

FOREST RISKS AND OPPORTUNITIES FACING COMPANIES IN THE PALM OIL SUPPLY CHAIN

An introduction to palm oil and
deforestation for Chinese companies

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To read company responses in full, please go to
<https://www.cdp.net/en/responses>

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ABOUT THIS BRIEFING

The briefing outlines the relationship between palm oil and deforestation and sets out the key risks and opportunities for Chinese companies that produce or use palm oil or its derivatives in their products or operations. It concludes with key actions that companies should adopt on their journey towards responsible sourcing of palm oil.

Protecting and restoring forests is not only part of the solution to climate change but key to preserving biodiversity, reducing risks of zoonotic emerging infectious diseases and achieving a sustainable economy. As one of the largest importers of palm oil globally, the Chinese market has great exposure to the environmental risks related to unsustainable palm oil but it also has the possibility to benefit from opportunities associated with sustainable palm oil. The briefing is targeted at Chinese companies active in the global palm oil supply chain that wish to improve their understanding of these risks and opportunities and take steps to effectively manage them.



INTRODUCTION TO FOREST RISK COMMODITIES

The production of commodities such as timber products, soy, palm oil and cattle products, is the primary driver of deforestation, estimated to account for 10-15% of global greenhouse gas emissions. Loss of primary forests and native vegetation to agricultural land and plantations leads to loss of habitat for local biodiversity and the ecological services that these forests provide, such as erosion prevention, flood control, and water filtration. Globally, the resulting emissions limit our ability to keep temperature rises to 1.5 degrees C and avoid the worst impacts of climate change.

A few countries produce the majority of these commodities for global consumption. For example, Malaysia and Indonesia supply more than 80% of the world's palm oil while the US, Brazil, and Argentina account for more than 80% of soy production. The demand side is more fragmented, but China has emerged as a key market for these commodities in recent years.

These forest-risk commodities are deeply integrated into everyday products and corporate supply chains including

those of Chinese companies. Companies that produce or use one or more of these commodities typically report 15% of corporate revenue to be dependent on them¹. If produced unsustainably, these commodities pose risks to supply chain companies and can potentially have considerable impacts on business operations, revenues, and costs. CDP's survey of 543 companies in 2019, found that 80% of companies that assessed forests-related risks identified at least one physical, reputational, regulatory or technological risk with the potential to have a substantive financial or strategic impact on their business.

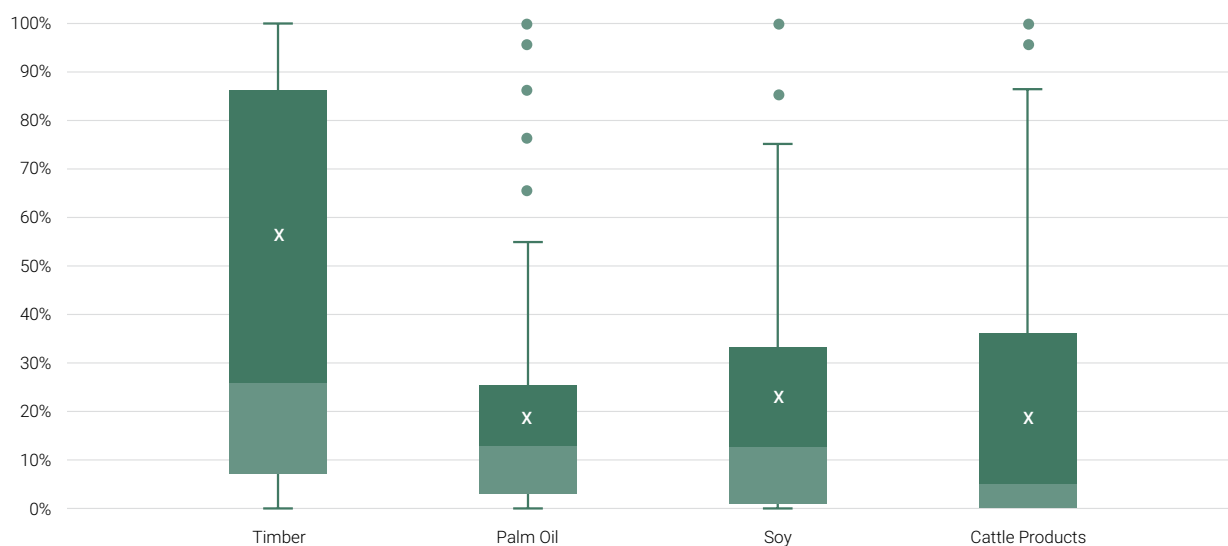


Figure 1. Reported percentage of revenue dependency across forest risk commodities (Source: CDP's 2019 Report: The Money Trees)

CDP's forests questionnaire provides a framework of action for companies to measure and manage forest-related risks and opportunities, transparently report on progress, and commit to proactive action for the restoration of forests and ecosystems. Between 2018 and 2019, the number of Chinese companies reporting on

their forests information through CDP grew by 133%. This indicates growing awareness and transparency among these companies. By providing guidance and resources such as this briefing to Chinese companies, CDP aims to support and accelerate the transition to sustainable sourcing of forest risk commodities in this critical market.

PALM OIL

Palm oil is the world's highest yielding and most widely consumed vegetable oil. It is used in food processing, snacks, sauces and frozen meals, fuel, cosmetics, and detergents across a range of industries, from hospitality and retail to healthcare and transportation².

To meet the growing demand for palm oil, production of this commodity has continually grown over the last few decades often on land converted from primary natural forests. Palm oil plantations currently cover around 27 million hectares of the Earth's surface³, producing more than 77 million tons of palm oil globally in 2018⁴. Indonesia and Malaysia are the world's largest palm oil producers and exporters, responsible for 85% of global production⁵.

China is one of the world's largest consumers of palm oil globally along with India and the EU⁶. To meet its demand for palm oil, China relies entirely on imports, accounting for 11.3% of global palm oil imports⁷. Every year, China imports over 6 million tons of palm oil⁸, the majority of which (71%) is destined for the food industry, followed by consumer goods (24%) and the energy sector (5%)⁹. Similar to their global peers, Chinese companies are therefore exposed to the following physical, reputational and market, and regulatory risks.



2. http://www.palmoilworld.org/PDFs/Sustainable_Production/Palm-Oil-Production-Through-Sustainable-Plantations.pdf

3. <https://www.rainforest-rescue.org/topics/palm-oil>

4. <https://www.researchandmarkets.com/reports/4752293/palm-oil-market-global-industry-trends-share>

5. <https://www.reuters.com/article/us-indonesia-malaysia-eu-palmoil-idUSKBN17E094>

6. <https://www.tridge.com/intelligences/palm-oil/import>

7. <https://www.tridge.com/intelligences/palm-oil/import>

8. <https://www.reuters.com/article/china-palm-imports/china-palm-oil-traders-stock-up-ahead-of-tighter-quality-norms-idUSL3E8M83DG20121114>

9. <https://www.chinadialogue.net/article/show/single/en/11591-Can-China-shift-to-sustainable-palm-oil->

Palm oil & deforestation

70%
of palm oil expansion
occurred on forestland

Palm oil has both the highest speed of overall land expansion and the highest share of expansion into forestland - 70% of palm oil expansion between 2008-2015 occurred on forestland¹⁰.

Every year, between 2000-2011, an average of 270,000 ha of forest were converted into palm oil plantations in major exporting countries¹¹.

270,000 ha
of forest were converted
into palm oil plantations

54% | **39%**
in Indonesia | in Malaysia
of palm oil plantations
were forest in 1989

An estimated 54% of palm oil plantations in Indonesia and 39% in Malaysia were forest in 1989¹².

Between 2000 and 2010, Indonesia has seen clearance of forests for palm oil cultivation at a rate of 500,000 hectares per year with 41% of the remaining forestland considered degraded¹³.

41%
of the remaining
forestland considered
degraded

When peatland forests are cleared and drained for oil palm cultivation, the land becomes extremely flammable, leading to forest fires. In Indonesia, the 2015 forest fires produced daily carbon emissions greater than that of the entire US economy¹⁴.

Improving the resilience of the palm oil supply chain is especially important as research indicates that climate change could significantly affect the availability and price volatility of palm-based ingredients through changes in rainfall patterns, proliferation of pests and diseases, or increased frequency of extreme weather events. For example, just through changes in weather patterns, global climate change is estimated to decrease oil palm yield by 13.4%¹⁵.

10. <https://ec.europa.eu/energy/sites/ener/files/documents/report.pdf>

11. <https://iopscience.iop.org/article/10.1088/1748-9326/10/12/125012/pdf>

12. <https://doi.org/10.1371/journal.pone.0159668>

13. <https://www.scmp.com/comment/insight-opinion/article/1892404/chinese-and-indian-palm-oil-consumers-must-share-blame>

14. <https://www.wri.org/blog/2015/10/indonesia-s-fire-outbreaks-producing-more-daily-emissions-entire-us-economy>

15. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0217148>

RISKS

In 2019, 146 companies reported forests-related palm oil information through CDP. These include global brands such as Unilever, L'Oréal and Mars, retailers such as Walmart Inc. and Metro AG, as well as global traders and palm oil producers such as Olam International, Wilmar International Limited and Golden Agri-Resources. Of these companies:

63%

identified risks

63% identified risks with the potential to have a substantive financial or strategic impact on their businesses.

Just 36 reported a total US\$7.6 billion of potential financial impact from the risks associated with palm oil, 50% of which could be felt within the next three years.

US **7.6** billion

Of this, US\$6.1 billion worth of potential impact was related to reputational and market risks, estimated by 28 disclosing companies.

US **6.1** billion

Physical risks alone could also lead to over US\$850 million worth of financial impact according to 11 disclosing companies.

US **850** billion



Physical risks

Purchasing companies may face supply chain disruptions and commodity price volatility. Physical risks related to deforestation from unsustainable palm oil include increasing severity of extreme weather events, forest fires, and changes in precipitation patterns, which in turn affect oil palm productivity¹⁶. For example, Sunner

Group, a Chinese poultry breeder and food manufacturer reported through CDP in 2019 that increased severity of extreme weather events and ecosystem vulnerability as a result of deforestation could increase production costs annually by US\$ 104,000.



Climate change is expected to result in increased frequency & severity of extreme weather events resulting notably in changes in precipitations patterns, both in average & variability. In particular, in Indonesia & Malaysia, two palm oil producing countries, chronic changes in El Niño and La Niña cycles are expected in the future in connection with global warming... A risk analysis on the price & availability of the most important plant-based commodities...concluded that by 2050... climate change could have an impact in terms of price volatility, with price peaks resulting in higher average price & volatility increasing up to 20-30% for commodities studied. Thus, L'Oréal could be affected by chronic increased frequency & severity of extreme weather events resulting in increasingly expensive palm procurement resulting in higher production cost.

- L'Oréal





Reputational and market risks

Non-governmental organisations (NGOs) and media are raising consumer awareness of destructive environmental and social impacts linked to unsustainable palm oil. In response, international companies such as Carrefour, Unilever, Walmart, Johnson & Johnson, L'Oréal and Starbucks have committed to produce, finance and source Roundtable on Sustainable Palm Oil (RSPO) certified sustainable palm oil¹⁷. Chinese companies that use palm oil supply products to these companies, therefore, purchasing certified palm oil is strategically

important for Chinese companies striving to gain or retain access to global markets and supply chains.

The **China Sustainable Palm Oil Alliance** (CSPOA) was launched jointly by RSPO, WWF China, and the China Chamber of Commerce for Foodstuffs and Native Produce (CFNA) to draw more attention to palm oil-related risks. The Alliance already counts 14 members including AAK, Cargill China, HSBC, L'Oréal China, Mars and MingFai Group and CDP China, which joined CSPOA in 2019.



... food manufacturers and household goods manufacturers that use palm oil as an ingredient are often the ones targeted in a negative campaign. Such a situation would not only cause a fall in the sales of KAO detergents, but also negatively affect profits due to the increased plant fixed-cost burden arising from lower production at plants.

The sales of KAO's consumer product business are 1.2 trillion yen [US\$10.872 billion]. If, say, detergents using palm oil account for 50% of the sales, palm oil sales amount to 600 billion yen [US\$5.436 billion]. If the reputational risk associated with procuring palm oil becomes evident and the sales amount drops by 5% accordingly, the negative impact will be roughly 30 billion yen [US\$271.8 million]. The financial impact of this risk may become apparent within a year.

- KAO Corporation



Regulatory risks

In recent years, there has been a growing trend towards regulatory measures in palm oil producing and consumer countries in response to consumer concerns. For example, 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 concessions. China has been no exception. In 2016, International Forest Investment and Trade (InFIT) and CFNA published the **Guide for**

Overseas Investment and Production of Sustainable Palm Oil by Chinese Enterprises. This document urges Chinese palm oil companies to comply with standards of social and environmental sustainability. Chinese companies that are unprepared to deal with increasing regulation can face increased operating, production or compliance costs, or reduce demand for products and services.

17. http://www.sohu.com/a/106284141_275039

OPPORTUNITIES

There are large opportunities to be seized by the companies that are proactively tackling deforestation in their operations and supply chain.

62%

reported opportunities associated with producing and sourcing palm oil sustainably

Among the 146 companies reporting forests-related palm oil information through CDP in 2019, **62%** reported opportunities associated with producing and sourcing palm oil sustainably. In total, **US\$2.3 billion worth of opportunities** was reported by 32 companies. By addressing deforestation, companies can benefit from opportunities linked to:



Products & services

Sourcing or producing sustainable palm oil without deforestation is recognised as an opportunity for increasing brand value and sales by improving corporate reputation and transparency and thereby strengthening stakeholder trust and consumer preference. For example, Carrefour, who reports sourcing palm oil-based products from Chinese manufacturers, recognises that sustainable palm oil is an opportunity to demonstrate better practices to their customers who are increasingly aware of sustainability issues regarding their consumption.



Markets

Addressing deforestation and producing or procuring sustainable palm oil is a competitive advantage that enables companies to enter new markets, increase their market share or gain new customers that demand no-deforestation sustainable palm oil.

Working to increase the demand for sustainable palm oil in the market and increasing the capacity of the sustainable palm oil market are also opportunities companies can benefit from through increased revenue or reduced costs. For example, FIRMENICH SA (who report sourcing palm oil-based products from Chinese manufacturers) have identified that increased demand for sustainable palm oil could drive more business from customers that are willing to pay a premium price for sustainable products. On the other hand, Yum! Brands, Inc. report that they have been able to procure more certified sustainable palm oil because they have increased its availability and affordability in China by increasing demand for it.

Companies also report that improving the sustainability of the palm oil industry would also benefit all companies using palm oil in the market as customers perceive palm oil negatively due to its environmental impact.





Resilience

Implementing palm oil best management practices and addressing deforestation brings opportunities linked to supply chain resilience through improved supply chain engagement and climate change adaptation. Mars, a leading manufacturer of chocolate confectionary in China, reports that their work on sustainable sourcing is strengthening supplier relationships and increasing supply chain transparency and security of supply as well as boosting staff retention and satisfaction.



Efficiency

Addressing deforestation is an opportunity to improve efficiency by reducing costs and increasing shareholder value. L'Oréal a leader in China's beauty market reports that supply chain interventions such as capacity building of independent smallholder palm oil producers can not only guarantee an absence of deforestation, but also lead to securing stable supplies and prices in the longer term thus creating value for stakeholders and their brands.



ACTIONS TO TAKE

To reap benefits and effectively mitigate the risks linked to commodities that drive deforestation companies can implement the following steps:



Understand risk

Companies should put in place robust risk assessment processes and procedures to understand and address risks from deforestation and to ensure they achieve their objectives.



Set policies

Good governance starts with good policies. Companies that recognizes the importance of forests-related issues articulate and document a policy that is publicly available, includes a no-deforestation commitment and sets clear goals and guidelines for action.



Assess and plan implementation

It is critical for companies to have plans in place to implement policies and commitments associated with forests-related issues. Traceability, certification and supply chain engagement are common tools used by companies to implement strategies and policies around deforestation.



Set targets

Effective implementation of policies and commitments requires specific targets to be set. Ambitious targets reflect how urgently forest issues are being addressed by organizations. Targets should be timebound and specific to ensure progress.



Monitor, verify and report

Companies should assess their compliance, performance and progress regarding deforestation iteratively and demonstrate their progress towards their commitments to stakeholders through accurate, thorough, and timely reporting of credible information of high quality. Reporting through CDP's annual forests questionnaire is a simple way companies can achieve this.

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