SPOTT

# Palm oil crushers and refiners

## Managing deforestation risk through a supply chain bottleneck

Published: August 2020
Version: 1

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Citation: Dodson, A., Salisbury, C., Spencer, E. (2020). Palm oil crushers and refiners: Managing deforestation risk through a supply chain bottleneck. SPOTT. London: Zoological Society of London. Available at: https://www.spott.org/reports/
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## Acknowledgements

The authors would like to thank Clara Melot and Oliver Cupit, ZSL, and Tim Steinweg, Aidenvironment, for their input in the preparation of this report, and Bremen Yong, Apical Group and Nina Roth, BMO Global Asset Management, for contributing case studies.

This publication was funded with the generous support of the David and Lucile Packard Foundation; however, the views expressed do not necessarily reflect the views of the David and Lucile Packard Foundation. The SPOTT initiative is also funded by UK aid from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies. The information in this publication, which does not purport to be comprehensive, is for illustrative and informational purposes only.



## About SPOTT

Developed by the Zoological Society of London (ZSL), SPOTT is a free online platform supporting sustainable commodity production and trade. By tracking transparency, SPOTT incentivises the implementation of corporate best practice.

SPOTT assesses commodity producers, processors and traders on their public disclosure regarding their organisation, policies and practices related to environmental, social and governance (ESG) issues. SPOTT scores tropical forestry, palm oil and natural rubber companies annually against over 100 sector-specific indicators to benchmark their progress over time. Investors, buyers and other key influencers can use SPOTT assessments to inform stakeholder engagement, manage ESG risk, and increase transparency across multiple industries.

For more information, visit SPOTT.org.

## About ZSL

ZSL (Zoological Society of London) is an international conservation charity working to create a world where wildlife thrives. From investigating the health threats facing animals to helping people and wildlife live alongside each other, ZSL is committed to bringing wildlife back from the brink of extinction. Our work is realised through our ground-breaking science, our field conservation around the world and engaging millions of people through our two zoos, ZSL London Zoo and ZSL Whipsnade Zoo.

For more information, visit www.zsl.org.

## Executive summary


- Palm oil crushers and refiners are key nodes in a complex supply chain, and their central role places them in a position of significant leverage, and responsibility, to drive sustainability in the sector.
- Effective implementation of zero-deforestation commitments requires supply chain traceability to plantation, as well as processes in place to support and monitor supplier compliance. By failing to implement sourcing policies, crushers and refiners, as well as their buyers, investors and lenders, leave themselves open to financial, operational, reputational and regulatory risks.
- ZSL's SPOTT initiative assesses palm oil companies on their public disclosure regarding their organisation, policies and practices related to environmental, social and governance (ESG) issues. In 2019, ZSL assessed 77 companies with crushing and/or refining facilities.
- This report provides an overview of the zero-deforestation commitments made by these companies, their level of traceability and supplier engagement, and highlights the risks and recommendations for improvement.
- Only 47% of companies assessed commit their suppliers to zero deforestation. This leaves a significant landbank at risk of deforestation.
- Only 23% of companies assessed both commit their suppliers to zero deforestation and have a time-bound commitment to achieve 100% traceability to plantation level. No companies report they can trace 100% of fresh fruit bunches (FFB) from their supplier mills back to plantation level. This lack of traceability allows leakage of unsustainable palm oil into the market.
- Only 6% of companies assessed report how they support high-risk mills to become compliant with sourcing policies, or have a public time-bound plan to engage with all high-risk mills within three years. This leaves companies at risk of non-compliance within their supply chain.
- Crushers and refiners should define and implement robust, time-bound zero-deforestation commitments which extend to all their suppliers. They should commit to achieve 100% traceability to plantation, and ensure that suppliers are engaged and monitored on progress.
- Downstream buyers should incorporate sourcing policy requirements into contracts and clearly communicate their sourcing policies to their upstream suppliers. They should continuously engage with suppliers to monitor implementation and assist with capacity building.
- Financial institutions should develop policies that require companies to commit to implementing strict zero-deforestation commitments across their whole value chains, or be Roundtable on Sustainable Palm Oil (RSPO)-certified, as well as incorporate traceability and supplier verification processes into their due diligence frameworks.


## ACRONYMS AND INITIALISMS

| | | | |
|---|---|---|---|
| **CGM** | Consumer goods manufacturers | **HCS** | High Carbon Stock |
| **CPKO** | Crude palm kernel oil | **HCV** | High Conservation Value |
| **CPO** | Crude palm oil | **KPI** | Key Performance Indicators |
| **EDGE** | Evolutionarily Distinct, Globally Endangered | **NDPE** | No Deforestation, No Peat, No Exploitation |
| **ESG** | Environmental, social and governance | **P&C** | Principles and Criteria (of the RSPO) |
| **FFB** | Fresh fruit bunches | **PK** | Palm kernel |
| **FMCG** | Fast-moving consumer goods | **RSPO** | Roundtable on Sustainable Palm Oil |

## Introduction

### Impacts of unsustainable palm oil production

Palm oil crushers and refiners are key nodes in a complex, global supply chain. Over 21 million ha[1] of oil palm plantations are harvested annually across the tropics, 73 million MT of palm oil and 8.6 million MT of palm kernel oil is produced globally,[2] and products containing palm oil – from food to cosmetics – are ubiquitous.

Unsustainable palm oil production and trade is associated with negative ESG impacts, including impacts on biodiversity and endangered species, the quality of water, air and soil, and the rights of local communities and workers. The production of soft commodities – including palm oil – is a key driver of deforestation and forest degradation, responsible for 27% of forest loss globally between 2001 and 2015.[3] In Indonesia and Malaysia, the largest producers of palm oil, oil palm plantation development accounted for 47% and 16% of deforestation, respectively, between 1972 and 2015.[4]

Despite this, oil palm cultivation brings many benefits to producer countries, providing large-scale employment and contributing to national economies. An estimated 4.7 million people across Indonesia and Malaysia are directly employed in the palm oil sector, with a further 11 million people indirectly dependent on it.[5] Palm oil is currently the most efficient vegetable oil crop in terms of yield per hectare, producing about 35% of all vegetable oil on less than 10% of land allocated to oil crops.[4] Therefore replacing palm oil with other crops is not an effective solution as it may lead to further deforestation and biodiversity loss through increased land conversion. Given the widespread and rising demand for palm oil, and that multiple countries' economies are reliant on its consumption, halting its production is currently unrealistic. Driving demand for more sustainable production practices is a more pragmatic solution.[4]

Thousands of palm oil mills produce crude palm oil (CPO) and palm kernels (PK), but these are then processed by a far smaller number of crushers and refiners to produce the refined fats and oils used in downstream supply chains.[6] A lack of responsible sourcing by crushers and refiners contributes to the leakage of unsustainable palm oil entering into downstream markets and incentivises growers to deforest to expand their landbank to access the leakage market.[6] A lack of transparency at this level also places downstream stakeholders at risk of being unable to verify whether they are upholding their own sustainability commitments.

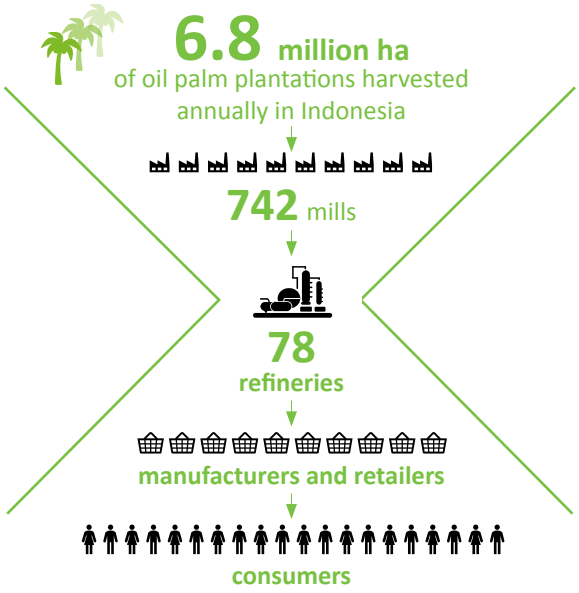



**Fig. 1.** Illustration of the bottleneck at the refinery level of the palm oil supply chain. In Indonesia, 6.8 million ha of plantations were harvested in 2018.[1] FFB is processed by mills, which numbered 742 in Indonesia in 2015.[7] There is approximately one tenth the number of refineries as mills (78 in 2017), which together have a capacity of 45 million MT/year.[6] Some CPO from mills will be sold on the domestic market, and some exported for use as CPO and further refining abroad.

### Box 1: What are crushers and refiners?

Mills receive fresh fruit bunches (FFB) from oil palm plantations, and process them to separate the palm kernels, which are the nuts in the centres of palm fruits, and crude palm oil (CPO), which is extracted from the flesh of the fruit.

Crushers extract palm kernel oil (PKO) from the kernels, which is then transferred to a refinery for further processing. Palm kernel expeller (PKE) is also produced from the palm kernels during the crushing process.

Refiners receive the CPO produced by mills, and the PKO produced by crushing facilities, and process them to produce Refined Bleached Deodorised Palm Oil (RBDPO). Further refining – through processes such as distillation, fractionation and hydrogenation – may be undertaken to create a range of palm oil fractions and derivatives.

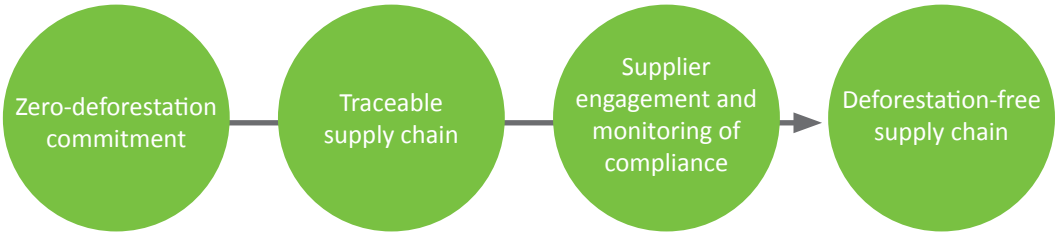



**Fig. 2.** Key elements needed for companies with crushing and refining facilities to ensure a deforestation-free supply chain.

## Crushers and refiners: bottlenecks in the supply chain

The majority of refined palm oil is produced in Indonesia, Malaysia and India. Indonesia has the largest refinery capacity in the world, at 45 million MT/year across 78 refineries.[6] This is almost one-tenth the number of mills (742)[7] – one tier up the supply chain – identified as operational in 2015, which source from the 6.8 million ha[8] of oil palm plantations harvested annually in the country. Malaysia has 52 refineries with a capacity of 27 million MT/year, and India has 48 refineries with a capacity of 24 million MT/year.[6] India, the European Union, and China are the biggest importing markets for Indonesian and Malaysian palm oil. The vast majority of Indian production is purchased by the domestic market.[9]

Just four companies – Wilmar, Musim Mas, Golden Agri Resources, and Royal Golden Eagle – "have almost half of the total refining capacity of Indonesia and Malaysia and are involved in more than 75% of global palm oil trade."[10] Crushers and refineries supply hundreds of downstream companies, including major palm oil buyers such as Unilever – which used 1.5 million tonnes of CPO, crude palm kernel oil (CPKO) and their derivatives in 2016;[11] PepsiCo, whose 54 direct suppliers provided 480,000 MT of palm oil[12] sourced from more than 1,500 mills in 2018;[13] and Nestlé which used 455,000 MT from 45 refineries in 2019.[14]

The central role of crushers and refiners as a bottleneck within the palm oil supply chain places them in a position of significant leverage – and responsibility – to drive sustainability in the sector.[6] They should therefore be a strategic focus for engagement by both financiers and downstream buyers to improve monitoring, reporting and traceability of palm oil products to ensure compliance with deforestation-free commitments and responsible sourcing principles.

## Zero deforestation requires a strong policy, full traceability and effective supplier engagement

A key first step for any company trying to eliminate deforestation from its value chain is to put in place a strong zero-deforestation policy. Zero-deforestation commitments should be part of a wider No Deforestation, No Peat, No Exploitation (NDPE) policy, to ensure that comprehensive sustainable production and sourcing requirements, which also encompass social sustainability issues, are in place. However, this report focuses on commitments and reporting on zero deforestation specifically, for the purpose of analysis.

Effective implementation of zero-deforestation commitments requires supply chain traceability to plantation, as well as processes in place to support and monitor supplier compliance. These are considered as Key Performance Indicators (KPIs) for NDPE implementation by palm oil refiners.[15] If crushers and refiners fail to implement strict sourcing policies to prevent deforestation, then downstream buyers cannot ensure their supply is not linked with deforestation, and nor can their investors, lenders or customers. Companies failing to ensure they can trace their supply – and failing to engage their suppliers on their zero-deforestation commitments – leave themselves open to financial, operational, reputational and regulatory risks. These risks not only cascade down the supply chain, but also impact those investing in and lending to the palm oil sector (see Table 1, p.3).[i]

This report provides an overview of the zero-deforestation commitments made by crushers and refiners assessed on SPOTT and these companies' reported traceability and supplier engagement, and explores the associated risks when these elements are lacking. It also provides recommendations for palm oil producers, processors, buyers, investors and lenders on how to strengthen and implement zero-deforestation and supplier-engagement policies and practice.

*Without traceability from plantations to refiners and crushers (and beyond), traders, manufacturers and retailers are unable to prove to their customers that palm oil in their products is deforestation-free.*

[i] For a more detailed analysis of these risks, see SPOTT's report *Palm oil: a business case for sustainability* https://www.spott.org/download/7891/

## Table 1: Examples of risks associated with deforestation, across the palm oil value chain

| Risk type: Financial | Operational | Reputational | Regulatory | |
|---|---|---|---|---|
| ✓ | | ✓ | | **Reduced market access**<br>• In a market favouring deforestation-free products, high-profile campaigns highlighting the negative impacts of unsustainable palm oil production may limit consumer and buyer demand for products containing palm oil.<br>• Buyers might exclude companies which do not meet certain sustainability criteria, affecting their sales and income. A lack of traceability in a market favouring sustainable products prevents companies from verifying sustainability claims.<br>**Example:** Indonesian palm oil producer Sawit Sumbermas Sarana (SSMS) suffered an 81% customer base turnover between 2014 and 2015 due to its buyers requiring NDPE compliance. In 2017, Unilever suspended sourcing from SSMS over deforestation concerns. Unilever was responsible for 8% of SSMS' Q1 2017 revenue. This loss of buyers reportedly prompted SSMS to announce its first NDPE policy.[16] IFFCO, an important replacement buyer, also stopped sourcing from SSMS in 2018, when it accounted for 20% of SSMS' revenues.[17] |
| ✓ | | | | **Loss of financing**<br>• Financial institutions increasingly recognise the market, reputational and regulatory risks that deforestation poses to their investment and lending.[18] Companies which do not work to address deforestation face exclusion or divestment from investment portfolios, or a loss of financing from banks.<br>**Example:** In 2019, Citigroup, Standard Chartered and Rabobank ceased to offer credit facilities – together in excess of $100 million USD – to Indofood Sukses Makmur, reportedly due to sustainability concerns and failure to comply with the banks' sustainability policies after the company's subsidiary had its RSPO membership terminated in February 2019.[19, i] |
| ✓ | ✓ | | | **Climate and ecosystem services risks**<br>• Deforestation and its associated climate impacts may threaten ecosystem services critical for palm oil production, damaging yields and limiting a producer's ability to operate. This also impacts the security of supply, and without a traceable supply chain, it is difficult for downstream companies or financiers to manage these risks.<br>• Often palm oil producers drain peat soils in order to plant on them. This drainage not only releases carbon, but can also lead to subsidence, putting both the crop and associated infrastructure at risk of flooding. This can delay fresh fruit bunch (FFB) harvesting and reduce mill crude palm oil (CPO) quality,[20] and in extreme cases plantations may be abandoned altogether, becoming a stranded asset for the company and its financiers. |

[i] RSPO Complaint: https://askrspo.force.com/Complaint/s/case/50090000028ErzBAAS/detail

## Table 1: Examples of risks associated with deforestation, across the palm oil value chain

| Risk type: Financial | Operational | Reputational | Regulatory | |
|---|---|---|---|---|
| ✓ | | ✓ | | **Brand damage**<br>• With 2020 a crucial milestone for zero-deforestation commitments, companies will face more scrutiny and increasing reputational risk.<br>• Media coverage of unsustainable practices by companies can cause reputational damage – potentially impacting a company's value by up to 30% and resulting in "value gaps" of as much as 70% between fast-moving consumer goods companies (FMCGs).[21] On the other hand, adopting and implementing a zero-deforestation policy can enhance a company's reputation.<br>• Downstream buyers may be at risk of reputational damage through association with non-compliant suppliers if they do not have effective engagement and support schemes in place. It is important to be transparent about the nature of any non-compliance, as well as the steps being taken to address this, in order to reduce these risks.[23]<br>**Example:** Nestlé was the focus of a Greenpeace campaign in 2010 which targeted its KitKat brand for sourcing unsustainable palm oil from deforested lands.[21] The advertisement was viewed by over 300,000 people during its first day online.[22] The initial outcome was a drop in stock by 4%. The campaign resulted in Nestlé committing to source 50% sustainable palm oil by the end of 2011. This announcement was followed by a 3% positive impact on the company's Cumulative Abnormal Returns.[21] |
| ✓ | | | ✓ | **Financial penalties and legal costs**<br>• The governments of palm oil-producing countries have implemented various legal requirements in response to deforestation in the palm oil supply chain.<br>• Companies claiming that their supply chains are 'deforestation-free' when there is insufficient evidence of this (e.g. a lack of traceability) may be liable to claims under European Union (EU) consumer protection law and similar legislation in other jurisdictions.[1] Even in the absence of fines and sentencing, legal proceedings can be costly. It is essential to engage the whole supply chain in efforts to ensure implementation of zero-deforestation commitments.[25]<br>**Example:** An Indonesian court fined palm oil producer PT Kalista Alam in Aceh province 366 billion IDR ($25.6 million USD) for illegal clearing and burning, which, in 2015, was the highest fine ever handed in relation to fires.[24] |
| | ✓ | | ✓ | **Restrictions and moratoria**<br>• Partly due to the association between deforestation and palm oil production, Indonesia has declared a moratorium on the issuance of new licenses, and the Malaysian government has considered a cap on the size of its palm oil estate.[26] This suggests producers are at risk of losing their licenses to operate if they cannot uncouple their expansion from deforestation.<br>• Regulations in consumer countries can restrict market access for palm oil linked with deforestation. Under the Amsterdam Declaration on deforestation, seven EU member states support eliminating deforestation by 2020.[27] The EU also aims to phase out palm oil-based biofuels by 2030, in large part due to links with deforestation.[28] |

## Scope of analysis

SPOTT assesses companies on their public disclosure regarding their organisation, policies, and practices related to ESG issues.[29] SPOTT scores palm oil, natural rubber and tropical forestry companies annually against over 100 sector-specific indicators.

This analysis draws upon data from the 2019 SPOTT palm oil assessments conducted by ZSL and focuses on the results of the 77 assessed companies that have crushing and/or refining facilities.[i] Of these, 65 companies are vertically integrated and have their own plantations – which together cover almost nine million ha – and 46 also operate as traders.

The analysis focuses on indicators relating most directly to three key elements for companies looking to address deforestation risk in their value chains – strong zero-deforestation policies, full traceability, and effective supplier engagement. The SPOTT framework includes a variety of indicators on issues that could be considered more broadly under NDPE requirements and reporting, but this analysis focuses on indicators most directly relating to zero-deforestation commitments and reporting on their implementation.

SPOTT-assessed companies with crushing and/or refining facilities are distributed across the world – including in emerging markets in South America and Africa – but are concentrated in southeast Asia.

Thirty-seven companies assessed on SPOTT are headquartered in the countries with the greatest refining capacity – Indonesia, Malaysia and India – and have a combined refining capacity of at least 23.8 MT/year[15] (representing more than 20% of the total refining capacity of these three countries).[6] However, the true proportion is likely to be far greater than this as data on refining capacity could only be found for 16 of the 37 companies.[15]

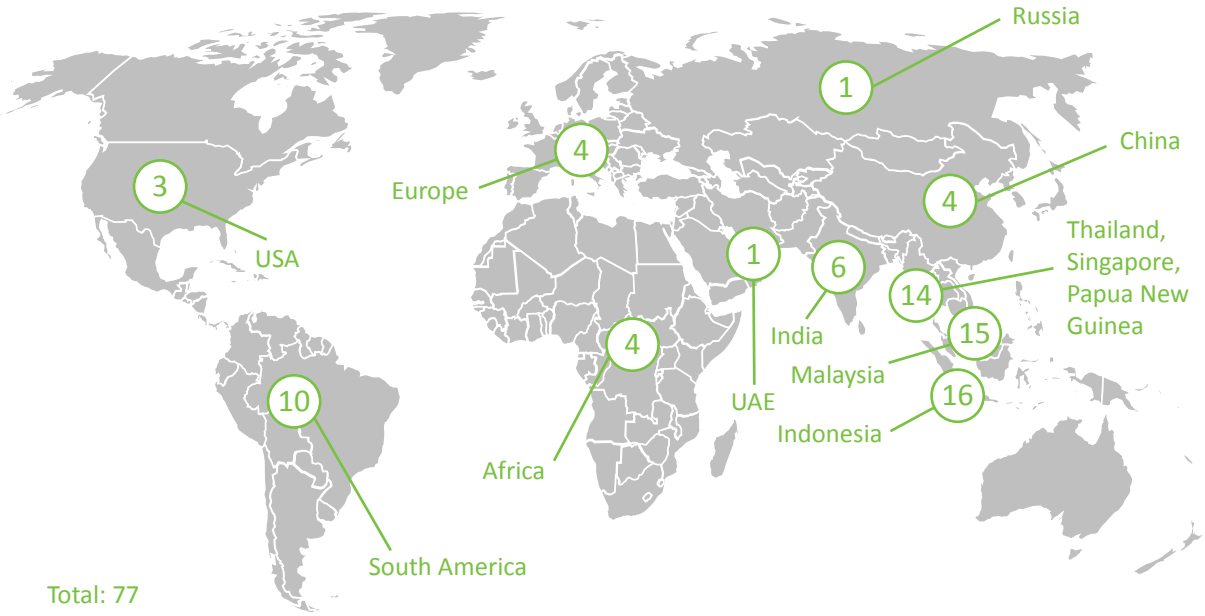



**Fig. 3.** Global distribution of company headquarters for 77 companies with crushing and/or refining facilities assessed on SPOTT in 2019.

> *As the bottleneck in the palm oil supply chain, crushers and refiners hold the key to tackling deforestation and other sustainability issues. Well-implemented NDPE policies are a proven tool to transform the industry. However, a lack of meaningful action can create significant leakage and severely weaken the momentum. The latter is both a risk for individual crushers and refiners, as well as the palm oil industry as a whole.*
>
> **Tim Steinweg**
> **Aidenvironment**

[i] See the full list of assessed companies in the Annex on p.21

## Zero-deforestation policies

### Why are zero-deforestation policies important?

Palm oil, along with other soft commodities such as soy, timber, and beef, is a key driver of tropical forest degradation and loss. Deforestation of carbon-rich peatlands releases large quantities of greenhouse gases and is a significant contributor to the climate crisis. The loss and fragmentation of tropical forest habitats, one of the most biodiverse terrestrial ecosystems, threatens the myriad species they contain. These range from the well-known, such as the orangutan and Sumatran tiger, to the more obscure, such as the helmeted hornbill[31] – found in Myanmar, Thailand, Malaysia, Singapore, Indonesia and Brunei – and the Javan slow loris[32] found in Indonesia. Both Critically Endangered, these EDGE species (Evolutionarily Distinct, Globally Endangered; see Box 2) inhabit primary forest which is under increasing pressure from agricultural expansion.

Expansion of operations into forested land can also bring companies into conflict with local communities and indigenous peoples, with land-grabbing and a failure to respect legal, customary and traditional rights just some of the social issues that can be associated with unsustainable production. Zero-deforestation policies should include a commitment to Free, Prior and Informed Consent (FPIC) to ensure local communities are continuously consulted at key stages, and their permission obtained before any development goes ahead.

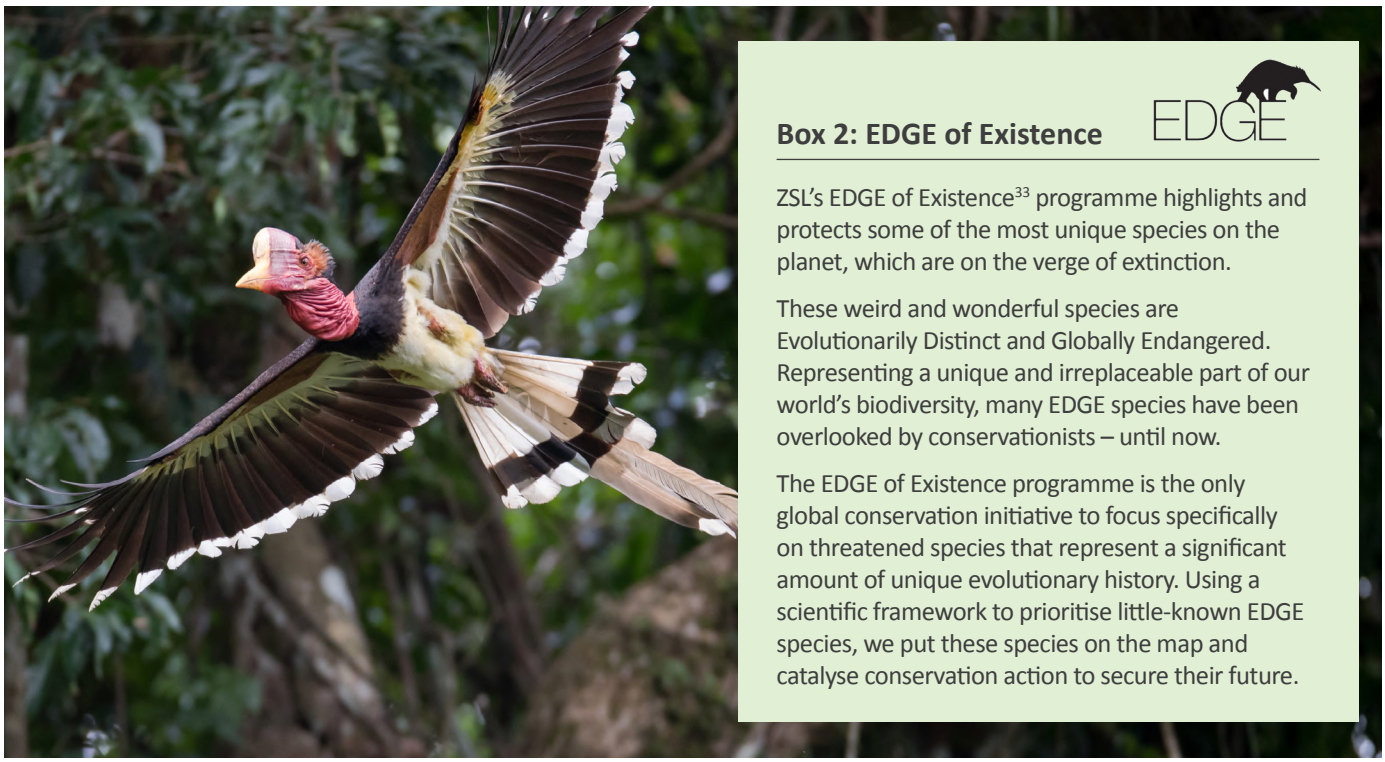
Companies have increasingly been adopting zero-deforestation commitments over the last decade, through both their own sustainability policies and wider initiatives such as the Consumer Goods Forum and the New York Declaration on Forests. But despite an upsurge in zero-deforestation commitments, they are still far from being realised.

In 2018, 12 million ha of forest was lost in the tropics, the fourth-highest annual loss since 2001,[34] – following the second-highest annual loss of tropical forest in 2017 (15.8 million ha),[35] and the worst year for forest loss globally in 2016.[36]

Zero-deforestation policies are most effective if applied across a company's entire supply chain and at the group level for all suppliers. As bottlenecks in the supply chain, downstream stakeholders such as crushers and refiners have the power to influence upstream companies through making these commitments. But while commitments should be expected to cascade upstream, they have less influence if there is a lack of traceability and monitoring of compliance.[37]

Zero-deforestation commitments should specify the types of forest they apply to and include a cut-off date beyond which deforestation would not be permitted. Addressing non-compliant deforestation, for example by restoring areas deforested after the cut-off date, is also necessary if policies are to be effective.

The use of the High Conservation Value (HCV) and High Carbon Stock (HCS) Approaches are important factors in achieving zero deforestation, through the identification and protection of forests with important biological, ecological and social features (HCV) and forests that have high carbon and biodiversity values (HCS). By sourcing from companies that implement these tools, downstream companies can work towards eliminating deforestation from their supply chains.



### Box 2: EDGE of Existence

ZSL's EDGE of Existence[33] programme highlights and protects some of the most unique species on the planet, which are on the verge of extinction.

These weird and wonderful species are Evolutionarily Distinct and Globally Endangered. Representing a unique and irreplaceable part of our world's biodiversity, many EDGE species have been overlooked by conservationists – until now.

The EDGE of Existence programme is the only global conservation initiative to focus specifically on threatened species that represent a significant amount of unique evolutionary history. Using a scientific framework to prioritise little-known EDGE species, we put these species on the map and catalyse conservation action to secure their future.

## Box 3: Definitions

**Deforestation:** Loss of natural forest as a result of: i) conversion to agriculture or other non-forest land use; ii) conversion to a tree plantation; or iii) severe and sustained degradation.[30]

**Degradation**: Changes within a natural ecosystem that significantly and negatively affect its species composition, structure, and/or function and reduce the ecosystem's capacity to supply products, support biodiversity, and/or deliver ecosystem services.[30]

**Zero deforestation / no-deforestation / deforestation-free:** Commodity production, sourcing, or financial investments that do not cause or contribute to deforestation (as defined by the Accountability Framework).[30]

**Zero net deforestation:** No net loss in forest area between two points in time, taking into account both losses from deforestation and gains from forest regeneration and restoration. Zero net deforestation would typically be assessed with reference to a given geographic area (e.g., a district, state, nation, or globe) and a given timeframe.[30]

## Box 4: The High Conservation Value (HCV) and High Carbon Stock (HCS) Approaches

**The HCV Approach** is used to identify and protect important environmental and social values that should be conserved in prospective agricultural plantations and across landscapes. The HCV Approach is an ongoing process of identifying, managing and monitoring biological, ecological, social or cultural values that are of outstanding significance or critical importance at the national, regional or global level. There are six categories of HCV:

**HCV 1:** Concentrations of biological diversity, including rare, threatened or endangered species

**HCV 2:** Landscape-level ecosystems and mosaics, including intact forest landscapes

**HCV 3:** Rare, threatened, or endangered ecosystems, habitats or refugia

**HCV 4:** Basic ecosystem services in critical situations, including water catchments

**HCV 5:** Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples

**HCV 6:** Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance[38]

Many certification schemes, including the RSPO, require the identification and protection of HCVs as part of their principles and criteria, and financial institutions and other downstream actors often include the protection of HCVs as a key policy requirement for procurement or investment.

**The HCS Approach** was developed to help implement zero-deforestation commitments in the tropics. The methodology distinguishes forest areas with high carbon and biodiversity value for protection from degraded land that is more suitable for development. Using analyses of satellite data and ground survey measurements, the HCS methodology stratifies the vegetation in an area of land into six different classes, with the first four being considered as potential HCS forest:

1. High Density Forest
2. Medium Density Forest
3. Low Density Forest
4. Young Regenerating Forest
5. Scrub
6. Cleared/Open Land

To identify the forest areas for protection and areas for development, field checks and calibration with carbon stock estimates in the above-ground tree biomass are carried out, and community land rights and uses are mapped. The methodology requires participatory community-land use planning and management and integrates enhanced Free, Prior and Informed Consent (FPIC) procedures. It applies conservation planning tools to the identified HCS forest areas, and combines with mapped community land use, HCV, peatland and riparian areas to delineate areas for conservation, restoration, community land use, and/or areas potentially available for plantation development.[39]

The revised RSPO Principles and Criteria (P&C) 2018, which were adopted at the 15th annual General Assembly (GA15), now incorporate the HCS Approach as a new requirement to implement zero deforestation. They also require that any new land clearing after 15 November 2018 (the adoption of the P&C 2018) must be preceded by a HCV-HCS assessment.[40]

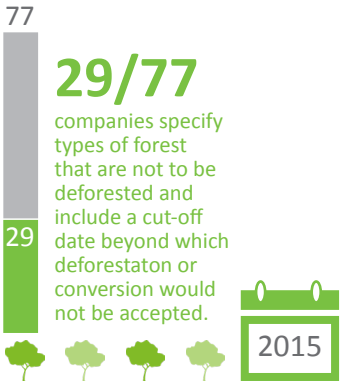
## Analysis of zero-deforestation policies of SPOTT-assessed companies

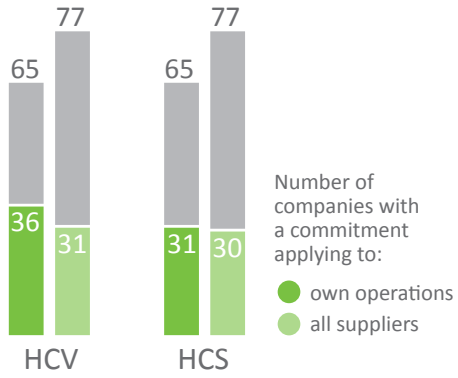
### Zero Deforestation

- 40/65[i] (62%) companies commit to zero deforestation within their own operations. Only 36/77 (47%) companies make this commitment applicable to all suppliers (see Fig. 4A, p.14).
- However, only 29/77 (38%) companies specify the criteria or types of forest/areas that are not to be deforested and include a cut-off date beyond which deforestation or conversion would not be accepted.
- Only 10/65[i] (15%) companies commit to restoration of non-compliant deforestation/conversion within their own operations, and 10/77 (13%) make this commitment applicable to suppliers.

### HCV/HCS

- 36/65[i] (55%) companies commit to protect HCV areas within their own operations, and 31/77 (40%) commit their suppliers to comply with this requirement.
- 31/65[i] (48%) companies make a commitment to the HCS Approach, and 30/77 (39%) commit their suppliers to comply with this requirement.




## Risks arising from a lack of zero-deforestation policies

Deforestation itself comes with a range of risks, including disruption of the local ecosystem services that oil palm plantations depend on, thus threatening yield and revenue.[41] But there are also several specific risks associated with not having a policy on zero deforestation in place.

Policies enable companies to demonstrate their commitments and reassure their investors, lenders, buyers and consumers that they are taking a proactive approach to addressing the issue. Stakeholders may be discouraged from associating with companies which do not have zero-deforestation policies in place. For examples of risks across the value chain, see Table 1, p.3.

[i] Disabled for 12 companies that are not growers.

## Recommendations for zero-deforestation policies and implementation

**For palm oil producers, crushers, refiners and buyers**

- Companies lacking zero-deforestation policies should adopt and define robust, time-bound commitments.
- Policies should clearly define the criteria or types of forest/areas that are not to be deforested (e.g. primary forests, Intact Forest Landscapes (IFLs), secondary forests, disturbed forests, HCS areas, HCV areas, etc.).
- Zero-deforestation policies should include prohibiting the conversion of natural forests to other uses and should include measures to support the protection of forests and conservation areas.[42]
- Companies should commit to restore ecosystems and their values to their prior condition, and/or provide suitable compensation to restore these values, in the case of non-compliant deforestation or conversion within the company's own operations.[42]
- Policies should specify a cut-off date beyond which any deforestation by suppliers is considered as non-compliant.[42] Cut-off dates should be set in the past, or no later than the date the commitment is made, to avoid incentivising deforestation or conversion up to the cut-off date. If commitments are made in 2020 and beyond, the cut-off dates should be no later than 1 January 2020 to align with global goals to halt deforestation, such as the New York Declaration on Forests and in Target 15.2 of the UN Sustainable Development Goals.[43]
- To avoid supply chain risks and leakage, companies should ensure that their policies apply at the group level, including subsidiaries, joint ventures, affiliates and related entities.
- Policies should extend to all of their suppliers, including those they source from both directly and indirectly.[44] Suppliers should also apply these policies at the group level.[6]
- Any zero-deforestation policy should follow a clear and time-bound implementation plan.[44]

**For financial institutions**

- Financial institutions should develop a palm oil policy that requires the companies they are investing in or lending to – including consumer goods manufacturers (CGMs), retailers and other financial institutions – to commit to implementing strict NDPE policies across their whole supply chains or portfolios[45] or be 100% RSPO-certified.[i] For an example, see the case study on BMO Global Asset Management engagement with Bank Mandiri (p.10).
- Such policies should provide further details as to what is expected under each component of the commitment relating to No Deforestation, No Peat, No Exploitation, and how this will be monitored to ensure compliance.
- Financial institutions should require the companies they lend to or invest in to report on NDPE-related issues, and engage with them on defining clear time-bound plans for full implementation, including processes for addressing non-compliance.
- Financial institutions should build NDPE requirements into their capital allocation due diligence frameworks and consider joining investor-led initiatives such as the Principles for Responsible Investment (PRI) Sustainable Palm Oil Investor Working Group. Joining collective engagements is a powerful way to increase their impact and strengthen alignment on financial-sector messaging to the palm oil industry.

[i] The Principles for Responsible Investment (PRI) released an investor expectations statement in 2019 which sets out details on what NDPE policies should cover.[41]

## CASE STUDY

## BMO Global Asset Management

**NINA ROTH, DIRECTOR, RESPONSIBLE INVESTMENT**
**BMO GLOBAL ASSET MANAGEMENT**

BMO Global Asset Management invests, engages and votes along the palm oil value chain. We have been engaging for years with palm oil producers and traders, FMCG companies, retailers, and financial institutions that finance the industry. Particular issues of concern include deforestation, planting on peat and lack of adherence to human and labour rights.

Our objective is to drive more sustainable palm oil growing, harvesting and manufacturing practices. We have used SPOTT data to inform our analysis of companies' palm oil-related practices and performance.[i] One market we paid particular attention to is Indonesia.[ii]

**The case of Bank Mandiri**

State-owned Bank Mandiri is one of the largest lenders to the oil palm plantation and processing industry in Indonesia. Approximately 9% of its total loan portfolio is exposed to this industry. Most clients are large plantation companies; however, the bank has accelerated the roll out of products and services specifically tailored to the needs of palm oil smallholders. This is in response to a push by the government to accelerate the development of small farming communities. Mandiri has in place some policies and systems to address the environmental impacts of oil palm cultivation; however, these fall short of adequately reflecting the level of credit and reputational risks it is exposed to through its plantation financing activities.

Over the past few years we have met company representatives, including the CEO, to discuss the approach to addressing these risks. Credit risk units have made some strides in incorporating sustainability considerations into their analysis of loan applications for customers in industries with high environmental and social impacts, such as palm oil.

For palm oil companies to receive financing from Bank Mandiri, considerations include full compliance with existing environmental regulations, stringent fire prevention and handling standards, and no development of new plantations on peatlands.

We have welcomed progress, yet encouraged Bank Mandiri to move beyond a compliance-based approach into one that considers risks more holistically. Specifically, we asked that a No Deforestation, No Peat and No Exploitation (NDPE) policy be adopted and implemented. **This would require the bank's palm oil clients to end all deforestation, protect high conservation value areas and implement best plantation management practices.**

Overall, we have seen a larger degree of commitment and action by Mandiri over the past year on palm oil risk management that suggest that driving a more sustainable palm oil industry has a place in the bank's strategic agenda. Going forward, we will continue to engage with the company on these issues, both on a one-on-one basis and via our participation in collaborative engagement groups.

[i] See also: https://www.bmogam.com/viewpoints/responsible-investment/macro-views/esg-viewpoint-can-palm-oil-ever-be-sustainable/
[ii] See also: https://www.bmogam.com/gb-en/institutional/news-and-insights/esg-viewpoint-are-indonesian-companies-waking-up-to-climate-risk/

## Traceability

### Why is a traceable supply chain important?

Understanding where a company, including all its subsidiaries, sources its palm oil from is an essential component in the implementation of sustainable sourcing commitments – without knowing its origin, it is impossible to verify if it is being produced sustainably, or in compliance with company policies. Traceability to plantation also allows companies to ensure the palm oil they source is being produced legally, and helps prioritise high-risk areas for engagement and support to achieve compliance.

Crushers and refiners are major aggregators of CPO, CPKO and PK from thousands of palm oil mills, giving them significant leverage to transform the industry. Reporting traceability data at a crusher or refinery level enables buyers to favour those that are working towards a fully traceable, zero-deforestation supply chain, in turn supporting growers supplying deforestation-free palm oil.[49]

Traceability in itself does not equate to sustainability, and the ultimate goal of a fully traceable supply chain is to help drive positive impact on the ground. A lack of traceability continues to inhibit progress towards achieving zero deforestation.[37] It is important that products are traceable all the way back to the plantation, and not just to mill level, in order to ensure a zero-deforestation supply. Without this level of oversight, high-risk areas that a company may be sourcing from (such as those within or bordering protected areas, or those linked to past deforestation) cannot be easily identified, and suppliers cannot be easily engaged with.[37]

Reputational risks facing major palm oil companies frequently occur as a result of deforestation carried out by their suppliers, even if the companies have robust policies for their own operations.

### Box 5: Traceability definition

Palm Oil Traceability Working Group of the Sustainable Trade Initiative (IDH, in Dutch "Initiatief voor Duurzame Handel") definition: "Traceability is defined as knowing all palm sources within one's supply chain all the way to plantation level (including smallholders) and traceability to the oil mill is an intermediary step in achieving full traceability".[46]

Traceability is therefore a prerequisite to ensuring deforestation-free supply chains. Requiring traceability to plantation level also encourages growers to be more transparent about the location of their production areas.[37]

Achieving full traceability to plantation level is challenging and resource-intensive due to the limited availability of spatial data, the complexity of the palm oil supply chain, the large number of smallholder suppliers, and confidentiality issues. Given the complexity inherent in palm oil supply chains, landscape or jurisdictional approaches to sustainability – led by regional governments, NGOs or companies themselves in collaboration with other stakeholders across a landscape – offer an important complementary mechanism to traceability-focused initiatives. These can help address some of the challenges in ensuring production is deforestation-free – such as smallholder adoption of sustainable practices[47] – and are showing promise in some places, but this approach alone has not yet succeeded in eliminating deforestation.[48] Alongside the continued development of landscape and jurisdictional approaches, it is vital that downstream buyers of palm oil engage with their suppliers to ensure traceability to the plantation level.

### Box 6: India as a leakage market

Six SPOTT-assessed[i] companies with crushing and/or refining facilities have headquarters in India, the largest consumer of palm oil globally,[50] and the country with the third-largest refinery capacity in the world after Indonesia and Malaysia.[6] High and growing demand, coupled with a lag in addressing sustainability concerns within the Indian market,[50] means India is a major leakage market for unsustainable palm oil.[6] In 2019, India imported 10.8 million tonnes of crude palm oil (CPO), and while 49% of this was covered by exporters with NDPE policies, 71% was used by refiners in India without NDPE policies.[15] Disruptions to sourcing from particular countries – such as the reported boycott of Malaysian palm oil by India in early 2020 – can further increase leakage risks as sourcing patterns shift.[51] If these risks are addressed, India could be a key driver of sustainability in the sector.[50] However, none of the six SPOTT-assessed companies have a public traceability commitment or sustainability policy, report any traceability data, or have any public NDPE commitments.

[i] Allana Group, Gokul Agro Resources Ltd, Emami Agrotech Ltd, KS Oils Ltd, Ruchi Soya Industries Ltd and Priya Gold Oils.

CASE STUDY

## Apical: The Importance of Collaboration and Inclusivity in Traceable Palm Oil Supply Chains

**BREMEN YONG, DIRECTOR OF SUSTAINABILITY, APICAL GROUP – APRIL 2020**

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While the importance of traceable palm oil is widely recognised, the industry has been perceived to be slow in transforming itself to address this issue. Among key challenges can be the reluctance of suppliers to disclose information that potentially puts them at a disadvantage in a competitive and price-driven market. Apical is one of Indonesia's largest processors and exporters of palm oil and its derivatives, and we have adopted an inclusive approach by working with partners on supplier engagement.

We worked with a group of strategic partners and industry experts to set clear definitions on traceability, as well as develop a time-bound roadmap. Through our collaboration with CORE (Consortium of Resource-Experts – Proforest & Daemeter) and Earthworm (formerly The Forest Trust), as well as the risk assessment and supply chain monitoring tools provided by Global Forest Watch Pro and GLAD deforestation alerts, we were able to assess and identify the challenges and opportunities across the supply chain.

In 2017, we launched our **Traceability Outreach Programme (TOP)** to improve engagement with our suppliers and boost traceability. Two of the biggest concerns for suppliers regarding traceability are a lack of monetary incentives for market uptake of traceable oils, and uncertainty around any potential disadvantages to disclosing their data. Through the TOP, we took a participative 'outside-in' approach, focused on understanding and addressing supplier needs, and supporting them from a sustainability perspective as a starting point. Key activities have included supplier prioritisation and engagement, advising suppliers on responsible smallholder sourcing, and traceability data collection as the core of a sustainable business model for suppliers. We also published a Responsible Smallholder Manual, jointly developed with CORE. Instead of seeing suppliers as the problem, this initiative saw them as part of the solution to improving traceability in the industry.

The TOP was complemented by the **Apical Shared Value Programme (SVP**) that promoted sustainable business models, as well as the industry-wide initiative **SUSTAIN (Sustainability Assurance & Innovation Alliance)** – a collective effort to co-develop a traceability solution across stakeholders in the value chain (producers, refiners, traders, distributors, and financial institutions), leveraging on blockchain technology.

Through our various initiatives, we have engaged over 400 palm oil mills that supply to our refineries, and increased our traceability to plantation by over 80%. From a mere 12% in December 2016, Apical now boasts 97% traceability to plantation as of March 2020, and we aim to be 100% traceable to plantation by end-2020.

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## Analysis of traceability commitments and reporting by SPOTT-assessed companies

### Commitment to zero-deforestation

- Only 18/77 (23%) companies with crushing and/or refining facilities have both a commitment to zero-deforestation applicable to their suppliers, and a time-bound commitment to achieve 100% traceability to plantation level (see Fig. 4B).
- A further 18 companies have a zero-deforestation commitment applicable to their suppliers, but of these 10 have weaker traceability commitments, and eight have no traceability commitment.
- Out of 29 companies which source FFB from supplier mills and have a zero-deforestation commitment for their suppliers in place, only eight report any data on traceability from supplier mills to plantation level, with an average traceability level of only 41%.

### Traceability to mill level

- Only 17/66[i] (26%) companies that source from supplier mills have a time-bound commitment to achieve 100% traceability to mill level (see Fig. 4C).
- Of these, an average of 93% traceability has been achieved (see Fig. 4D), with 14 of these having already achieved 100% traceability to mill level.
- The remaining 49 companies with either a weaker commitment or no commitment to mill level in place report an overall average traceability figure of only 14% (see Fig. 4E).

### Traceability to plantation level

- Only 20/77 (26%) companies have a time-bound commitment to achieve 100% traceability to plantation level (see Fig. 4F).
- The majority (13/20) of companies with a time-bound plantation-level commitment have already achieved this for their own mills, as have an additional four companies with either a weaker or no commitment. The average traceability from own mill to plantation level reported by these 20 companies with a commitment is 88% (see Fig 4G). Those with a weaker or no commitment (40 companies)[ii] only report traceability of 11% from own mill to plantation (see Fig. 4H).
- However, none of these companies (0/20) can trace 100% of FFB from their supplier mills back to plantation level, with an average of only 13% traceability (see Fig. 4I). Of the 54[iii] companies with a weaker or no commitment, the average traceability reported from supplier mills to plantation level is only 3% (see Fig. 4J).
- Of the 66 crushers and/or refiners which source from supplier mills, none (0/66) report 100% traceability to plantation level, 8/66 (12%) report a percentage traceability figure of which the average is 48%, and 58/66 (88%) companies report 0% or no data.

### Traceability at facility level

- Only 2/65[iv] (3%) companies report full traceability data to plantation level for each individual refinery. 18/65 (28%) report incomplete data and 45/65 (69%) do not report any data.
- The figures are very similar for crushers, with only 2/65[v] (3%) reporting full traceability data, and 50/65 (77%) companies not reporting any data.

[i] Disabled for 11 companies that only source from own mills.

[ii] Disabled for eight companies that do not own mills.

[iii] Disabled for three companies that do not source from supplier mills.

[iv] Disabled for 12 companies that do not have refining facilities.

[v] Disabled for 12 companies that do not have crushing facilities.

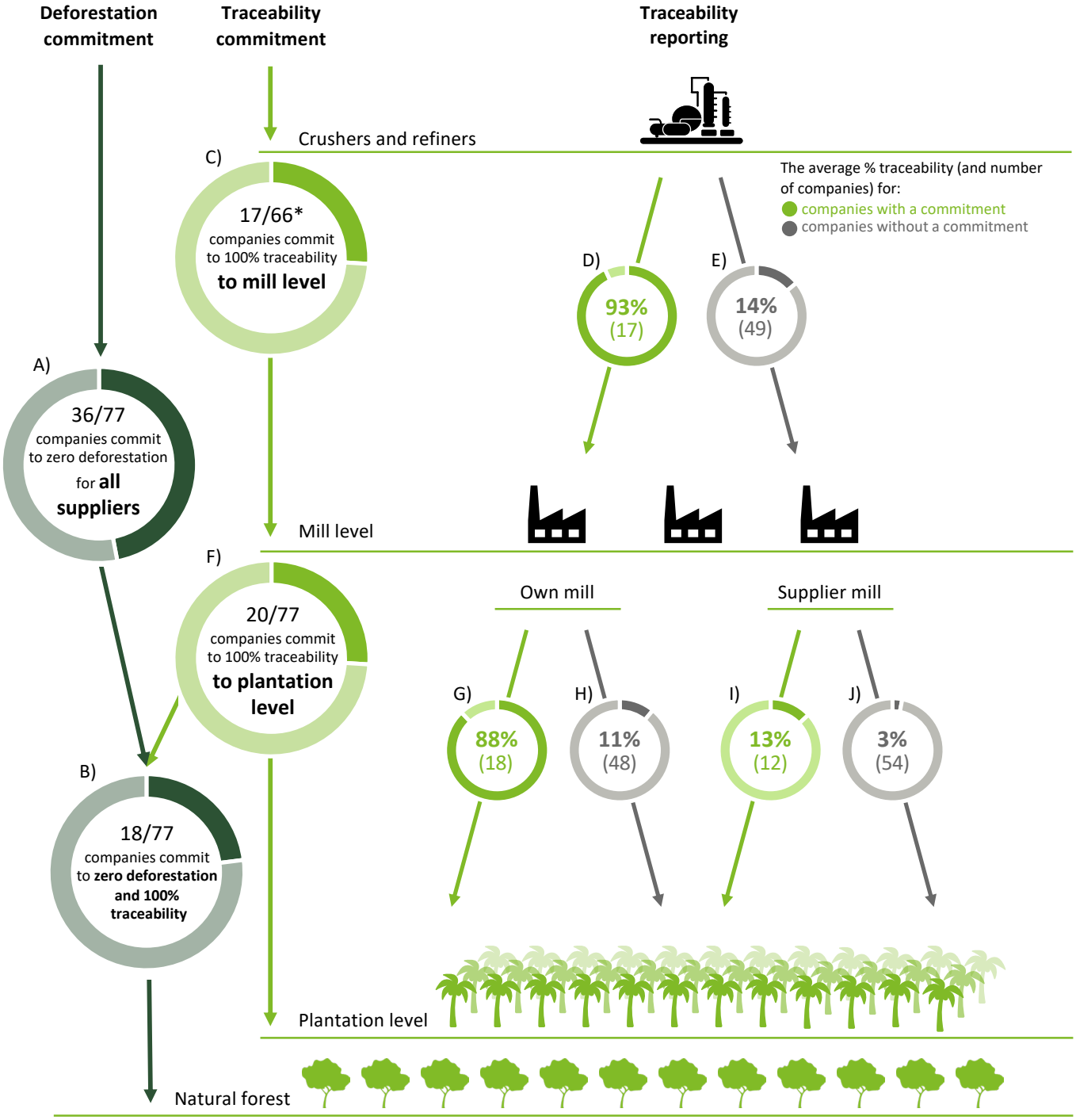


**Fig. 4.** Zero-deforestation commitments (A) must be accompanied by commitments to traceability to plantation level if they are to be robust (B). Companies with traceability commitments – to both mill (C) and plantation level (F) – report higher levels of traceability than those without commitments (D vs. E; G vs. H; I vs. J), and higher levels of traceability to own mills than to supplier mills (G vs. I). Where companies fail to report any traceability figure, this has been included as 0% in our analysis. *Disabled for 11 companies that only source from own mills.

### Risks associated with a lack of traceability in the supply chain

A lack of traceability leaves investors, lenders and buyers unable to assess the extent to which companies are exposed to, managing, and mitigating against their environmental and social impacts. Consequently, they cannot adequately assess potentially significant business risks associated with a company,[52] or the sustainability of their supply. Traceability at every level of the supply chain is crucial for downstream actors to confirm whether their supply meets their sustainability requirements. This becomes harder the further downstream – and therefore the further removed from production – a company is located within the supply chain. Without complete traceability, all actors within the value chain are exposed to risks (see Table 1, p.3).

### Recommendations for implementing traceability commitments

**For palm oil producers, crushers, refiners and buyers**

- Companies should start by making a commitment. Having a public, time-bound commitment to achieve 100% traceability to plantation level provides assurances to downstream buyers of the company's intentions in this area.
- The complexity of the palm oil supply chain means it can be difficult to trace palm oil to its origin, so oil palm producers should facilitate traceability by increasing the transparency of their operations, including in relation to the location of their plantation and mill sites. This can be achieved through providing data such as geo-referenced maps (e.g. in KML or shapefile format), geographic coordinates, or mill addresses on company websites.[53] They should also encourage the mapping of smallholders to ensure they are not excluded from supply chains and receive adequate support to meet sustainability requirements.
- Companies should engage with their direct suppliers on their sustainability commitments and clarify the need for traceability, including training sessions if needed to help suppliers understand what is required of them.[44]
- Companies with no traceability data should begin by working with their direct suppliers to map upstream (tier 2+) suppliers and categorising palm oil sources as a "known source" or "unknown source".[44]
- High-risk sourcing areas should be identified and prioritised for improvement.[44]
- Some companies may require suppliers to arrange for external evaluation to verify their traceability data, and this is especially important for companies that may be sourcing from high-risk areas.
- Companies should assist suppliers with capacity building as effective traceability systems can be complex and expensive.[37] Downstream retailers and CGMs should support their upstream suppliers by absorbing some of these costs, and consider doing this collaboratively with other buyers sourcing through the same supply chain.
- Supplier mills should be required to trace and report their FFB sources, disclose and verify the percentages of FFB received from owned plantations, smallholders, independent growers and collection centres, and engage them to evaluate the legality and sustainability of their FFB supplies.[10]
- Companies can work to ensure a legal and sustainable supply through purchasing physical certified sustainable palm oil based on RSPO Identity Preserved or Segregated Supply Chain Models. Uncertified oil should be independently verified by accredited auditors for legality and compliance with zero-deforestation commitments.[10]

**For financial institutions**

- Financial institutions should build traceability requirements, including requirements for publication of geo-referenced map data, into their capital allocation due diligence frameworks.
- Financial institutions should develop a palm oil policy that requires the companies they lend to or invest in – including other financial institutions – to commit to achieving 100% traceability to the plantation for their own and third-party supply.[45]
- To allow their effective and verifiable implementation, such policies should include a defined cut-off date or set timespan for investee/client companies to achieve 100% traceability and require them to report on progress until this achievement is met.
- Financial institutions should define and publicly communicate a strategy for engaging with investee/client companies without these commitments and action plans.

## Supplier engagement

### Why is supplier monitoring and engagement important?

Supplier engagement is crucial to ensuring that sustainability policy commitments are being met throughout the supply chain. While a company's own plantations might comply with its own policy requirements, third-party supplying plantations may not.[i]

Having a traceable supply chain allows companies to identify high-risk areas to prioritise for engagement to ensure that suppliers are complying with company policies. Risk assessments provide a way of prioritising suppliers for engagement when supply chains consist of a large number of supplying mills. It is important to identify mills that pose a high risk for potential deforestation, which can be done through geospatial mapping to identify mills that may be sourcing from fragile areas near or surrounding protected areas, or are in proximity to areas of past deforestation, fires, and peatland.[54] While not universally applied, it has become the industry norm to assess mills for deforestation risk with the assumption of a 50 km radius for their sourcing from plantations.[55] However, recent research by sustainability consultancy 3Keel suggests a 250 km radius would be more appropriate in some places, given developments in infrastructure which allow further transportation of FFB within a shorter time-period.[56] This finding suggests many companies may be significantly underestimating the true risk of deforestation within their supply bases.

Another way to support monitoring of compliance is through grievance mechanisms, which can enable the early identification of risks within a company's supply chain. Having an operational grievance mechanism can be considered as a KPI for NDPE implementation by palm oil refineries.[15]

While some stakeholders might demand immediate suspension or exclusion of suppliers suspected of non-compliance, to drive change within the palm oil industry companies should take responsibility for their supply chains and support them to improve their sustainability practices. Engagement is crucial, because supply chains can consist of a large number of supplying companies, many of which may not have put sustainability commitments in place and may have little awareness of the issues involved. Engagement and support activities may include evidence-based assessments of suppliers' practices, capacity-building activities such as workshops and training on how to meet NDPE commitments, technical assistance to remediate non-compliances, or financial support. Support programmes should also include smallholders – which produce around 40% of palm oil globally[57] – to assist them in complying with company sustainability policies, to ensure their continued participation in global palm oil markets.[58]

### Analysis of reporting on supplier monitoring and engagement by SPOTT-assessed companies

- Only 10/72[ii] (14%) companies report having a procedure in place to assess all own and third-party supplying palm oil mills for risk level.
- Only 4/72[ii] (6%) companies report having a programme to support high-risk mills to become compliant with sourcing policies and provide examples of types of support they provide. Only 4/72[ii] (6%) companies have a public time-bound plan to engage with all high-risk mills within three years and only 2/72[ii] (3%) report they engage with a subset of high-risk mills on an annual basis.
- Only 6/75[iii] (8%) companies report having time-bound action plans for all suppliers to comply with palm oil sourcing commitments including KPIs/milestones.
- Out of 35 companies which have a sustainability policy in place which is applicable to all suppliers, only 4/35 (11%) report having a programme to support high-risk mills to become compliant with sourcing policies, and only 10/35 (29%) report having a procedure in place to assess all own and third-party supplying palm oil mills for risk level.
- 34/77 (44%) companies have a grievance mechanism in place which is accessible to both internal and external stakeholders.
- 37/74[iv] (50%) companies have a commitment to support smallholders, but only 24/58[v] (41%) companies report having a programme to support scheme smallholders and provides details of the types of support they provide. Only 24/62[vi] (39%) companies report having a programme to support independent smallholders.


Only **4/72** companies have a programme to support high-risk mills to become compliant with sourcing policies

[i] The SPOTT indicator framework consists of up to 28 indicators regarding commitments that companies should require of their suppliers.[29]
[ii] Disabled for five companies that do not source from mills (i.e. integrated crusher and mill, no refinery).
[iii] Disabled for two companies that source 100% RSPO-certified material.
[iv] Disabled for three companies that do not source from smallholders.
[v] Disabled for 19 companies that do not have scheme smallholders.
[vi] Disabled for 15 companies that do not have independent smallholders.

### Risks associated with a lack of supplier monitoring and engagement

Supplier engagement and risk assessments are important to prevent and identify risks within a supply chain. Without this, companies are exposed to risks associated with having non-compliant suppliers (see Table 1, p.3).

### Recommendations for engaging and monitoring suppliers

**For palm oil producers, crushers, refiners and buyers**

- Crushers and refiners should clearly communicate their sourcing policies to their upstream suppliers and provide training on compliance with these policies.
- Policies should extend to all suppliers, including independent FFB suppliers and smallholders.
- Sourcing policy requirements should be incorporated into contracts and should include clauses on monitoring and verification to be implemented by the upstream suppliers to reach plantation level. Contracts should also include the right of the company to verify a supplier's compliance with its policies.[59]
- Risk assessments of supplying mills should be used for prioritising engagement, using a 250 km radius for analysis where appropriate.[56]
- Companies should establish a supplier compliance/ suspension committee and suspension and exclusion criteria for suppliers should be clearly defined.[44]
- When suppliers are found to be non-compliant, companies should document engagement activities including implementation plans, actions taken, and progress achieved[59] and establish time-bound plans for compliance in collaboration with suppliers.
- Companies should continuously engage with suppliers to monitor implementation.[44] The Implementation Reporting Framework is a tool designed for refineries and other first aggregators to monitor and report on progress of implementation of NDPE commitments. This is achieved through categorising mills as "unknown" (untraceable volume) all the way to "delivering" (the mill can demonstrate that all supply to the mill is compliant).[60]
- A grievance mechanism should be in place which is accessible to both internal and external stakeholders, and companies should publish all grievances along with actions taken and status.[44]
- Companies throughout the supply chain should assist with capacity building of upstream suppliers to help them work toward compliance, and provide financial incentives to compensate for additional costs.
- Companies should ensure that smallholders are not excluded as a result of raising procurement standards, and should commit to assisting them to achieve compliance.[37]

**For financial institutions**

- Investors and lenders should ensure that companies have a publicly available supplier verification process or protocols in place for when non-compliance by suppliers is detected.[52]
- Financial institutions such as investors and banks should expect companies to be transparent about the portion of their supply which is sourced from third parties.
- They should also ask that companies disclose how much of this third-party supply complies with the companies' own sustainability policies, and what plans are in place to ensure that the remaining supply becomes compliant.[52]

## Conclusion

As bottlenecks in the supply chain, crushers and refiners hold significant leverage over upstream companies. However, our research shows that a lack of traceability and supplier engagement is hindering progress towards implementing zero-deforestation commitments.

While 62% of companies commit to zero deforestation within their own operations, only 47% of companies commit their suppliers to zero deforestation. This leaves a significant landbank at risk of deforestation. Furthermore, only 13% commit their suppliers to restoration of non-compliant deforestation or conversion.

Only 23% of companies have both a commitment to zero deforestation applicable to their suppliers, and a time-bound commitment to achieve 100% traceability to plantation level. However, no companies report they can trace 100% of FFB from their supplier mills back to plantation level. This lack of traceability allows leakage of unsustainable palm oil into the market.

Only 6% of companies report how they support high-risk mills to become compliant with sourcing policies, or have a public time-bound plan to engage with all high-risk mills within three years. Only 3% report that they engage with a subset of high-risk mills on an annual basis. This leaves companies at risk of non-compliance within their supply chain. To drive change within the palm oil industry companies should support their suppliers to ensure policy requirements are being met.

Urgent action is needed to halt deforestation and biodiversity loss. It is essential that commitments apply not only to a company's own operations, but also to those of all its suppliers to address leakage, and that more action is taken to ensure these commitments are being implemented across the supply chain.

**Companies that fail to address these issues face significant financial, operational, reputational and regulatory risks.**

**Supply chain companies should:**

- Define and implement robust, time-bound zero-deforestation commitments which extend to all their suppliers;
- Implement commitments to achieve 100% traceability to the plantation level, and make spatial data available regarding their own operations and sourcing locations;
- Communicate their sourcing policies to suppliers, and engage with suppliers on implementation plans where they are found to be non-compliant.

**Financial institutions should:**

- Develop policies that require the companies they lend to or invest in – including other financial institutions – to commit to implementing strict NDPE commitments across their whole supply chains, or be RSPO-certified;
- Incorporate traceability into their due diligence frameworks, and require the companies they lend to or invest in to commit to 100% traceability;
- Ensure companies have publicly available supplier verification processes, and disclose the amount of their supply that complies with their sustainability policies.

## References


1 FAOSTAT. [Accessed 16 March 2020]. Available from: http://www.fao.org/faostat/en/#data/QC or alternatively: https://bit.ly/2FrPdgm

2 USDA (2020) Oilseeds: World Markets and Trade https://apps.fas.usda.gov/psdonline/circulars/oilseeds.pdf

3 Curtis, P. G., Slay, C. M., Harris, N. L., Tyukavina, A., & Hansen, M. C. (2018). Classifying drivers of global forest loss. Science, 361 (6407), 1108-1111.

4 Meijaard et al Oil Palm and Biodiversity. A situation analysis by the IUCN Oil Palm Task Force. https://portals.iucn.org/library/sites/library/files/documents/2018-027-En.pdf

5 Russell, M. (2018). Palm Oil: Economic And Environmental Impacts. European Parliamentary Research Service Blog, 19th Feb. https://epthinktank.eu/2018/02/19/palm-oil-economic-and-environmental-impacts/

6 Chain Reaction Research (2017) Unsustainable Palm Oil Faces Increasing Market Access Risks: NDPE Sourcing Policies Cover 74 Percent of Southeast Asia's Refining Capacity (Updated Version) https://chainreactionresearch.com/wp-content/uploads/2017/11/unsustainable-palm-oil-faces-increasing-market-access-risks-final-1_updated-july-2018.pdf

7 Irvan 2018 IOP Conf. Ser.: Mater. Sci. Eng. 309 012136 https://iopscience.iop.org/article/10.1088/1757-899X/309/1/012136/pdf

8 Chain Reaction Research (2019) 28 Percent of Indonesia's Palm Oil Landbank Is Stranded https://chainreactionresearch.com/wp-content/uploads/2019/07/28-of-Indonesias-Landbank-Is-Stranded-3.pdf

9 ITC Trade Map https://www.trademap.org/

10 Eyes on the Forest (2018) Investigative Report: Enough is Enough http://eyesontheforest.or.id/reports/investigative-report-enough-is-enough-jun-2018

11 Unilever Sustainable Palm Oil Sourcing Policy (2016) https://www.unilever.com/Images/unilever-palm-oil-policy-2016_tcm244-479933_en.pdf

12 PepsiCo Palm Oil Progress Report (2018) https://www.pepsico.com/docs/album/esg-topics-policies/palm-oil-progress-report-2018.pdf?sfvrsn=69379f0c_2

13 PepsiCo Palm Oil Sustainability [Accessed 16 March 2020] https://www.pepsico.com/sustainability/palm-oil

14 Palm Oil Responsible Sourcing at Nestlé 2019 Progress report https://www.nestle.com/sites/default/files/2020-01/responsible-palm-oil-sourcing-2019.pdf

15 Chain Reaction Research (2010) NDPE Policies Cover 83% of Palm Oil Refineries; Implementation at 75% https://chainreactionresearch.com/wp-content/uploads/2020/04/NDPE-Policies-Cover-83-of-Palm-Oil-Refining-Market-Update-2.pdf

16 Ceres and Climate Advisors (2017) Case Study Series: Business Risks from Deforestation https://www.ceres.org/sites/default/files/Engage%20the%20Chain/ETC%20Climate%20Advisors%20Case%20Studies%20(1).pdf

17 Chain Reaction Research (2019) Palm Oil Growers Suspended Over Deforestation Lose USD 1.1B in Equity Value https://chainreactionresearch.com/report/palm-oil-growers-suspended-over-deforestation-lose-usd-usd-1-1b-in-equity-value/

18 CERES (2019). Out on a Limb: The State of Corporate No-Deforestation Commitments and Reporting Indicators that Count https://www.ceres.org/sites/default/files/reports/2019-06/OutOnaLimb.pdf

19 Chain Reaction Research (2019) The Chain: Mizuho and Mandiri Replace Rabobank, Citigroup and Standard Chartered for Indofood Credit Facilities https://chainreactionresearch.com/mizuho-and-mandiri-replace-rabobank-citigroup-and-standard-chartered-for-indofood-credit-facilities/

20 Morel, A. et al. (2016). Stranded Assets in Palm Oil Production: A Case Study of Indonesia. Sustainable Finance Programme, SSEE, University of Oxford. Working Paper, July 2016. https://ssrn.com/abstract=2809562

21 Chain Reaction Research (2019). Deforestation-Driven Reputation Risk Could Become Material for FMCGs. https://chainreactionresearch.com/report/deforestation-driven-reputation-risk-could-become-material-for-fmcgs/

22 Paul Armstrong, "Greenpeace, Nestle in battle over Kit Kat viral", CNN, Mar 20th, 2010, http://edition.cnn.com/2010/WORLD/asiapcf/03/19/indonesia.rainforests.orangutan.nestle/

23 The Accountability Framework Initiative (AFI) [Accessed 21 January 2020]. Available from https://accountability-framework.org/contents-of-the-framework/supply-chain-management/5-engaging-with-non-compliant-suppliers

24 The Jakarta Post (2015) Kalista Alam case set precedent for combating forest fires https://www.thejakartapost.com/news/2015/09/23/kalista-alam-case-set-precedent-combating-forest-fires.html

25 ClientEarth. 2017. Voluntary 'deforestation free' commitments - Application of the Unfair Commercial Practices Directive [accessed 16 March 2020]. Available from: documents.clientearth.org/library/download-info/voluntary-deforestation-free-commitments/

26 Jong, H-N (2019). 'Bring it on,' EU MP says of trade fight over palm biofuel phase-out. Mongabay, 15 Oct. https://news.mongabay.com/2019/10/eu-palm-oil-biofuel-indonesia-malaysia-phaseout-wto/

27 The Amsterdam Declarations https://partnershipsforforests.com/partnerships-projects/the-amsterdam-declarations/

28 EU Commission (2019). Commission Delegated Regulation (EU) 2019/807 of 13 March 2019. C/2019/2055, OJ L 133, 21.5.2019. http://data.europa.eu/eli/reg_del/2019/807/oj

29 SPOTT (2019) Indicators and scoring criteria for assessing palm oil producers, processors and traders – October 2019 https://www.spott.org/wp-content/uploads/sites/3/2019/10/SPOTT-Palm-oil-scoring-criteria-2019.pdf

30 The Accountability Framework Initiative (AFI) [Accessed 21 January 2020]. Available from https://accountability-framework.org/definitions/?definition_category=17

31 EDGE of Existence, Helmeted Hornbill [Accessed 16 March 2020]. Available from: http://www.edgeofexistence.org/species/helmeted-hornbill/

32 EDGE of Existence, Javan Slow Loris [Accessed 16 March 2020]. Available from: http://www.edgeofexistence.org/species/javan-slow-loris/

33 EDGE of Existence https://www.edgeofexistence.org/

34 WRI [accessed 30 January 2020]. Available from https://www.wri.org/blog/2019/04/world-lost-belgium-sized-area-primary-rainforests-last-year

35 WRI [accessed 30 January 2020]. Available from https://www.wri.org/blog/2018/06/2017-was-second-worst-year-record-tropical-tree-cover-loss

36 WRI [accessed 30 January 2020]. Available from https://www.wri.org/blog/2017/10/global-tree-cover-loss-rose-51-percent-2016

37 CIFOR (2018). Corporate commitments to zero deforestation: An evaluation of externality problems and implementation gaps http://www.cifor.org/publications/pdf_files/OccPapers/OP-181.pdf

38 HCV Network [accessed 16 March 2020]. Available from: https://hcvnetwork.org/how-it-works/

39 High Carbon Stock [accessed 16 March 2020]. Available from: http://highcarbonstock.org/the-high-carbon-stock-approach/

40 RSPO [accessed 16 March 2020]. Available from: https://rspo.org/news-and-events/announcements/update-on-rspo-principles-and-criteria-2018-criterion-7122-and-annex-5

41 SPOTT (2019) Palm Oil: A Business Case for Sustainability https://www.spott.org/download/7891/

42 The Accountability Framework Initiative (AFI) [Accessed 21 January 2020]. Available from https://accountability-framework.org/core-principles/?core_principle=86#listing-content-top

43 The Accountability Framework Initiative (AFI) [Accessed 21 January 2020]. Available from https://accountability-framework.org/contents-of-the-framework/cutoff-dates/

44 SPOTT (2017) From Disclosure to Engagement: A Guide to the SPOTT Indicator Framework https://www.spott.org/download/6809/

45 WWF (2019) WWF Statement on the Role of Financial Institutions in Palm Oil Sector Sustainability http://awsassets.panda.org/downloads/wwf_fi_palm_oil_asks_4_4_2019.pdf

46 IDH Traceability Working Group [Accessed 21 January 2020]. Available from https://www.idhsustainabletrade.com/initiative/traceability-working-group/

47 Mallet et al 2016. ISEAL Report: How sustainability standards can contribute to landscape approaches and zero deforestation commitments

https://www.isealalliance.org/sites/default/files/resource/2017-12/ISEAL_Standards%20_Contributions_to_Landscape_Approaches_April16_Final.pdf

48 Conservation International (2019) Exploring the Reality of the Jurisdictional Approach as a Tool to Achieve Sustainability Commitments in Palm Oil and Soy Supply Chains https://www.conservation.org/docs/default-source/publication-pdfs/jurisdictional_approach_full_report_march2019_published.pdf?Status=Master&sfvrsn=23c977ae_3

49 TFT (2014) Palm Oil Industry Transformation: TFT's Perspective One Year On https://www.earthworm.org/uploads/files/TFT-palm-oil-paper-number-two.pdf

50 WWF Palm Lines report http://awsassets.wwfindia.org/downloads/Palm_Oil_Report_2017.pdf

51 Chain Reaction Research (2020) The Chain: India's Boycott of Malaysian Palm Oil May Lead to Higher Imports from non-NDPE Sellers in Indonesia https://chainreactionresearch.com/the-chain-indias-boycott-of-malaysian-palm-oil-may-lead-to-higher-imports-from-non-ndpe-sellers-in-indonesia/

52 SPOTT (2018) Sustainable palm oil and responsible investment https://www.spott.org/download/6818/

53 SPOTT (2019) The need for spatial data transparency in the tropical forestry sector https://www.spott.org/download/7673/

54 WRI [Accessed 31 January 2020]. Available from: https://www.wri.org/news/2016/06/release-first-time-companies-can-gauge-deforestation-risk-evaluating-palm-oil-mills

55 Proforest (2016) Geospatial risk assessment and'no deforestation' commitments https://proforest.net/proforest/en/publications/responsible-sourcing-and-production-briefings/bn06_rspb_web.pdf

56 POTC (2018) European First Importer Survey: 2018 Palm Oil Industry Scorecard, Public Version https://www.palmoiltransparency.org/wp-content/uploads/2019/06/2018-POTC-Scorecard-Report_public.pdf

57 RSPO Smallholder introduction [accessed 31 January 2020]. Available from: https://rspo.org/smallholders

58 SPOTT (2019) Smallholders: key to building sustainable palm oil supply chains https://www.spott.org/download/7743/

59 The Accountability Framework Initiative (AFI) [Accessed 21 January 2020]. Available from https://accountability-framework.org/contents-of-the-framework/supply-chain-management/

60 Using the IRF No deforestation and No peat template https://ndpeirf.files.wordpress.com/2019/09/ndpe_irf_03_guidance.pdf

## Annex: SPOTT-assessed companies with crushing and/or refining facilities 2019[i]

AAK AB
Agritrade International Pte Ltd
AgroAmerica
Agropalma Group
Allana Group
Apical Group
Archer Daniels Midland Company (ADM)
Asian Agri Group
Astra Agro Lestari Tbk PT
Atama Plantation Sarl
Bakrie Sumatera Plantations Tbk PT
Belém Bioenergia Brasil (BBB)
Best Group
Bewani Oil Palm Plantations Limited
Biopalma da Amazônia S.A.
BLD Plantation Bhd (Bintulu Lumber Development (BLD) Plantation)
Bunge Ltd
Cargill Inc
Carotino Group
Daabon Group
Danec S.A.
Darmex Agro Group PT
Dharma Satya Nusantara Tbk
Emami Agrotech Ltd
ENI SpA
FGV Holdings Bhd
First Resources Ltd
GAMA Plantation
Genting Plantations Bhd
Glenealy Plantations Sdn Bhd
Gokul Agro Resources Ltd
Golden Agri Resources Ltd
Golden Plantation Tbk PT
Goodhope Asia Holdings Ltd
Groupe Blattner Elwyn
Grupo Jaremar
Hayel Saeed Anam Group
IJM Plantations Bhd
Indofood Agri Resources Ltd
IOI Corporation Bhd
K Global Ventures Sdn Bhd
Kencana Agri Ltd
KS Oils Ltd
Kuala Lumpur Kepong Bhd
Kulim (Malaysia) Bhd
LLC KRC EFKO-Kaskad
Louis Dreyfus Company
Makin Group
Mewah Group
Musim Mas Group PT
NaturAceites S.A.
New Britain Palm Oil Ltd
Olam International Ltd
Palmaceite S.A.
Palmas Group
Peak Palm Oil plc
Permata Hijau Group
Priya Gold Oils
PTT Green Energy Pte Ltd
R.E.A. Holdings plc
Royal Industries Indonesia PT
Ruchi Soya Industries Ltd
Sarawak Oil Palms Bhd
Sawit Sumbermas Sarana Tbk PT
Sazean Holdings
SIFCA Group
Sime Darby Plantation Sdn Bhd
SIPEF
Siva Group
Socfin Group S.A.
Synergy Oil Nusantara PT (PT SON)
Tianjin Julong Group
Tradewinds Plantation Bhd
Triputra Agro Persada Group PT
Tunas Baru Lampung Tbk PT
United Plantations Bhd
Wilmar International Ltd

[i] Please note that companies were assessed as having crushing and refining facilities if their scope of operations was unclear from their reporting.