 25 million hectares (Meijaard et al., 2018).

85% of palm oil is produced in Indonesia and Malaysia.⁵ Oil palm plantations began to expand in Peninsular Malaysia from the 1960s thanks to strong state participation. Expansion started in Indonesia a decade later, also through state-owned companies. Today, governments have withdrawn from the sector, leaving the ground to private investments. In 2007, Indonesia surpassed Malaysia as the country dedicating most hectares to oil palm plantations (Chart 2). Indonesia's expected 2018 production of palm oil is 39 million tons (56% of global production), with Malaysia producing 20 million tons (28% of global production) (USDA). The sector employs nearly four million people in Indonesia and around 700,000 in Malaysia (Mohd Noor et al., 2017).

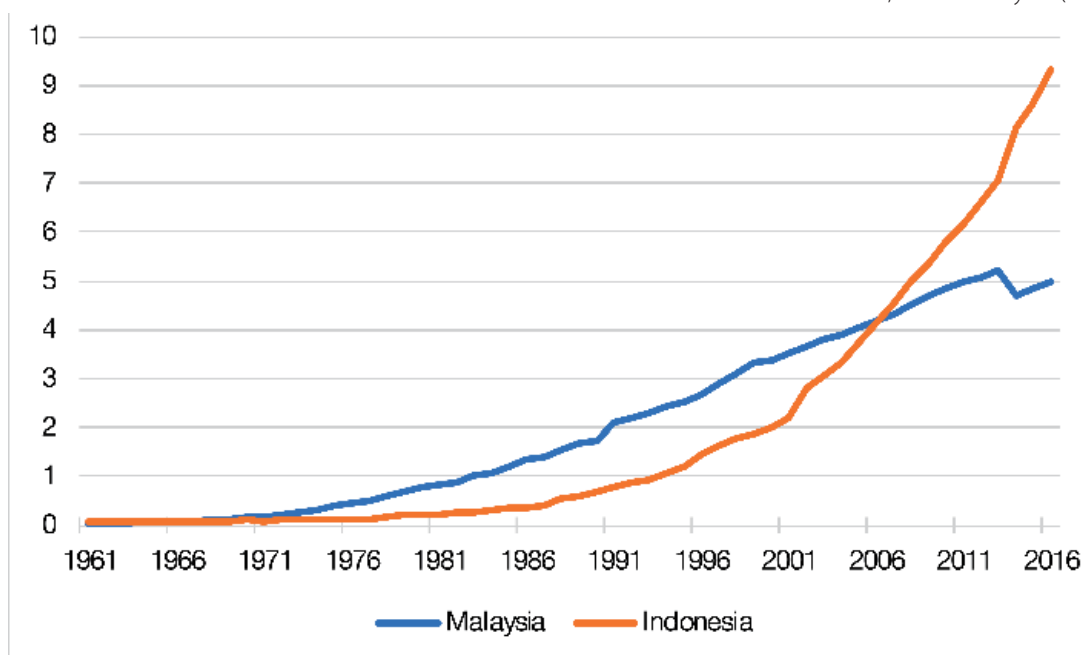


Chart 2: Oil palm plantation area expansion (million hectares)
Source: FAOSTAT

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The industries of the two countries are very interconnected. Malaysian industry depends on Indonesian migrant workers, who account for nearly 80% of the plantation workforce.⁶ Meanwhile, Malaysian and Singaporean companies, either via direct investments or joint ventures with local companies, control more than two-thirds of the total production of Indonesia's palm oil (Pacheco, 2017).

The increase in production is mostly from increased land allocation, with only a small contribution from increased yields from investment in plant breeding and genetics. In Indonesia and Malaysia, yields were stable at around 3.8 tons/ha in the last decade, well above the global average of 2.9 tons/ha (2014, FAO). Productivity varies across growers and production systems, with smallholders usually recording up to 40% lower yields than large plantations. Companies have better access to high-quality seedlings and tend to have a better grasp of and follow best management practices (BMP). In Indonesia, smallholders participating in the Plasma Transmigration Programme (Perkebunan Inti Rakyat, also known as PIR-Trans) scheme obtain higher yields than independent smallholders. This is because these smallholders tend to adopt management practices used by large companies, while independent smallholders do not have access to the same technical capacity or knowledge.

The limited availability of new land and low productivity will be among the key factors behind slower growth rates going forward. Replanting rates are low due to the high portion of old crops still producing fruit, low price incentives, labour shortages, particularly in

Malaysia, and extreme weather patterns. Equally, campaigns which tie palm oil to environmental, health and child labour issues are also having a negative impact on demand. Consequently, Indonesian palm oil production is expected to grow by only 3% per year for the next decade, down from 8% in 2010-2015 (Fadhil Hasan, 2018). In Malaysia, the picture is similar, with palm oil production expansion also showing a downward trend, from already slower growth rates.

Other producing countries may only be able to partially fill the gap left by the main global producers, leading to lower global production. Abundant land supply and foreign direct investment, in terms of capital and technology, may well encourage production expansion in Africa and Latin America. However, the lack of price incentives, uncertain socio-political conditions and high labour costs in countries such as Brazil are expected to cap the potential of the new production frontiers.

Productivity can be improved across the board. Pacheco et al., (2017) suggest that inefficiency during plantation development and the immature period; inaccurate assessments of nutrient requirements; and inefficient management of the mature stand, are major drivers behind the gap between potential and actual yields. Best management practices would easily tackle and correct the latter two causes of relatively low yields, allowing for a further expansion in production on existing plantations rather than on new land. Raising awareness and building capacity and know-how, and supporting and expanding existing initiatives, particularly for smallholders, are key steps towards upgrading.

1.3 Global palm oil consumption

Palm oil also owes its popularity to its great versatility. The WWF reports that approximately half of all the products in supermarkets contain palm oil, including shampoos, cosmetics, chocolate, bread and spreads. Around three-quarters of all palm oil is used for food (70%), largely as cooking oil and in processed food. Palm oil is also an input in biofuel (18%) and in the oleochemical industry, where it is used in cosmetics and cleaning products (9%).⁷

The expansion of the edible oil market is linked to population and income growth. Recently, the growing middle class, in countries such as China and India, significantly increased global demand for palm oil via a sharp rise in demand for consumer goods. Simultaneously, demand for non-edible oils also increased, mostly driven by government policies and subsidies. Demand for palm oil as a feedstock for biofuel, for instance, has almost tripled in the past 11 years (Oil World).⁸

Palm oil, biofuel and government incentives

Government policies generate powerful incentives for using palm oil as a feedstock for biofuel. The US Government was among the first to promote this alternative use of vegetable oils. In 2006, the Energy Independence and Security Act updated and expanded renewable-fuel standards, requiring fuel producers to mix in soy, palm and other vegetable oils with diesel fuel. Biodiesel production in the USA increased five times in the decade to 2016; imports of vegetable oils, when domestic soy began

to be used in biofuels instead of food products, surged from near zero to more than 3 million tons a month, with palm oil accounting for a large share of it,⁹ reaching 1.5 million tons in 2017 (USDA).

The Europeans followed suit, and in 2009, the European Parliament passed the Renewable Energy Directive (EU RED) whereby the share of renewable in its total energy needs was set at 20% by 2020. As a consequence, the demand for vegetable oils rose sharply and is widely considered to have exacerbated the environmental issues associated with palm oil production. Partly to mitigate these problems, the Directive was revised, with the new Renewable Energy Directive (RED II) entering into force in December 2018, extending the renewable energy binding target to at least 32% by 2030.

The contentious point for palm oil producers is the new approach to addressing emissions from indirect land-use change (ILUC), i.e. “the conversion of non-agricultural land into agricultural land to produce food or feed that can lead to the release of greenhouse gas (GHG) emissions, especially when it affects land with high carbon stock such as forests, wetlands and peat land” (European Commission, COM(2019) 142 final). Through a Delegated Act, released in March 2019, RED II states that “the contribution of high ILUC-risk biofuels, bioliquids and biomass fuels will be limited at 2019 levels starting from 2020, and then gradually reduced to zero between 2023 and 2030 at the latest.” The only ILUC high-risk fuel identified at the time of writing is palm oil. The prospective reduction of palm oil as a feedstock for biofuel in the EU is expected to have a significant impact on demand.

Indonesia also introduced a new policy on biofuel in 2016, which mandated a 20% (B20) biodiesel blend in diesel fuel and set a target of 30% (B30) biodiesel blend for diesel fuel by 2025. A 2018 study estimated that around 11 million tons of extra palm oil would be required to reach B30; slightly less than one-third of Indonesia’s 2017 palm oil production. Furthermore, Indonesian domestic demand for palm oil would double in less than 10 years (Khatiwada et al., 2018). Changes in legislation will have significant implications on palm oil demand and the Indonesian Ministry of Environment and Forestry is currently focusing efforts on a “forest governance perspective on sustainable palm oil”, as a consistent Government policy to carry out its corrective and operational policies on palm oil issues.

Indonesia, India, the EU¹⁰ and China are the major consumers of palm oil, together accounting for 50% of global consumption (Chart 3). World consumption of palm oil rose to 62 million tons in 2017 and is expected to increase to 70 million tons in 2019 (USDA). India and China use palm oil predominantly for cooking oil and as an input in the food industry. The growth in demand is positively correlated to increasing incomes, urbanisation and an associated dietary shift towards processed foods. By contrast, in the EU palm oil is used more in manufactured products than directly for cooking, and demand growth has been partly driven by policies supporting biofuels.

The outlook for palm oil consumption is characterised by mixed factors that affect demand.

On the one hand, growing fuel use, population growth and demand from new importing countries, such as Pakistan, Iran and Bangladesh, will support consumption growth. On the other hand, China’s economic growth moderation and intense negative campaigns against palm oil could slow the consumption pace. Overall, palm oil consumption is predicted to expand at a slower rate than that of the past five years, at around 3% per year within the 2015-2025 timeframe (Fadhil Hasan, 2018). An International Union for Conservation of Nature (IUCN) report also estimates consumer demand in the long term at just below 1.7% until 2050.¹¹ Despite the slower growth rates, palm oil production is forecast to continue to increase significantly and is expected to have nearly doubled by 2050.

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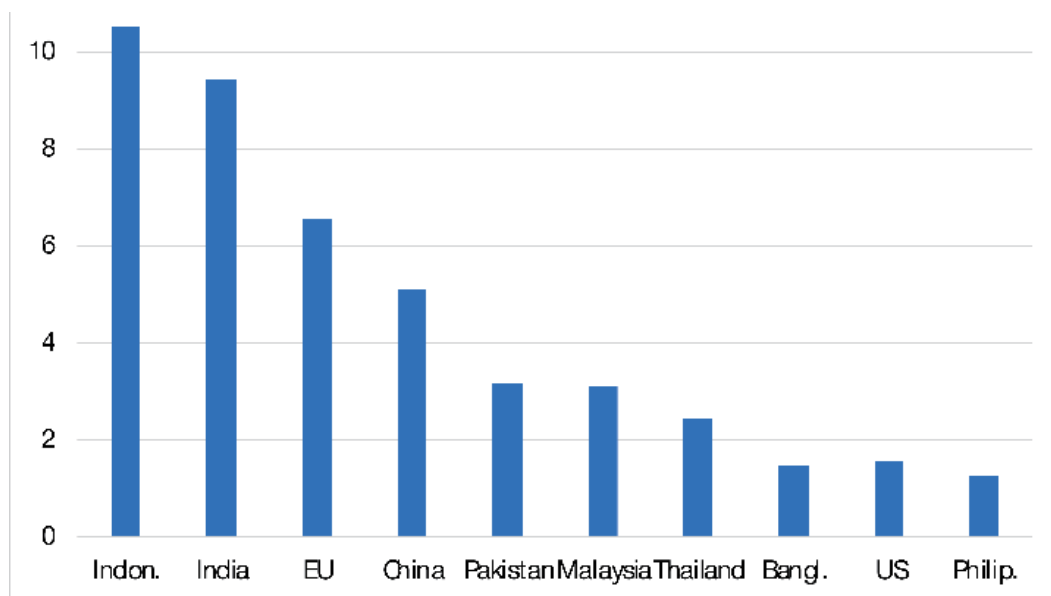


Chart 3: Palm oil consumption (million tons, 2018)
Source: USDA, IndexMundi

1.4 The palm oil value chain

With time, the palm oil value chain has grown in size and complexity, with a wide range of stakeholders and markets spread globally. From a sustainable development point of view, it is particularly difficult to allocate responsibility for negative externalities, and balancing the trade-off between poverty alleviation in producing countries and global environmental concerns, mainly from consuming countries, is extremely challenging. At the end of the value chain in particular, production and retail, single or small groups of players, have limited influence and leverage on the supply chain and the sustainability standards of production, due to their relatively small size.

Palm oil production involves a wide range of suppliers from large plantation estates, owned by multinationals companies, to smallholders. It is more capital intensive than other crops and has more specific requirements in terms of inputs and fertilisers.

The refining, processing and trading stages of the chain are dominated by a handful of companies,¹² due to the investment required. As the oil is extracted from fresh fruits batches (FFB), processing is extremely time-sensitive since the quality of the batches decreases quickly after harvest. As a result, mass palm oil production for industrial purposes requires complex and costly infrastructures and geographical proximity between production and processing facilities. A handful of companies source their supply of FFB from their own concessions, a large number of third-party suppliers and tied or independent smallholders connected through extended networks. The oil is then transported to refineries where it is further processed into edible oils and speciality fats, and used in chocolate, confectionary, cosmetics, and

other products, such as oleochemicals, glycerine, and biodiesel. Refineries are generally located close to ports from which the palm oil is shipped to other destinations.

Much of the processing and refining of palm oil take place in Indonesia, Malaysia and Singapore. Malaysia has a well-developed palm oil processing industry, reporting high comparative advantage based on its efficiency. Indonesian companies have been slower to expand their palm oil refining capacity. Recent increased investment in refining capacity has aimed at absorbing the growing supply of palm oil from medium-scale producers and smallholders and at retaining more of the added value from manufacturing in the country. Vertically integrated companies, from plantation to refinery, have the largest market share in Europe, but not at the global level (Mohd Noor et al., 2017). These companies are usually more cost-effective and, from a sustainability point of view, it is easier for them to adhere to higher standards. For them traceability and compliance issues are less challenging.

The final stages of the chain - manufacturing and retailing - again include a large variety of stakeholders. Manufacturing involves a wide range of consumer goods manufacturers serving a plethora of retailers in highly diversified markets. Manufacturing generally takes place in the countries of consumption. The range of wholesalers and retailers is large; from large supermarket chains using palm oil in their "own brand" products, to small retailers and service providers, such as caterers and cleaning firms, or public organisations, such as hospitals or school canteens. One of the biggest consumers is Unilever, with an uptake of around one and a half million tons a year, or slightly less than 3% of the world's supply of palm oil.¹³

1.4.1 Global production and smallholders

Countries in Southeast Asia have the highest share of suitable land in relation to their size, while Latin America and Central and Western Africa have the largest tracts of potentially suitable land. Land suitability is determined by climate, in particular, those areas with high temperatures and a sufficient and steady rainfall throughout the year.

Growers range from smallholders all the way to large industrial monocrop plantations. Indonesia and Malaysia report the highest share of industrial estates, occupying around 60% of the growers' market.¹⁴ Most of the recent growth is related to medium- and large-scale monocrop plantations. However, in both countries smallholders still account for 40% of the planted area. It has been estimated that two-fifths of the global production of palm oil comes from plantations of less than 50 hectares (Mohd Noor et al., 2017).

Smallholders in Southeast Asia

The majority of smallholders tend to have a land size of below five hectares, despite the fact that in Malaysia the threshold for a smallholder is set at 50 hectares and in Indonesia at 25 hectares (Mohd Noor et al., 2017). Smallholdings are better defined by their qualitative characteristics; their reliance on family labour, or on a small labour force that does not require bureaucratic management structures, which is the case in large estates. Smallholders are incorporated into the global palm oil value chain in a variety of ways, such as larger estates and processing stakeholders including smallholders through partnership schemes. In Southeast Asia, large plantations often integrate smallholders through "outgrower" schemes or rental agreements.

Since the middle of the last century, the Governments of Malaysia and Indonesia have been providing extensive support and investment for the growing palm oil industry. Among other things, they introduced the first support schemes for smallholders.

In Malaysia, the key authority supporting smallholders is the Federal Land Development Authority (FELDA),¹⁵ tasked with the development of agriculture-based settlements for landless families. Over time, FELDA has continued to support smallholders and settler schemes, but has also shifted its focus to commercial plantations and their ability to finance themselves independently from the Government. This reflects a more general shift in Malaysian policies towards privatisation and less state intervention. FELDA has made significant contributions towards eradicating rural poverty. It resettled 122,000 landless families during 1956–1990, on about 470,000 hectares of smallholdings, raising their income levels considerably above the national poverty line, and lifting approximately one million people out of poverty (Bronkhorst et al., 2017).

In Indonesia, the first development scheme was the Nucleus Estates and Smallholder (NES) project, set up in 1979 with World Bank support. Under this project, a company (nucleus) develops the land leased to it from the government as well as land belonging to smallholders, the so-called "plasma" smallholders, who are tied to the company through partnership agreements. Within the project, plasma smallholders are given land and technical and financial assistance by state-owned banks providing loans to nucleus companies, which then lend to the plasma shareholders. Increasingly, though, smallholders have developed independent aggregate operations, such as cooperatives and associations. Indeed, the NES project, and its successors, underwrote a shift from mainly public companies to private estates and smallholder production. From the end of the 1990s, a number of new policies were enacted, opening up palm oil production to a variety of ownership and partnership models, and leading to a significant increase in private capital investment in the sector.

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Smallholders are key stakeholders but face more stringent constraints to upgrading and sustainability than larger players.

They have received increased attention, given their significant market share and the challenges they must overcome once they become part of the global value chains. That said, a lack of reliable data has affected the ability of governments and NGOs to design and implement targeted measures to support them. In Indonesia, for instance, smallholders have not been mapped nationally and are not distinguished by the Ministry of Environment and Forestry land cover maps.

Several factors limit smallholder productivity and their ability to upgrade and successfully develop sustainable production. The main obstacles include:

a. Limited cash flow and access to finance.

This restricts high up-front costs and investments in expensive fertilisers, impeding the ability to upgrade, particularly for those in the bottom segment, such as rural households.

Furthermore, smallholders are typically more susceptible to price instability than larger corporations. Indeed, the recent low price for palm oil is having a significant impact on the livelihood of small farmers and their ability to maintain minimum standards.

Because of management issues within cooperatives, smallholders often see the benefits from the high returns of oil palm plantations distributed unequally within and amongst their communities. This reinforces a negative cycle of unsustainable management and relatively poor income generation.

b. Lack of knowledge, awareness and poor governance. Small producers are either unaware of regulatory requirements or they are circumvented, being perceived as cumbersome, lengthy and expensive.

Poor access to production inputs and know-how has an adverse impact on smallholder productivity, and results in ineffective knowledge dissemination. Findings show that inputs are typically sourced through (informal) vendors that are rarely able to guarantee quality and FFB are sold to mills through intermediaries. Direct access to mills is typically reserved for larger farmers, while access to official sources of inputs is limited by logistical challenges and a lack of land documentation, which is a significant impediment for accessing planting material and bank loans.

c. Non-compliant land registration documents.

Jelsma et al., (2017) found that around 55% of sampled smallholders either lacked land registration documents or had the wrong certification; all necessary documentation for compliance with certification standards.

With increasing demand for sustainability-compliant palm oil, the existence of a large section of non-compliant farmers is expected to further segment the palm oil market and reduce the capacity of government agencies to disseminate technologies and provide support. Governments in producing countries are responsible for addressing problems of legality given the conflicting legal frameworks and authorities and the lack of political will to enforce land and forest regulations at the local level. Finally, long delays in receiving allocated land and credit, inaccessibility of allocated plots, restrictions on traditional intercropping, high land reclamation costs, poorly maintained infrastructure, and low decision-making power are also reported as obstacles to production and upgrades.

New financing and support mechanisms. Given their relevance, both from a social and economic point of view, these need to be developed

to best meet the needs of smallholders and address environmental and social challenges in the sector, and to achieve the goal of sustainable and inclusive palm oil supply chains. Multiple initiatives are already in place, supported by national and international NGOs and international organisations, such as the United Nations Development Programme (UNDP). Strengthening collaboration at the country level, between China and Indonesia, for instance, would also be beneficial. Examples of possible initiatives range from exchange of technology and know-how and best management practice dissemination programmes to build capacity, to successful case studies for poverty eradication.

1.5 The “cost” of palm oil

The expansion of the “golden crop” has come at a high cost. Deforestation has always been cited as one the negative consequences of palm oil production and expansion. Others include the contribution to greenhouse gas emissions, loss of biodiversity, water pollution, soil erosion, land use and social conflicts.

Most of these issues are not specific to palm oil but are common problems for most large-scale monocrop cultures. Palm oil, in particular, has come under public scrutiny as a negative impact of “Big Agriculture”. Soybean, a key substitute for palm oil, also has a negative impact on

deforestation and biodiversity. Much of the soy production in Brazil has replaced the rich Cerrado grasslands, leading to impoverished biodiversity. At the same time, the soy boom is pushing small-scale farmers and herders into uncleared forests, leading to more deforestation in the Amazon, and into the Cerrado itself (Meijaard et al., 2018).

The silver lining for palm oil lies in its high yield.

Replacing oil palm with other oilseed crops would lead to a significant increase in the land used for production of other vegetable oils, with potentially large negative biodiversity impact.

The main negative impacts of palm oil production are:

a. Deforestation. Increased demand for palm oil has been traditionally met through land expansion, rather than increased yields in existing estates. This often translates to clearing forests to create monoculture plantations, in particular in Southeast Asia. From a climate perspective, of particular concern is the expansion into peat forests; the swamp forests common to Southeast Asia whose soil contains very large amounts of carbon.¹⁶ It has been estimated that until 2003, only about 10% of the plantations in Indonesia and Malaysia were on peat soil, but these were responsible for over a third of the carbon emissions from palm plantations (May-Tobin et al., 2012).

The range of estimates on deforestation varies, depending, among other things, on the definition of forest and the timeframe used. The lack of accurate mapping of the areas involved, of reliable data on land concessions, particularly for smallholders, and difficult access to concession maps,¹⁷ further complicate the matter. Koh and Wilcove (2008) estimate that from 1990 to 2005, 55% to 60% of oil palm plantations in both Malaysia and Indonesia were established by converting “virgin” forests. Greenpeace (2018), quoting the Indonesian Ministry of Environment and Forestry (MoEF), reported that 24 million hectares of the country’s rainforest, or 20% of the total, were destroyed between 1990 and 2015, leaving only 52% of the original rainforest intact. According to the MoEF, the highest levels of deforestation rates were recorded in the period from 1996 to 2000, at 3.5 million hectares per year, when major forest fires also happened. From 2002 to 2014, the rate of deforestation declined, the incidence of forest and land fires decreased, and stricter controls were placed on the decentralisation of forest management (The State of Indonesia’s Forests 2018 report).

There is evidence that deforestation for palm

oil production is still ongoing. While the rate of deforestation for new oil palm plantations in Indonesia remained stable between 2005–2010 and 2010–2015 (Lyons-White and Knight, 2018), the Indonesian MoEF estimates that from 2014, annual deforestation was less than one million hectares and decreased to less than half a million hectares in the last couple of years.

The show case for mass deforestation is Borneo. Borneo is the largest palm oil producing region and is estimated to be the biggest destroyer of species-rich rain forest. In Malaysian Borneo, oil palm accounted for up to 60% of deforestation between 1972 and 2015. In Indonesian Borneo, deforestation rates significantly increased from 2005, when production boomed, reaching 50% between 2005 and 2015 (Meijaard et al., 2018).

b. Fires. Deforestation has often been associated with the use of fire as an effective and cheap way to clear land. However, fires can produce a considerable amount of smoke and toxic compounds, especially when they occur on peatlands,¹⁸ negatively affecting people, the environment and the economy. The World Bank estimates that the 2015 Sumatra, Kalimantan and Papua forest and peatland fires, which devastated 2.6 million hectares – an area four and half times the size of Bali – cost USD 16 billion to the Indonesian economy, equivalent to 2% of GDP. Researchers at Harvard and Columbia Universities estimate that 100,000 people died prematurely from respiratory diseases linked to the associated haze (Greenpeace, 2018).

According to the Government of Indonesia, **burnt areas have decreased significantly.** A recent report shows burnt area falling from 2.6 million hectares in 2015 to 0.43 million hectares in 2016, an 83% decrease, and to 0.16 million hectares in 2017, a 62% yearly decrease (MoEF, 2018).

c. Loss of biodiversity. Biodiversity loss is intrinsically linked to loss of forested lands. Koh and Wilcove (2008) found that oil palm plantations converted from primary forest and logged forest cause an 83% reduction in species richness. The most notable example is the role of palm oil expansion in the decline of orangutan and tiger numbers. Globally, palm oil production affects at least 193 threatened species, according to the International Union for Conservation of Nature.¹⁹ It has been estimated that oil palm expansion could affect 54% of all threatened mammals and 64% of all threatened birds globally.

d. Greenhouse gases. Atmospheric greenhouse

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gases influence global temperature, absorbing and emitting radiant heat. Global agribusiness, generally linked to the management of agricultural soils, livestock, and biomass burning, influences the concentration of atmospheric greenhouse gases and thus contributes to climate change. The most significant greenhouse gases - water vapour, carbon dioxide, methane and nitrous oxide - can all be influenced by palm oil production.

Clearing forests for agricultural purposes produces carbon dioxide emissions. Particularly large amounts are released when peatlands are drained during the land clearing and preparation phase, leading to decomposition or burning. This can be partly offset by the high rates of carbon uptake of oil palm and the potential of using palm oil as feedstock for biofuel and thus as a replacement for fossil fuels. However, this is a very long process with estimates suggesting it would take between 75 and 93 years for the carbon emissions saved through the use of biofuel to compensate for the carbon lost via deforestation (Danielsen et al., 2009).

e. Labour rights and social conflicts. Beyond the environmental impact of palm oil production, there is also evidence of human and labour rights

violations. A 2016 report by Amnesty International, focusing on Indonesian plantations owned by Wilmar International subsidiaries and suppliers, found that forced labour and child labour, gender discrimination, as well as exploitative and dangerous working practices, were common in the premises under investigation. A more recent report also highlights illegally low wages, a lack of health and safety measures for workers, limits to freedom of association and a lack of grievance mechanisms in the value chain supplying Nestlé, another large market user of palm oil (The Danish Institute for Human Rights, 2018). These findings are not unique to the supply chains of these two companies, nor only to Indonesia, but are considered representative of industry-wide challenges in producing countries.

There is increasing evidence of clashes between local and national interests around oil palm development, which derive from conflicting interests around land allocation and fiscal earnings. Government revenues from palm oil production and trading and rents generated from land allocation are generally channelled at the central level, with insufficient redistribution at the local level through which to mitigate the social and environmental impact of production.

Palm oil substitutes and sustainability

Palm oil owes its success and booming demand to its low price and versatility. Substitution is possible, but at what cost?

Palm oil can be replaced by soya oil, rapeseed oil, sunflower oil and coconut oil. The substitution of palm oil with other vegetable oils is easiest to achieve in the food sector. From a purely technical perspective any other vegetable oil could replace palm oil. In the industrial sector, substitution is more difficult. Coconut oil is the main alternative, being the only option for soaps, detergents, conditioners and cleaning products, personal hygiene products and cosmetics.

A WWF report estimated the benefits and costs of substituting palm oil with other vegetable oils in Germany (WWF Germany, 2016), concluding that the substitution of a mix of rapeseed, sunflower, coconut and soya oil for palm oil would result in:

a. The cultivation of five times more land. Most of the land pressure would be on tropical countries due to the substitution of oil palms with coconut palms.

b. Higher greenhouse gas emissions from land use change, totalling 309 million tonnes, around a third of the German annual emissions. Again, tropical countries would pay a higher price since most these emissions would be generated in Asia, where the

bulk of palm oil would be replaced with coconut oil production.

c. Biodiversity loss would be greater and was estimated to equate to a loss of species diversity of over 640,000 hectares of tropical ecosystems or more.

d. In Germany, a 50% increase in area for vegetable oil production, mainly rapeseed, would be necessary. Around 730,000 hectares of land would need to be converted to rapeseed production. That said, biodiversity loss from rapeseed plantations in Germany would be far less than that generated by increased coconut plantations in tropical countries.

To conclude, the substitution of palm oil with other tropical plant oils is possible but would not necessarily meet the desired objectives. Soya and coconut oil grow in similar or similarly ecologically-sensitive regions. Because more land would be required to meet the demand of palm oil substitutes, this could lead to higher deforestation rates, and more greenhouse gas emissions and biodiversity loss. The environmental impact of agribusiness would not be solved but could well be further exacerbated.

3 The Report refers to “palm oil” as the main and most valuable output of the sector, i.e. the oil produced by the fruit of the oil palm. The sector however also produces palm kernel oil and palm kernel meal.

4 This is an estimate for the indirect and induced contribution to GDP, derived from palm oil imports, most of which happens in China, the USA and India. From an employment point of view, the economies who benefit most are China and India, accounting for around two-thirds of the global jobs created.

5 The remaining palm oil comes from Thailand, Colombia and Nigeria (jointly accounting for 8% of global production) and other minor producing countries in tropical areas in Africa and Latin America.

6 www.theconversation.com/palm-oil-politics-impede-sustainability-in-southeast-asia-57647, 20 April 2016

7 [Oil World, http://mpoc.org.my/upload/Paper-4-POTS-China-2018-China-Oleochemicals-Markets-and-Trends.pdf](http://mpoc.org.my/upload/Paper-4-POTS-China-2018-China-Oleochemicals-Markets-and-Trends.pdf)

8 <http://mpoc.org.my/upload/Paper-8-POTS-China-2018-David-Mielke.pdf>

9 <https://www.nytimes.com/2018/11/20/magazine/palm-oil-borneo-climate-catastrophe.html>

10 Within the EU, the Netherlands is the dominant importer, due to the trade flow through Rotterdam, a key door to the European markets. Processing and manufacturing facilities are often located in other EU countries.

11 <https://www.iucn.org/resources/issues-briefs/palm-oil-and-biodiversity>

12 Wilmar International, a Singapore-based agribusiness company, is considered the largest single player, controlling around 45% of global palm oil production and trade.

13 <https://www.unilever.com/sustainable-living/reducing-environmental-impact/sustainable-sourcing/transforming-the-palm-oil-industry/>

14 In West Africa, instead, large industrial plantations account for only around 7% and the growers' market is dominated by smallholders (Meijaard et al., 2018).

15 Other, although less significant, institutions were also established to provide smallholder support: the Federal Land Consolidation and Rehabilitation Authority, the Rubber Smallholders' Development Authority and the more recent Konsep Baru model and the Replanting Subsidy for Oil Palm Smallholders (Bronkhorst et al., 2017).

16 Peatland forests hold 12 times as much carbon as other tropical rain forests around the world. Globally, Indonesia's peatlands alone (which are greater in size than others anywhere in the world except for those in Russia and Canada) now emit more than 500 megatons of CO₂ each year, an amount greater than the entire annual emissions of the state of California (New York Times, 20 November, 2018).

17 In Indonesia, for instance, some concession maps are available and can be downloaded from the Government's website, while others are not and should be officially requested from the data owner.

18 Peatlands developed due to changes in sea level and are estimated to store around 11% to 14% of the global carbon soil carbon pool. When cleared with fires and or drained, peatlands release their long-stored carbon, exacerbating the impact of deforestation by multiple times from a GHG emission perspective.

19 <https://www.iucn.org/resources/issues-briefs/palm-oil-and-biodiversity>



Chapter 2: Sustainable Palm Oil

2.1 Sustainable palm oil

The palm oil sector is undergoing a transformation towards sustainable production and consumption, to address the negative consequences of its booming expansion. This is driven by strong pressure from multinational companies, NGOs and ultimately the end-consumer in developed markets.

“Sustainable development” is a challenging concept to implement. It must balance the ecocentrism of developed markets with the social and economic needs and challenges of developing countries; the visions of consumers living in mostly saturated markets and the visions of the producers, situated in low- and middle-income countries (Mohd Noor et al., 2017). In producing countries, it is particularly challenging for national governments, who must balance the national demand for growth and development with the global concerns of environmental protection.

There is no clear and universally accepted definition of “sustainable” palm oil. General guidelines are set by the UN Environment, within which sustainable palm oil is considered to minimise irresponsible production, while guiding the sector to sustainable methods. Key players in the palm oil industry, like the RSPO or groups of companies such as the POIG (Palm Oil Innovation group), have been striving to improve sustainability and many have begun initiatives that work towards that goal.

Different standards and certifications have been set up, sharing a similar range of topics, but with different focuses and levels of detail, such as the specificity and severity of the restrictions imposed by each standard (see Section 2.2 for a full description). However, the lack of standardisation and wide implementation of standards or corporate commitments limits their potential. Furthermore, expectations of consumers and environmental groups are based on the concept of “sustainability”, which differs and evolves with time.

Different stakeholders show different appetites for sustainability. Upstream, sustainability is often portrayed as a non-economic choice: adding extra costs, which are not appropriately remunerated by the price premium. It is also often seen as a barrier to market access, protecting selected groups of growers at the expense of developing country ones. Downstream, in developed markets, sustainability is seen as a necessary tool to respond to civil society concerns over the environment.

The business case for sustainable palm oil lacks traction and disputes over price premia are a major obstacle and source of debate between producers and consumer goods manufacturers. This is despite the positive outcomes associated with sustainable production. Research shows that sustainable palm oil is associated with

a reduction in deforestation rates and loss of biodiversity; less soil degradation and water pollution; and increased productivity and efficiency, bringing higher yields together with less use of land, water and fertilisers. In Indonesian Borneo, for example, RSPO members produced increasing and higher yields over time than non-members. Morgans et al., (2018) estimated a yield of almost three times more fresh fruit bunches than non-RSPO concessions. Sustainable production also improves competitiveness and access to international markets and supports the fulfilment of government environmental commitments.

Challenges are evident, however. In the public sector, through initiatives like the Indonesian and Malaysian Sustainable Palm Oil schemes, policies lack coordination, incentives and effective enforcement. Efforts are emerging for more coordinated policies with clearer regulatory frameworks and targets. The Government of Indonesia, for instance, has implemented a series of regulations to control the expansion of palm oil production, such as mandatory standards and moratoriums on the conversion of primary forests. Rates of deforestation have decreased but barriers to implementation remain. Pacheco et al., (2017) mention tensions among different levels and sectors of the Government, the intertwined interests of local politicians and investors, poor law enforcement, and Government reliance on revenues from concession permits, among other factors. Conflicting regulations and policies also slow implementation and remain a major barrier to change.

In the private sector, there is a lack of demand, particularly from growing developing markets. Most of the initiatives rely on end-market pressure as the key incentive towards sustainability, making deforestation a threat to the reputation of associated companies thereby limiting their market access. This is particularly the case for consumer-facing companies, mostly downstream manufacturers and retailers, who are more vulnerable to bad publicity, which can create lasting damage to their brand.

A significant proportion of the palm oil produced is absorbed by emerging markets, less concerned with sustainability than price. Value chain stakeholders who are targeting less sensitive markets have less incentive to change and upgrade their production systems than companies targeting standard-intensive markets. Evidence from other commodities reveals that value chains driven by Chinese markets are less concerned about standards, such as product process and environmental standards, than value chains driven by leading European firms (Mohd Noor et al., 2017).

Demand for sustainable palm oil is concentrated in Europe and the USA, markets with higher GDP per capita and a longer history and presence of NGOs and active civil societies. However, they account for only 12% of global palm

oil consumption. Many (mostly Western) companies²¹ have announced palm oil-related pledges, ranging from commitments to deforestation-free supply chains, to the complete ban of palm oil from their products.

Globally, the uptake of voluntary standards is slow:

less than 20% of production is certified as sustainable by the RSPO, the main certification scheme in the sector. Furthermore, any push for the adoption of more stringent standards or criteria (such as those promoted by the Palm Oil Innovation Group) is challenging. While demand for non-certified palm oil remains prevalent, the uptake of regulations and higher standards is unlikely to increase significantly. Indeed, the demand for sustainable palm oil is so minimal that there is an excess in supply, further undermining economic incentives for sustainable palm oil. Figures reported by the RSPO, however, may be somewhat misleading. They estimate that in 2018 only 44% of certified palm oil was sold as such, while the balance was sold as non-certified, standard palm oil.²² However, a significant amount of this 56% was sold as certified sustainable palm oil under the International Sustainability and Carbon Certification (ISCC) for biofuel in Europe. This is because plantations are often certified under both schemes. Lack of a unified system for traceability between the two schemes makes the data unreliable.

Lack of final demand is not the only barrier to the implementation of no-deforestation commitments and the lack of success of standards and certifications. Other obstacles include:

a) The complexity of the palm oil value chain. Wide ranging and fragmented palm oil sources hinder communication and the formation of relationships between and within companies

at different stages of the supply chain, limiting engagement and control over the source of palm oil. The fragmented supply chain also limits the capacity of single stakeholders to leverage other players and to push for the implementation of sustainability standards.

b) Difficulties in traceability reduce the incentive for companies to take responsibility for their own operations further down the supply chain, weakening commitment implementation.

c) The perceived incompatibility of sustainability and economic development is of great concern for growers, and further limits the uptake of standards and certifications upstream. While manufacturers and consumers perceive “no-deforestation” policies, for instance, as feasible goals, upstream stakeholders fear these commitments will limit growth, development and business. A lack of communication along the chain raises the growers’ perception that commitments by downstream players are unrealistic, as they are often unaware of whether the former have the necessary tools for implementation.

d) Limited capacity in terms of the human and financial resources of companies, together with limited awareness and appropriate training and understanding of the issues involved.

e) A lack of consistent and effective government regulations is also often reported as a considerable barrier against no-deforestation commitments by companies.

2.2 Sustainable palm oil standards, certifications and other initiatives

Existing initiatives can be grouped as:

a. Mandatory national standards, such as the Indonesian Sustainable Palm Oil System (ISPO), applicable to all oil palm growers, mills and processors in Indonesia, developed to address industry sustainability at the national level.²³

b. Certification standards, such as the Roundtable on Sustainable Palm Oil (RSPO), that

establish common commitments and guidance for growers and actors along the value chain.

c. Initiatives, such as the Palm Oil Innovation Group (POIG), that have been established and endorsed by a number of stakeholders, committing them to criteria for sustainable production.

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The RSPO is considered the most successful among its peers with coverage at the global level, while the ISPO, and to a certain extent its Malaysian counterpart, the MSPO (Malaysian Sustainable Palm Oil scheme), are considered the legal standards of the sector. The RSPO has also been recognised as the most robust scheme, offering better protection for a greater number of conservation areas than the ISPO and MSPO. The ISPO has challenges with the certification process and carries the least requirements on social issues, providing a different level of protection than multi-stakeholder international certification schemes. The RSPO's strengths also reside in the inclusion of directives on business practices and plantation management, requiring a

commitment to transparency and ethical conduct in business operations and transactions. The ISPO/MSPO mentions these topics, but do not make them explicit principles. Finally, the RSPO requires a higher level of transparency in its standards development and auditing results than both the ISPO and the MSPO.²⁴ However, the RSPO, being a voluntary standard, may face difficulties in covering all palm oil production, in light of some resistance by key stakeholders in producing countries to fully back a private certification scheme and absorb certification costs vis-à-vis perceived inadequate price premia. In this respect, although still at a nascent stage, mandatory national standards are better placed to achieve full national coverage of produced volume.

	Area of focus	Governance	Coverage	Affiliation	Main crop/ crop oil	Environ- mental issues	Social issues
ISPO	Indonesian palm oil	Government/ mandatory, with stakeholder engagement in preparation and implementation	<20% of oil palm plantations	N.A.	certified	+	+
MSPO	Malaysian palm oil	Semi-governmental/ voluntary to become mandatory by Dec 2019	21% of oil palm plantations	N.A.	Palm oil	+	+
RSPO	Palm oil	Multi-stakeholder approach/voluntary	19% of global palm oil production; 15% of global hectares	4040 members	Palm oil	++	++
ISCC	Biofuel	Private/voluntary	7% of global FFBS harvested	357 certified companies	Palm oil Various agricultural and forestry materials	+++	+
SAN/RA	Sustainable agriculture	Private/voluntary	0.1 million hectares of oil palm	N.A.	Cocoa, tea, coffee, bananas, palm oil, oranges, pineapples, rubber	+++	+

Table 1: Comparison table of main certification schemes in the palm oil sector

Note: +, ++, +++ represents the strength of schemes, from lowest to highest. Data is for 2018, or the latest available, and as such does not take into consideration the recently launched RSPO P&C.

Source: Daemeter.org and forestpeoples.org

2.2.1 The Indonesian Sustainable Palm Oil System (ISPO)

The Indonesian Sustainable Palm Oil System is a policy adopted by the Indonesian Government to increase the sustainability and competitiveness of Indonesian palm oil in the world market and to support the commitment to reduce greenhouse gases and focus attention on environmental problems. It was established in 2009 to implement a certification policy system designed by the Ministry of Agriculture. It is based on and supports the implementation of many of Indonesia's existing laws and regulations. Since 2014, the ISPO system has been mandatory²⁵ and, as such, is often referred to as Indonesia's "standard of legality". It applies to all oil palm growers, from large plantation companies to smallholders, and to processing companies, although requirements vary for each.

Its seven principles are: a licencing system and plantation management; technical guidelines for oil palm cultivation and processing; environmental management and monitoring; responsibilities for workers; social and community responsibility; strengthening community economic activities; and sustainable business development.

The ISPO is part of the wider Sustainable Palm Oil (SPO) Initiative, supported by the UNDP. This Initiative aims to increase smallholder capacity and improve livelihoods, better protect the environment through standards to protect forests and enhance biodiversity conservation and reduce greenhouse gas emissions. It also aims to facilitate social responsibility, empowering related communities and mediation systems, establishing national and provincial platforms to ensure transparency and promote sustainable palm oil.

The ISPO has been criticised for being less stringent, in terms of standards setting and implementation, than other certification schemes and there has yet to be evidence of significant changes or improvements on environmental and

social issues. Its position is less strong on environmental topics ranging from deforestation, peatlands development and biodiversity conservation, for which the International Sustainability and Carbon Certification (ISCC) applies the strongest criteria. Equally, there are no set principles on protecting primary natural forests and peatlands. A lack of transparency regarding palm oil sustainability assessment and ensuing decisions and lack of a strong position on respecting human rights have also been raised as concerns. Furthermore, the ISPO does not envisage an independent monitoring body, there is no grievance mechanism, nor a clear regulation on law enforcement and sanctions in cases of non-compliance.

Enforcement is a major weak point. Despite being mandatory for the last four years,²⁶ uptake of the ISPO has been slow. Land legality issues are a key obstacle against enforcement. Only 413 certificates had been issued as of September 2018, covering 2.34 million hectares out of 14 million hectares of oil palm plantations, less than 20% of the total. Over 80% of oil palm plantations in Indonesia are therefore not certified.²⁷

These limitations make international recognition challenging. Since the standard is not recognised by users, the market is unlikely to provide the necessary (price) incentives, usually demanded by those who comply. Facing these challenges, in 2016 the Indonesian Government set up a task force, involving different stakeholders and relevant parties, and reduced the role of the Government. The aim of the task force was to improve the ISPO scheme and produce a Presidential decree, rather than a ministerial decree, thereby raising the political status of the scheme. In September 2018, a draft was presented to, but not signed by the President. The draft met significant resistance from civil society and other involved parties, who claimed it would weaken, not strengthen, the current ISPO.

2.2.2 The Malaysian Sustainable Palm Oil (MSPO) Certification Scheme

The MSPO is the Malaysian national certification scheme that came into effect in 2015, to support small and mid-range growers, who historically could not afford RSPO certification to operate sustainably. As a national standard, the MSPO builds on existing laws and regulations. As of September 2018, the MSPO certified area accounted for 21% of Malaysia's total production area, covering 1.2 million hectares and 111 mills, out of a total 454 mills (24%).²⁸

The MSPO Certification Scheme will have become mandatory by December 2019; it is currently voluntary and industry-driven and is operated and owned by the Malaysian

Palm Oil Certification Council (MPOCC), an independent organisation. Through mandatory certification, the aim of the Scheme is to promote productivity and traceability, improve the reputation and image of Malaysian palm oil, as well as meet new demand for sustainable palm oil and enhance its competitiveness and acceptance in the global market.

The MSPO Standard contains seven principles that cover management commitment and responsibility, transparency, compliance to legal requirements, social responsibility, health, safety and employment conditions, environment, natural resources, biodiversity and ecosystem services, best practices, and the development of new plantations.

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2.2.3 The Council of Palm Oil Producing Countries (CPOPC)

In 2015, Indonesia and Malaysia launched the CPOPC, an intergovernmental palm oil council, with the aim of controlling the global supply of palm oil, stabilising prices, promoting sustainable practices in the industry, and enhancing the welfare and productivity of smallholders and the harmonisation of the two national certifications

systems, the ISPO and the MSPO. It is a platform to promote consultation, research and innovation through which to tackle the sector's hurdles. The three members of this government-to-government framework are Malaysia, Indonesia and, since the end of 2018, Colombia.

2.2.4 The Roundtable on Sustainable Palm Oil (RSPO)

The Roundtable on Sustainable Palm Oil is a multi-stakeholder, non-profit partnership with the objective of "promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders". It was established in 2004 and covers seven sectors of the palm oil value chain: growers, processor and traders, consumer goods manufacturers, retailers, banks, investors and NGOs. It uses a consensus voting system to develop standards and criteria for its members.

Membership. As of 30 June 2018, the RSPO had a membership of 4,040²⁹ from 92 countries, covering around 40% of the global production of palm oil. Of these, 1,968 are ordinary members, of which 820 are consumer goods manufacturers (42%) and 567 are processors and/or traders (29%). Growers represent only 10% of ordinary members³⁰ and retailers 4%. Membership is concentrated in Western markets. The USA leads the way, with 496 members, followed by Germany (458) and the United Kingdom (439). In emerging markets, participation is the highest in Malaysia (130 members), followed by Indonesia (104, of which 87 are ordinary members), India (60, of which 27 are ordinary members) and China (94, of which 35 are ordinary members). Most of the nearly 5,000 facilities with supply chain certificates are in the EU, predominantly in the UK, Germany and the Netherlands (EU, 2018).

110,691 members hold RSPO Smallholders Certification, of which 95% are participants in palm oil schemes. They represent a certified area coverage of 354,000 hectares. Recently, Indonesia and Thailand saw the most dramatic growth in the certification of independent smallholder land. Certified palm oil production represents around 19% of global production, on 15% of the total hectareage dedicated to palm oil production. Certified palm oil volumes increased rapidly between 2008 and 2015, peaking just under 13 million tons. 2016 and 2017 saw small decreases in production, which picked up again in 2018. RSPO Certified Sustainable Palm Oil (CSPO) comes from Indonesia (53%), Malaysia (32%), Papua New Guinea (6%) and Costa Rica (1%) and is mainly consumed in Europe. In 2017, 74% of imported palm oil in Europe was CSPO, while in China, for example, CSPO represents only 1% of the total amount of imported palm oil. More detailed trade data for CSPO is not available.

RSPO certification is based on a set of Principles and Criteria (P&C) originally developed in 2007 and revised

every five years. The current P&C, published in November 2018, aim at strengthening social development, economic prosperity and environmental protection across the palm oil value chain. The concept of "shared responsibility" was also introduced, recognising the need for multi-stakeholder collaboration to deliver a responsible, sustainable palm oil industry.

Zero deforestation, through the adoption of the High Carbon Stock Approach (HCS), was one of the key revisions. From November 2018,³¹ the ban on deforestation was extended beyond primary forests to forested areas defined by the HCS Approach, thereby addressing a key criticism of the 2013 P&C. Among other improvements, the current certification requires maintenance and enhancement of high conservation value forests; stricter protection for peatlands, via clear requirements and an updated peat definition; and the phasing out of existing planting on peatlands. New wording around community rights, for better protection of vulnerable groups, was also included, as well as stricter criteria on child labour and forced and trafficked labour. Last, but not least, a jurisdictional approach to certification has been proposed, which would be introduced at the district or regional level of production, rather than on single companies, thereby easing some of the barriers to certification, particularly for smaller producers, and promoting a more holistic approach.

These were all significant steps, welcomed by the industry³² and by NGOs. Nevertheless, room for improvement remains. Critics have pointed out exceptions to the no-deforestation rule that still exist, potentially allowing some forests to be cleared. Plantations that have already submitted a High Conservation Value (HCV) assessment for approval will not need to identify and protect HCS forests, even if they are carrying out new land clearing after November 2018. The amount of forest hectareage this will affect is unknown.³³

The issue of smallholder standards is still being addressed. At the end of last year, it was announced that additional and specific standards for smallholders were being developed and should be ratified by November 2019. The combination of insufficient economies of scale and a lack of capital and know-how implies that sustainable certification is often not economically viable for these stakeholders. A grower can expect a price premium for certified RSPO palm

oil of around 1.2%, far less than the 10% premium expected when certified oil shipping began (Mohd Noor et al., 2017). The low premium paid to the growers does not necessarily cover the certification costs. Smallholders also struggle with legality (P&C 2), labour practices (P&C 4) and the conservation of High Conservation Value areas (P&C 5 and 7).^{34 35}

Since November 2015, the RSPO has been supporting smallholders through a variety of different approaches, under the so-called “RSPO Smallholder Strategy”. In 2015, the RSPO Smallholders Support Fund was established and the implementation of a series of initiatives specifically tailored for smallholders began. By mid-2018, the Fund provided financial support for 32 smallholder projects in 12 countries, with an equivalent value of USD 3 million. Overall, 26,000 individual smallholders covering about 156,000 hectares (44% of smallholder certified areas) of farmland have benefited from these initiatives. Other initiatives include the facilitation of smallholder certification via the development of “Guidance for Group Certification of FFB Production”. These efforts have

been welcomed but have not managed to drive a significant transformation of the sector nor the large-scale inclusion of smallholders.

The implementation and grievance system will be closely monitored and will test the capacity of the new P&C. NGOs and the media frequently report on breaches of the various commitments towards sustainable palm oil made by companies along the supply chain. For example, plantations only need to be legal at the time of certification, thus they could have been operating illegally in the past and subsequently become legal. In addition, certified mills can still receive oil palm fruit from illegal sources for up to three years after certification if the fruit is sourced indirectly. Implementation is patchy at times.³⁶ It was revealed that companies responsible for auditing RSPO-certified plantations failed to identify violations, linked to consequent deforestation, human trafficking and the intimidation of environmentalists (The Guardian, 2016).

The HCS (High Carbon Stock) Approach

It has been argued that challenges to sustainability certifications and commitments also come from the lack of a universally accepted definition of “forest” and “deforestation” due to, among other factors, the difference in forest types, and the application and cultural understanding of the terms. Two competing methods have emerged:

- the High Carbon Stock (HCS) Approach, and
- the HCS Study or HCS+.

The two methods have been merged under the HCS Approach, a field-tested approach to identify forest areas that should be protected or restored from degraded land, using an integrated land-use approach. This is a methodology designed to enable companies to put their “no deforestation” commitments into practice in their operations and supply chains. It calls for the rigorous implementation of High Conservation Value (HCV) assessments, and mapping of peatland and riparian areas. It identifies types of HCS forest class that require protection and prioritises the allocation of two degraded land classes (low-carbon scrub areas and open land) for any proposed development.

Through the HCS Approach, companies protect peatlands, HCV areas and HCS forests within their concessions, and work with rights holders to identify and protect such areas in adjacent landscapes. The Approach does not focus on other issues, such as how to deal with the socio and economic development of highly forested areas, making it a less rounded scheme compared to others.

Compliance accreditation is examined by third-party RSPO-accredited certification bodies every five years, with an annual audit for continued compliance. The RSPO assesses members’ progress via the mandatory publication of Annual Communications of Progress (ACOP) reports. These reports help to review members’ commitments, provide feedback on the process of implementing the P&C and are a key tool for increasing the transparency of operations and commitments to sustainability. The ACOP includes Time-Bound Plans

(TBPs) in which members should state clear timelines for producing or sourcing 100% RSPO Certified Sustainable Palm Oil. RSPO members’ TBPs should follow a set of mandatory deadlines,³⁷ whereby within 10 years of joining, a company should be able to source 100% CSPO along its value chain. Furthermore, according to the RSPO Certification System document (effective 1 July 2018), existing RSPO members must have all mills and estates certified within five years, i.e. by 30 June 2023.

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Supply chains. Due to the complexity of the palm oil supply chain and the variable volumes produced and traded, the RSPO envisages four supply chain models for Certified Sustainable Palm Oil (CSPO):

1. Identity Preserved: CSPO is kept segregated from all other sources (certified and non-certified) along the whole chain. A batch of certified palm oil can be traced from a specific plantation to factory to retailer.

2. Segregated: certified palm oil is kept segregated from non-certified palm oil but is blended with other batches of CSPO and cannot be traced back to a specific plantation.

3. Mass Balance: Certified palm oil is mixed with uncertified palm oil but quantities are monitored administratively so that claimed volumes are matched.

4. Book and Claim: a credits system that bypasses the need for the physical traceability of certified palm oil through the supply chain. Producers can earn RSPO Credits (formerly known as Green Palm Certificates) for producing CSPO. RSPO Credits are then sold via an online platform to users (retailers, manufacturers), who can then claim to support the sustainable production of equivalent volumes of purchased non-CSPO.

Grievance mechanism. The RSPO set up a Complaints System, addressing grievances against both RSPO members and the RSPO system itself. Anyone can submit complaints and these are reviewed by the Secretariat and then passed on to the Complaints Panel for decisions and further action to facilitate a resolution. All information is published and accessible on the RSPO website after deliberation has taken place.

The RSPO and the EU market: the RSPO-RED

The RSPO-RED requirements for compliance with the EU Renewable Energy Directive requirements (also referred to as RSPO-RED requirements or RSPO-RED scheme) are a voluntary add-on to the RSPO standards. They allow palm oil producers and processors under certain conditions to comply with the requirements of the EU-RED Directive (2009/28/EC), which specifies sustainability requirements for biofuels and bioliquids in the EU. However, the RSPO-RED licence expired in December 2017 and has not yet been renewed.³⁸

The RSPO and the Chinese market

Most of the palm oil imported into China is consumed domestically, with a very small percentage being processed and re-exported. As such, foreigner buyers have significantly less influence on the Chinese palm oil value chain. This is different from other commodities, such as the pulp and paper industry, where Western buyers require stricter standards from Chinese suppliers. How to approach the issue of CSPO in China is therefore challenging for the RSPO; a similar situation exists with other sustainable initiatives for that matter.

To address the issue the China Sustainable Palm Oil Alliance (the Alliance) was launched in July 2018 by the RSPO, the China Chamber of Commerce of I/E of Foodstuffs, Native Produce and Animal Byproducts (CFNA) and the WWF. The Alliance is a platform for cooperation among stakeholders in the palm oil supply chain, promoting sustainable palm oil production in China. It aims to raise awareness among key stakeholders about RSPO certification and sustainable palm oil in general.

2.2.5 The Palm Oil Innovation Group (POIG)

The Palm Oil Innovation Group is a joint initiative of environmental and civil society organisations and industry companies which builds upon the RSPO Principles and Criteria and existing company commitments. It aims “to achieve the adoption of responsible palm oil production practices [...] through developing and sharing a credible and verifiable benchmark that builds upon the Roundtable on Sustainable Palm Oil (RSPO) and creating and promoting innovations.”³⁹

Launched in 2013, the POIG sets more stringent criteria than the RSPO, particularly in terms of deforestation, carbon stocks, biodiversity, greenhouse gas emissions, pesticide use and social relations. It creates a platform for companies to be recognised for their leadership and innovation in sustainable palm oil production. It focuses on three thematic areas: environmental responsibility, partnerships with communities

including workers’ rights, and corporate and product integrity.

Its main recommendations are to introduce a High Carbon Stock (HCS) approach to land development; to maintain and restore peatlands and prohibit their clearance; to report GHG emissions from all sources; to minimise the use of chemical fertilisers and toxic pesticides; to prohibit the cultivation of Genetically Modified Organisms (GMOs); to manage water sources and their use responsibly and transparently; and to protect and conserve wildlife through High Conservation Value (HCV) assessment.

It currently has 17 members, including NGOs, progressive oil palm growers, retailers, manufacturers, and companies with vertically integrated production, processing and trade operations.

2.2.6 “No Deforestation, no Peat, no Exploitation” (NDPE) policies

“No Deforestation, no Peat, no Exploitation” policies are non-governmental, privately adopted corporate policies. Companies with NDPE policies operate 74% of the total refinery capacity in Indonesia and Malaysia. An estimated 96% of global palm oil production should be covered by some sort of “no-deforestation” commitment (Greenpeace, 2017).

These policies seem to have had little impact on the ground as deforestation and loss of biodiversity have not been significantly reduced. They are not backed by recognised and independent certification procedures against

which such commitments can be monitored. The lack of standardisation makes implementation difficult to track and the reliability of the standards is largely untested. Initial studies indicate inadequate monitoring or enforcement and only a few have been independently verified. Less than half of these policies have a time-bound commitment to achieve the target. Greenpeace (2018) found that 16 leading multinational companies (among which are Unilever, PepsiCo, Ferrero, Nestlé, Colgate-Palmolive, Johnson & Johnson, Mars and Reckitt Benckiser) failed to demonstrate any real progress on their individual commitments.

2.2.7 The International Sustainability and Carbon Certification (ISCC) scheme

Launched in 2006, the International Sustainability and Carbon Certification scheme is a system for certifying the biomass and bioenergy industries. It is oriented towards the reduction of greenhouse gas emissions, sustainable land use, protection of the natural biosphere and social sustainability. It focuses on “the implementation of environmentally, socially and economically sustainable production and use of all kinds of biomass in global supply chains.”⁴⁰ The scheme was originally established to ensure adherence to the German Government’s biomass sustainability ordinance (BioNach). Since then it has also been recognised by the European Commission as one of the first certification standards to demonstrate compliance with the requirements of the EU Renewable Energy Directive.

The ISCC is applicable to various industries and end-markets and is now well-established in the palm oil value chain. It consists of a series of strict requirements in the

bioenergy markets, as well as adherence to standards that demonstrate the sustainability and traceability of feedstock in the food, feed and chemical industries (ISCC PLUS). Its sustainability principles are ecological sustainability (protection of land with high biodiversity value or high carbon stock, no-deforestation, environmentally responsible production), social sustainability (safe working conditions and compliance with human, labour and land rights), compliance with laws and international treaties (monitoring of greenhouse gas emissions and reduction) and good management practices.

The system currently certifies over 2,500 operations worldwide, with 357 palm-processing companies ISCC-certified. In 2016, around 22 million tonnes of ISCC-compliant palm fresh fruit bunches were produced (7% of the global harvest). ISCC certification is mostly sought by Indonesian producers who want to access the European biofuels market.

2.2.8 The Roundtable on Sustainable Biomaterials (RSB)

The Roundtable on Sustainable Biomaterials is a global certification scheme that encourages the sustainable production of biofuels and other biomaterials. It is thus relevant for the palm oil sector, however, to date its penetration is minimal. The certification scheme was established in 2007 as the Roundtable of Sustainable Biofuels, in response to the EU RED. Its global certification scheme was launched in 2011 with a worldwide standard for sustainable biofuel production; in 2013, it was extended to cover other

biomaterials, and renamed the Roundtable on Sustainable Biomaterials.

The RSB has two sets of principles and criteria for certification. One applies to any type of feedstock on a global scale, and one is specifically consolidated to comply with the EU RED Renewable Energy Directive. Its standards encompass the social, environmental and economic aspects of sustainability, such as greenhouse gas emissions, rural development and financial viability.

2.2.9 The Rainforest Alliance (RA) and Sustainable Agriculture Network (SAN)

The Rainforest Alliance aims to improve land-use and agribusiness practices to reduce their impact on both biodiversity and local economies. Established in 1987, the RA created its own palm oil production certification standards based on the Sustainable Agriculture Network (SAN) standards. Its focus is on sustainable agriculture, with the aim of mitigating the environmental and social risks associated with it, such as wildlife protection, water conservation, ecosystem conservation, and community relations, among others. The RA was actively involved in the development of the RSPO standards, to complement the P&C and to support the development of sustainably grown oil palm. Its policies are also aligned with the ISCC to ensure harmonious and complementary growth as far as possible.

SAN focuses on smallholders across a vast range of commodities. It has 35,000 members across all commodities. For palm oil, it covers a production area of 52,000 hectares versus the more than 350,000 hectares covered by the RSPO Smallholders Certification Scheme.

The weakness of the SAN certification scheme is its less stringent adherence to standards and criteria. It only demands 50% compliance with criteria within each principle and 80% of the total criteria; standards on working conditions are weak; and it has a less transparent certification process, whereby the accredited third-party certification bodies that carry out the verification processes do not have to publish their reports.

2.3 Financial institutions

A key factor enabling corporate oil palm expansion is funding from financial institutions. The sector is capital-intensive, and establishing plantations requires significant upfront financing. Lands need to be cleared and it takes time for palms to begin to yield fruit, usually between three to five years from planting and up to seven years to reach maximum production. Furthermore, mills and refineries must be built to process the palm fruit and its derivatives. It is estimated that at least USD 50 million is needed to convert 10,000 hectares of land (and any forest on it) into an oil palm plantation. Support offered by bank loans can be significant, in the range of 15% or more, depending on the company being funded.⁴¹

The central role of banks, as financiers of palm oil, is to turn around environmentally destructive practices and strengthen and improve sustainability standards across the supply chain. Between 2010 and 2016, international banks provided palm oil companies in Indonesia with more than USD 15 billion in corporate loans. Banks from Japan, Malaysia, China, Indonesia, Singapore, the UK and the US are the major players. Asian international financial institutions are the main financiers of the sector and have the potential to drive change through stronger Environmental, Social and

Governance (ESG) standards and platforms, such as the Asia Sustainable Finance Initiative (ASFI).

A few financial institutions have started to include commitments for sustainable palm oil in their corporate and social responsibility strategies. For instance, there are 14 ordinary RSPO members from the financial sector - three from the Netherlands, two from Indonesia, Switzerland and UK and one from Australia, France, Germany, Mauritius and the USA respectively. Several banks in Singapore (Development Bank of Singapore (DBS), Oversea-Chinese Banking Corporation (OCBC), and the United Overseas Bank (UOB)), require agribusiness clients to have policies that protect high conservation value areas. DBS, in particular, requires new borrowers in the palm oil sector to conform with the stringent policies of NDPE. UBS requires companies producing palm oil, soy or timber, in markets at high risk of tropical deforestation, to be publicly committed to achieving full certification (by RSPO, by the Roundtable on Responsible Soy (RTRS), or by the Forest Stewardship Council (FSC)) by 2020. HSBC recently revised its policy, moving beyond RSPO certification to additionally embrace NDPE commitments. HSBC raised the need for stricter criteria

against no-deforestation and no-peat and extended such requirements to refiners and traders, as well as to growers and mills.⁴²

Evidence suggests that in China, companies such as state-owned enterprises (SOEs), are struggling to achieve the extra commitments required. The lack of economic incentives – i.e. the high premium for CSPO – and the extensive procedures required to become certified often discourage Chinese entities.⁴³ HSBC is thus actively involved in supporting sustainable palm oil to expand its client base. In China, HSBC is a member of the CSPO Alliance, working together with the WWF, RSPO and the CFNA, to raise awareness.

However, even in the financial sector, stakeholders have been criticised for the lax implementation and enforcement of their commitments. A recent report highlights how some RSPO members indirectly continue to benefit and invest in controversial companies involved in environmental, social and governance issues, through investments in third companies, such as Maybank.⁴⁴ The latter is the world's single largest financier of the palm oil sector. Although it does not have a publicly available risk policy for financing, its stated ESG policy does include

climate and land use. While this needs to be strengthened, it is still an important first step. Between 2010-2016, Maybank underwrote and provided 11% of the total loans for 85 palm oil companies. However, evidence has emerged that some of its clients have been implicated in conflicts related to deforestation, development of peat areas, fires, conflicts with local communities, and sub-standard working conditions, including forced (child) labour. The accusations show that accountability and due diligence are challenging and expose different players to significant financial and reputational risks.⁴⁵

Incorporating sustainability commitments into the due diligence process helps to identify and avoid risk and protects bank reputation. Recent research has shown that companies following no-deforestation programmes financially outperform and face less risk than those companies engaged in deforestation-related activities. RSPO members, in particular, have outperformed similar non-member companies by approximately 6% over the past five years, according to the FTSE Bursa Malaysia Asian Palm Oil Plantation USD (FTFBMAPU) index.⁴⁶ The research also found that companies following best practices in strategic and operational areas that limit deforestation have scored higher than their competitors in preliminary ESG ranking while also encountering fewer incidences of public controversy.

2.4 Other international efforts to support sustainable palm oil development

Many international NGOs, as well as bilateral and multilateral actors, provide support for the development of sustainable commodity supply chains, for palm oil in particular. Among relevant initiatives are:

a. The UNDP multi-stakeholder approach to advance system change in sustainable commodity supply chains, applied through its Green Commodities Programme (GCP), and supported by the Global Environmental Facility (GEF),⁴⁷ the German Development Agency (GIZ), the Swiss State Secretariat of Economic Affairs (SECO) and corporate partners. The UNDP GCP focuses on sustainable palm oil production in Indonesia, Papua New Guinea, and Liberia. In Indonesia, the GCP works in partnership with Conservation International, the WWF, the International Finance Corporation, and UNEP, through the GEF-funded Good Growth Partnership (GGP), to achieve a sustainable palm oil supply chain.

In 2014, the Indonesian Ministry of Agriculture, UNDP Indonesia, and their partners, launched

the Indonesian palm oil platform FoKSBI (Forum Kelapa Sawit Berkelanjutan Indonesia)

to coordinate the entire sector and existing initiatives with a focus on the sustainability of palm oil. This led to the development and finalisation of the Indonesian National Action Plan (NAP) for sustainable palm oil, currently awaiting legalisation. The NAP will be implemented at the national and jurisdictional level, through improved laws and regulations governing palm oil production and land use planning, as well as through the establishment of support systems for farmers, and the legal protection of set-asides. As the work in Indonesia tackles the entire supply chain, partners also work on cultivating demand for sustainable production, through working on consumer and retailer demand and by engaging the media, as well as on improving the enabling environment for financial transactions that promote sustainable production and demand for responsible products. The UNDP's Sustainable Palm Oil Initiative (SPOI-GGP) project is also working on mapping the palm oil supply chain in its target landscapes, together with the Transparent supply

chains for Sustainable Economies (TRASE) platform, to increase supply chain transparency in Indonesia. The Asia Learning and Exchange Programme under the GGP promotes exchanges between actors from demand countries, such as China, and producing countries, such as Indonesia. A study on the China National Cereals, Oils and Foodstuffs Corporation (COFCO) supply chain was conducted as part of this initiative.

b. The Amsterdam Declarations Partnership aims at achieving fully sustainable and deforestation-free agro-commodity supply chains in Europe by 2020. It is based on two declarations, the Amsterdam Declaration on Deforestation and the Amsterdam Palm Oil Declaration, both launched in 2015. Signed by seven European countries: Denmark, France, Germany, Italy, the Netherlands, Norway and the UK, the Partnership cooperates with the private sector and producing countries, leveraging existing processes, partnerships, initiatives and networks as much as possible to stimulate private sector commitments and progress on agricultural commodities associated with deforestation. It works towards raising awareness, enhancing dialogue among major consumer and producer countries and fostering transparency and the use of voluntary Corporate Social Responsibility (CSR) reporting.

c. The Accountability Framework Initiative seeks to create a common ground for NDPEs, establishing global definitions, norms, and good practices for delivering company commitments on sustainability. It was launched in 2018 and is based on four goals: halt deforestation, protect natural ecosystems, respect human rights, and support producer and community livelihoods. It is being developed by a coalition of

leading environmental and social NGOs together with private companies, governments, and other key stakeholders. The aim is to accelerate implementation and improve accountability for supply chain commitments. The target is that, by 2020 and beyond, the widespread application of credible and globally consistent approaches will have generated a decline in commodity-linked deforestation, ecosystem conversion, and human exploitation.

d. TRASE (Transparent supply chains for Sustainable Economies) is a supply chain transparency initiative, based on an online platform that maps how commodities such as palm oil, flow around the world, from producing to consuming countries, identifying key players along the way. It offers a response to the need for credible information on the traceability and sustainability performance of commodity supply chains, covering entire countries and production systems. The information supports improved decision making around responsible production, sourcing and investments, as well as monitoring and enforcement.

e. The Southeast Asia Initiative by the Tropical Forest Alliance 2020 (TFA 2020), is a multi-stakeholder working group, supporting commitments towards the transformation of agricultural and forest commodities production to eliminate deforestation from the supply chains. It focuses on promoting international sustainable investment in the producing countries of Southeast Asia, supporting smallholders and independent third-party suppliers, and on peat restoration efforts in Indonesia. It also aims at promulgating a new narrative for deforestation-free growth.

20 In May 2011, the Indonesian President issued a two-year moratorium on deforestation for primary forests and peatland. Later research showed mixed results, probably due to the partial protection of forests by the policy, poor dissemination of information about the moratorium to local implementing agencies, weak law enforcement, and vested interests locally. At the 2015 Climate Change Conference (COP21) in Paris, the new Indonesian President announced a new moratorium on peatland development, established a Peatland Restoration Agency and promised to speed up implementation of the One Map programme launched in 2010. In September 2018, the President signed a new, three-year moratorium temporarily halting new oil palm plantation permits and reviewing existing oil palm licences.

21 <http://supply-change.org/commodity/palm>

22 <https://rspo.org/impacts>

23 Schleifer and Sun (2018) also report that national standards responded to the criticism that private certification standards, such as the RSPO, were too Western/North focused to the disadvantage of producers in developing countries.

24 For an in-depth comparison of different certification standards, refer to <https://www.forestpeoples.org/en/responsible-finance-palm-oil-rspo/report/2017/comparison-leading-palm-oil-certification-standards>

25 At the time of writing, the ISPO is not mandatory for smallholders, but it will be from 2025.

26 ISPO is mandatory for all growers, except for smallholders, for whom it is currently a voluntary scheme. 2025 is set as the target year by which all growers – smallholders and large companies – should be fully certified.

27 <https://eia-international.org/indonesias-president-halts-signing-weak-palm-oil-regulation-halts-new-plantations/>

28 <http://mpoc.org.my/upload/Paper-7-POTS-China-2018-Dr-Sanath-Datuk-Naga.pdf>

29 There are three categories of membership: ordinary members (organisations directly involved in the palm oil supply chain, and associated NGOs), affiliate members (organisation not directly involved in the palm oil supply chain of the ordinary membership categories) and supply chain associates (organisations that have business activities along the palm oil supply chain but which are limited to purchasing, using, or trading not more than 500 metric tonnes of palm oil and palm oil products annually).

30 Ordinary members are all the organisations directly involved within the palm oil supply chain, or associated NGOs. The RSPO membership system also includes affiliates, i.e. organisations or individuals that are not directly involved in the palm oil supply chain, and supply chain associates, i.e. organisations that have business activities along the value chain but limited to purchasing, using, or trading small quantities of palm oil annually.

31 RSPO members have a grace period of one year to fully comply to the new Pe&C.

32 It is worth noting that support for the new Pe&C has been weaker among growers, while significantly stronger among traders, manufacturers and retailers.

33 <https://eia-international.org/new-rspo-principles-criteria-released-no-deforestation-set-adopted/>

34 For example, RSPO Pe&C 7 requires a comprehensive and participatory independent social and environmental assessment. These assessments can be costly and, in some cases, they result in independent farmers having to significantly reduce their planting area. For poor farmers whose main source of income relies on this planted area, giving up land may not be an affordable option.

35 <https://goldenagri.com.sg/rspo-pc-review-certification-accessible-smallholders/>

36 2018 Greenpeace report “Moment of Truth” reports a few examples.

37 Members should certify their first estate within three years of joining and work towards a 100% target within five years. Furthermore, the first of the company’s associated smallholders and out-growers should be certified within three years of the company’s first estate certification and 100% should be certified within five years; the first of the company’s independent FFB suppliers should be certified within six years of their first estate certification and 100% within nine years.

38 <https://ec.europa.eu/energy/en/topics/renewable-energy/biofuels/voluntary-schemes>

39 www.poig.org

40 <https://www.iscc-system.org/about/objectives/>

41 <https://news.mongabay.com/2018/11/in-funding-palm-oil-giants-banks-may-share-in-sins-of-the-companies/>

42 <https://www.hsbc.com/media/media-releases/2017/hsbc-statement-on-revised-agricultural-commodities-policy>

43 Interview on 18 January 2019.

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44 *Malayan Banking Berhad, or Maybank, is a Malaysian bank, with “home markets” in Malaysia, Singapore and Indonesia and with vast network in ASEAN. According to the Brand Finance report, Maybank is Malaysia's most valuable bank brand, the fifth top brand in ASEAN.*

45 https://brotfueralle.ch/content/uploads/2017/07/profundo-studie-FInancial-links-Swiss-FIs-palm-oil-Brot-f%C3%BCr-alle_DEF.pdf

46 <https://www.climateadvisers.com/press-release-deforestation-related-externalities-create-financial-risks-and-poor-returns-for-investors-new-research-shows/>

47 <http://www.greencommodities.org/content/gcp/en/home/our-focus/multi-stakeholder-dialogue.html>



Chapter 3:

The Palm Oil Value Chain in Indonesia

3.1 The Indonesian production and processing value chain

The Government of Indonesia has declared palm oil as one of the leading agricultural commodities for the country. The implementation of the Indonesian Sustainable Palm Oil (ISPO) system bolsters the efforts being made to produce sustainable palm oil, aiming to ensure that palm oil comes from sustainable sources.

Palm oil is the number two non-oil and gas commodity export, after coal, valued at USD 15 billion between January and October 2018; around 9% of all export earnings. Exports amounted to 24 million tons, in the same period in 2017. China is the third biggest market for Indonesian palm oil, after the EU (6 million tons) and India (5 million tons), and is continuing to grow. Between 2017 and 2018, palm oil exports rose by 22% (BPS, 2018).⁴⁸ Exports to China rose to nearly 2.8 million tons from 2.4 million tons in the same period in 2017.

There are five main oil palm plantation provinces in Indonesia: Riau, North Sumatra, Central Kalimantan, South Sumatra and West Kalimantan, accounting for 61% of the national plantation areas and representing 66% of national production in 2016 (Ministry of Agriculture, 2018).⁴⁹ The total area planted for oil palm and palm oil production both increased steadily from 2010 to 2018. The total planted area in 2016 was 11.2 million hectares, producing 31.7 million tons. Production rose further, to 37.8 million tons, in 2017 and was estimated to be 41.6 million tons in 2018 (Ministry of Agriculture, 2017).

The palm oil market is very promising for all stakeholders, thanks to increasing demand and its significant contribution to the revenue streams of the local economy and the Government. Despite the promising outlook, demand for Indonesian palm oil has suffered somewhat from tariff barriers,⁵⁰ whose elimination would be welcome, as well as market fluctuations which are difficult to anticipate

Palm oil is produced by three major farming groups: privately-owned companies (58%), smallholders (37%), and state-owned companies (6%). Smallholders manage planted areas between 1-25 hectares, farmer cooperatives or groups tend to manage 1,000+ hectare plantations, while companies manage estates from 25 to 300,000+ hectares (Glenday et al., 2015).

In Indonesia, there are two types of smallholder: independent smallholders (petani swadaya) and tied-smallholders (petani plasma). Independent smallholders do not have a partnership with a company and, although they have more freedom in managing their plantations, they face challenges receiving technical and financial support and lack knowledge regarding best practices and new technologies. They often have no access to good seedlings or fertilisers and are more likely to be less productive and produce a lower quality of FFBS (Kusumaningtyas and van Gelder, 2017). The main partnership models for tied smallholders are: farmer-managed cooperatives, individual partnership schemes (company plasma model) and company-managed, smallholder-owned plasma plantations (Glenday et al., 2015). Another key challenge is the old age of smallholder plantations. Based on a survey by the oil palm small farmers' association (SPKS), among 6,700 independent farmers only 27% of the area farmed had been planted after 2005.⁵¹

Smallholders often do not have direct links with mills. This is particularly the case for independent smallholders who go through local agents, brokers, local traders (collection points), and third-party suppliers. As for tied-smallholders, fresh fruit bunches reach the mill through the cooperative plantation, mill company plantation or company-managed smallholder plantation, depending on the partnership. A direct link between plantation and mill exists for large private companies and estates, who tend to be vertically integrated and have their own refineries and processors in which to produce the palm oil for the domestic and exporting consumers.

3.2 Key players in the Indonesia palm oil value chain

Smallholders. Indonesian oil palm plantation areas grown on smallholder land amount to about 4.7 million hectares. They are managed by 2.1 million smallholders, producing 11.5 million tons or 36% of national production, and have an average productivity of 2 tons/ha per year.

The smallholder farmer has made significant contributions to Indonesia's palm oil production, contributing to the development of rural areas, to village government earnings and to better welfare

at the community level; similar to the larger producers of palm oil. They are also important drivers for the production of sustainable palm oil. The first independent smallholder association to be RSPO certified was a community based in the province of Riau in mid-2013; it involved 349 smallholders and covered 763 hectares of total certified area. The certification process was guided and supported by WWF Indonesia, among others.⁵²

Low productivity is a key challenge, trapping

smallholders in a vicious circle of low-income generation and barriers to upgrading. In recent years, with the support of the Indonesian Government and NGOs, and in partnership with the private sector and state-owned companies, many initiatives have been developed that focus on this issue. These continue to be carried out, including efforts to strengthen farmers, through partnerships, including with the private sector. A successful example is the partnership between the Village Unit Cooperative (Koperasi Unit Desa), a business organisation with community membership and financial targets, and the SPKS. Participating farmers were able to achieve an average yield of 22 tons/ha/year between January–September 2018, with a predicted production at the end of the year of 30 tons/ha/year; the SPKS was subsequently presented with an achievement award by President Joko Widodo.⁵³ Oil palm farmers have the potential to increase their productivity through capacity building, the use of technology, access to funding, and better market access.

Rejuvenating old oil palm plants is another important initiative to raise productivity, especially for smallholders and state-owned plantations. The Indonesian Government provides support to smallholders through the People's Palm Oil Rejuvenation Programme (Peremajaan Sawit Rakyat/PSR). In 2018, the PSR programme set a target to cover an area of 185,000 hectares.⁵⁴ Ministry of Agriculture records show that the issuance of technical recommendations for smallholder palm oil rejuvenation programmes had only reached 44,976 hectares by December 2018, less than 20% of the 2018 target. The funds channelled by the Oil Palm Plantation Fund Management Agency (BPDP-KS) for the PSR programme amounted to USD 25 million in December, however only USD 6 million had been disbursed. While the lack of information and unclear legal status of smallholder land ownership regarding oil palm plantations further challenges the implementation of the PSR programme, the support of and partnerships with oil palm companies is the most significant factor. While the rules regarding participation in smallholder oil palm regeneration programmes have already been simplified by the Indonesian Government, support for smallholders will continue to be a priority this year. The total area of smallholder oil palm plantations is currently 5.6 million hectares, while the land that must be rejuvenated amounts to 2.4 million hectares. The potential for immediate replanting in 2018 was around 650,000 hectares, including old palms (502,332 hectares) and low productivity palms (128,508 hectares).

Stated-owned estates. State-owned enterprises have a relatively small role compared to large private-owned plantations. They account for around 0.7 million hectares of plantation, producing 1.8 million tons or 6% of national production. However, their role is important for the Government, as they not only increase state revenues from the palm oil sector, but also function as technical, social and economic role-models for others.

Private estates. Private estates manage 5.7 million hectares

of plantation, producing 18.2 million tons or 58% of national production (Ministry of Agriculture, 2018), with a productivity level of 48 tons/pa/year. Private companies farm leased public lands, granted through concession permits. The role of the private sector is strategic: besides having a large agricultural land area, the private sector also displays high productivity, due to good crop management. Thanks to its local linkages and level of embeddedness, the private sector also collaborates with smallholders, helping to manage smallholder oil palm crops and to use the raw materials from oil palm farmers for various private industries.

Market barriers, including sustainability issues, are a major concern for private companies, although they enjoy better access to know-how, technology, best management practices and finance than smallholders. Sustainability issues are often perceived as a trade barrier, protecting home country markets from Indonesian growers. Better linkages with downstream players and communication with relevant stakeholders may help address these issues, presenting the possibility of collaboration with other stakeholders in the market for sustainable palm oil production and trade.

Another key concern is obtaining a fair market price for sustainable palm oil, given the high investment required to build, maintain and manage sustainable oil palm plantations. Even large companies often report that sustainable production and certification are very costly. Interviews with the private sector indicate the perception that the market may not determine a “fair” and acceptable price for sustainable palm oil. This becomes critical as the market for sustainable palm oil increases, squeezing out non-certified palm oil, as predicted by the private sector. As the market tends to establish a “single” price, this price should not only cover the price of the commodity but should also maintain the price for sustainability certification, and apply to all businesses, no matter the size.

Processing mills. Mills are increasing in number as the oil palm plantation area expands, but at a slower rate. Ideally, one palm oil mill is required for every 7,500 hectares; thus, around 1,500 mills are currently required. The availability of palm oil mills in 2012 was only around 700 units. For example, in North Sumatra Province, with an area of around 1.2 million hectares (2012), at least 160 palm oil mills are needed.⁵⁵ The provincial government is therefore actively encouraging the province to build more mills.⁵⁶

Indonesian Palm Oil Association/IPOA (Gabungan Pengusaha Kelapa Sawit Indonesia/GAPKI). Established in 1981, the IPOA has played a role in the development of the palm oil industry. GAPKI continues to develop alongside the growth of oil palm plantations and currently operates in 13 provinces, all of which are represented in oil palm farmers' associations in the region.⁵⁷

3.3 Challenges and opportunities for best management practices

3.3.1 Sustainable development challenges and opportunities

Land management boundaries remain an issue, although improvements are being made. Concessions and land maps are often produced by different ministries. The Indonesian Government launched the One Map policy, to synchronise different maps and help landowners identify clear boundaries. It aims to help land users, including oil palm businesses and smallholders, to solve the current problem of boundary overlapping. The Government is also addressing the issue of clear boundaries in the field, including the boundary arrangement between ownership of community land, state land and land leased by the private sector.

Overlapping boundaries present a challenge for oil palm plantation management. At the field level, overlapping of forest boundaries creates uncertainty between the company, the community, and the state in

terms of obligations and responsibilities, such as addressing fire risk in the dry season. The process of determining boundaries in the field still needs to be improved and accepted by various parties. In areas bordering forests, the Indonesian Government currently establishes boundaries by determining the correct measurements of the area; this process is also applied for land disputes in areas close to settlements and oil palm plantations.

Land settlement disputes are an obstacle for achieving sustainability. The ISPO, like other certification schemes, requires that issues regarding measurement (and conflicts over oil palm plantation boundaries) are resolved ahead of certification. This is pivotal for obtaining recognition for good oil palm plantation management, and for sustainability certification.

3.3.2 Incentives for investment

Given the relevance of the palm oil sector, the Indonesian Government actively promotes and supports investment, particularly in downstream industry, to raise the value added and rental retainment from palm oil products made in Indonesia. The Government, for example, applies an export duty disincentive for crude palm oil (CPO) products whose tariffs are getting lower.⁵⁸

The Government continues to push for the removal

of barriers in the CPO-based industrial sector through fiscal incentive and disincentive policies. It is constantly working to improve and simplify the bureaucratic process to increase investment, both through de-bureaucratisation and deregulation. An example of this is Presidential Regulation Number 20 of 2018 (Perpres No.20/2018) concerning foreign workers, which is designed to simplify hiring procedures, as urged by the business community. The Regulation aims to encourage investments and job opportunities.⁵⁹

3.3.3 Capacity building and know-how

A lack of knowledge and access to best management practices continues to be an issue, particularly for smallholders, who tend to rely on knowledge originating from cultural and family traditions, with many inheriting plantations from their parents. This is particularly challenging for development considering that most of these smallholders rely on plantations that are quite old and need rejuvenation. This lack of knowledge and poor access to financing is a major challenge when upgrading is required.

Owners of large plantations, on the other hand, already have the required knowledge, and have access to research institutions to support the implementation of best practices in oil palm farming. Several palm research centres hold regular research activities and various scientific meetings, including seminars related to palm oil management. Additional problems and challenges with oil palm plantation management in the field continue to emerge, including achieving higher oil palm productivity,

better sustainable plantation management, or private-community partnerships. Access to increased and improved knowledge will need to be made available for these issues to be overcome.

The dissemination of knowledge and capacity building has begun to be instituted, particularly with farmers who collaborate with the private sector, and who are now applying innovative methods based on the guidance they have received. Overall, practical best management, resulting from research and several new discoveries, is being implemented to a certain extent, both by private palm oil companies and by smallholders in partnership with the private sector. Another example of partnerships between companies and communities in oil palm estates is the Sustainable Palm Oil School Programme (SSL), part of the Corporate Social Responsibility (CSR) programmes in the field of education, in collaboration with formal education institutions and local governments. The SSL centres around

the company, providing knowledge and increasing the awareness and expertise of both students and parents regarding sustainable oil palm management, and promoting the locally-based practical expertise of sustainable oil palm management. The partnership programme includes fostering

and mentoring oil palm farmers as they begin managing their plantations with sustainable practices. The farmers are trained, overseen, and given facilities to maximise the productivity of their plantations, while ensuring attention is paid to environmental sustainability.⁶⁰

3.3.4 Access to finance and production inputs

Access to funding differs among growers. For large companies, funding usually comes from commercial financial institutions, such as commercial banks, as well as funds originating from cooperation with third parties. Access to funding sources, except for farmers who have received assistance from employers through oil palm partnerships patterns, is more challenging for smallholders. A few initiatives are in place to help overcome the issue, among which are the RSPO Smallholder Support Fund and the Oil Palm Plantation Fund Management Agency (BPDP-KS).

To improve access to finance, the BPDP-KS, an institution operating outside the Government, was established to manage and provide funds for the palm oil sector to ensure that the national palm oil industry is managed sustainably in accordance with ISPO policy. The BPDP-KS was formed following consultations between the Indonesian Government, business actors and oil palm academics. It is based on the following principles: (1) it manages the fees from the industry for the industry; (2) managers can be from the private sector, except the Director of Finance, who is a Government employee; (3) the Fund itself is managed to produce optimal returns; (4) export levies are designed as incentives for the domestic biodiesel industry;

(5) it encourages palm oil-based renewable energy; (6) it uses funds on a dynamic basis, as needed; (7) it supports biodiesel subsidies and domestic biodiesel markets; (8) the rejuvenation programmes of oil palm plantations; (9) research, development of human resources and promotion; and (10) it is a government-private collaboration.⁶¹

The BPDP-KS strengthens palm oil management, including by supporting research activities in the oil palm sector. The funds managed by BPDP-KS come from crude palm oil, and palm oil product-related export levies and taxes; they are used to improve the quality of palm oil production, sustainable palm oil management, and environmentally friendly oil palm management.

Agricultural inputs for sustainable palm oil management are also very important. Provision of good quality seeds, for instance, is as critical as adequate financial support, as well as trained farmers, or workers and best management practices. Improved seed quality and proper rejuvenation would help improve productivity and production volume in a more sustainable way than sacrificing land that should be used as the 'heart and lungs' of the world (conservation land).

3.4 The Indonesian business environment and the challenge of promoting sustainability

3.4.1 The role of the Indonesian Government

The key vehicle for Government policies regarding the quality standards of palm oil is the Indonesian Sustainable Palm Oil (ISPO) system. The development of the ISPO is a serious Government commitment to producing good quality and competitive oil palm products for domestic and international markets, and sustainable oil palm management standards. This includes having responsible oil palm plantation management, a moratorium on new plantation permits and focusing on increased productivity, which aims to stop land burning practices that damage the environment.

Sustainable palm oil is seen as a medium for sustainable national development. As such, all national oil palm plantations must implement the ISPO. Sustainable

palm oil production underpins the success of national development and improves the welfare of the community.⁶²

There are other examples of Government interventions to support development and sustainability in the palm oil sector besides the ISPO, the BPDP-KS or the PSR programme described in Section 3.2. For instance, the Presidential moratorium on land clearing for new oil palm plantations should help stop land burning practices that damage the environment. The Government is also considering stopping the issuance of new concession permits, in an effort to encourage improved plantation management, including management of smallholdings, by improving seed quality and proper rejuvenation, rather than destroying and converting rich biodiversity

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forest. Furthermore, the aim is to employ further technical innovations that increase the productivity of oil palm farmers and can be immediately sought from the central and regional governments, and other stakeholders, to raise production, thereby avoiding deforestation or further disruptive changes in land use.

The Indonesian Government has also issued a new regulation on the exemption of levied tariffs for the BPDP-KS in anticipation of the expected drop in crude palm oil (CPO) prices in the international market.⁶³ The

3.4.2 Drivers and challenges for sustainability

Palm oil is a strategic commodity for Indonesia. It is a key source of revenue for the Government. The country's foreign exchange income from the export sales of palm oil and its derivatives continues to increase. In addition, plantations generate significant employment and growth opportunities for the communities around them, supporting rural development.

The oil palm business faces numerous challenges, however, not only related to business practices but also regarding the communities living adjacent to the oil palm plantation areas. For example, clearing land by burning is an accepted norm as it is a traditional local practise. Through the introduction of the Sustainable Sawit School programme, in collaboration with the private sector, this practise has been changed. Students are taught best-practise farming methods for cultivating the land, for planting oil palm and how to clear land without burning.

The ISPO is part of the Government's response to supporting the palm oil industry and has contributed to the development of various regions in Indonesia. As such, the Government is keen to address the various criticisms made regarding the ISPO. Regardless of land area, community efforts to develop self-supporting oil palm plantations have not been balanced with good cultivation knowledge and additional assistance is required from the Government.

One of the Government's tasks is to convince palm oil importing countries that Indonesian palm oil products are sustainable; now even more relevant since the EU modified its renewable energy directive and singled out palm oil as an ILUC high-risk fuel. This amendment may have a significant impact on the demand for palm oil and Indonesian oil palm revenues. The EU market represents around 15% of total palm oil exports, therefore it is crucial that the Government explains the improvements that have been made to move the industry towards sustainability.⁶⁶ The Indonesian Government will need to ensure its environmental policies, such as the moratorium on the opening of new oil palm land, improving the quality of smallholder oil palm production and thereby increasing their income in accordance with SDG 1 (No Poverty), are far better

Government will lift the export levy if the international CPO price falls below USD 570 per ton, apply a 25% levy rate if the price is USD 570-619 per ton, and a 50% levy rate if the price is above USD 619 dollars per ton.⁶⁴

Indonesia is also contributing to the achievement of the Sustainable Development Goals, including those related to a sustainable environment, by implementing Government policies such as the biodiesel policy (B20), as part of its commitment to reducing carbon emissions.⁶⁵

publicised.

To summarise, several opportunities and challenges are associated with expanding the Indonesian palm oil industry downstream, namely:

(1) In addition to Indonesia's food and oleochemical industries, and its biodiesel and renewable energy sources, as the largest CPO producer in the world the prospects for Indonesia's CPO processing industry are high.

(2) The use of CPO as a biodiesel material is currently not comparable with its use in the food industry, which is much greater both domestically and internationally. While the demand from the biodiesel sector is increasing, challenges and risks regarding potential food security and ILUC ramifications from a shift to biodiesel production may emerge.

(3) The use of CPO for biodiesel will reduce fuel oil consumption and consequently will increase energy security.

(4) The use of CPO for food, oleochemical or domestic products, can open new market opportunities, both domestically and internationally.⁶⁷

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- 48 BPS RI. 2018. *Buletin Statistik Perdagangan Luar Negeri Ekspor Menurut Kelompok Komoditi dan Negara*, October 2018. Badan Pusat Statistik, Jakarta
- 49 There are still large forest areas including Papua and West Papua Provinces, where palm oil concessions have not yet been developed. However, these represent only 0.5% of the Indonesian plantation total area, far below the other oil palm rich provinces.
- 50 European trade barriers, which will phase out the use of palm oil as feed for biodiesel from 2020, are likely to hamper international palm oil trade and affect the Indonesian palm oil value chain.
- 51 <http://www.spks-nasional.org/wp-content/uploads/2018/03/Problematika-Petani-Kelapa-Sawit-Indonesia.pdf>
- 52 <https://rspo.org/news-and-events/news/worlds-second-group-of-independent-smallholders-to-be-rspo-certified>
- 53 <https://www.asianagri.com/id/mediaid/media/siaran-pers/capai-produktivitas-kebun-tertinggi-petani-sawit-swadaya-raih-penghargaan-di-ipoc-2018>
- 54 <https://www.ekon.go.id/berita/view/pemerintah-remajakan-25-423.3995.html>
- 55 <https://www.jpnn.com/news/butuh-160-pabrik-kelapa-sawit>
- 56 <https://kalimantan.bisnis.com/read/20180429/408/789849/kaltim-baru-miliki-75-pabrik-kelapa-sawit>
- 57 <https://sawitindonesia.com/rubrikasi-majalah/berita-terbaru/kepengurusan-gapki-periode-2018-2023-resmi-dikukuhkan/>
- 58 <https://www.suara.com/bisnis/2017/01/27/164003/investor-sawit-asal-jepang-investasi-90-juta-dolar-as-di-riau>
- 59 <http://setkab.go.id/peraturan-presiden-nomor-20-tahun-2018-ikhtiar-untuk-meningkatan-investasi-dan-perluasan-kesempatan-kerja-2/>
- 60 <https://www.agrofarm.co.id/2017/12/4237-2/>
- 61 <https://www.bpdp.or.id/id/pengelolaan-dana/>
- 62 <https://www.infosawit.com/news/7952/pemerintah-mendukung-minyak-sawit-lestari>
- 63 Minister of Finance Regulation No. 152 / PMK.05 / 2018
- 64 <https://www.imcnews.id/ini-dia-aturan-baru-dari-pemerintah-terkait-kelapa-sawit>
- 65 <https://www.bpdp.or.id/id/kegiatan/bpdpks-paparkan-sawit-berkelanjutan-di-konferensi-perubahan-iklim-cop24/>
- 66 Commission Delegated Regulation (EU) 2019/807, defining ILUC-high risk fuel, published on 13 March 2019.
- 67 http://www.lpp.ac.id/wp-content/uploads/2018/01/Eko-Listiyanto_ekonomi_kelapa_sawit.pdf



Chapter 4:

Palm Oil Value Chain in China

40 Mapping the Palm Oil Value Chain

As a major importer of palm oil and a potential overseas producer, China plays a key role in the sustainable development of the value chain. The concept of sustainable palm oil, though, is relatively new, awareness and capacity among stakeholders low, and end-consumer demand for sustainable products limited.

Both market and non-market conditions are moderately favourable for sustainable palm oil development in China, despite the significant challenges in engaging consumers, domestic retailers and manufacturers. The activities of multinationals, from publicising their sustainability goals and achievements and their efforts in green procurement, are facilitating the diffusion of the purpose of the Round Table on Sustainable Palm Oil and its certification scheme. The sustainable sourcing commitments of major trading companies and the support of the China Chamber of Commerce of I/E of Foodstuffs, Native Produce and Animal By-products (CFNA) and the China Chain Store and Franchise Association (CCFA) have created an enabling environment for the uptake of certified palm oil in China. In addition, the increased population and urbanisation rates;

higher incomes; a market concentration in the trading segment of the value chain and the relative dominance of a few firms in retailing; the Chinese Government's new priorities focusing on sustainable consumption and greening value chains and initiatives by business associations supported by the Ministry of Commerce; are all supportive elements for the development of a sustainable palm oil market.

With palm oil, China can actively support the achievement of several SDGs at home and abroad. SDG 1 (No Poverty) and SDG 2 (Zero Hunger) would mainly relate to the producing countries. However, sustainable palm oil would support SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production), both in producing countries such as Indonesia, and in consuming countries such as China. Last, but not least, sustainable consumption would have positive effects on SDG 13 (Climate Action). Higher demand for certified palm oil would create powerful economic incentives upstream and would have a positive impact on deforestation, loss of biodiversity and greenhouse gas emissions.

4.1 Palm oil imports

China is the world's largest consumer of oilseeds oil and cooking oil, consuming 158 million tons in 2018, 60% of which was imported. Soybean oil (42%), rapeseed oil (25%), palm oil (14%),⁶⁸ and peanut oil are the most commonly consumed edible oils, although "Western" oils and fats such as olive oil and butter are becoming more popular.⁶⁹ Prior to 2001, when China joined the World Trade Organization, rapeseed oil was the most popular oil. After 2002, soybean oil substituted rapeseed oil to become the preferred option, possibly as the Chinese market could more-easily access imported soybean, which was cheaper than the domestically produced soybean and rapeseed. Consequently, imports of edible soybean oil and soybeans gradually increased. At the same time, the share of palm oil in the market began to grow, due to its low price and frying stability (Fan and Eskin, 2012). A further boost came after 2006, when the Chinese Government liberalised the control of palm oil and cancelled import tariff quotas, improving its competitiveness against other vegetable oils.

China is the fourth largest consumer of palm oil, following Indonesia, India and the EU, and the third largest importer, after India and the EU. The USDA⁷⁰ estimates that the Chinese market will import and consume around 5.8 million tons of palm oil in 2019, accounting for 12% of global palm oil import⁷¹ and 8% of global production. Palm oil imports stood at around 2 million tons in the 1990s. Import volumes increased significantly after 2000, reaching a peak in 2012 at 6.4 million tons, with palm oil import averages of 5.5 million tons per year during the last decade (IndexMundi, 2018).

2017 palm oil imports to China were worth USD 3.5 billion, around 10% of the global value of palm oil imports. China's main suppliers are Indonesia (USD 2.2 billion) and Malaysia (USD 1.3 billion).⁷² Chinese imports of palm oil from Indonesia are worth close to 10% of the total value of all imports between the two countries.⁷³ The impact of the palm oil industry is small versus the overall size of the Chinese economy, which is worth more than USD 12 trillion. Europe Economics (2016) estimated that the induced and indirect contribution of palm oil to Chinese GDP was over USD 7 billion in 2014, higher than the combined value of imported palm oil and 900,000 jobs in that year.

Consumption of imported palm oil has risen considerably in recent years due to several factors: its lower price compared to soybean or rapeseed oil and its broad range of applications from processed foods to the oleochemical industry; increased population and urbanisation rates; and higher incomes. Furthermore, a global shift to "green" inputs and a consequent search for petrochemical substitutes implies that the use of palm oil as a feedstock for oleochemicals and other derivatives has risen in the industrial field too. In the medium term, the competitiveness of palm oil versus other oils, the stock and availability of edible oils in China, together with the possible impact of the US-China trade war⁷⁴ may also affect consumption growth rates.

The increase in imports and consumption of palm oil is having a significant impact on producing countries, the global environment and society. Strong demand

is generating sustainability concerns from many parties. Promoting China's sustainable palm oil imports is in the Chinese and global interest. Discussions and efforts on how to make China's palm oil trade and consumption more sustainable have seen increasing interest from stakeholders

in the country. This presents an opportunity to lead market transformation, promote China's economic transformation and achieve sustainable development both domestically and internationally.

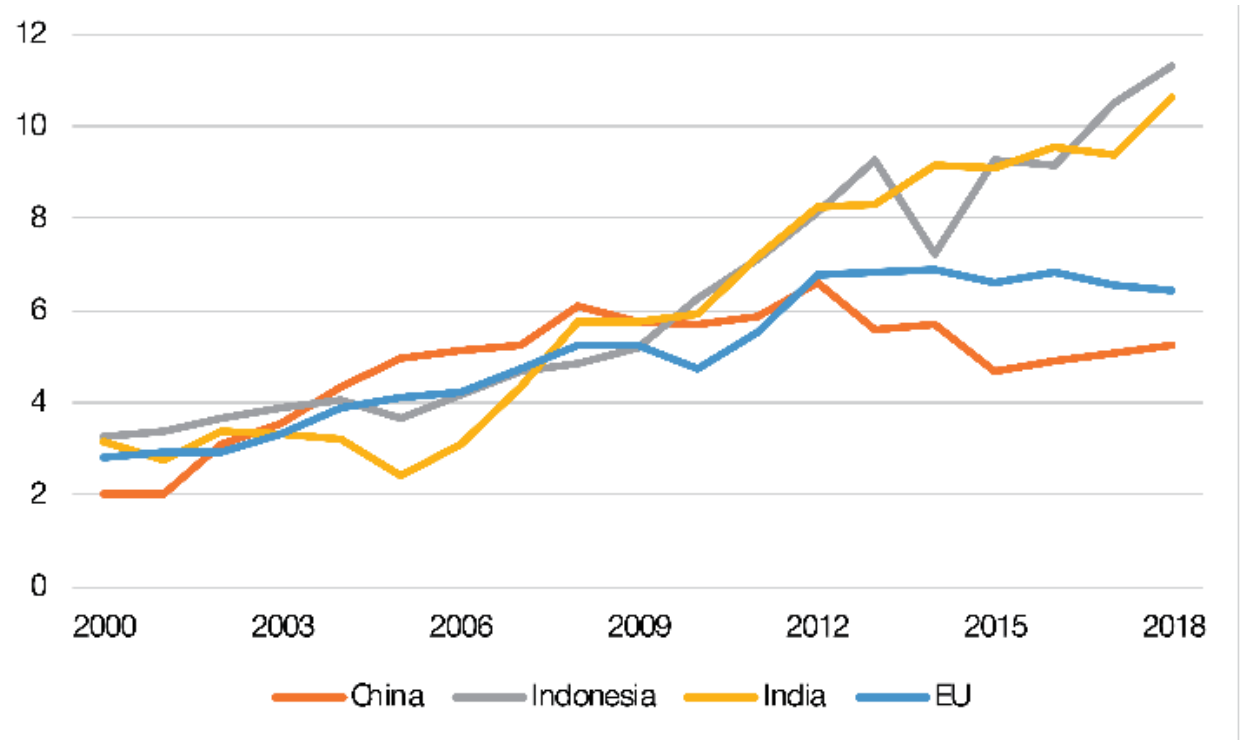


Chart 4: Palm oil consumption by main consumer countries (million tons)
Source: IndexMundi

4.2 The palm oil value chain in China

4.2.1 Trading

Trading is concentrated in a small number of large and vertically integrated agrifood companies. It has been estimated that in 2015 only 147 companies imported palm oil and palm oil products into China (Syntao, 2016). Among the top 10 trading companies, the first two players, by a large margin, are Yihai Kerry and Cargill. The former is backed by Wilmar International Limited. These companies are usually vertically integrated, not only managing imports and trading facilities, but also oil refineries, food factories, personal care products, cosmetics and detergent manufacturing plants. Geographically, the top importing companies – as with the top refining and processing plants – are concentrated in south and southeast China, with a small presence in north China. According to China's General Administration of Customs (national palm oil import distribution data), in 2015 imports at the ports of Nanjing, Huangpu and Tianjin accounted for around 72% of total national imports, with the port of Guangdong ranking first in terms of imported

volume, handling 1.86 million tons of palm oil.

Foreign investment enterprises accounted for 52% of the total of imported palm oil (Global Environmental Institute, 2013), with imports from Chinese private enterprises accounting for about 30% and state-owned companies approximately 10%. Consolidation in the sector has been a dominant trend: the proportion of annual imports by the top 10 importing companies increased from 44% to 53% in the recent years.

The leader among Chinese companies is COFCO (China National Cereals, Oils and Foodstuffs Corporation), the largest state-owned supplier of diversified products and services in the agricultural products and food industry, followed by Sinograin Oils Corporation, also a state-owned company. COFCO handles around 210,000 tons of palm oil a year (RSPO ACOP 2017), around 4% of China's palm oil imports.

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4.2.2 Manufacturing and retailing

China's global palm oil value chain reflects that of the global market. From the highly-concentrated trading sector to the plethora of manufacturers and retailers, more than 5,000 enterprises are known end-users of palm oil (WWF, 2013).

Manufacturers vary in nature. They can be packaged vegetable oil producers, the key players being Yihai Kerry and COFCO; palm oil processing companies, such as Tianjin Julong Group (a key actor engaged in the fractionation of palm oil, producing small-packaged palm oil); or oil and

fat chemical enterprises, dealing in fatty acids and their derivative products.

Imported palm oil is mostly used for food, either as a cooking oil or as an input for processed food, and in smaller amounts for cosmetics, cleaning products and biofuel. The CFNA (2016) reports that the consumption of palm oil in the food industry was about 4.3 million tons in 2015, accounting for 75% of China's total palm oil consumption. Around 890,000 tons were used in the production of daily-use chemicals, around 15% of total palm oil consumption.

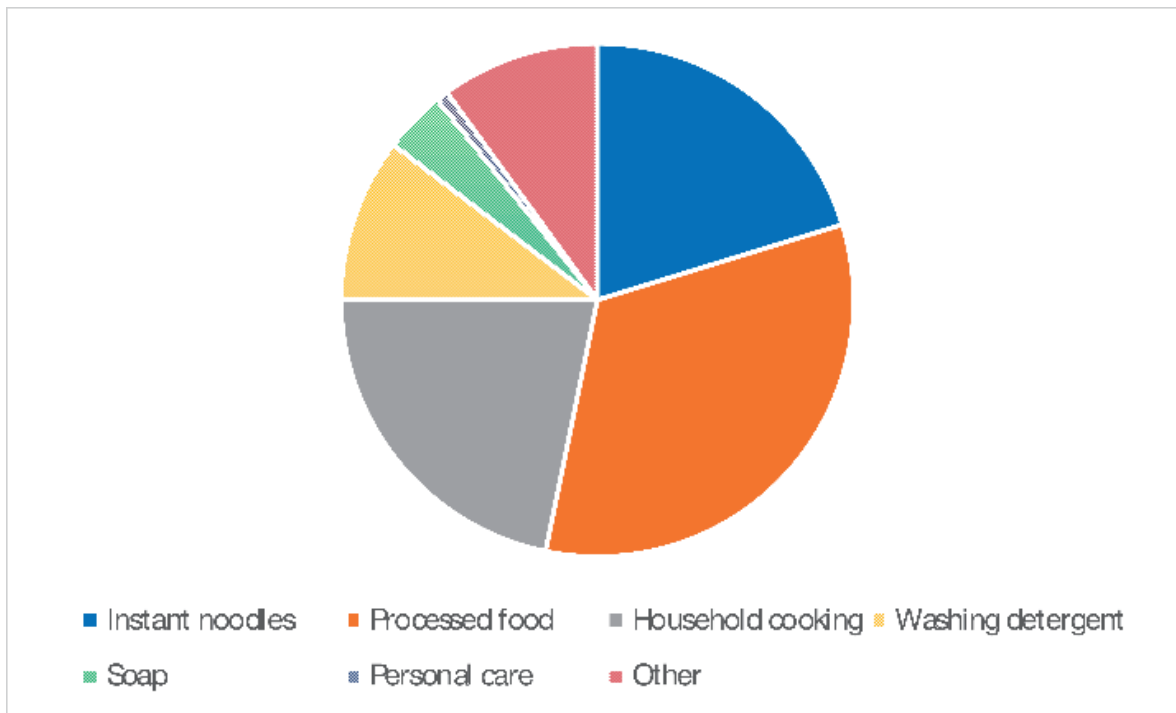


Chart 5: Share of palm oil utilisation in different sectors (2015)

Note: "Other" is other oleochemical by-products, biodiesel and feed for livestock.

Source: Syntao, 2016

In the food industry, instant noodles⁷⁵ dominate the market as a single product, accounting for 27% of palm oil consumption in food. In 2015, 36 billion packets of instant noodles were produced in China, the largest producer globally. The instant noodles market is highly concentrated and is dominated by two firms: Master Kong and Uni-President, with an estimated 50% and 20% market share respectively. In addition to instant noodles, palm oil is used in a wide range of food products, though with a much lower degree of market concentration, accounting for 44% in other food processing and restaurant cooking and 29% in household cooking⁷⁶ (Syntao, 2016). At the industrial level, palm oil is most widely used as a frying oil for instant noodles, fried chicken products, potato snack foods or traditional Chinese snacks, and as a baking oil for margarine and refined oil and processed foods, such as bread, cakes, biscuits, cookies, pies, fried doughnuts, etc.

In the oleochemical industry, multinationals tend to dominate the market, particularly in the manufacturing of detergents, personal care and cosmetics products, where palm oil is predominantly used for washing products and detergents (69% of palm oil consumption by the oleochemical industry). Key stakeholders are Procter & Gamble and Unilever. The Chinese Nice Group ranks first among Chinese companies. In personal care products, key players are L'Oréal, Estee Lauder, Shiseido, Procter & Gamble, Unilever and Colgate-Palmolive. The market share of Chinese companies, such as Shanghai Jahwa, Jala, Proya, Kans, Marubi, or Nice Group is smaller, but has shown a positive trend in recent years, catering to middle and mass markets. Multinationals are less influential in the soap production sector, accounting for 26% of palm oil consumption.

Palm oil in biodiesel

The market for palm oil and its derivatives as feedstock for biodiesel is very small in China; there is no reason to develop incentives for alternative uses for palm oil, such as biodiesel, as the domestic edible oil market consumes most palm oil supplies. The sale price of biodiesel is generally lower than the production cost for imported palmitic acid oil, the only by-product of the oil palm that can be used as a feedstock for biodiesel. Furthermore, the small and underdeveloped market discourages company interest.

Palm oil in livestock feed

Palm kernel meal is a by-product of palm kernel peeling and oil extraction that can be used as a substitute for corn in livestock feed, as it does not affect feed quality. Its price is lower than corn, leading to a significant reduction in the cost of feed, and improving competitiveness. Indeed, the CFNA estimates that the price of palm kernel meal is currently about CNY 400 (USD 60) cheaper per ton than corn.

Global consumption of palm kernel meal was estimated to have reached 10 million tons in 2018, with China accounting for around 4%. From 2011, China imported 480,000 tons on average of palm kernel meal per year (IndexMundi). Thanks to its high nutritional value and positive effects on meat and milk production, it is expected that its use will continue to rise. Furthermore, any negative effects from the trade war on soybean prices is likely to support the demand for substitutes, such as palm kernel meal. Currently, palm kernel meal is mostly used in traditional animal farming, however, water aquaculture companies may also become large users of it.

4.3 Sustainability of the palm oil value chain in China

A strong, clear policy signal in favour of sustainable palm oil, has yet to emerge in China, even though, as a major importer of palm oil, China plays an important role in the sustainable development of the chain. However, the concept is still relatively new, and awareness and capacity among stakeholders, both in the Government and the business sector, is low and the demand for sustainable products by the end-consumer insignificant.

Reputational risk is the only source of pressure at the business level, one faced by Chinese companies seeking to enter foreign markets and compete against international brands both domestically and internationally.⁷⁷ Reputational risk is an important factor to consider for branded companies, which account for a rapidly growing share of the market for palm oil. In both the food and the oleochemical sectors most products containing palm oil are made by brand name manufacturers.⁷⁸ Concerned about their reputation and competition in international markets, branded multinational companies have emerged as leaders in sustainable sourcing

in emerging markets.

Most large trading companies have sustainability policies in place. Responsibly sourced and “deforestation free” palm oil is increasingly present in Western markets, supported by global brands such as Unilever and L’Oreal, leaders in their sectors. In China too, albeit at the nascent stage, sustainable palm oil is becoming a factor to consider in company business strategies. Multinational organisations are bringing their commitments for sustainable palm oil to the Chinese market, and Chinese companies are starting to respond positively.⁷⁹ For instance, by 2016, 13 out of 70 RSPO certificates in China had been awarded to facilities owned by Wilmar International Limited. On the retail side, Walmart, for example, made a commitment to source sustainable palm for all its stores worldwide from 2015.

This kind of commitment and behaviour plays a role in the promotion of sustainable palm oil, the role of the RSPO and in the RSPO’s recent uptake by Chinese companies.

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Through their buying decisions, multinationals encourage local suppliers to purchase sustainable palm oil. The move is seen as enabling Chinese companies to compete, particularly in foreign markets, on a similar playing field. As the recent interest of Chinese enterprises in the RSPO would suggest, company reputation is becoming a growing concern and an important element in business strategies as companies strive to succeed in the constant race to gain access to larger and more demanding consumer bases.

COFCO is positioning itself to be among the Chinese leaders on sustainable palm oil. It has been a member of the RSPO since 2012. Though by 2017, only 3% of the

palm oil handled was certified, the company has a target of 100% use of certified palm oil by 2025 and has already set up several of its Chinese facilities to receive RSPO-certified palm oil (RSPO ACOP, 2017).

The RSPO has 94 members in China of which 35 are ordinary members. Since 2016 the uptake of the certification standard has risen significantly, with 23 new companies joining in the last three years (as of 26 November 2018). RSPO members are found at all stages of the Chinese palm oil value chain, although upstream stakeholders seem to prevail in number, with traders or processors prevailing over manufacturers.

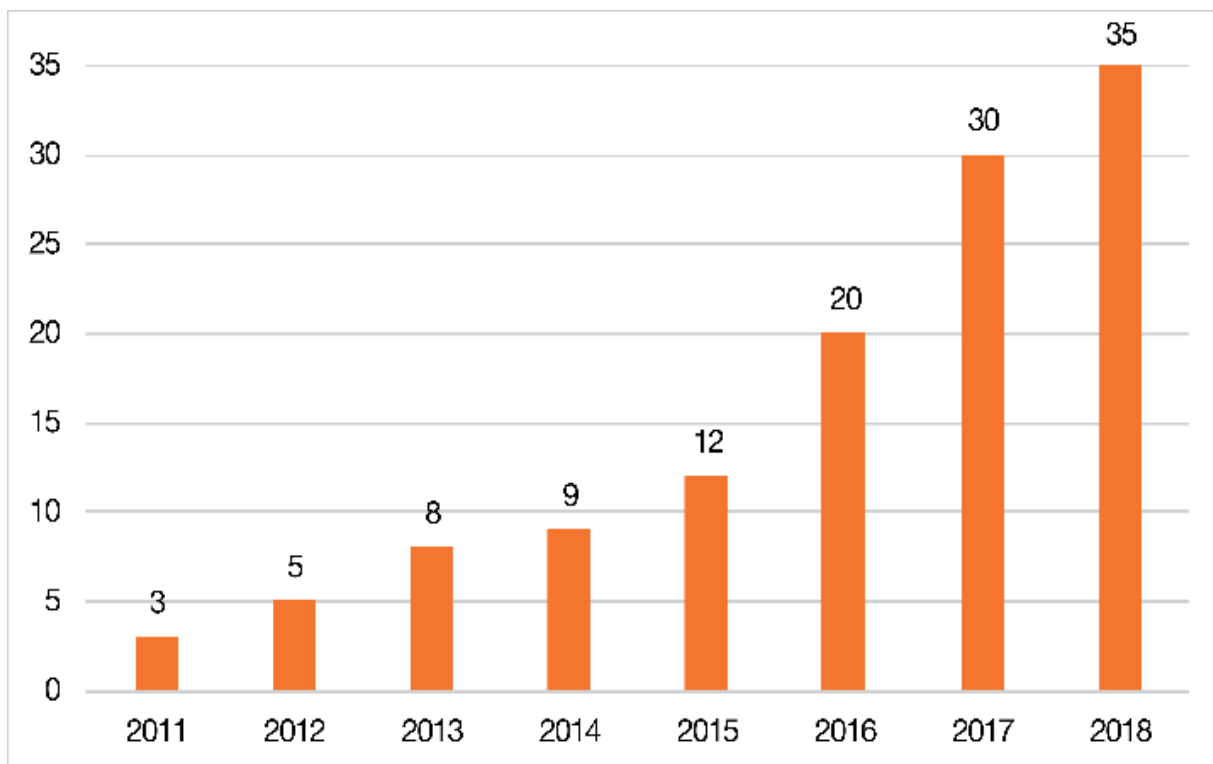


Chart 6: Number of RSPO ordinary members in China
Source: RSPO

Despite its significant growth, sustainable palm oil remains a niche market. The best example for this is the instant noodles sector where no player has, as yet, declared a commitment for the use of sustainable palm oil. The leading company, Master Kong, is estimated to singularly handle around 400,000 tons of palm oil each year, making it the biggest single consumer of palm oil in China.

4.3.1 Challenges to sustainable palm oil

Sustainable palm oil is a relatively new concept in China. There is evidence that Chinese companies seldom take the initiative to purchase CSPO, particularly when dealing with the domestic market. The volumes of CSPO handled are insignificant and further action to engage Chinese stakeholders is needed to make a dent in the market. That said, Chinese companies' understanding of

sustainable palm oil and related standards and certifications has gradually strengthened in recent years. Thanks to the continuous promotion of international institutions and multinational corporations and other relevant stakeholders, as well as the guidance of environmental protection policies, the use of sustainable palm oil has great growth potential.

Three key barriers to procuring sustainable palm oil are often cited by stakeholders:

1. Lack of final demand.
2. High price premium.
3. Lack of traceability.

There is still a relatively low degree of awareness about palm oil, its production and consumption implications and about sustainable palm oil in particular. This remains the case, although a positive trend for sustainable products is emerging. Palm oil is often labelled as “vegetable oil”, hindering the ability of the end consumer to understand when palm oil is used as an input for different products. The lack of specific regulations on detailed labelling and the reputation palm oil has among Chinese consumers of being unhealthy, because of its high saturated fat content, do not encourage manufacturers to explicitly mention it as an input in their products. Research has shown that palm oil is often referred to as a “hidden”, “relatively abstract” input both in food and non-food products. Thus, the average Chinese consumer knows little about palm oil and even less about the negative environmental and social impact of its production elsewhere in the world.

Environmental awareness is generally low in China. The first National Ecological Civilisation Awareness Survey and Research Report in 2014, revealed “high recognition, poor knowledge and insufficient practice” in public awareness of an “ecological civilisation”. The report also highlighted three features of the Chinese respondents related to “ecological civilisation”:

a. economic status and educational background matters to determine the level of awareness;

b. respondents were worried about the state of the environment, including haze, drinking water safety, and heavy metal pollution. However, their concern related to domestic issues, rather than issues regarding the sustainability of production in foreign countries; and

c. public awareness of “ecological civilisation” has a strong “dependence on the Government”. The survey revealed the general public opinion that the Government and environmental departments should be solely responsible for developing an “ecological civilisation”. This is in stark contrast with Western markets, where civil society has been the driver for sustainability and sustainable palm oil.

The price of sustainable palm oil, combined with the price-consciousness of the Chinese end-consumer also hinder market penetration. According to industry

feedback, the price premium for CSPO varies according to the end market. Traders selling to Western markets, where certified palm oil volumes are larger, charge a premium of around 10%. In developing country markets, where volumes are smaller, the premium is between 25-30% (RSPO interview, 26 November 2018).

Local companies focus on the cost performance of the raw material, paying little attention to its original source. An example of this is, again, with instant noodles: a low margin product, dedicated to the national market, where palm oil represents a high share of the value. Conversely, in the oleochemical sector, consumer goods manufacturers often do not have direct contact with the palm oil procurement process, but only with palm oil in derivative products. As such, concerns about whether its source is sustainable or not are not significant, while price is a key factor in their procurement process. At the same time, upstream processing companies are not given special requirements from downstream users regarding the use of sustainable palm oil, reinforcing the vicious cycle against its use.

Finally, the enforcement of NDPE commitments and the procurement of sustainable palm oil is challenged by the lack of traceability with palm oil bought in China. Multinationals lament their small size and their inability to influence suppliers, who find requests for sustainable palm oil and traceability requirements economically unviable. Local players point to the double-standards of multinational companies, where, despite global sustainability commitments, their procurement processes differ in Western and Chinese markets.

Strong economic disincentives against the purchase of sustainable palm oil exist, derived from a combination of a lack of awareness among stakeholders and end-consumer and the high level of price-consciousness of the latter.

Interestingly, Chinese consumers are starting to demand higher-quality products, providing a favourable base for sustainable palm oil. In developed markets, research has shown that supermarket shoppers, for example, would be willing to pay a conservation-grade premium ranging from 15-56%; the absolute level of price premium was greatest for higher-quality products (Bateman et al., 2015). The growing number of middle class and increasing income levels in China point to similar purchasing behaviour. It could even be argued that these are already relevant considerations for segments of the Chinese market, like consumers in Tier 1 or 2 cities.

4.4 Promotion of sustainable palm oil in China

The Chinese Government has formulated a strategic plan for the development of a harmonious society. The plan focuses on human progress, social civilisation and sustainable development. As for sustainable development,

China has already begun to fulfil its commitments to mitigate climate change, protect biodiversity and positively influence global matters.

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China will host the Fifteenth Conference of Parties (COP15) on Biodiversity in 2020. The COP15 is expected to update current plans and set new goals and actions for the 2030 Agenda for Sustainable Development. It will be a great opportunity for China to demonstrate a new course of action towards becoming an “ecological civilisation”. The COP15 provides a supportive backdrop for actions that reduce the impact of import commodities, such as palm oil, timber, soybeans and fish, on climate change and biodiversity.

A list of the most relevant stakeholders and initiatives promoting sustainable palm oil in China is detailed below (see Section 4.4.1). Given the variety of players, the list is by no means exhaustive.

4.4.1 Public initiatives

Top Government level - Ministry of Foreign Affairs. In August 2018, the Chinese and Malaysian Governments issued a joint statement highlighting the importance of palm oil and rubber trade. This followed a visit to Indonesia by Premier Li Keqiang in May 2018, during which a proposal was put forward to expand the export of agricultural products, such as palm oil, to encourage Chinese companies to invest in Indonesia, and to call for closer cooperation between the two countries. It is worth noting, however, that sustainability concepts were not a key part of either of the statements made.

The Ministry of Commerce (MofCom) is the regulatory agency responsible for palm oil (Schleifer & Sun, 2018). The mandate for sustainable palm oil within MofCom would seem best situated in two of the new eight fields of action: consumption upgrading and greening global value chains. As incomes rise and the middle class expands, there is a new focus towards “green” labels, within the wider “ecological civilisation” framework. At the ministerial level, however, a clear policy signal supporting sustainable palm oil and other imported commodities, such as on sustainable procurement, has yet to emerge.

The China Chamber of Commerce for Import and Export of I/E of Foodstuffs, Native Produce and Animal By-products (CFNA) is one of the two agencies of MofCom involved with sustainable palm oil. Since 2008, the CFNA has been collaborating with the RSPO to raise awareness about sustainable palm oil among its members. It has organised several stakeholder dialogues and established a “Network for Promoting Sustainable Palm Oil in China” to support the promotion and procurement of sustainable palm oil and the production of sustainable palm oil in producing countries (CFNA, 2010). In 2013, the CFNA signed a Memorandum of Understanding with the RSPO for further collaboration and, in 2015, adopted the “Guide for Overseas Investment and Production of Sustainable Palm Oil by Chinese Enterprises”. In 2016, it co-hosted the first RSPO China Forum and in March 2018, another Memorandum of Understanding established a five-year strategic partnership between the CFNA and the

From the Government’s perspective, the key, active players appear to be business associations, such as the CFNA and CCFA, both under the Ministry of Commerce. From the private side, WWF China is the most active NGO on the ground. This is encouraging as these key players are already involved in the China Sustainable Palm Oil Alliance. Other international organisations have been involved or are currently entering the sector. For example, until recently Solidaridad, a Dutch NGO, was actively involved in building awareness and creating a platform for dialogue among different stakeholders, such as the Sustainable Palm Oil Working Group, launched at the end of 2015.

RSPO to promote various programmes in sustainable palm oil.

The CFNA is also among the promoters, together with WWF and the RSPO, of the **China Sustainable Palm Oil Alliance**. The CFNA’s participation helps raise awareness among Chinese key stakeholders about the RSPO and the value of promoting sustainability in the palm oil industry. The overall aim of the CFNA is to encourage participation in transforming global markets to make sustainable palm oil the norm.

The China Chain Store and Franchise Association (CCFA), also under the MofCom, is the other important player, supporting a great number of initiatives and building a bridge between the retail sector, the Government and the end consumer. The Sustainable Consumption Roundtable, launched in 2013, is their main platform for raising awareness and knowledge about sustainable products in the market place. The Roundtable has three main fields of operation, two of which are relevant for sustainable palm oil. The “Sustainable Supply Chain” aims at the introduction of national and international standards and supports Chinese retail sector sustainable procurement. The Sustainable Consumption Week (SCW) is their other key initiative. Since its launch in 2013, the SCW has expanded to 120 cities and involved more than 1,500 stores in 2017.

The Ministry of Ecology and Environment, through the Foreign Economic Cooperation Office (FECO) and its work with the COP15 in 2020, plays an important role by disseminating information and raising awareness. Protection of biodiversity is one of the key pillars of the event in Kunming. Raising awareness among all stakeholders is in the interest of the Ministry to safeguard biodiversity and protect the environment.

The China Quality Mark Certification Group, one of the largest Chinese certification agencies, entered a Memorandum of Understanding with the RSPO in 2015 to jointly identify ways to implement RSPO standards. Engagement with international standards and the alignment

of national standards and labels with international ones is seen as improving the sustainability of goods coming into China and strengthening the position of Chinese goods in global markets.

4.4.2 Private initiatives

Private companies and stakeholders have found the existing efforts of governments and private certification schemes to be insufficient, in China and elsewhere, along the palm oil value chain. Problems associated with palm oil production, such as deforestation, loss of biodiversity, greenhouse gas emissions or social conflicts, have not been solved or tackled successfully.

Further actions have been taken independently or through different private platforms. There are several examples of NDPE policies that should affect the Chinese market too, namely:

- Kentucky Fried Chicken promised that, by the end of 2017, 100% of the palm oil it uses for cooking would be sourced from a trusted and sustainable source with purchase preference given to palm oil products from RSPO certified suppliers.
- McDonald's promised that by 2015 100% of the palm oil used in its potato and fried chicken products would be certified by RSPO. Furthermore, by 2020, 100% of the palm oil used for its ingredients should be RSPO certified.
- Mars Wrigley Confectionery achieved the goal of 100% RSPO certified palm oil in 2013. Mars is currently drawing up a palm oil supply chain map to understand its specific sources and its impact on the environment and society. Around 90% of the palm oil used is traceable back to the oil mill.
- Procter & Gamble committed to the establishment of a palm oil and palm kernel oil supply system to trace sources by the end of 2015; to ensure the supply of oil palm plantations will not destroy forests

in the production process by 2020; to strengthening its relationships with suppliers, relevant people in the industry, non-governmental organisations and experts and scholars, to promote relevant industry standards and practical programmes for sustainable palm oil resources.

- Unilever announced that its globally-procured palm oil would be traceable to the source by the end of 2014; in 2018 it was the first consumer goods company to publish a detailed list of its supply chain suppliers; and is committed to sustainably sourcing 100% of its palm oil by 2019, as well as eliminating deforestation from the supply chain.
- L'Oréal has committed to achieving zero-deforestation by 2020 and already sources 100% of its palm oil derivatives from sources certified by the RSPO.
- DuPont Nutrition and Health Division already use 100% certified sustainable palm oil.
- Nestlé, the world's largest food maker, committed to achieving zero deforestation by 2020 and 100% CSPO by 2023.

The Consumer Goods Forum⁸⁰ (CGF) China Day is a new, annual event where discussions are held on the importance of consumer transparency in supply chains, the need to empower consumers through healthier lifestyles, along with food safety and environmental sustainability in China. The Forum also offers the opportunity for an exchange of knowledge and views among the Chinese and international members of the CGF. The first event was held in Shanghai in June 2018.

68 <http://mpoc.org.my/upload/Paper-2-POTS-China-2018-Faudzy.pdf>

69 <https://www.dccchina.org/2018/04/cooking-oil-china-market-imported-cooking-oil-in-china-chinese-importers/>

70 <https://apps.fas.usda.gov/psdonline/circulars/oilseeds.pdf>

71 India imports 24% and the EU 13% of global palm oil (2018).

72 <http://www.worldstopexports.com/palm-oil-imports-by-country/>

73 https://atlas.media.mit.edu/en/visualize/tree_map/hs92/import/chn/idn/show/2016/

74 China is the single largest market for soybean, the USA's top agricultural export to China. Increased tariffs are likely to decrease Chinese demand for US imports, such as soybean, potentially leading to a shift in demand in edible oils in favour of palm oil.

75 Palm oil represents 20- 25% of an instant noodle serving (Europe Economics, 2016).

76 Fan and Eskin (2012) found that palm oil is the primary oil used by the food industry while soybean, rapeseed and peanut oil are mostly used for domestic cooking.

77 Supply-side risks linked to high import concentration and deforestation, greenhouse gas emissions, biodiversity loss and conflicts with local communities are not considered relevant by the Chinese business community, even though these risks could disrupt supply. However, since palm oil can be substituted by other vegetable oils, supply-side risks do not have great significance and as such do not translate into economic incentives for sustainable palm oil consumption.

78 In addition, the sale of unbranded and unpackaged vegetable oil on street markets has been banned in many places.

79 At the time of writing, sustainable palm oil in China was found to be generally associated with RSPO-certified palm oil.

80 The CGF is a global, parity-based industry network, driven by its members: over 400 chief executive officers and senior management from retailers, manufacturers, service providers and other stakeholders across 70 countries. The Forum's vision is: "Better lives through better business". It provides a global platform for knowledge exchange and initiatives around four strategic pillars: sustainability, product safety, health and wellness and end-to-end value chain and standards. It was formed in 2009. In early 2018, to strengthen its position in China, the CGF opened an office to promote its message and as a platform to help Chinese companies to engage and collaborate with their peers on international sustainability issues.

Chapter 5:

Conclusions and Actions Going forward

50 *Mapping the Palm Oil Value Chain*

Palm oil is among the most debated crop oil of our time and it fully embodies the trade-off between economic development and environmental degradation. The industry's booming expansion has triggered rapid biodiversity loss and accelerated climate change. It is the most profitable commercial crop oil and has the lowest production costs of all vegetable oils. It is also the most versatile, and is an ingredient in over half of all products in supermarkets worldwide.

Indonesia and Malaysia produce around 85% of global palm oil. In these two countries palm oil delivers important economic benefits that directly contribute to achieving several of the SDGs, including poverty alleviation, zero hunger, and employment. It is an important source of income creation for smallholders to governments.

The largest consumers of palm oil are Indonesia, India, the EU and China. Three-quarters of the palm oil produced is used as cooking oil or in the food industry and the rest is used as an input in the oleochemical sector, and as an input in a wide range of products, from cosmetics and washing products to biofuel. The expansion of the edible oil market is directly linked to population and income growth in developing countries. Simultaneously, demand for non-edible oils has been driven by developed markets and government policies in favour of biofuels.

Increased production has mostly happened as a result of greater land allocation, rather than higher yields. This path of development has generated high costs in terms of its environmental impact. Deforestation, loss of biodiversity and sharp increases in greenhouse gas emissions have been among the most negative consequences of the palm oil industry's boom in producing countries.

As part of a global trend, the sector is now transforming to enhance sustainability in production as well as consumption. These industry changes are largely driven by pressure from multinational companies, NGOs and ultimately the end-consumer in developed markets.

Challenges are evident. The complexity of the palm oil value chain and difficulties in traceability make the allocation of responsibility for negative externalities particularly difficult. In producing countries, a number of interlinked issues hinder the implementation of sustainability standards, including the perceived incompatibility of 'no-deforestation' commitments and economic development, limited capacity in terms of human and financial resources, low levels of awareness around sustainability, poor productivity, inconsistent regulations, and a lack of effective governance.

Demand for sustainable palm oil is mostly concentrated in Europe and the USA, while it barely exists in developing markets. So far, the lack of demand for sustainable palm oil has been such a problem that there has been an oversupply of it in developing markets, undermining economic incentives for sustainable palm oil

production.

In China, several factors inhibit demand. Sustainable palm oil is still a new concept and awareness among all stakeholders, including end-consumers, is low. This low awareness is reinforced by a lack of clear labelling of palm oil, and of sustainable certified palm oil, in particular, with palm oil often labelled as "vegetable oil". Furthermore, the geographic distance between palm oil production, its negative environmental footprint, and the average Chinese consumer make sustainability a hard commodity to sell. Environmental damage resulting from palm oil production lacks visibility in the Chinese market.

Companies along the value chain share a strong focus on price competitiveness, with limited concerns for sustainability. The poor consumption rates of sustainable palm oil and the higher premium on the product are linked in a perverse relationship, creating a vicious cycle. In order for prices of sustainable palm oil to decrease, demand must increase and it is difficult to break out of the current pricing cycle without decisive regulatory action.

The fragmented supply chain also limits the capacity of individual stakeholders to exert leverage. This is particularly true of the retail sector, where market diversification is extremely high. However, the relative dominance of multinationals with commitments to sustainable palm oil and 'no-deforestation' policies is slowly changing the sector. Anecdotal evidence suggests that these kinds of commitments and behaviours play an important role in promoting sustainable palm oil. A promising example is the increased visibility of the RSPO in the Chinese market.

Reputational risks and public relations are the drivers motivating Chinese companies to address the negative externalities of the palm oil sector, particularly its negative impact on the environment. Reputational risks are especially relevant when companies seek to enter foreign markets, and when competing against international brands inside China.

In recent years, the Chinese Government has started to vigorously advocate for sustainable development, including green and sustainable consumption. China has a singular opportunity, as one of the largest players in the international palm oil market, to shape global value chains. China could lead the way to sustainably supply commodities, safeguarding the ecosystems and resources that produce them. Currently, most imported palm oil in China is not produced in accordance with sustainable principles and standards. Action to increase the share of imported palm oil that is sustainably produced would bolster China's role as a supporter of international agreements on environmental protection, biodiversity and climate change.

The time is ripe to build upon the idea of an "ecological civilisation" and the new priorities recently announced by the Chinese Government. China's global exposure at events

such as the COP15 and the Beijing Winter Olympics should be leveraged for maximum reach in order to chart a clear path to the meaningful transformation of the palm oil sector, among other initiatives.

Based on the information assembled and discussed above, a list of actions and recommendations is given below for expanding the sustainable palm oil market in China. These should be paired and reinforce the existing initiatives discussed in this Report.

Proposed initiatives for the Chinese Government to consider:

1. A clear policy signal to encourage Chinese and multinational companies to “green” their global value chains. This could be a game changer and a pivotal step towards sustainability. Such a signal would be most effective if it clearly and explicitly encouraged companies to join the initiative and, in so doing, make firm, voluntary commitments to international efforts. If such an initiative were to include a mechanism for cross-ministerial collaboration, such as between the Ministry of Ecology and Environment and MofCom, it would be even more effective in aligning all parties and their efforts towards a clear, common goal.

It should be a clear signal that sustainability, in both production and consumption of palm oil, is a national priority, which supports the Chinese Government’s commitment to the environment, and its leading role in fighting climate change and biodiversity loss. The Chinese Government’s public support for existing initiatives, such as the Indonesian Sustainable Palm Oil National Action Plan or ISPO, are potential examples of a first step in the right direction, particularly if followed by bilateral agreements and collaborative action plans.

The policy signal would be especially effective if it were to cover all natural commodities, not only palm oil. A main driver of deforestation is agriculture and changing land use. Dealing with palm oil as a single commodity would only tackle part of the environmental crisis caused by agribusiness and could exacerbate the problem if such an initiative resulted in significantly shifting demand to less productive crops.

2. A pilot programme between China and Indonesia built on best practices as well as innovation for greening the palm oil value chain. The pilot would be built on a series of parallel initiatives under a framework of bilateral sourcing agreements, which would be based on sustainability and the long-term supply of the

products involved. It would serve as a platform to build partnerships and share best practices on sustainable development and similar issues, such as low carbon, circular economy, and efficient economy transition. It could be developed leveraging existing platforms, such as the South-South cooperation framework and the Belt and Road Initiative.

3. The pilot programme could be presented during global events, such as the COP15 on biodiversity in 2020, thereby strengthening China’s ‘brand’ as an environmental leader, and the brand competitiveness of Chinese companies. Best practices in management and sustainable production and consumption along various stages of the palm oil value chain are all associated with lower deforestation rates and increased biodiversity protection, directly addressing the theme of biodiversity purported by the event itself. Such public-private partnerships would support local efforts in producing countries to strengthen sustainable practices.

4. Invest in development assistance within the South-South cooperation framework, and the greening of the Belt and Road Initiative towards supporting educational and research and development programmes as well as technology transfer to producing countries. Capital investment is necessary to support upgrading the sector towards sustainability goals, particularly for smallholders in producing countries. Development assistance would enable producing countries to enhance their capacity to deal with the environmental and social problems linked to palm oil production. Programmes, such as financial support for rejuvenation, would be key to increasing productivity and innovation, as well as to improving traceability. Engagement with local stakeholders and relevant NGOs would be necessary for successful outcomes to occur. Private-public partnerships could also be envisaged for sustainable development, for enforcement in production and land protection.

5. Support for green public procurement in China through mandatory guidelines. The Ministry of Finance and the Ministry of Ecology and Environment have jointly published a Government green procurement recommendation list, which promotes energy-saving and environmentally-friendly products and services. The Ministry of Commerce, together with the CCFA and CFNA, could extend green procurement guidelines to the

palm oil sector. For instance, China could adopt supply chain standards for public procurement that circumvent deforestation by integrating clear ‘no-deforestation’ policies into their programmes. This could work as a powerful incentive for Chinese state-owned and private companies to adopt firm sustainability commitments, with a potentially much greater impact if coupled with active economic policies and incentives.

6. Economic policies and incentives. Tariffs and taxes have been widely used to encourage environmentally responsible behaviour.

China has already used tax relief to promote green industries and to encourage consumption of some imported goods. Preferential taxes or tariffs could be applied to the palm oil sector, thereby generating strong economic incentives to import sustainable palm oil.

Proposed initiatives for the Indonesian Government to consider:

1. Increase capacity and strengthen implementation on the ground

thereby allowing the ISPO to become the standard in the market. Continued attention on and support for harmonisation efforts is essential. The Indonesian Government is actively looking for collaboration and common ground. Examples of such efforts include the Council of Palm Oil Producing Countries, with Malaysia and Columbia, and the FoKSBI platform, all welcome steps towards the creation of a stronger scheme shared among all major producing countries.

2. Support public campaigns in consuming countries that raise awareness of efforts being made in Indonesia to encourage sustainable palm oil production and offer training and educational programmes. A further step would entail public acknowledgment from the importing countries that could further strengthen legality, and standards and certifications enforcement upstream.

3. Facilitate and continue to support a multi-stakeholder approach to smallholder farmers, and support systems development.

Smallholders play a significant role in national oil palm production and supply for the international demand. Collaboration with NGOs and other international organisations on initiatives to increase their capacity, expertise, and financial support, could improve productivity and uptake of best management practices. These collaborative

initiatives are key to sustainability in the sector, to avoiding “leakage markets”, and to reducing deforestation rates. Such support systems would also have beneficial effects on the overall competitiveness of the Indonesian palm oil sector.

4. Strengthening efforts to resolve land tenure issues and boundaries management and to improve and simplify the bureaucratic process to increase investment,

both through de-bureaucratisation and deregulation. Acquiring technology, expertise, and other resources from China, for example, within a broader framework for international collaboration on sustainable palm oil, would also be beneficial. An example would be the current mapping phase and database management of the Indonesian One Map initiative to fully map forests and agribusiness concessions. Chinese technology and funds, via a private-public partnership, could be valuable inputs in the process and would showcase profitable and sustainable collaboration between the two countries.

Proposed initiatives for the certification standard schemes to consider:

1. Increase awareness and uptake of sustainability standards, such as ISPO and RSPO, among all stakeholders, through educational events, in both producing and consuming countries, such as field trips for public and private stakeholders. Build on and leverage the potential of the existing platforms, such as the China Sustainable Palm Oil Alliance, by designing a clear and time-bound plan.

2. Enhance transparency and traceability along the supply chain. The jurisdictional approach, going beyond supply chains, announced in the revised RSPO’s principle and criteria shows progress in this direction and should be implemented thoroughly.

3. Strengthened enforcement and improved grievance mechanisms would enhance transparency, and trust in and support for the certification systems.

4. Collaborate towards the simplification and harmonisation of standard certifications in the palm oil industry and promote cross-sectional learning, by working towards synergy between existing certification schemes and strengthening the entire system. Promoting a unified message would have a more powerful impact on end-

consumers, as well as reduce the costs of certifications by limiting duplication for companies. A “road-map” clearly identifying the different stages and various stakeholders and certifications involved in the development process towards the target of 100% sustainable palm oil, would enhance chances of success.

Proposed initiatives for international organisations/NGOs and companies to consider:

1. The United Nations could embrace a bolder call for change and support policy signals and make them global goals. By leveraging its strong relationship and elevated reputation in China, the UN and its associated agencies and networks can play an important role as global facilitator. It is the international organisation best placed to coordinate stakeholders and to provide valuable support in terms of expertise and capacity building. Together with long-standing national and international NGOs already active on sustainable palm oil in China, such as the WWF, the UN should become the backbone of support for private and public initiatives along the whole value chain.

2. The United Nations and its agencies could also further promote innovative nature-based solutions, leveraging innovative platforms such as Acceleration Labs and the SDG financing platform facility. The former would be helpful to promote technical know-how and capacity building in both producing and consuming countries toward sustainable supply and demand. Through SDG financing, UNDP can help catalyse financial resources and align them to SDGs attainment.

3. Build the case for pioneer products/brands in sustainability, identifying leaders in relevant sectors. Investigative research should be based on best practices and show evidence of stronger profitability, while simultaneously building a solid business case. In this respect, research capacity should be increased in order to assess the benefits of certified plantations and their potential impact on stemming biodiversity loss.

4. Engage the media and select an ‘ambassador’ to step up public education efforts. The media plays an essential role in highlighting environmental and social issues, particularly with new millennial/young consumers, who are rapidly approaching the market. It is an important way for the public to acquire

environmental information, express their will, participate in environmental decision making, supervise environmental management and law enforcement, and express their ‘green’ selections. NGOs, in collaboration with private companies and business associations, should actively involve key media players to help enhance awareness among end-consumers.

5. Further research is necessary to understand the specificity of the Chinese market structure and identify the best leverage points. This is even more important across China itself, given its continental dimension and the regional and demographic differences within its national market. Segmented markets need different products and/or brands. The lack of detailed databases on consumer behaviour hinders a better understanding on which to base a successful business strategy.

6. Companies must increase their sustainability pledges in order to deliver meaningful results, including delivering on full supply chain transparency and ensuring that independent audits on their suppliers are conducted. Initiatives to pool the procurement of sustainable palm oil should be considered to leverage larger-sized orders and exert pressure on upstream players to supply sustainable and traceable palm oil, as well as engaging financial institutions to promote financing linked to sustainable methods.

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Dialogue on Sustainable Palm Oil: Creating Shared Value through a Sustainable Palm Oil Value chain

SUMMARY NOTES

June 2019

On 29 April 2019, UNDP China facilitated a roundtable bringing together Chinese and Indonesian government officials, business, civil society, standards entities, academia, international organizations, and UNDP representatives to discuss the challenges and opportunities in promoting sustainability in the China-Indonesia palm oil value chain. The aim was also to facilitate and explore potential partnerships and identify possible solutions for realizing sustainable palm oil production and consumption.

The meeting was co-hosted by the Chinese Ministry of Ecology and Environment affiliated Foreign Environmental Cooperation Centre (FECO) and by the China Chamber of Commerce of Foodstuffs and Native Produce (CFNA). Among others, the meeting was attended by representatives of the UNDP China and Indonesia's offices, of the China Chain Store and Franchise Association (CCFA), Chinese and international business representatives, Indonesian relevant ministries and experts, and international organizations such as SNV Netherlands Development Organisation, World Wide Fund (WWF), World Economic Forum (WEF) and ISEAL Alliance. A total of 40 people attended the meeting. (see Annex II)

The discussion was centred around the findings of the UNDP report "Mapping the palm oil value chain: opportunities for sustainable palm oil in Indonesia and China".

The event started with a presentation of the paper, followed by discussion sessions among participants. Below is a summary of the key issues and key takeaways (by no means in order of importance) raised during the day.

Challenges to a sustainable palm oil value chain

At the meeting, participants listed the following issues and challenges to sustainable palm oil as the most pressing ones and worth focusing at this stage. These are some of the obstacles to sustainable palm oil production in Indonesia and sustainable palm oil consumption in China that were also presented and analysed in the aforementioned paper.

1. Enforcement of standards remains challenging on the ground. For instance, it was highlighted by some that despite efforts, the Indonesia Sustainable Palm Oil (ISPO) was perceived by market participants as not having fully applied the no-deforestation standard. However, it was noted that these the standard is not widely known, while others highlighted that it is "extremely difficult" to implement strict criteria on no-deforestation.

2. Lack of demand for sustainable palm oil along the whole chain. Traders and manufacturers often lament that there is no demand for sustainable palm oil products by consumer goods manufacturers (CGMs). Participants from this sector highlighted how the

lack of demand by the end consumer represents a key obstacle to sustainable procurement. The lack of demand contributes to less incentive to move decisively towards sustainable products.

3. Market forces and lack of adequate price premium. The market does not attach a price premium to ISPO certification, meaning a “legal standard” for the industry. The lack of an appropriate economic incentive for producers, particularly smallholders, to embrace the certification limits their ability and capacity to invest to upgrade. Furthermore, the absence of a price premium for ISPO certified palm oil puts it in conflict with the palm oil certified by the RSPO (Roundtable for Sustainable Palm Oil), for which the market prices a premium. This further distorts the incentives against the ISPO, particularly for smallholders for which the ISPO is still a voluntary scheme.

4. Lack of legal documents for smallholders/legality issues. Some of the participants identified this as a crucial problem and the first that needs to be resolved for smallholders to have access to support and finance to upgrade.

5. Harmonisation of standards. There is no consensus yet on sustainability standards of the sector and it is challenging to harmonize them. The RSPO is working towards embracing a new “business model” towards a “step-approach [...] from level one to full certification” and a jurisdictional approach, i.e. working at the district level rather than focusing on single companies to ease barriers to certification.

6. International companies’ position: One participant from the private sector noted that “it is difficult to be a pioneer” and suggested that more support from governments would be welcome, in terms of clearer and more detailed legislation and regulations regarding palm oil and sustainable palm oil. On the other hand, within the business community, there is room for collaboration to reach a clearer joint commitment on sustainable palm oil to reduce confusion around different “No Deforestation, no Peat, no Exploitation” (NDPE) policies.

Key take-aways and suggested next steps

Below is a list of the key takeaways, possible steps forward, suggestions for actions and initiatives that were mentioned and discussed among participants during the meeting.

1. Harmonization of standards: the door was open for a dialogue between ISPO and RSPO

The two main standards in the industry - the ISPO and the RSPO - are at times seen as opponents. Both sides, the Indonesian government officials and RSPO representatives present at the meeting, expressed their willingness to initiate a dialogue and collaborate to smooth contrasts and support sustainable palm oil production in Indonesia.

Working with smallholders was identified as a common interest and a possible starting point for dialogue.

It was observed that Indonesia is open to a dialogue and keen for the two schemes to be discussed and harmonized. However, at this very first stage, it was also pointed out that even if technically some harmonization is possible, it may be difficult from a legal perspective as the two schemes are initiated by different type of organizations: the ISPO by

the government and the RSPO by various stakeholders from the private sector and NGOs. Their different nature may be one of the first obstacles that needs to be addressed to find a way forward.

Representatives of other organizations in the room also agreed that “a mutual recognition between the two would be welcomed”, highlighting that it would benefit:

- the ISPO: access to a wider international market via the RSPO platform;
- the RSPO: gain support and a stronger footing in Indonesia, leader in production;
- stakeholders: lower costs for smallholders, increase capacity joining forces for support, training and project supporting producers.

2. China’s position and prospects of a MoU

- **China perspectives.** Chinese governmental counterparts welcomed the workshop and showed great interest in the topic and future collaboration. It was highlighted that one entry point is the upcoming Conference of the Parties (COP 15) of the Convention of Biological Diversity (CBD) to be hosted by China in 2020. Chinese representatives welcomed a potential side-meeting/event on palm oil at COP15. A possible support for RSPO sustainable palm oil (SPO) certification in China was put forward, and there were discussions around how SPO certification contributes to the protection of biodiversity. The importance of protecting biodiversity as part of the BRI framework was reaffirmed.

Overall, Chinese representatives expressed strong interest in discussing and working on a plan for SPO in China, work on initiatives and activities ahead of the COP15, and welcomed ideas and suggestions and an action plan for initiatives and activities during COP15.

- **A possible MoU with Indonesia?** Another route that could be explored is the possibility of a MoU between China and Indonesia on palm oil specifically. It was noted that CFNA recently signed an MoU with Malaysia, whereby China pledged to increase imports of palm oil and of “some” sustainable and green palm oil.

An MoU could bring about deeper collaboration between the different parties. Officials from Chinese business associations along with other actors confirmed their key role in the palm oil value chain in China and willingness to support sustainable palm oil, opening the door for a similar collaboration with Indonesia.

3. Positive feedback from key stakeholders regarding UNDP’s strategic role

Positive feedbacks were given from key stakeholders in the sector in both China and Indonesia regarding UNDP's strategic role. Several organizations offered UNDP to get involved in their initiatives. Depending on parties' interests and available resources, UNDP, via its South-South Cooperation platform, is open to keep facilitating the dialogue and to create a platform to strengthen the cooperation between China and Indonesia on palm oil.

4. The Indonesian point of view: room for collaboration with China and a pilot project

Two key aspects, also highlighted in the paper, were stressed at several occasions at the meeting:

- The importance of palm oil for Indonesia: a “national commodity that the government manages for the benefits of the generations to come [...] not only for Indonesia but for the whole world”.
- The openness of the government to criticism of ISPO: “the government is listening” and continues to work towards improvement to reach “growth without [land] expansion”.

Indonesian officials described their current plans to strengthen the ISPO, mentioning initiatives such as: enhance fire and forest management; the OneMap initiative; rejuvenation (replanting) programmes; the inclusion of the new 8th P&C (Supply Chain Traceability and Transparency, addressing legal, economic, social and environmental aspects); and elevating the legislation regarding palm oil at the Presidential level. Overall, their conclusions were:

- continuous work with the UN and other organisations is pivotal and necessary;
- it is important to maintain and foster cooperation with trade partners; and
- financial support from China seen as potentially highly beneficial.

Smallholders were a key focus of the day. At the meeting, the following issues were raised:

- **ISPO is voluntary for smallholders** for the time being. However, the long-term plan is for all growers – being smallholders or large companies – to be certified by 2025 (see chart 1 below).
- Participants highlighted **the need for more training** – around good practice, business development, standard certification - to raise the level of their production. They also highlighted **the need to aggregate smallholders** into cooperatives and farmer organisations, a key challenge faced by RSPO.
- **Large yield gap** vs larger companies and among themselves, with independent smallholders being the most disadvantaged. It was stressed that only when better level of yields will be reached, it will be possible to talk about certifications and sustainable production for smallholders. There is an urgent need to increase innovation, R&D and technology.
- **Promote better access to finance** for smallholders. Green financing is difficult to access, due to legality issues and rigorous requirements, among other factors. In Indonesia, 50% of green finance involves the palm oil sector.



- There is great support by international organisations, NGOs, the government and private companies for smallholders’ pre-certification issues, but little on post-certification ones. It was noted that most of the current initiatives focus on reaching standards, and not much is done about *maintaining* such standards. These initiatives go through the Multi Stakeholders Forum for Indonesian Palm Oil Sustainability (FoKSBI), a platform led by the Indonesian government where all stakeholders can develop, recommend, monitor and evaluate the implementation of the National Action Plan (NAP). This acts as a reference and road map for all stakeholders to achieve Indonesia palm oil sustainability in the long run, starting from raising awareness around sustainability issues.

5. *The Chinese market: leverage market concentration and foster greater collaboration and information sharing*

- Leverage market concentration.** Lack of demand is a “non-sense excuse” for the lack of procurement of sustainable palm oil. It was highlighted that demand for sustainable products could and should be created by multinational consumer goods manufacturers, as they do in many other sectors and fields, rather than just depend on the end-consumer to raise such issues.

Market concentration in certain sections of the value chain should be better leveraged to push for sustainability:

- The retail sector in China is not as fragmented as in other countries, thanks to the presence of a few very large companies dominating the e-commerce.
- The trading sector is highly concentrated. In Indonesia, the top six companies cover around 50% of the market. In China, as mentioned in the paper, trading also displays a high level of market concentration.

- Foster greater collaboration and information sharing on research among different organisations**, such as UNDP, WWF and Chinese business associations. For instance, relevant research on “green consumption” in China, on “green procurement”, on “awareness building” and a consumer survey in tier 1 and coastal cities in 2017 were mentioned.

All these reports are relevant and support awareness around palm oil, sustainable palm oil and consumers behaviour in China. Sharing pertinent information and analysis would help to better target and design initiatives to promote sustainable palm oil in China.

- Cross-sector learning:** examples mentioned were the mining sector (INFIT phase 1 initiative) and organic food.
- Awareness raising.** The importance of finding the “right message not to scare off” the consumers was emphasized. It was noted that Chinese consumers still tend to be more concerned about safety and traceability of food, rather than sustainability.

6. Proposed concrete actions

- **A bilateral/trilateral pilot project.** It was suggested to identify an area/region/district in Indonesia where collaboration and links can be established with Chinese buyers to build a pilot project. A multi-stakeholder approach and direct involvement of Chinese buyers together with Indonesian growers, including smallholders, would raise their awareness, knowledge and understanding of local conditions, opportunities and challenges faced by growers and stakeholders upstream to move towards sustainable methods of production.
- **A joint statement by China and Indonesia on sustainable palm oil/green commodities.** It was suggested that such a statement would be an important step towards raising awareness and procurement of sustainable palm oil in China. It should be released ahead of the COP-15 to be held in Beijing in 2020 and could also feed into the post-2020 CBD agenda.
- **Follow up actions:** such as UNDP China and UNDP Indonesia following up and facilitating the collaboration between the two countries, working towards the initiation of programs and activities on the ground. Participants mentioned a possible follow-up meeting to discuss more concrete and technical proposals. UNDP could act as a platform to facilitate dialogues and organize joint events to present studies and research on the topic.

Annexes:

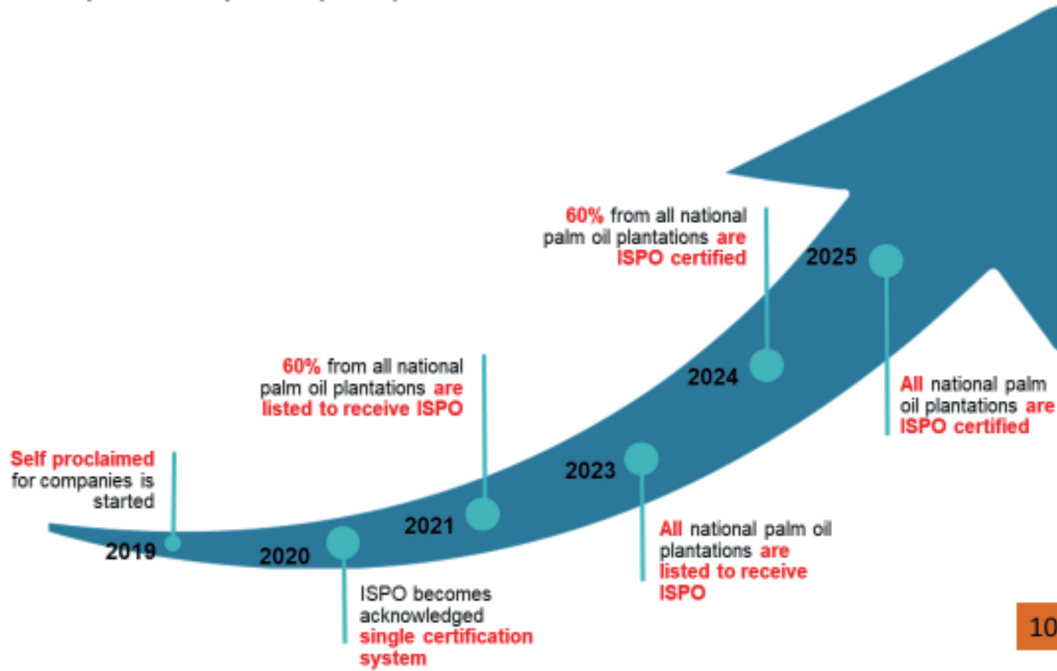
- Annex 1: ISPO Long Term Target
- Annex 2: Agenda
- Annex 3: Participant List

Annex 1: ISPO Long term target

ISPO Long Term Target



With the idea of applying a grading system to oil palm companies, it is expected that the initial target for registration of all private plantations, plasma and independent smallholders can be achieved. In the long run, the listed plantations may show improved performance to obtain ISPO certification.



Source: “Strengthening the Policy Commitment to Sustainable Palm Oil : ISPO, NAP, FoKSBI and SDGs Compliance” by Dr. Wilistra Danny, April 29, 2019.

Annex 2: Agenda

Moderator: Lixian Chen, Programme Manager, South-South and Global Development Cooperation, UNDP China

09:00-09:30 **Registration**

09:30-10:00 **Welcome Remarks**

- Agi Veres, Resident Representative, UNDP China
- Xiaodong Zhong, Advisor, Division IV(Biodiversity), International Economic Cooperation Office (FECO)
- Ying Chen, Director of Cereals and Oils Dept., China Chamber of Commerce of Foodstuffs and Native Produce (CFNA)
- Rusman Heriawan, Chairman Supervisory Board, CPO Fund Agency

10:00-12:00 **Setting the Scene: Identifying the key challenges of Sustainable Palm Oil**

10:00-10:30 **Part I: Presentation of UNDP Research** (30 min)

- Overview and key findings of UNDP's research "Mapping the Palm Oil Value Chain: Opportunities for Sustainable Palm Oil in Indonesia and China"

Violante di Canossa, & Pak Erwinsyah, Consultants to UNDP China's sustainable palm oil research based in Beijing and Jakarta

10:30-11:00 **Part II: Sustainable palm oil production in Indonesia**

- UNDP Sustainable Palm Oil Initiative Program Indonesia (15 min)
Tri Widjayanti, National Programme Manager, SPOI, UNDP Indonesia
- Small farmers perspectives on the opportunities and challenges toward sustainable palm oil management (15 min)
Dani Rahadian Hidayat, Farmers support specialist, SVN Indonesia

11:00 -11:15 **Tea break**

11:15-12:00 **Part III: sustainable palm oil consumption in China**

- Presentation of World Wide Fund (WWF) for Nature's work on Palm Oil (10 min)
Xin Yu, Programme Manager, Markets, WWF China
- Presentation of World Economic Forum (WEF)'s work on Green Commodity (10 min)
Sha Song, WEF China
- Works on palm oil in China by other organizations (3-5 minutes brief each)
CCFA, CFNA, InFIT, etc.

12:00-12:15 **Q & A**

12:15-13:30 **Lunch**

13:30-14:30 **Topic Discussion 1: Strengthening the policy commitment to Sustainable Palm Oil**

Moderator for Indonesian policy discussion: Agus Prabowo, Senior Management Advisor, UNDP Indonesia

Objective: share existing policies and regulations of Indonesia Government and build the case for sustainable development and standards within the Chinese policy directives.

14:30-15:30 **Topic Discussion 2: Enhancing the business engagement through sustainable value chain management** (Certification, incentives, stakeholder engagement etc.)

Moderator: Joshua Wickerham, Policy and Outreach Manager, ISEAL Alliance

Objective: understand existing tools and approaches (i.e standards, guidelines, action plans, stakeholder engagement, etc.) for improvement of sustainability in the sector and verification of sustainable palm oil.

15:30-15:45 Tea Break

15:45-17:30 **Group discussions: Exploring the inclusive partnership for Sustainable Palm Oil**

Moderator: Tina Stoum, Acting Team Leader, South-South and Global Development Cooperation, UNDP China

Objective: discuss possible next-steps, explore potential partnerships among key stakeholders on improving sustainability of palm oil production in Indonesia and raise market awareness and create demand for sustainable palm oil in China through research, pilot projects, training and awareness activities raising etc.

17:30-17:40 Summary and Closing remarks by UNDP, FECO, Indonesian representatives, etc.

Annex 3: Participant List

No.	Name	Title	Organization
1	Wilistra Danny	Assistant Deputy of Estate Crop and Horticulture	Coordinating Ministry of Economic Affairs Jakarta
2	Dedi Djunaedi	Director Processing and Marketing of Estate Crops, DGE	Ministry of Agriculture
3	Rusman Heriawan	Chairman Supervisory Board	CPO Fund Agency
4	Agus Prabowo	Senior Management Advisor for Environment Unit	UNDP Indonesia
5	Iwan Kurniawan	Programme Manager	UNDP Indonesia
6	Tri Widjayanti	National Project Manager SPOI	UNDP Indonesia
7	Chen Lixian	Programme Manager	UNDP China
8	Tina Stoum	Special Advisor	UNDP China
9	Agi Veres	Resident Representative	UNDP China
10	Erwinsyah	Researcher/Lecturer	Indraprasta Univ, Indonesia
11	Dani Rahadian Hidayat	Smallholder Expert	SNV, Indonesia
12	Reni Kustiari	Senior Staff	CPO Fund Agency
13	Edi Sensudi Barnas	Deputy Assistant in charge of Agribusiness Supervision	Coordinating Ministry for Economic Affairs
14	Tulus Budhianto	Director of Partnership	CPO Fund Agency
15	Catur Ariyanto Widodo	Director of Finance, General Affairs, Compliance and Risk Management	CPO Fund Agency
16	Joshua Wickerham	Policy and Outreach Manager	ISEAL Alliance
17	Nurdiana Darus (Ade)	Head of Sustainability, South East Asia & Australasia	Unilever
18	Achmad Adhitya	Sustainable Sourcing Team	Unilever
19	Wang Wenhua	Director	CCFA
20	Zhang Junzuo	PMO Team Leader	InFIT
21	Song Sha	Project Specialist, Center for Gloval Public Goods	WEF

22	Chen Ying	Director of Cereals and Oils Dept.	CFNA
23	Li Sifan	Staff of Cereals and Oils Dept	CFNA
24	Seth Cook	Associate	SYSTEMIQ Ltd.
25	Zeng Wenjie	Programme Manager, Markets	WWF China
26	Jin Zhonghao	Director, Markets	WWF China
27	Yu Xin	Programme Manager, Markets	WWF China
28	Sabrina Zhang	Country Director	CDP
29	Li Fei	Senior Project Office	CDP
30	Zhong Xiaodong	Advisor	FECO
31	Zhao Yang	Senior Monitoring & Evaluation Officer	FECO
32	Darrel Webber	CEO	RSPO
33	Violante Dicanossa	Consultant	
34	Wan Xusheng	Consultant	
35	Cui Yan	Project Supervisor, Department of International Cooperation	CSA (China Standardization Association)
36	Qiu Aimiao	Director, Dept of Public and Government Affairs	Julong
37	Chen Liwei	General Manager of Service Management Department	Beijing Qiaonyu Foundation
38	Sun Minjie	Ph.D, Certification research centre	China Certification & Accreditation Institute, State Administration for Market Regulation
39	Li Jiayin	Researcher	Syntao
40	Marina Novira Anggraini	Trade Attache	Indonesian Embassy



Kingdom of the Netherlands

Mapping the Palm Oil Value Chain

Opportunities for sustainable palm oil in Indonesia and China



March 2020
UNDP China