

THE HIDDEN COMMODITY

How China's palm oil imports
can help halt deforestation





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KEY FINDINGS

- Increasingly investors and financial institutions are calling for corporate actors to decouple deforestation from the production and sourcing of palm oil. Capital markets have highlighted both the risk of inaction and opportunities available to those addressing deforestation risk. In 2019, 32 companies reported to CDP of potential opportunities with value up to **US\$2.38 billion**.
- However, exposure to deforestation risk is chronically underestimated by companies within the sector. In 2019, only 25% companies reported a potential negative financial impact through producing and sourcing palm oil. Even with this small proportion reporting, the total value at risk was **US\$7.6 billion**.
- Physical, regulatory and reputational risk are being felt today. The physical impacts of deforestation can increase production costs and costs of sourcing palm oil derivatives for Chinese downstream buyers. Midstream suppliers risk losing market access to buyers that have made commitments to secure zero deforestation products.
- China's top-down environmental policy is clearly stated, and regulatory pressures are being formed to urge Chinese companies to understand, measure and manage the full range of physical and transitional risks caused by climate change including deforestation.

BACKGROUND

The impacts of climate change are already being felt across the world - through increased frequency and intensity of extreme weather events, droughts, floods and forest fires - all impacting millions.

In 2019, high intensity storms included cyclone Idai that devastated Mozambique, killing more than 1,000 people in March¹, typhoon Dorian that ravaged the Bahamas in September, and typhoon Hagibis that hit Japan in October 2019 costing US\$10 billion in damages². In summer 2019, heatwaves hit large areas of Europe, the US and China creating not only transport disruptions but also posing health risks to people³. Heatwaves such as those seen last year are now estimated to be the new normal in Europe⁴ and China⁵. The impact is stark. Globally, heat stress is estimated to reduce total working hours worldwide by 2.2% - a productivity loss equivalent to 80 million full-time jobs - and global GDP by US\$2,400 billion in 2030⁶. With more heat and dry weather the number and intensity of wildfires has also increased dramatically. In 2019, fires in Australia⁷ and even within the Arctic circle⁸ killed millions of animals and destroyed or threatened human lives. The impacts of wildfires include loss of biodiversity, reduced water security⁹ as well as increased of greenhouse gas (GHG) emissions¹⁰.

Rising temperatures and sea level as a result of climate change will have catastrophic impacts across Asia, including China¹¹. Much of China's large population, is condensed in the coastal cities vulnerable to sea level rise. With optimistic estimations of a one-meter sea level rise by 2100, 23 million people will be at risk of losing their homes and livelihoods. A more bleak estimate of a three-meter sea level rise would affect 52 million people. Up to 71,000 square kilometres of Chinese coastal areas could be left underwater¹². Melting of Himalayan glaciers, will increase the risk of floods and landslides during monsoon season. The long-term, permanent disappearance of the glaciers

could also affect the flow of major rivers including the Yangtze¹³ and threaten clean water supplies and consequently China's agricultural production.

The Chinese government has been responsive in addressing climate change issues. Under the Paris Agreement, it pledged to curb its carbon emissions intensity up to 65% below 2005 level by 2030¹⁴. Beyond emissions reductions, the government has shown leadership in their efforts to preserve and restore ecosystems and biodiversity. China will host the 15th meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD), the high-level negotiations to agree on global targets for the protection and management of forests, rivers, oceans, pollinators and other wildlife. Financial regulators highlight climate change as a major factor driving structural changes across economic and financial systems. In 2019, the latest revision to China's Securities Law¹⁵ highlighted rules on the information disclosure which will increase demand for transparency and the responsibility of senior management for addressing climate change related information. Top-down regulatory pressure has encouraged Chinese listed companies and investors to recognize the importance of ESG in their development and improve reporting on ESG disclosure.

Forests ecosystems play a critical role in human existence. They provide ecological services that underpin the productivity of agricultural commodities and our food security such as pollination for agriculture, pest control, healthy soils, and water filtration. Through this filtration and storage, forests provide approximately 75% of the world's accessible freshwater with 90% of

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3. Deutsche Welle. 2019: Heat waves hit parched Europe, US and China. <https://www.dw.com/en/heat-waves-hit-parched-europe-us-and-china/g-49725195>
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13. Ibid
14. Climate Action Tracker. 2019. China. <https://climateactiontracker.org/countries/china/>
15. Securities Law of the People's Republic of China (2019 new edition), http://www.xinhuanet.com/legal/2019-12/29/c_1125399656.htm

the world's cities relying on forested watersheds for their water supply¹⁶. Despite the importance of standing forests, demand for soft commodities and agricultural land has put increasing pressure on global forests. Agricultural commodity production is responsible for over 40% of tropical deforestation, making it the single biggest driver of deforestation¹⁷. Whilst production and demand patterns vary regionally, agricultural expansion for cattle, palm oil, soy and timber production are the primary drivers¹⁸ overall.

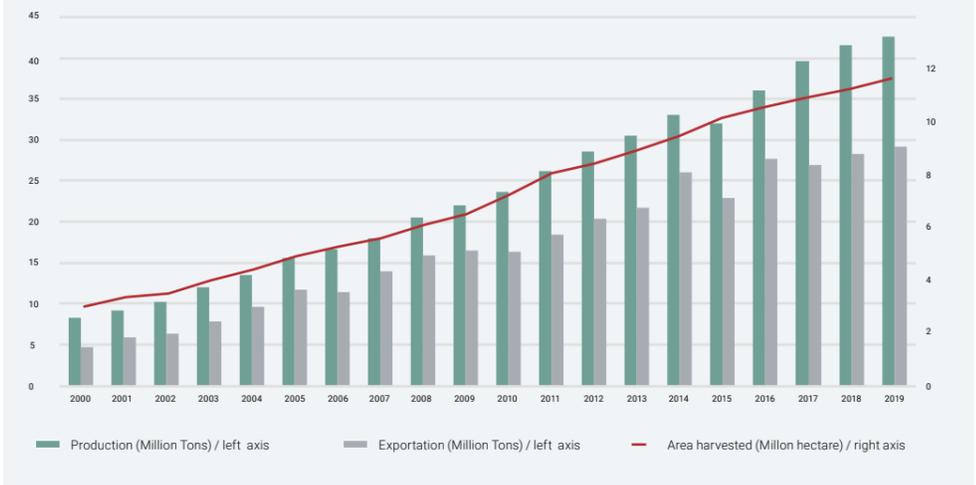
In Southeast Asia, large expanses of tropical forests have been lost to meet world's growing appetite for palm oil¹⁹. Worldwide production of palm oil has been climbing steadily for five decades. The demand for palm oil is expected to increase by 1.7% annually until 2050²⁰. An estimated 50 percent of packaged products sold in supermarkets contain palm oil²¹, including pizza, chocolate, cup noodles, toothpaste and washing detergents. The ubiquitous nature of palm oil is mostly due to its efficiency of the fruiting plant and versatility of the raw material among other vegetable crops. Palm oil makes up approximately 35% of global vegetable oil consumed yet, by comparison, covers less than 10% of the total land under oil crop²² cultivation.

Indonesia and Malaysia, hold the biggest area of tropical rainforest in Asia, where approximately 85% of global oil palm has been cultivated at the expense of forests. Between 2001-2016, forest area loss in Borneo averaged 350,000 hectares

annually²³ mainly to expand oil palm plantations. Overall, expansion of oil palm accounted for 50% or 2.1 million hectares of Borneo's old-growth forest area loss between 2005 – 2015²⁴. The rapid expansion of oil palm comes at a huge cost to biodiversity, with the habitat loss of already endangered species like the Sumatran elephant, Sumatran tiger, Sumatran rhino and Sumatran orangutan, Bornean orangutan, pygmy elephants, sun bear and proboscis monkey to name a few.

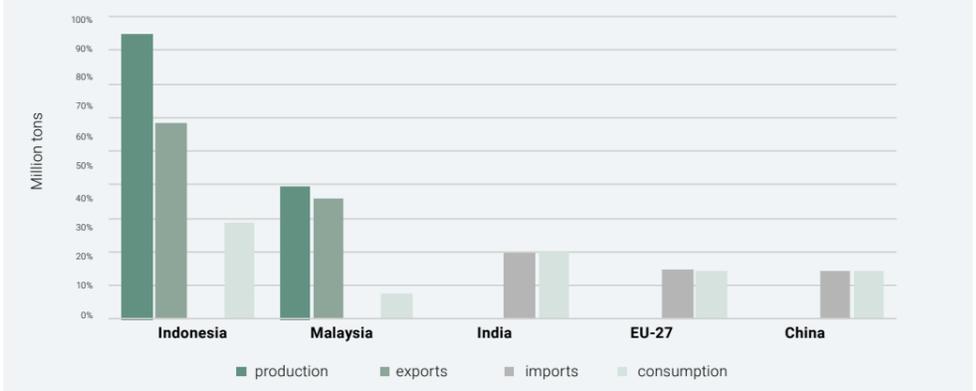
The expansion of palm oil plantations in Indonesia includes draining of tropical peatlands, which results in the release of carbon and methane stores into the atmosphere. Peatlands contain up to 28 times as much carbon as the forests above them²⁵, thus are considered a major contributing factor to global warming. Man-made fires are often used as the cheapest option to clear forests and peatlands in preparation for agriculture. In 2015, fires burned 2.6 million hectares of land in 8 provinces across Indonesia. The fires were set to clear over 100,000 hectares of land for agricultural expansion but, exacerbated by dry conditions during an El Nino year, quickly grew out of control. These catastrophic fires released an estimated 884 million tonnes of GHG emissions²⁶, greater than Germany's 2019 total GHG emissions²⁷, into the atmosphere and cost Indonesia approximately US\$16.1 billion²⁸. The fire crisis repeated in 2019, burning up to 942,000 hectares mostly in Kalimantan (Borneo) and Sumatera²⁹. This time, World Bank estimated that the fire had cost Indonesia around US\$ 5.2 billion or 0.5% of Indonesia's GDP³⁰.

Figure 1. Indonesia palm oil production, area harvested and exportation 2000-2019
(Source: IndexMundi, CDP calculation)



India, the European Union and China are the largest importers of palm oil globally³¹. On a per country basis, China is the second largest buyer of Indonesian palm oil³². China's steadily growing import of palm oil in recent years indicates that the country may soon overtake India as the number one destination for Indonesian palm oil.

Figure 2. World top palm oil producing and consuming countries in 2019
(Source: IndexMundi, CDP calculation)



As the demand for Indonesian palm oil is projected to continue increasing globally, it is essential to ensure that the production of palm oil will not continue at the expense of tropical forests. This is particularly relevant to the current Covid-19 pandemic as forest loss could increase the potential for spillover of zoonotic viruses. The more the wildlife habitats are threatened by deforestation, the higher the chances of the next outbreak and a global economic slowdown³³. China can play a critical role in a transition towards eliminating deforestation from palm oil value chain by signalling demand for sustainably produced palm oil.

16. Food Agriculture Organization. (n.d): Forests and Water Programme. <http://www.fao.org/in-action/forest-and-water-programme/en/>
17. Focali.2015: Agricultural commodity consumption and trade responsible for over 40% of tropical deforestation. <http://www.focali.se/filer/Focali%20brief%202015-03%20Consumption%20Trade%20and%20Tropical%20Deforestation.pdf>
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29. Reuters. (2019, Dec 11). World Bank says Indonesia forest fires cost \$5.2 billion in economic losses. <https://www.reuters.com/article/us-indonesia-environment/world-bank-says-indonesia-forest-fires-cost-5-2-billion-in-economic-losses-idUSKBN1YF0FJ>
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CHINA'S INCREASING DEMAND FOR PALM OIL

China annually consumes over 7 million tons of palm oil products and is entirely dependent on imports (see figure 2). The highest import was recorded in 2019 where around 8.49 million tons of palm oil was imported to China (see figure 3), a 53% increase from the previous year³⁴. Most palm oil imported by China is consumed domestically, while a very small proportion is processed into products for re-export³⁵.

China's increased palm oil import is reliant on two main palm oil producing countries, Indonesia and Malaysia. Together these countries accounted for almost 100% of China's imports in 2019. Around 71% (over 6 million tons) of China's total palm oil

imports originated from Indonesia last year, an increase from 64% in 2017. Palm oil imports from Malaysia accounted for 29% (2.45 million) of total palm oil imports in the same year³⁶.

Figure 3. China palm oil imports by products 2017-2019

(Source: GACC)

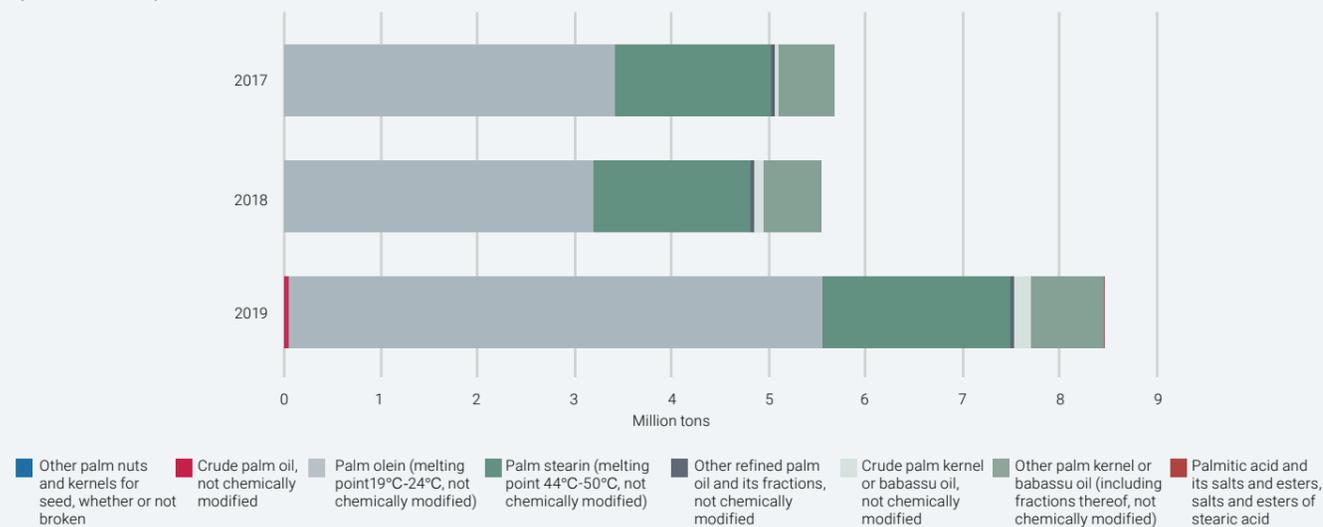
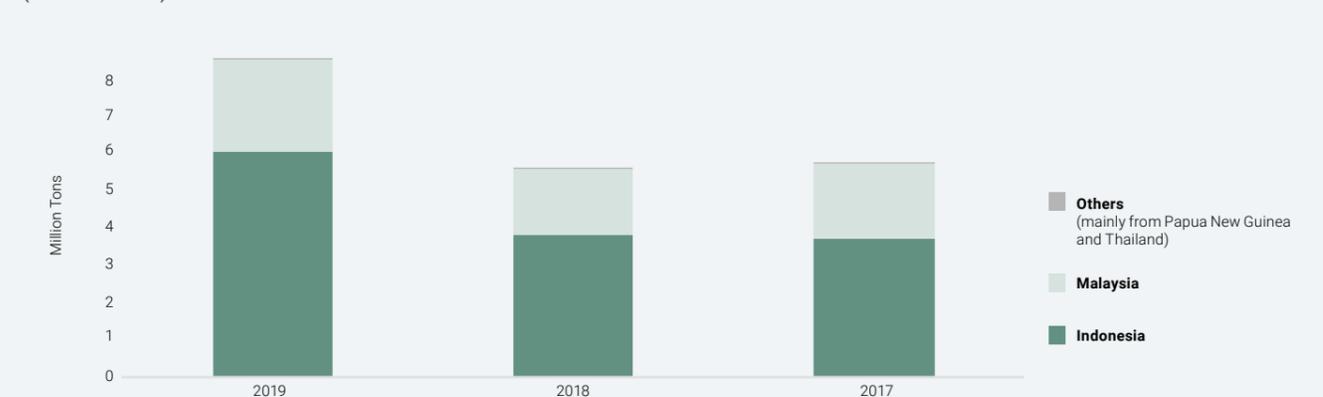


Figure 4. China palm oil imports by country of production 2017-2019

(Source: GACC)



34. GACC online data source: <http://43.248.49.97/>

35. CFNA. (2012). Prospects and challenges of sustainable palm oil for China. Retrieved from <http://www.china.rspo.org/about/rspo-in-china>

36. Ibid

Key sectors for China's palm oil imports

The consumption of palm oil in China is largely concentrated in the food sector, used as edible cooking oil and within the oleochemical industries. These industries respectively accounted for 54%, 25% and 20% of palm oil consumption in 2018³⁷ (see figure 5).

In China, the value chain of palm oil is highly consolidated, beginning with a few large traders and processors. Yihai Kerry (subsidiary of Wilmar) and China National Cereals, Oils and Foodstuffs Corporation (COFCO) dominate the market in China as the biggest palm oil importers³⁸ and processors³⁹, controlling the largest share (53%) of China's edible oil market⁴⁰.

Over half of China's palm oil is consumed by the food sector, primarily by instant noodle companies, where it is used as frying oil. The largest instant noodles companies include Master Kong and Uni-president, which together accounted for 80% of the market in 2018⁴¹.

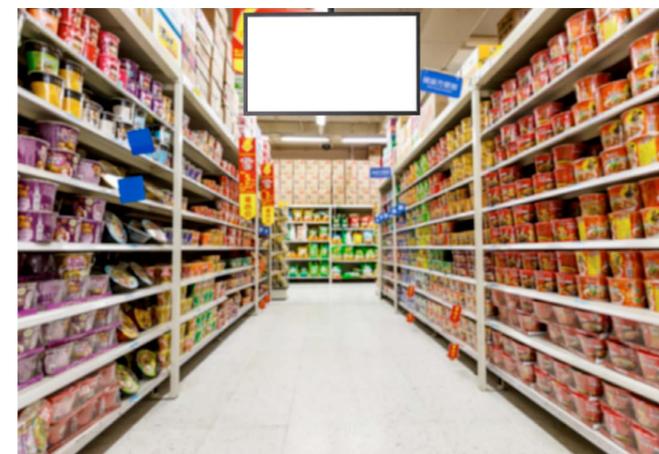
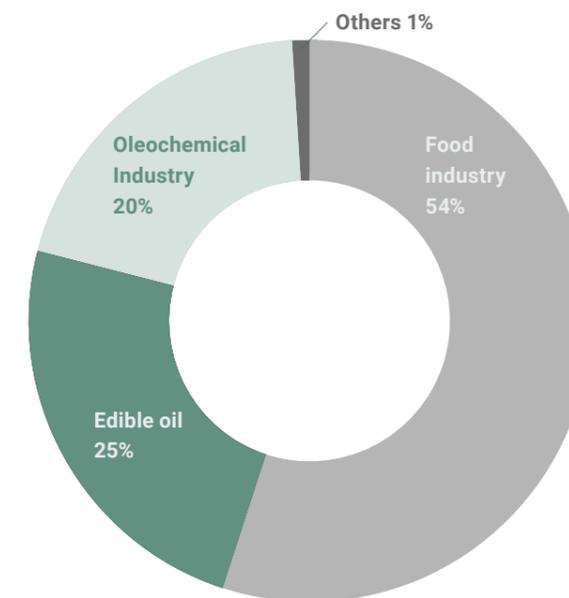
Palm oil is used in large quantities by the hospitality and restaurant sector as cooking oil, particularly for frying chicken and potato products. With the expansion of the fast-food industry, China has seen continuous growth in the takeaway market. Fast food retailers such as Yum! China and McDonald's are examples of major enterprises using palm oil as cooking oil.

Alongside fast food retailing, China's processed food and baking industries have developed rapidly, contributing to a substantial hike in palm oil consumption. The key players include listed Chinese companies Dali Food, Want Want, Toly Bread, and multinational brands, including Mars, Danone, PepsiCo, Kraft, and Nestlé, which share a significant proportion of the Chinese market.

The oleochemical industry, is the second-largest consumer of palm oil in China using palm oil products to manufacture detergents, personal care and cosmetics products. Key players in China include domestic companies such as Nice Group and Guangzhou Liby, and international brands such as L'Oréal, P&G and Unilever.

Figure 5. China palm oil consumption by sectors 2018

(Source: MPOB)



37. Paper for Malaysia-China Palm Oil Business Forum, MPOB. <http://www.mpob.gov.my/en/component/content/article/153-demo-content/79306-paper-for-malaysia-china-palm-oil-business-forum>

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39. China's top edible oil manufacture. https://www.oilcn.com/article/2018/11/11_66447.html

40. Euromonitor data, http://www.sohu.com/a/342219490_473133

41. Data from Chinese Institute of Food Science and Technology, 19th instant food conference in Beijing in September, 2019.

THE BUSINESS CASE FOR MANAGING DEFORESTATION RISK THROUGH SUSTAINABLE PALM OIL SOURCING

Companies producing and consuming palm oil globally face a range of physical, regulatory, reputational and market risks. In 2019, 543 global companies reported on their awareness and management of deforestation risks in the production and/or sourcing of the biggest commodity drivers of deforestation including palm oil, soy and timber products to CDP. Of these companies, 146 reported on their use of palm oil in their direct business operations and/or supply chain. Around two thirds (92 companies), including 2 Chinese companies, identified forest-related

risks with the potential to have a substantive financial or strategic impact on their business (see figure 7). Overall, 25% of companies (36 of 146) estimated the potential financial impact of the identified risks, together reporting a staggering **US\$ 7.6 billion**. The majority of companies (110) did not report on the potential financial impacts, indicating that full awareness of the deforestation risks and related financial impacts remains low and that the total economic costs are likely much higher.

Figure 6. Companies that undertake a forests-related risk assessment and identified inherent forests-related risks

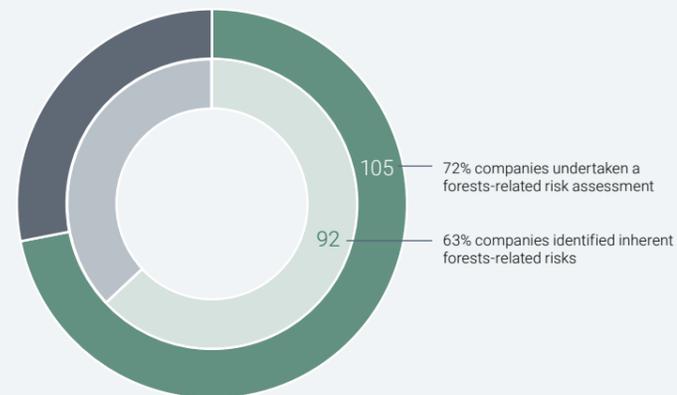
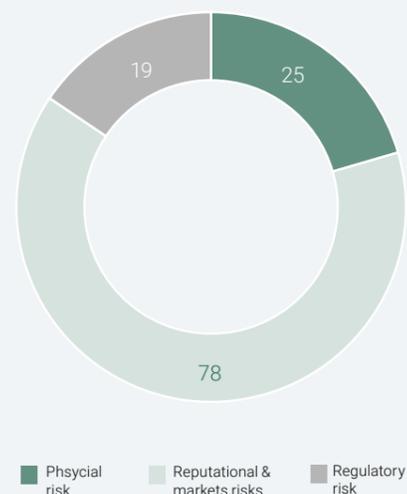


Figure 7. Companies identified risks



Physical risk

Palm oil production is highly exposed to physical risks, with climate change driving the increased severity of extreme weather events, changes in precipitation patterns and rising mean temperatures. As a result of these risks, oil palm fruit yields are projected to decrease in many producing regions^{42 43}. For downstream companies in the value chain, this could be translated to increased costs of raw materials and reduced revenue forecasts.

A CDP report published for investors in 2019, **No wood for the trees**⁴⁴, indicates that close to 90% of global palm oil production is concentrated in Southeast Asia along low-lying areas exposed to sea levels and coastal flooding⁴⁵. The flooding of existing plantations could jeopardize the supply of raw material and lead to further deforestation inland.

Reduced rainfalls and dryer conditions are also propelling the frequency and intensity of forest fires, another significant physical risk in palm oil supply chains. **Golden Agri Resources**, a palm oil producer and trader with large operations in Indonesia and China, reports that changes in precipitation patterns and forest fires can lead to supply chain disruptions and reduced production capacity. Despite the magnitude of potential

impacts that physical risks can have on a company, only 17% (25) companies reported physical risk as an inherent business risk. Just eleven companies estimated the potential financial figure against these physical risks, totalling up to **US\$ 854 million**.

For **Chinese companies**, physical risks driven by climate change and deforestation pose a great threat. Sourcing regions destabilized by deforestation will face more frequent extreme weather events such as droughts, forest fires and floods. These impacts are likely to be translated to supply chain disruption and increased palm oil prices. This is echoed by **Anhui Hyea Aromas**, a fine chemicals manufacturer, which reported that increased severity of extreme weather events has the potential to result in a change in revenue mix and sources. While **Sunner Development**, a Chinese poultry breeder and food manufacturer, and new member of CDP's supply chain program, reported that the increased severity of extreme weather events and ecosystem vulnerability could increase production costs annually by **US\$ 104,000**. In response to these risks, Sunner plans to set more ambitious forest-related commitments and increase the volumes of sustainably sourced materials.

Reputational and market risk

There is a growing awareness of the environmental and social issues associated with palm oil and increasing demand for sustainable products among end-consumers. NGO's have led compelling campaigns that demand greater transparency from companies to provide consumers with information to enable ethical decision making on end-products. For example, in 2010, a Greenpeace campaign targeted the Kit Kat brand of the food giant Nestlé, triggering massive consumer pressure via social media. This resulted in Nestlé making a public commitment to stop purchasing palm oil from suppliers destroying Indonesian rainforests⁴⁶.

The preference of Chinese consumers is also evolving. A report on consumer awareness and behaviour change around sustainable

consumption found that more than 70% of Chinese consumers were willing to pay a premium for sustainably produced goods⁴⁷. Companies that cannot meet these sustainability standards risk losses in market demand.

Companies in the palm oil value chain most frequently cite reputational and market risks through CDP's forest questionnaire (see above figure 7). Around 53% (78) of companies reported reputational and market risk in 2019 globally. Of these, 26% (38) companies, including multinational brands present in China, reported brand damage as the main impact of this risk. **Mars**, a US food processing company, reported a potential financial impact of up to US\$1 billion from reputational risks driven by the scarcity of available certified palm oil. Additionally, they anticipate further reputational

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47. Xinhua. 2017 (Aug 16): Report on Sustainable consumption in China released in Beijing. http://www.xinhuanet.com/world/2017-08/16/c_129682433.htm

CDP Supply Chain Forest Program

Now in its tenth year, the CDP Supply Chain program has continuously grown its impact over the past decade. Since its launch in 2008 with 14 members, the program has now expanded to bring together 150+ major purchasing organizations around the world, collectively representing US\$4 trillion in procurement spend.

CDP's work on forests was integrated into its Supply Chain program in 2017. Through this program, large purchasing organisations can better manage their forests-related risks and opportunities through supplier disclosure.

A total of 305 suppliers provided disclosures related to the use of key commodities that are particularly associated with deforestation risks: timber, palm oil, cattle, soy, and rubber in 2019. This was a substantial 247% increase on the 88 businesses that responded in 2017's pilot phase for reporting on forests.

Disclosing suppliers include 11 Chinese companies as well as suppliers reporting from high deforestation risk regions such as Brazil and Indonesia. With the success of the supply chain disclosure, there has been an increasing uptake by new Supply Chain Forests members from an initial 8 purchasing companies in 2017 to 19 in 2020.

It can be challenging to drive sustainable change in the supply chain. There is often limited visibility of impacts that occur away from an organization's areas of direct control. In some case this can be further obscured by diversionary marketing, commercial confidentiality, or simply a hesitation to address areas of risk.

But as organizations seek to create positive change, data that is being disclosed is playing an increasingly important role in their decision-making. 43% of CDP Supply Chain program members confirmed that they currently deselect existing suppliers based on their environmental performance in 2019. And a further 30% are considering implementing this in the near future. The opportunity is ripe for Chinese business to lead transformation through their supply chains.

risks from campaigns that aim to raise awareness of deforestation by targeting brands using products containing forest risk commodities⁴⁸. Similarly, **Kao Corporation**, a Japanese personal care & household products company, and member of CDP's Supply Chain program, estimates the potential financial impact of brand damage from negative campaigns costing up to US\$ 271 million per year. **Reputational risk is expected to apply to Chinese consumer goods brands in the value chain**, as customers and media pay more attention to the negative environmental impacts of commodity supply chains⁴⁹.

Shifts in market demand pose business risks to companies at all stages of the palm oil value chain. Inadequate response to these risks can leave

companies with **limited market access**. Many Chinese manufactures of palm oil-based products supply to multinational companies that have adopted and implemented forest-related policies. In 2019, 8 such companies responding to CDP's Forests questionnaire, including **Carrefour** and **Firmenich SA**, reported sourcing palm oil products from China. Both Carrefour and Firmenich SA have adopted a no-deforestation policy and committed to sourcing 100% RSPO certified sustainable palm oil and palm oil products by 2020. Suppliers that do not comply with their buyer's policies will face suspension of contracts and loss of business. Lack of compliance with environmental criteria could also directly apply to Chinese companies that operate and own palm oil mills in producer countries.

A potential risk for Julong Group and its subsidiaries as buyers seek compliance with NDPE commitments

Julong Group is a leading Chinese palm oil company active in oil palm cultivation, processing, trading, oils & fats production, and research and development (R&D). In 2006, Julong Group built its overseas oil palm plantation in Kalimantan, Indonesia. Subsequently, in 2011, it supported the development of crushing plants in the same location⁵⁰. To date it owns palm oil plantations with a total area of 50,000 hectares⁵¹. According to the supplier lists from several consumer goods companies, at least three palm oil mill companies in Indonesia belong to Julong Group, this includes Graha Inti Jaya, Palma Utama, and Rezeki Kencana. All three of these mills supply palm oil to PepsiCo⁵², General Mills⁵³, Danone⁵⁴, Fuji Oil⁵⁵, Mars⁵⁶ and Unilever⁵⁷. To date, Julong has yet to join RSPO, and has not reported a no deforestation, no planting on peatland, and no exploitation (NDPE) commitment. This indicates a potential risk for Julong and its subsidiaries as buyers seek compliance with NDPE commitments to meet the demands of their investors and consumers.

Regulatory risk

Increasing government scrutiny and regulatory restrictions in both oil palm producing and importing countries have potential business impacts for companies in the palm oil value chain. Increased regulation in producing countries related to the production of palm oil will result in changes to operations for which costs could be transferred to the palm oil buyers.

Almost 100% of China's palm oil imports, from Indonesia and Malaysia, is subject to regulatory change. Since 2011, the Indonesian government has implemented a moratorium that prohibits the conversion of primary natural forests and peatlands for oil palm, pulpwood and logging concessions⁵⁸. These government policies have proven effective, with a 40% reduction in primary forest loss recorded since 2018 when these measures were introduced⁵⁹. The latest regulation issued by the Government of Indonesia⁶⁰ requires mandatory ISPO certification for palm oil producers, including smallholders. Stringent government regulation can lead to stranded assets for palm oil producers. Stranded forest and peatlands exist within concessions, development

of which into plantations violates NDPE policies and the Indonesian government regulations⁶¹. This can limit the expansion of palm oil landbanks, hence reducing the future production. For Chinese buyers, this can be translated to increasing prices or risks in accessing a sufficient supply of palm oil.

In China, the government has been supportive of promoting sustainable consumption and advocating sustainable palm oil production⁶². The Ministry of Commerce (MofCom) has taken a prominent role in leading the work. Together with Chinese enterprises, the government has developed several guidelines, including the Guide for Overseas Investment and Production of Sustainable Palm Oil. These guidelines aim to provide best practices for Chinese companies in the palm oil sector⁶³. In 2016, 10 ministries, including MofCom and the Ministry of Finance jointly developed and published the Guidelines on the Promotion of Green Consumption, to ensure that the country adopts "green and healthy" consumption by 2020⁶⁴. In 2017, the then Ministry of Environmental Protection issued Guidance on

50. Julong Group, <http://www.julongchina.com/index.asp>

51. Ibid

52. PepsiCo 2018 palm oil mills. https://www.pepsico.com/docs/album/esg-topics-policies/pepsico-2018-palm-oil-mill-list.pdf?sfvrsn=d4305aa6_8

53. General Mills palm oil mills. <https://chainreactionresearch.us16.list-manage.com/track/click?u=fd1554f679e3b5678ed9bae8a&id=e4402ded7&e=ea1aec9ee8>

54. Danone 2018 palm oil mills. [https://www.danone.com/content/dam/danone-corp/danone-com/about-us-impact/policies-and-commitments/en/2019/Danone_Palm_Oil_\(Update_2019\).pdf](https://www.danone.com/content/dam/danone-corp/danone-com/about-us-impact/policies-and-commitments/en/2019/Danone_Palm_Oil_(Update_2019).pdf)

55. Fuji oil 2019 palm oil mills. https://www.fujiholdings.com/pdf/en/csr/supplychain_database/h1_2019_mill_list.pdf

56. Mars 2018 palm oil mills. https://www.mars.com/docs/default-source/Policies-and-Practices/mars_39_suppliers_2018_full_mill_list.pdf?sfvrsn=6

57. Unilever 2018 palm oil mills. https://www.unilever.com/Images/-unilever-s-universal-palm-oil-mill-list_h1-2018_final_tcm244-530097_1_en.pdf

58. Jong HN, 2019: Indonesia forest-clearing ban is made permanent, but labelled 'propaganda'. <https://news.mongabay.com/2019/08/indonesia-forest-clearing-ban-is-made-permanent-but-labeled-propaganda/>

59. Weisse M & Goldman ED. 2019. The World Lost a Belgium-sized Area of Primary Rainforests Last Year. <https://www.wri.org/blog/2019/04/world-lost-belgium-sized-area-primary-rainforests-last-year>

60. Jong HN.2020: Indonesia aims for sustainability certification for oil palm smallholders. <https://news.mongabay.com/2020/04/indonesia-aims-for-sustainability-certification-for-oil-palm-smallholders/>

61. Ibid

62. Schleifer, P and Sun, Y, 2018: Emerging markets and private governance: the political economy of sustainable palm oil in China and India <https://www.tandfonline.com/doi/full/10.1080/09692290.2017.1418759>

63. CFNA, 2015: Guide for Overseas Investment and Production of Sustainable Palm Oil by Chinese Enterprises. http://www.rt13.rspo.org/ckfinder/userfiles/files/China%20SPO%20Guide-PRODUCTION-Version%203_0-RT13_ENG.pdf

64. Xinhua. 2016 (Mar 1): China issues guidelines promoting green consumption. http://www.china.org.cn/china/Off_the_Wire/2016-03/01/content_37908254.htm

SEIZE THE OPPORTUNITIES OF SUSTAINABLE BUSINESS

Promoting Green Belt and Road with three line ministries. The Guidance aims to improve the environmental protection capacity and regional sustainable development of countries along the Belt and Road and help them to achieve their 2030 Sustainable Development Goals⁶⁵. Besides MofCom, China's high-level advisory body, the China Council for International Cooperation on Environment and Development (CCICED) has highlighted the importance of China's role in greening the global commodity value chains through its policies, trade and investments, especially in the Global South⁶⁶. Given the government's recent interest in the topic of green consumption, companies are beginning to see the market potential for sustainable products, including palm oil⁶⁷.

The Chinese government's ambition to pursue an "ecological civilization" was demonstrated by its decision to host the 15th Conference of Parties for Convention for Biological Diversity (CBD). China is also establishing a green financial system, where fiscal and monetary policies for green financial development are gradually being implemented. In August 2016, the People's Bank of China and six Chinese ministries jointly issued "Guiding Opinions on building a green finance system". This is one of the world's most complete policy frameworks to support the development of green finance and provides a top-level framework for green finance

in China⁶⁸. Since then, detailed policies on green credit, green bonds, environmental information disclosure, green investment, green procurement, green supply chains and other policies have been introduced (see the policy developments in Annex 1). Through these interventions, the role of finance in combating climate change has been elevated, and regulatory pressure will likely drive Chinese companies and investors to address both physical and transitional risks caused by climate change, including deforestation.

Despite these developments, CDP data shows that companies' awareness of the potential impact of regulatory risk remains far from widespread. In 2019, only 13% (19) of companies reporting on palm oil identified these risks as having the potential to have a substantive financial or strategic impacts on their business. Companies with comprehensive and robust risk assessment processes such as **L'Oréal** recognize and report on regulatory risk as an inherent business risk. **L'Oréal** estimated and reported the potential impacts of a series of government-led regulations, covering both product standards on deforestation and/or product labeling obligations that would cost up to US\$46 million. Similarly, **PepsiCo**, a U.S. food processing company, reported that regulatory uncertainty could increase their operating costs as governments seek to drive change through regulation to deliver more sustainable palm oil.

Integrating forests-related issues into business planning and decision making will not only enable companies to mitigate and manage deforestation risks, but it also offers a wide range of opportunities. There is growing awareness and demand for high environmental standards from consumers, including in China. A recent survey showed that 88% of Chinese consumers factored in the environmental impacts of the products as well as quality, and reputation of the company when making purchasing decisions⁶⁹.

Investors have called on companies to adopt and implement robust sustainability policies. More than 90 investors representing over US\$6.7 trillion in assets called on the RSPO to strengthen its standards in 2018⁷⁰. Subsequently, an investor working group of 58 organizations representing approximately US\$7.9 trillion in assets has urged companies to adopt and implement a robust, sustainability policy. The working group's 'Investor Expectations on Sustainable Palm oil' encourages companies to become RSPO members, adopt NDPE policies, set time-bound plans, and regularly report on progress and practices⁷¹.

Financial institutions have also begun developing financial products, such as ESG linked loans. In 2017, ING (a Dutch bank) and Wilmar, a palm oil producer and the biggest palm oil trader worldwide, agreed to convert a portion of Wilmar's existing bilateral, committed Revolving Credit Facility of US\$150 million into a sustainability-linked loan. In the following year, Wilmar reached another sustainability-linked loan⁷² agreement with OCBC Bank, valued at US\$200 million⁷³. Olam International, another palm oil trader, has followed this lead by securing a revolving credit facility with a value of US\$525 million in 2019⁷⁴. Bunge Limited, (a US based agribusiness and food company) successfully closed its first sustainability-linked revolving credit facility worth US\$1.75 billion⁷⁵ at the end of 2019.

Beyond the palm oil sector, many other companies have seized opportunities related to their sustainability performance. In July 2019, COFCO International Ltd. signed a \$2.1 billion sustainability-linked loan. Under the deal, COFCO will benefit from lower interest rates in exchange for meeting environmental objectives, including improvements for soybean traceability to ensure its sources are not contributing to further deforestation in Brazil⁷⁶.

Through CDP, companies have reported forest-related opportunities such as increased brand value, cost savings, increased R&D and innovation opportunities. **In 2019, 32 companies sourcing palm oil reported forest-related opportunities worth up to over US\$ 2.38 billion.** Unilever reported on the positive brand value associated with the extensive sustainability initiative they have taken to transform their palm oil supply chain, estimating it at US\$ 195 million. Unilever has taken action to shorten the palm oil supply chain and work directly with palm oil producers. The implementation of this program enables the company to improve the traceability of palm oil, reduce costs, and better integrate smallholder producers⁷⁷.



65. Mofcom. 2017 (May, 8): Guidance on Promoting Green Belt and Road joint issue by four ministries, <http://www.mofcom.gov.cn/article/1/jyj/m/201705/20170502571374.shtml>

66. CCICED, 2016: China's role in Greening Global Value Chains. <http://www.cciced.net/cciceden/POLICY/rr/pr/2016/201612/P020161214521503400553.pdf>

67. Ibid 52

68. Xinhua news, 2016 (31 Aug): Vice President of the People's Bank of China Talks about "Guiding Opinions on Building a Green Finance System". http://www.gov.cn/zhengce/2016-09/01/content_5104124.htm

69. Edelman, 2019: Trust Barometer Special Report. In Brand We Trust. https://www.edelman.com/sites/g/files/aatuss191/files/2019-07/2019_edelman_trust_barometer_special_report_in_brands_we_trust.pdf

70. Ceres. 2018: Global Investors Call for Stronger Standard from Sustainable Palm Oil Certification Group. <https://www.ceres.org/news-center/press-releases/global-investors-call-stronger-standard-sustainable-palm-oil>

71. UN- Principle of Responsible Investments. 2019. Investor Expectations on Sustainable Palm Oil. https://www.unpri.org/Uploads/y/y/p/investorexpectationsstatementonsustainablepalmoil_551518.pdf

72. Wilmar. 2017: Wilmar and ING collaborate on sustainable loan in Asia. https://wilmar-iframe.todayir.com/attachment/201809070219541710981721_en.pdf

73. OCBC. 2018: OCBC Bank partners Wilmar on largest sustainability-linked bilateral loan by a Singapore Bank. https://www.ocbc.com/group/media/release/2018/ocbc_partners_wilmar_on_largest_sustainability_linked_bilateral_loan.html

74. Shiao V. 2019: Olam secures US\$525 million sustainability-linked loan. <https://www.businesstimes.com.sg/companies-markets/olam-secures-us525-million-sustainability-linked-loan>

75. Bunge. 2019: Bunge Limited Closes its First Sustainability-Linked Revolving Credit Facility. <https://www.bunge.com/news/bunge-limited-closes-its-first-sustainability-linked-revolving-credit-facility>

76. Hoffman A, Poh J, Zhong C. 2019: Chinese Food Giant Raises \$2.1 Billion in Country's First Sustainability Loan. <https://www.bloomberg.com/news/articles/2019-07-16/cofco-raises-2-1-billion-in-china-s-first-sustainability-loan>

77. 019 CDP forest data

ROADMAP TOWARDS SUSTAINABLE PALM OIL VALUE CHAIN

Sourcing unsustainable palm oil poses a growing risk to companies. In 2019, CDP assessed the performance of 96 global companies producing and sourcing palm oil from Indonesia based on their response to its Forests questionnaire⁷⁸. In total, these companies reported an estimated US\$ 4.9 billion in potential losses linked to forests-related risks. The dominant risks reported were reputational driven by negative media coverage and increased stakeholder concern or negative stakeholder feedback leading to brand damage or reduced demand for products or services.

In line with the growing market awareness of the environmental issues in commodity supply chains, 2019 saw a remarkable increase in the number of Chinese companies responding to CDP's Forests questionnaire. The number of companies reporting on forests risk commodities more than doubled from 9 companies in 2018 to 21 companies in 2019, with 4 companies reporting on palm oil specifically. However, the overall response rate for forests questionnaire disclosure in China remains very low at 18%.

As the impacts of commodity-driven deforestation proliferate from regional to global levels, there is increasing urgency for Chinese companies to start measuring deforestation risks, take action to mitigate these and transparently report on progress. CDP Forests, which is aligned with the Accountability Framework Initiative (AFI)⁷⁹, provides a framework of action for companies on the journey towards eliminating deforestation from commodity supply chains in line with industry best practice.

Understanding risks related to sourcing unsustainable palm oil

Deforestation in supply chains can have direct and indirect impacts on a company's balance sheet, cash flow and future profitability, leading to further implications for shareholders and lenders. Understanding how a company may be exposed to the risks associated with deforestation is a critical scoping exercise and that should be reviewed on a regular basis. CDP's questionnaire guides company to assess risks related to producing and/sourcing forest-risk commodities across all areas of their supply chain and estimate the financial impacts of different risk drivers. This information critical for companies and investors to understand issues that need to be addressed.

In 2019, 72% (105) of companies producing and/or sourcing palm oil reported conducting a forests-related risk assessment, including **Beiersdorf AG**, a German Fast-Moving Consumer Goods (FMCG) company. This multinational personal

care product manufacturer has responded to risks by adopting measures to improve the sustainability of their value chain and through engagement with suppliers and stakeholders. This includes using technology that integrates cloud-sourced big data with satellite mapping and greenhouse gas accounting, to generate high quality maps for deforestation related risks, as well as social and regulatory risks in their specific commodity sourcing areas in Indonesia, Malaysia, and Thailand. This multifaceted approach has enabled them to identify key sourcing areas where risks are high and support, particularly related to improving palm oil smallholder's capacity, is critically needed⁸⁰.

Adopting a policy to remove deforestation from palm oil

Making a corporate commitment to eliminate deforestation from a company's operations is the first step on the journey towards sustainable and ethical supply chains. Forests play a critical role in addressing climate change mitigation potential, but also for the conservation of terrestrial biodiversity, water and food security, and mitigating health risks for people. When adopting this commitment, companies must ensure that both direct and indirect business and financial activities, do not harm the existence of forests and other natural ecosystems⁸¹. Additionally, since forests provide livelihood for indigenous and local communities, commitments made should also take into consideration the rights of these stakeholders, along with the local community and workers. Human rights commitments should seek to comply the internationally recognised standards such as Universal Declaration on Human Rights, ILO Fundamental Conventions as well as all applicable law⁸².

Additionally, an effective corporate policy should cover all corporate operations, with clear time-bound cut-off and target dates. This is to ensure that a company can monitor and report on compliance with the policy and progress against targets. Lastly, the policy should be communicated to all stakeholders including suppliers, providing a clear signal to suppliers that they need to comply with the policy⁸³. Based on data disclosed to CDP, in 2019, around 18% (26) of companies producing and sourcing palm oil globally reported having a policy that fulfilled the above requirements to ensure sustainable and ethical palm oil supply chains⁸⁴.



78. CDP.2019: The Palm Book. Tracking progress of sustainable palm oil commitments in Indonesia. https://6fefcb86e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/004/754/original/Palm_Book_Web.pdf?1575022741

79. Accountability Framework is established and launched by the Accountability Framework initiative (AFI), a coalition of private sectors, NGOs, governments, and local producers and communities that work together to urge advancement and better implementation of company's commitment for sustainable and ethical supply chain. <https://accountability-framework.org/the-initiative/>

80. Beiersdorf's response to CDP Forest questionnaire can be found at CDP's website

81. Accountability Framework. 2020: Core Principles. <https://accountability-framework.org/core-principles/3-specification-of-commitments>

82. Accountability Framework. 2020: Core Principles. <https://accountability-framework.org/core-principles/3-specification-of-commitments>

83. Ibid

84. 2019 CDP forest disclosure data. Good quality policy must include: Commitment to eliminate deforestation and/or conversion, commitment to eliminate forests degradation, commitment to protect rights and livelihoods of local communities, list of timebound commitments and targets and description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy.

Implementation of commitments and policies

Actions taken by companies to fulfil their forests-related policies depends on their role and position in the value chain, their influence and visibility of upstream suppliers. Typically, companies use a combination of traceability, supplier engagement, and certification.

Set targets for sustainable palm oil sourcing

A strong target will have a specific measurable and timebound output set by a company. This requires small steps towards a broader and long-term corporate goal and which is linked to a policy and/or commitment. Effective implementation of policies and commitments requires specific targets to be set. Ambitious targets reflect how urgently forest issues are being addressed by company. Companies will benefit from setting targets by having clear indicators of their progress towards better forest stewardship. Responding to CDP can help a company to track and report meaningful data on progress towards these goals.

In 2019, 67% (98) companies reported having quantified targets for increasing sustainable production and/or consumption of palm oil. Over 50% (74) companies sourcing of palm oil have adopted targets utilizing third party certification schemes, while 16% (24) have set targets for improving traceability. **Symrise AG**, a major producer of flavours and fragrances have committed to achieving 100% RSPO certified (at least Mass Balance) for all crude palm oil sourced by 2016, and 100% RSPO (Mass Balance) certified for the crude palm kernel oil and its derivative by 2020⁸⁵ in response customer demands for sustainable products.

Traceability

AFI defines traceability as the ability of a company to follow a product or its components through stages of the value chain (e.g., production, processing, manufacturing, and distribution)⁸⁶. Ensuring compliance with forests-related policies and commitments often requires a traceability system that will track and monitor the origin of raw materials. Information on traceability allows companies to understand their exposure to forests-related risk, and monitor vulnerability within their supply chains.

The position of a company in the value chain will define the point to which companies need to have visibility on the origin of the palm oil sourced. Upstream companies, including intermediary traders are expected to trace their palm oil up to the plantation level, while downstream companies may not have this level of detail but provide assurance through supplier compliance protocols⁸⁷.

In 2019, 79% (115) companies disclosing to CDP reported having a traceability system in place to track and monitor the origin of their palm oil commodity. Among manufacturers and retailers, 39% (45) companies reported of being able to track their sourced palm oil up to the mill level.

Certification

Credible third-party certifications are a valuable tool for companies to demonstrate the adoption of responsible sourcing and production practices. However, it must be acknowledged that some certification standards are subject to controversy and there are compromises involved in setting global standards. To overcome these issues, companies should use the opportunity for collaboration so that all actors in the supply chain can benefit from the improvement of risk management strategy and practices.

There are many types of certification schemes to monitor and document the sustainable production of palm oil. Palm oil can be certified as sustainable through several international certification schemes, including the Roundtable on Sustainable Palm Oil (RSPO), International Sustainability and Carbon Certification (ISCC), Rainforest Alliance's Sustainable Agriculture Network (SAN) Certification, the Roundtable on Sustainable Biomaterials (RSB), the Indonesian Sustainable Palm Oil (ISPO) standard and the Malaysian Sustainable Palm Oil (MSPO) standard.

Data reported to CDP in 2019 found that 77% (112) companies specify third party certification schemes for palm oil. Of these companies, the majority (110) reported utilizing RSPO certification schemes such as RSPO Mass Balance, RSPO Book and Claim, RSPO Identity Preserved, etc. **Anhui Hyea Aromas**, set a target for 100% of their supply chain palm kernel oil (PKO) derivatives to meet sustainable production standards by the end of 2019. They have now achieved 100% of their target for all PKO derivative suppliers by acquiring RSPO certification in 2019.

Engagement with suppliers and other stakeholders

A robust monitoring system is required to assess supplier compliance with a company's commitments and policies related to the sustainable and ethical sourcing of forest risk commodities. By conducting a risk assessment, companies can evaluate their exposure to environmental risks in their supply chain and develop effective strategies to mitigate them. The strategy developed should address all identified risks and challenges and subsequently be clearly communicated with the supplier, including a non-compliance protocol⁸⁸.

Beyond compliance between buyers and suppliers, decoupling deforestation from corporate supply chains requires collaboration between actors across sectors in producer and importing regions. The action of producers is critical for addressing deforestation since they operate at the source of conflict between agriculture and nature. However, alone upstream actors / producers have limited capacity to transform practices and provide sustainable palm oil due with market and government support. Thus to implement environmental policies, downstream companies must provide incentives and support for capacity building upstream of their palm oil supply chains.

In 2019, 82% (94) of the midstream and downstream companies disclosing on palm oil reported working with their direct suppliers to support and improve their capacity to supply sustainable raw materials. These companies report taking various measures to engage their suppliers, including collecting data in a central database; encouraging certification; encouraging work with multi-stakeholder groups; developing or distributing supply chain mapping tool; and providing technical support, workshops, and training. Further, 51% (50) manufacturers and retailers have gone further by working beyond their first-tier supplier(s).

Among upstream actors (producers, processors and traders), 57% (17) report working with smallholders to encourage and support best practices on the ground. These companies have recognized the value of supply chain engagement with small holders and local communities in producers regions. Leading manufacturers such as **Danone** have taken measures to increase capacity upstream by working with their suppliers at the producer level in some sourcing regions. Here **Danone** are working to ensure that sustainable farming solutions are implemented by producers to contribute towards both climate change mitigation and poverty alleviation. In 2014, Danone together with Mars Inc. launched the Livelihoods Fund for Family Farming (Livelihoods 3F), and invested around 120 million Euro over the next 10 years to convert 200,000 farms to sustainable practices, including palm oil plantations, expected to benefit 2 million people⁸⁹.

85. Symrise's respond to CDP Forest questionnaire can be found at CDP's website

86. Accountability Framework. 2020. Terms and Definitions. https://accountability-framework.org/definitions/?definition_category=42

87. Accountability Framework. 2020. Core Principles. https://accountability-framework.org/wp-content/uploads/2020/03/Core_Principles-Mar2020.pdf

88. Accountability Framework. 2020. Operational Guidance on Supply Chain Management. <https://accountability-framework.org/contents-of-the-framework/supply-chain-management/1-supplier-management-systems>

89. Danone's response to CDP Forest questionnaire can found on CDP's website

Jurisdictional or Landscape approaches for sustainable palm oil sourcing

"Jurisdictional or landscape initiatives bring together the relevant stakeholders in a particular region, at the scale of a jurisdiction or landscape, to agree goals, align their activities and share monitoring and verification".⁹⁰

These approaches have emerged in recent years to support companies in achieving their commitments and policies towards eliminating deforestation from supply chains. Companies frequently report supply chain complexity as the biggest challenge in achieving their sustainable palm oil sourcing commitments. Hence, the potential of sourcing from a "sustainable sourcing district" is considered as a solution to this multifaceted challenge.

Companies such as Unilever and Marks & Spencer have piloted such initiatives through the Produce-Protect commitment⁹¹. Additionally, RSPO and the Central Kalimantan Government are jointly developing a Jurisdictional Certification in Seruyan District⁹². To date, this initiative is in the trial phase, while it continues to gain support from key palm oil stakeholders. CDP, through the Forests information request, advocates that companies actively engage in landscape approach initiatives.



Case study: L'Oréal's journey with CDP towards forest stewardship

In 2012, L'Oréal, a French personal care & household products company, responded to CDP Forests questionnaire for the first time disclosing their consumption of global deforestation risk commodities. In 2017, L'Oréal became a founding member of the CDP Supply Chain Forests program inviting their suppliers to measure and reduce their deforestation risks through CDP's reporting framework.

For palm-based materials, L'Oréal developed a specific methodology to assess the environmental and social risks in its supply chain. L'Oréal's risk assessment covers a series of environmental (deforestation, biodiversity, GHG emissions, fire risk and water security) and social factors (corruption, labor rights, land tenure, human rights, and illegal production or illegal certification).

By 2018, they were already sourcing 100% of palm oil derivatives from sources certified by the RSPO. The company worked with external stakeholders to design a tool – Sustainable Palm Oil and Traceability (SPOTS) – to evaluate the environmental and social performance of all its products.

*"Thanks to CDP's risk assessment framework, we have continued to inform our palm strategy by reinforcing the evaluation of the potential financial impacts of risks identified along our supply chains. Beyond the sustainable certification of 100% of our sources and our efforts to trace back our derivatives, a key pillar of our strategy is working with our suppliers, including the use of CDP data to further engage them, mitigate risks and build resilience."*⁹³

Alexandra Palt, Chief Corporate Responsibility Officer, **L'Oréal**.

L'Oréal uses the World Resources Institute's Global Forest Watch tool to identify risks upstream to palm oil mills to fulfill zero-deforestation commitments. These tools have helped L'Oréal map its supply chain and trace back 98% of raw materials to the refinery level and 88% to the palm oil mills level. L'Oréal publicly discloses the full list of suppliers & mills connected to its supply chain, and transparency has enabled this well-known brand to reduce risks associated with deforestation.

Additionally, L'Oréal runs webinars with CDP to engage directly with suppliers on their zero-deforestation policy and strategy. CDP provides tailor-made training and support to its suppliers in the primary and advanced stages of environmental information disclosure. By 2020, L'Oréal will evaluate and select all strategic suppliers on their social and environmental performance, hence data of palm oil responses will form a critical part of their assessment.

90. Proforest.2016: Introduction to landscape or jurisdictional initiatives in commodity agriculture. https://proforest.net/en/publications/responsible-sourcing-and-production-briefings/proforest-landscape-approaches-introductionaug2016_web.pdf

91. Unilever.2015: Unilever signals new sourcing approach to help eliminate deforestation. <https://www.unilever.com/news/news-and-features/Feature-article/2015/unilever-signals-new-sourcing-approach-to-help-eliminate-deforestation.html>

92. Watts J, Nepstad D, Irawan S. 2019: Can jurisdictional certification curb palm oil deforestation in Indonesia? <https://news.mongabay.com/2019/07/can-jurisdictional-certification-curb-palm-oil-deforestation-in-indonesia/>

93. CDP.2019: The money trees. <https://www.cdp.net/en/research/global-reports/the-money-trees>

CONCLUSION

The adverse impacts of climate change pose significant risks for companies globally. As the second biggest palm oil importer in the world, China's dependence on palm oil has increased dramatically and consequently means greater exposure to the environmental risks related to sourcing palm oil, not only from corporates side but also from investor side. There has been a shift in consumer preference for ethical and sustainably sourced materials and mounting global market pressure for deforestation-free agricultural production. Coupled with regulatory trends, companies that do not begin tackling exposure to deforestation are likely to face increased risk exposure resulting in detrimental impacts on corporate revenue.

Managing environmental issues is not only about risks and there is a wealth of opportunities available to those sourcing more sustainable palm oil. While there is no set regulatory environmental criteria set for palm oil imports, the Chinese government has advocated for sustainable commodity sourcing and consumption. For many high impact companies, this serves an opportunity to begin managing future regulatory risks and reap the benefits of sustainable sourcing practices. Several Chinese companies have paved the way towards sustainable sourcing and tapped into these opportunities to obtain funding that links with their sustainability performance.

China has introduced specific policies that require companies to manage the environmental impacts of their business. Regulatory pressure has encouraged greater numbers of Chinese companies to address both physical and transitional risks caused by climate change, including deforestation. Transparency offers an important step for companies in managing deforestation risks in their palm oil supply chain. Through transparency, companies can not only understand their exposure to risks and take appropriate actions, but also identify and materialize opportunities. In order to achieve these objectives, transparency must be mainstreamed throughout the value chain so that the key stakeholders such as investors, customers and governments are provided with the information that can guide them to track the progress of corporate commitments and provide incentives for effective environmental action.

COVID-19 is still spreading globally, companies in the palm oil value chain urgently need to revisit and manage the full range of impacts and potential risks of their operations on forests, to build resilience and sustainability into business models. In this context, transnational cooperation between consumer and producer countries to protect highly biodiverse ecosystems is paramount and so to action to establish sustainable palm oil production. China's proposal for the Green Belt and Road Initiative has the potential to catalyze action to remove deforestation risk from production by increasing engagement between Chinese companies and suppliers in producer countries. The adoption and robust implementation of a no deforestation policy by Chinese companies will be crucial to securing the protection of tropical forests in the palm oil producer countries as well as other critical hotspots globally.

ANNEX 1: CHINA'S GREEN FINANCE POLICY FRAMEWORK

Policy name	Issue government	Date of issuance
Green Credit Guidelines ⁹⁴	China Banking Regulatory Commission	2012.1
Guidelines on Green Procurement of Enterprises (Trial) ⁹⁵	Ministry of Commerce, formerly Ministry of Environmental Protection, Ministry of Industry and Information Technology	2014.12
Integrated Reform Plan for Promoting Ecological Progress ⁹⁶	The State Council	2015.9
Guidelines on Green Bond Issuance ⁹⁷	National Development and Reform Commission	2015.12
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