

# Measuring Progress Towards a Sustainable Palm Oil Supply Chain

A company's journey

August 2022





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# About this report

**In 2021, a total of 865 companies reported through CDP's 2021 forests questionnaire. Of these, 233 companies reported actions they are taking to decouple deforestation from palm oil supply chains. This report analyzes the data disclosed through CDP's forests questionnaire in 2021 by 167 companies who reported producing and/or sourcing palm oil from Indonesia. It is the fourth installment of the report focused on assessing progress towards removing deforestation from palm oil value chains in Indonesia.**

These companies' current governance, strategies and implementation measures are assessed against a series of industry-accepted measures to reduce deforestation. They are then broken down into 15 Key Performance Indicators (KPIs) across six categories, showing the critical aspects of performance towards eliminating deforestation from supply chains. The categories are based on the Task Force on Climate-Related Financial Disclosures' (TCFD) categories of governance, strategy, risk management and metrics and targets.

Two subcategories within metrics and targets are separated out, given their specific importance to deforestation, with the addition of value chain engagement and restoration. The individual KPIs are strongly based on the 12 Core Principles of the [Accountability Framework](#).

Based on their adoption of the KPIs, companies are mapped onto a pathway towards deforestation-free markets and a forest-positive future. This allows companies to benchmark against peers and follow in the footsteps of pioneers leading the market transformation.

**865**

**companies reported through CDP**

**233**

**companies reported actions they are taking to decouple deforestation from palm oil supply chains**

**167**

**companies reported producing and/or sourcing palm oil from Indonesia analyzed in this report**

## Note on methodology

For all CDP corporate questionnaires, there are two versions: full and minimum. The full version contains all questions relevant to a company, including sector-specific questions and data points. The minimum version contains fewer questions, and no sector-specific questions or data points. To encourage disclosure, companies that are disclosing for the first time or have an annual revenue of less than EUR/US\$250 million have the option to complete the minimum version. CDP's forests questionnaire also includes question dependencies meaning certain questions only appear based on previous answers. Throughout this report, the number of companies reporting on each topic will vary based on these elements and consequently so will the denominator.

# Key findings



Compared to 2020, the financial impact of forest-related risks has increased by 80%. 44% (74) of companies reported a potential impact of **US\$18.3 billion**<sup>1</sup>. The lack of companies disclosing financial information indicates this figure may be an underestimation.



In stark contrast, 40% (67) of companies reported the cost for early action to manage these risks is estimated at up to **US\$656.4 million** — only 0.37% of the total risks' value.



Overall, companies are adopting a wider range of actions. However, these actions are not yet robust enough to end commodity-driven deforestation in the palm oil value chain.

- ▼ **86% of companies** have implemented policies, but **only 22%** have public and comprehensive no-deforestation policies.
- ▼ While **75% of companies** have commitments, **only 28%** of these demonstrate good practice. **Only 2%** incorporate social elements, such as remediation of any adverse impacts on Indigenous peoples and local communities.
- ▼ Traceability systems have been implemented by **87% of companies**, but **only 25%** have the capacity to scale these to over 90% of their production/consumption back to at least municipality or equivalent.
- ▼ While **90% of companies** use certification, **only 2%** of organizations that source or produce palm oil are using deforestation-free compliance third-party verified schemes that cover over 90% of their production of palm oil and/or consumption volumes.
- ▼ **69% of companies** have a system to control, monitor, or verify their suppliers' compliance on no-deforestation/no-conversion of natural ecosystem policies. **Only 32%** have implemented such systems which further cover all relevant direct operations with over 90% of total volume in compliance alongside forest-related commitments.
- ▼ Compliance has increased, but **only 23% of companies** producing or sourcing palm oil from Indonesia assess compliance against national regulatory standards. **Most companies (79%)** assess their own or supplier compliance with forest regulations and/or mandatory standards.
- ▼ The inclusion of smallholders in supply chains is increasing, but engagement must be prioritized further. **44% of companies** work with smallholders to reduce or remove forest degradation, while **only 30%** support good agricultural practices and provide financial or technical assistance to help them achieve this.
- ▼ **83% of traders, manufacturers and retailers** work with direct suppliers to support and improve their capacity to supply sustainable raw materials. Only **35%** provide financial and technical support.
- ▼ The lack of progress in setting and meeting no-deforestation targets is evident in key actions such as traceability and certification. While **28% of companies** have traceability targets and **43% of companies** have certification targets, **only 16% and 4%** have set and are reporting linear progress towards achieving related targets.

1. The increase is both from the number of companies reporting to CDP and the average amount of risk reported.

4 

Actions beyond the value chain are increasing. This year, **61% (88) of companies** implemented ecosystem restoration and protection projects. Of these, **81% (71) reported measuring and monitoring outcomes within two years<sup>2</sup>.**

5 

Collective action is increasing, but it is still lacking. **14% (23) of companies** are involved in jurisdictional approaches to remove deforestation from their operations compared to **8% in 2020**.

2. Two years being the acceptable period to do so.



# Setting the context

**Forests play a critical role in every aspect of our lives. They provide key services that are essential for livelihoods and ecosystems, with around 500 million people depending on them directly<sup>3</sup>. Their ability to store carbon and regulate climate means that they have the potential to reduce global emissions by up to 30%<sup>4</sup>. From an economic perspective, US\$44 trillion of the global economy – equal to over half of global GDP – is dependent on nature and its services<sup>5</sup>. Despite this, in 2021, the tropics lost 11.1 million hectares (ha) of tree cover. 34% of this loss – equivalent to a rate of 10 football pitches a minute – was within tropical primary rainforest<sup>6</sup>. Expansion of commercial agriculture is the main driver of deforestation with 65.6 million ha of forest lost globally between 2001 and 2015<sup>7</sup>.**

There is now a global recognition of forests as key in tackling climate change. Tighter regulation on deforestation-linked products has been implemented and proposed in both Europe and the US. At COP26, over 30 major financial institutions with US\$8.7 trillion in assets committed to address agriculture linked to deforestation in a collective effort to end forest degradation.

Indonesia is one of the most biologically diverse countries in the world<sup>8</sup>, and is home to the earth's third largest rainforest<sup>9</sup>. It is also the world's largest palm oil producer. The expansion of palm oil plantations in Indonesia led to almost one-third of its old-growth forest being lost from 2001 to 2019<sup>10</sup>. Due to widespread habitat loss, this conversion threatens populations of critical species such as the Tapanuli orangutan and Sumatran tiger<sup>11</sup>. From emission perspective, Indonesia is the eighth largest emitter of fossil fuels<sup>12</sup> with the Agriculture, Forest and Other Land Use (AFOLU) sector accounting for 55% of its total emissions<sup>13</sup>.

The Government of Indonesia (GoI) has implemented several policies to slow the pace of deforestation. These include a permanent moratorium on primary forest and peatland conversion; "social forestry" (management and protection of forests for the benefit of local communities);

and a peatland rehabilitation program<sup>14</sup>. Under the updated Nationally Determined Contribution (NDC), Indonesia has committed to curb 60% of its emissions through transforming its Forestry and Land Use (FOLU) sector into a net-carbon sink by 2030<sup>15</sup>.

From a corporate perspective, No Deforestation, No Peat, No Exploitation (NDPE) commitments cover 83% of palm oil refineries in Indonesia and Malaysia<sup>16</sup>. Under the Consumer Goods Forum, several palm oil buyers and manufacturers have transitioned towards a forest-positive strategy. This shifts the focus to manage deforestation risk within individual supply chains while aiming to create a positive impact in the broader sourcing landscapes<sup>17</sup>.

As a result of corporate commitments, policy implementations, and favorable climatic conditions, Indonesia has seen a decline in primary forest loss over the last 5 years<sup>18</sup>. Despite the declining trend in primary forest loss, 19,000 ha of forest and peatland were cleared for palm oil plantations in 2021<sup>19</sup>. The rate of action from companies must accelerate to transform the palm oil sector. While it is critical for companies to set ambitious targets, it is equally as important for these to be implemented effectively and for their progress to be tracked.

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4. Intergovernmental Panel for Climate Change (2021). Working Group III Contribution to the IPCC Sixth Assessment Report (AR6). [https://report.ipcc.ch/ar6wg3/pdf/IPCC\\_AR6\\_WGIII\\_FinalDraft\\_Technical-Summary.pdf](https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_Technical-Summary.pdf)

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15. Ministry of Environment and Forestry (2022). Operational Plan Indonesia's FOLU Net Sink 2030. <https://www.menhk.go.id/uploads/site/post/1647334063.pdf>

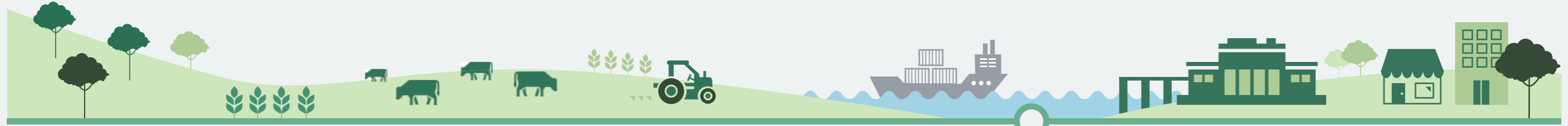
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17. The Consumer Goods Forum Positive Coalition of Action. (2022). Palm Oil Roadmap. Consumer Goods Forum. <https://www.theconsumergoodsforum.com/wp-content/uploads/CGF-FPC-Palm-Oil-Roadmap.pdf>

18. Weisse, M. K., & Goldman, E. G. (2021). Primary rainforest destruction increased 12% from 2019 to 2020. World Resources Institute. <https://wri-indonesia.org/en/blog/primary-rainforest-destruction-increased-12-2019-2020>

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# Journey to a sustainable palm oil supply chain



## Governance

- 1 Board-level oversight**  
has one of five key board positions with oversight of forest-related issues.
- 2 Policy**  
has a general or commodity-specific no-deforestation policy that is company-wide and publicly available. This incorporates social elements including remediation, restoration, compensation of past harms, and/or commitment to protect rights and livelihoods of local communities.
- 3 Commitments**  
has robust public no-deforestation commitments, covering 100% of production/consumption, includes a cutoff date before 2020 and set to be completed by 2030 with social elements eg. remediation and restoration.

## Strategy Risk management

- 4 Strategy business plans**  
has fully integrated forest-related issues into all parts of its long-term strategic business plans including in financial planning, strategy and objectives.
- 5 Forest-related risk assessment**  
has comprehensive forest-risk assessments. These cover all relevant operations with risks beyond six years and consider the future availability, quality and impact of forest-risk commodities on ecosystems, habitats and local communities.

## Value chain engagement

- 11 Smallholders**  
works with smallholders to support good agricultural practices and reduce deforestation/conversion of natural ecosystems through providing financial or technical assistance.
- 12 Direct suppliers**  
supports and improves supplier capacity to comply with forest-related policies, commitments and other requirements through financial and technical assistance.
- 13 Beyond first-tier suppliers**  
works beyond first-tier suppliers to manage and mitigate deforestation risks through supply chain mapping or capacity building.
- 14 Forest-related external activities or initiatives**  
participates in jurisdictional approaches to promote the implementation of forest-related policies and commitments.

## Measuring & targets

- 6 Certification**  
can trace over 90% of their production/consumption volume of a commodity back to at least municipality level or equivalent.
- 7 Traceability**  
has achieved or is making linear progress towards targets to source 100% no-deforestation certified commodities or trace 100% of supply back to at least municipality or equivalent level.
- 8 Targets**  
has at least 90% of its total production/consumption volume of a commodity certified in a no-deforestation compliant certification.
- 9 Compliance**  
has a system to control, monitor and verify compliance with no-deforestation policies/commitments. This covers all relevant operations with over 90% of total volume in compliance.
- 10 Legal compliance**  
assesses their own company or supplier to ensure they comply with forest regulations and/or mandatory standards if sourcing commodities from regions with high forest-related risk.

## Ecosystem restoration & protection

- 15 Beyond no deforestation**  
supports or implements ecosystem restoration and protection projects with timely monitoring and measured outcomes.



# Actions towards sustainable palm oil in Indonesia

## Overall progress since last year

**Over the last year, transparency has increased. More companies are building sustainable palm oil supply chains and disclosing through CDP. In 2020, 13% of companies reporting through CDP met no KPIs. In 2021, 28% more companies disclosed through CDP and all companies are now meeting at least one KPI.**

Despite this increase, these actions are insufficient to halt deforestation. Most companies (84%) remain at the developing stage of the CDP roadmap to deforestation-free markets, incorporating between only one and eight KPIs. No companies achieve best practice level, highlighting the need for more robust action. A full breakdown of the KPIs and year on year progress is available in the Annex – p. 35.

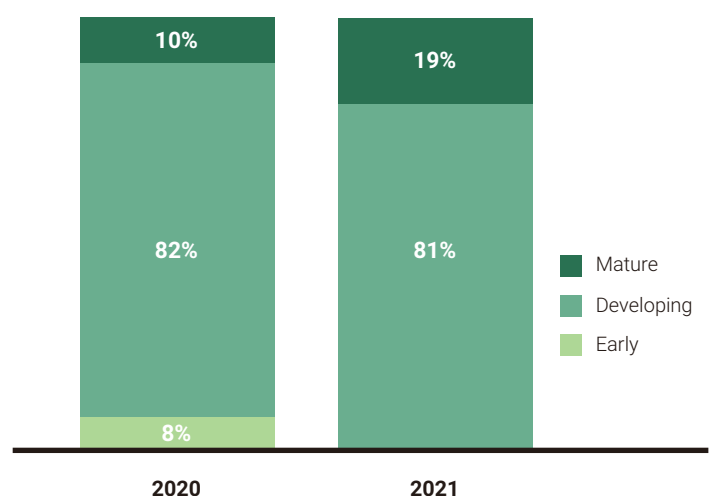
**Table 1. Levels for Maturity Stages**

Company classification	Number of KPIs adopted	2020	2021
Stage 1 (Early)	No KPIs met	17 (13%)	0
Stage 2 (Developing)	Between 1 – 8 KPIs met	101 (78%)	140 (84%)
Stage 3 (Mature)	Between 9 – 12 KPIs	12 (9%)	27 (16%)
Stage 4 (Best practice)	All relevant KPIs have been met	0	0
<b>Total disclosure</b>		<b>130</b>	<b>167</b>

The analysis further found that 92% of companies reporting in 2020 continued to disclose through CDP in 2021. Of these, 82% made no progress in maturity level to meet the KPIs. Only 8% of companies reported progress from Early to Developing while 9% reported Developing to Mature.

Increased transparency is yet to cascade to upstream suppliers. Despite a 28% increase in the total number of disclosures, only 12% of requested Indonesian palm oil producers reported their actions through CDP. This lack of visibility upstream can hinder the assessment of actions and progress working towards sustainable palm oil commitments and targets.

**Figure 2. Progress of companies' performance in 2020 vs 2021 based on the CDP market segmentation (based on subset of 119 companies who responded through CDP forests questionnaire in 2020 and 2021)**



# Governance



# Board-level oversight

**95%**

of companies that produce and/or source palm oil from Indonesia had board-level oversight on forest-related issues

Only

**55%**

of companies have oversight under one of 5 key board positions and therefore meet KPI #1

**Strong corporate governance is essential to remove deforestation from supply chains. Companies must incorporate forest-related issues into their governance procedures to ensure that deforestation is given strategic value at the senior level.**

CDP found that most companies (95%) producing and/or sourcing palm oil from Indonesia had board-level oversight on forest-related issues. Only 55% reported having one of five key board members with oversight of forest-related issues (KPI #1)<sup>20</sup>. Such oversight is essential as it ensures there is a highly qualified individual within the organization with the capacity and understanding to govern forest-related issues effectively, supporting the integration of forest issues into company-wide practices<sup>21</sup>. This enables a comprehensive response to forest-risk, often turning to expertise from other essential departments such as finance and legal.

In 2022, CDP's forest questionnaire asked companies to disclose the competency of the relevant board on forest-related issues. This additional level of detail was added to drive further action, deliver deeper commitments and elevate responses to risks, opportunities, and impacts.



20. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

21. The five key board positions are Chief Executive Officer (CEO), Board Chair, Chief Risk Officer (CRO), Chief Financial Officer (CFO), Director on Board.

# Policy and commitments

**86%**

of companies produce and/or source palm oil from Indonesia reported setting a forest-related policy

Despite this only

**22%**

of companies report policies that follow best practice (KPI #2)

**75%**

of companies have a no-deforestation or no-conversion commitment

But only

**28%**

reported a comprehensive commitment (KPI#3)

**Most companies (86%) producing and/or sourcing palm oil from Indonesia report setting a forest-related policy. However, only 22% report policies that follow best practice (KPI #2)<sup>22</sup>. The low number of companies with robust policies aligned with best practice suggests a concerning absence of intention to eradicate forest loss from corporate value chains.**

CDP's data indicates that companies' no-deforestation commitments are not sufficiently robust. While 75% of reporting companies have a no-deforestation or no-conversion commitment, only 28% reported a comprehensive commitment that meets the key elements of KPI #3<sup>23</sup>.

When integrating social, remedial, and restorative elements into the criteria, only 2% of companies fulfilled KPI #3. Given that deforestation is linked with many social issues such as inequality, poverty, and exploitation of Indigenous communities<sup>24</sup>, it is imperative for social aspects to be integrated into commitments as specified in KPI #3.

Setting and implementing comprehensive time-bound no-deforestation commitments is the first step in building ethical palm oil supply chains. Such commitments demonstrate a company's appreciation of forest-related issues and their drive to take action. Policies with social, remedial, and restorative elements clarify corporate expectations while showing accountability and constructive stakeholder engagement.

## Unilever Plc

United Kingdom

**Unilever's** 2020 People & Nature policy covers 100% of purchased volumes of palm oil to achieve its deforestation-free target by 2023. Its Responsible Sourcing Policy applies to all suppliers. Unilever reviews policies on a quarterly basis to ensure continued relevance to the issues in commodity sourcing. For palm oil, the People & Nature Policy is aligned with the Accountability Framework and goes beyond the palm oil industry standard NDPE policies and regulatory requirements. It has implemented a strategy throughout 2020 that relies on traceability and risk assessment at the sourcing origin, leading to the selection of global palm oil mills falling from 1,600 to 500, mainly in Indonesia and Malaysia. Unilever embeds policy requirements in supplier contracts, resulting in approximately 70% of its palm oil being sourced with additional controls on deforestation and ecosystem conversation by Q4 2020. In line with public Sustainable Sourcing Commitments, in 2020 Unilever sourced 99.6% RSPO-certified palm oil from suppliers who maintain compliance with the RSPO standard.

22. 'Best practice' is defined here as developing public time-bound targets, showing a company's progress in removing deforestation from operations and meeting policy objectives.

23. No-deforestation forests-related public commitment that is timebound, set to be completed by 2030, includes a cutoff date before 2020, with Free, Prior, Informed Consent (FPIC), covers 100% of production/consumption and applies to all relevant operations.

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**Strategy**

**2**

# 74%

of companies are fulfilling KPI #4 by integrating forest-related issues into their long-term business plans

including financial planning, strategy, and corporate objectives

# 57%

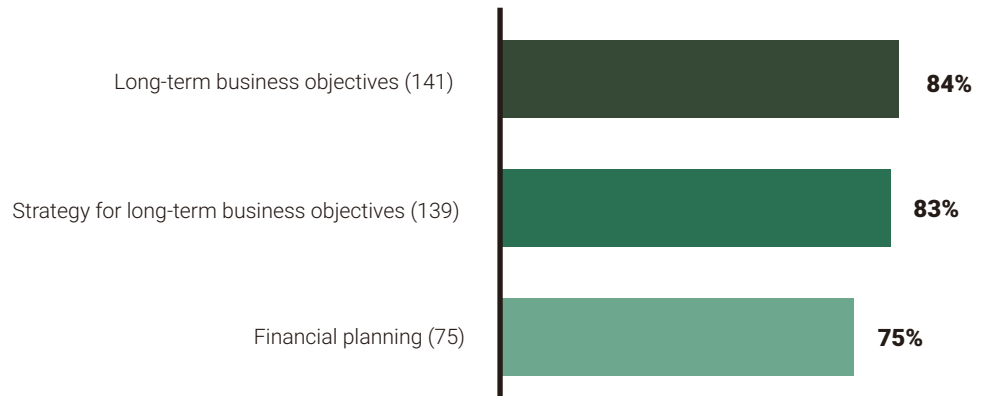
have integrated forest-related issues into at least one of those long-term business plan aspects

**To decouple commodities from deforestation, a company's policies and commitments should be reflected in their business strategy (KPI #4). Integrating forest-related issues into all parts of a long-term strategic plan demonstrates responsiveness to forest-risks, market opportunities, and the evolving policy landscape.**

Transparency of such strategies helps stakeholders to assess how companies adapt and respond to the changing market and regulatory conditions over the short, medium, and long-term.

Based on CDP data, 74% of companies are fulfilling KPI #4 by integrating forest-related issues into all parts of their long-term strategic business plans including in financial planning, strategy, and corporate objectives. 57% of companies have integrated forest-related issues into at least one of those long-term business plan aspects.

**Figure 3.** Proportion of companies integrating forest related issues into any aspects of long-term strategic business plan



# Risk management



3

**Risk assessment is a critical tool to identify and measure risk exposure. Comprehensive forest-risk assessments help companies to view the complete risk landscape, prioritize issues and devise effective mitigation plans over short and long-time horizons. Forest-related assessments should consider future scenarios – such as the availability, accessibility and quality of commodities – alongside the impacts on markets, ecosystems and people.**

In 2021, 90% of companies reported conducting forest-related risk assessments. Of these, only 38% of companies followed best practice (KPI #5)<sup>25</sup>. This suggests that the remaining 52% did not undertake thorough and sufficient procedures, potentially resulting in poor and inaccurate assessment. Assessments which follow best practice fully cover relevant operations with risks beyond six years, and consider social and environmental impacts, and include local communities.

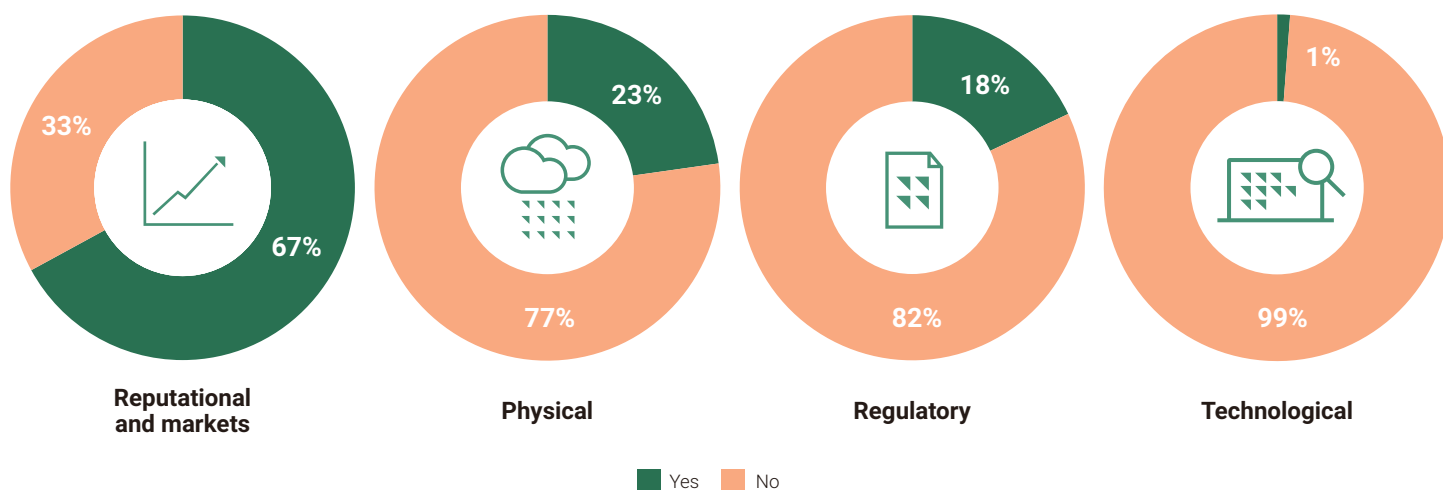
Companies continue to report risks related to producing and/or sourcing palm oil from Indonesia. 81% of companies identified at least one risk that could have a substantial financial or strategic impact on their business.

### Barry Callebaut AG

Switzerland

**Barry Callebaut** reported the availability of certified sustainable palm oil as a primary risk driver that can impact demand for its products, potentially costing US\$73.6 million. To manage this risk, Barry Callebaut reported costs of US\$213,311 which are primarily associated with its efforts to maintain relationships with different suppliers, its RSPO membership (incl. supplier engagement), and to monitor progress regarding its Sustainable Sourcing Policy for Palm Oil.

**Figure 4. Type of risk reported by companies**



25. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.



Furthermore, 44% of companies reported risks related to sourcing and/or producing palm oil from Indonesia with a value of up to **US\$18.3 billion**. This is approximately an 80% increase compared to last year whereby more than US\$10 billion value of risk was reported by 38% of companies. Reputational and market risks were mostly reported by companies with an estimated value of up to **US\$15.6 billion**. However, as under half of companies disclosed financial information, the potential financial impact is likely underestimated.

These risks are gaining recognition globally. In 2021, there was a strong shift in public policy and regulation to halt commodity-driven deforestation. Importing countries such as Germany implemented the Supply Chain Due Diligence Act<sup>26</sup> while the EU proposed to prohibit imports on deforestation-linked products<sup>27</sup>. Similar proposals were made in the UK and the US. These regulations

will limit companies' access to markets if they do not comply; Indonesian producers could see tighter regulatory requirements as a result of the government's FOLU Net Sink 2030 commitment.

Despite this significant change in policy landscape, only 18% of companies report exposure to regulatory risk. This suggests there is a low awareness among companies of the systemic threat that deforestation poses and the increased risk of stranded assets. In contrast, 40% of companies reported that the cost for early action to manage identified risks was a fraction of the risk value, estimated at **US\$656.4 million**. Furthermore, 37% of companies reported forest-related opportunities with a total value of up to **US\$7.9 billion**. The most reported opportunity was increased brand value with value of up to **US\$5.6 billion**.

## Firmenich S.A.

Switzerland

**Firmenich's** forest-related strategies include collecting and evaluating information to better understand the impact of each product by conducting life cycle analysis, natural & organic ingredients labeling guidance, developing new CO<sub>2</sub> extraction & innovative gentle extraction techniques, and augmenting clean label solutions. By communicating the measurable environmental impact to end customers, as a result, Firmenich's sustainable product branding which includes certified materials could potentially drive expansion into new markets, including new product lines and types of customers. Firmenich estimated the opportunity to expand into a new market related to the responsible sourcing of palm oil was around US\$10.6 million.



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27. European Commission. (2021). Proposal for a Regulation on deforestation-free products. [https://environment.ec.europa.eu/publications/proposal-regulation-deforestation-free-products\\_en](https://environment.ec.europa.eu/publications/proposal-regulation-deforestation-free-products_en)

# Measurement and targets



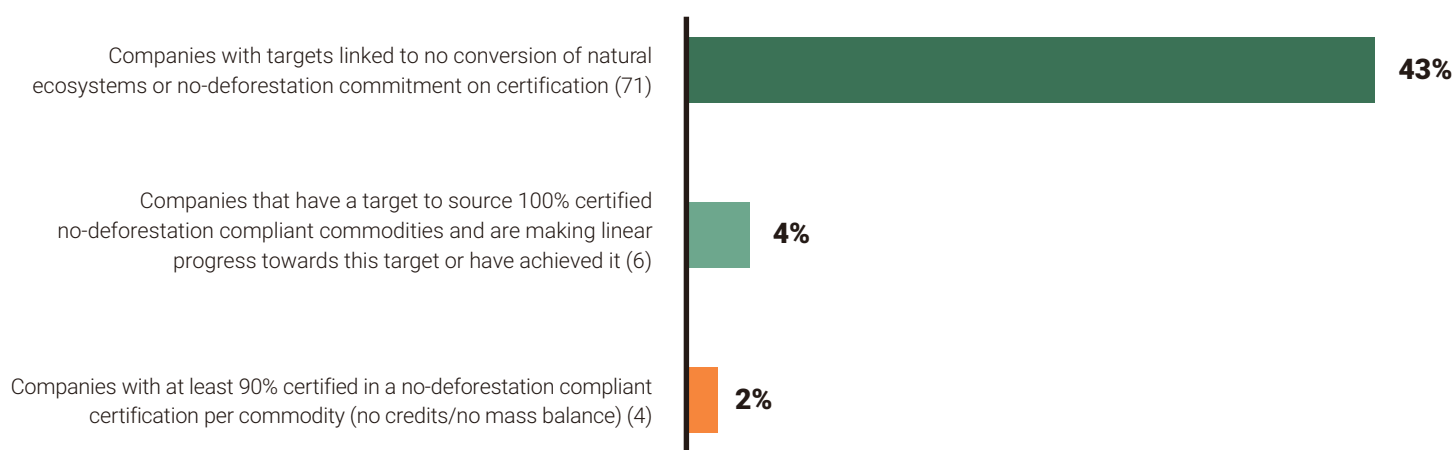
4

# Certification

**Certification can be used in a company's efforts to remove deforestation from their operations. By sourcing certified palm oil, a company can ensure the sustainable production and/or sourcing of palm oil and understand its impact. This demonstrates compliance with no-deforestation commitments while safeguarding ecosystems and communities.**

48% of companies reporting through CDP mainly rely on third-party certification to monitor and verify the compliance of their suppliers on No Deforestation, No Peat, No Exploitation (NDPE) commitments<sup>28</sup>. CDP's analysis shows that 90% of companies sourcing palm oil from Indonesia use certification. However, only 2% report that at least 90% of their palm oil is certified through schemes that provide assurance of no-deforestation or no-conversion (KPI #6).

**Figure 5. Target vs progress on certification**



Over half of disclosing companies (56%) rely on the Roundtable of Sustainable Palm Oil (RSPO) Mass Balance supply chain model to fulfill their sustainable palm oil commitment. This refers to when a supply chain consists of sustainably sourced RSPO palm oil but can still be mixed with non-certified palm oil due to a lack of administration.

The Mass Balance and Book and Claim model<sup>29</sup> can be useful in the early stage of a company's sustainability journey. However, these models do not monitor the supply chain for the presence of sustainable palm oil and cannot trace palm oil commodities to their source. They are therefore not designed to provide assurance on no-deforestation products.

More robust supply chain models are reported by far fewer companies. 26% report sourcing RSPO Segregated palm oil, which is when only certified sustainable palm oil is used and kept separate from non-certified palm oil throughout the entire supply chain.

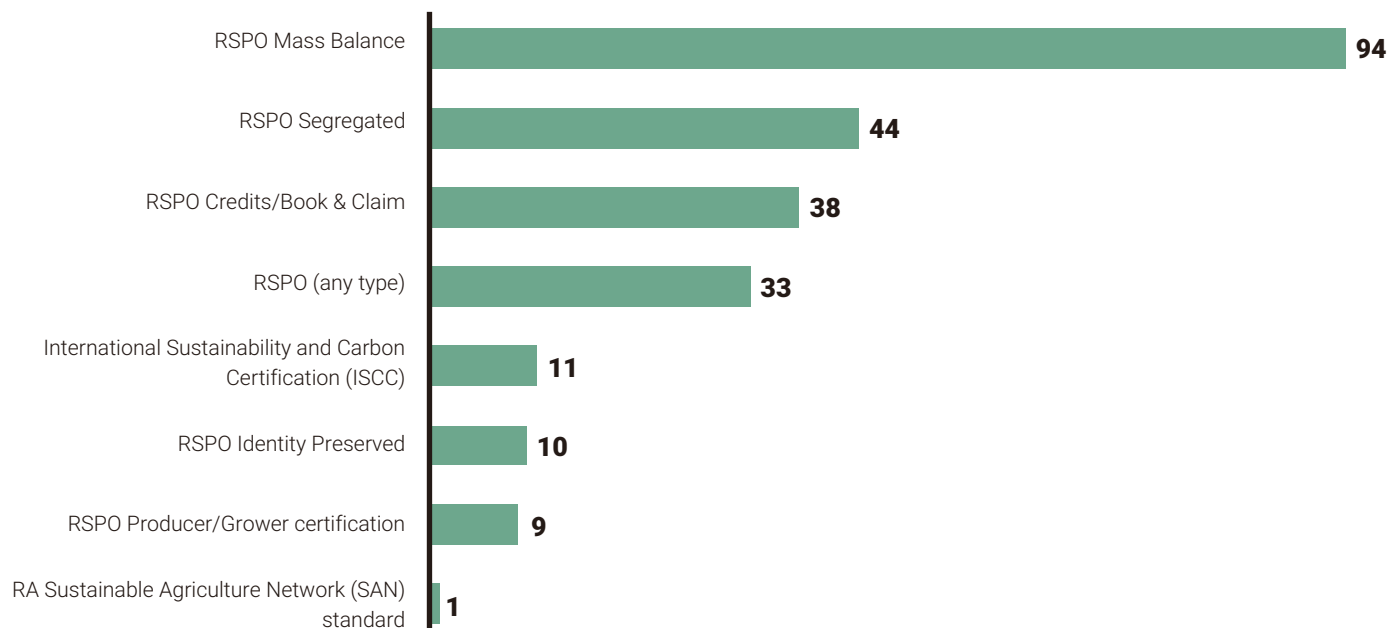
Going further than this is the Identity Preserved model, which only 7% of companies use. This refers to when the end user of the sustainable palm oil can trace its origins back to a single and certified identifiable source, such as the mill.

Without an adequate certification scheme, palm oil products cannot be verified against NDPE commitments. It is of growing urgency that companies accelerate their uptake of certified sustainable palm oil while maintaining robust environmental and social safeguards. Companies must aim to use Segregated and Identity Preserved certification to transform their operations and supply chain.

28. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

29. The supply chain is not monitored for the presence of sustainable palm oil. 23% of companies reporting through CDP use this model.

**Figure 6.** Number of companies reporting use of palm oil certification scheme



## Danone

France

On a full year basis **Danone** achieved 50% Segregated and 48% Mass balance. Because there was no RSPO segregated palm oil in the US, Danone co-built new solutions with a few Traders. Danone promotes this strategy to its peers, using it as an opportunity to create demand for fully traceable palm oil. Danone negotiated long-term contracts with its US suppliers on palm oil to co-build the first segregated RSPO Supply chain for the US market. Implementation started in December 2020. As a result, by the end of year 94% was RSPO Segregated and 4% RSPO Mass Balance. The remaining 2% of Danone palm oil is not RSPO certified – this volume is sourced from and used in Africa. As Danone is committed to achieve 100% Segregated Palm Oil, it continues to push for a transformative approach in those areas where RSPO certified and Segregated palm oil is not yet accessible.



# Traceability

**Traceability is critical for companies to track the origin of a palm oil product; as stakeholder perspectives shift, it is becoming expected that companies can identify deforestation within their supply chains and work to eliminate harmful practices.**

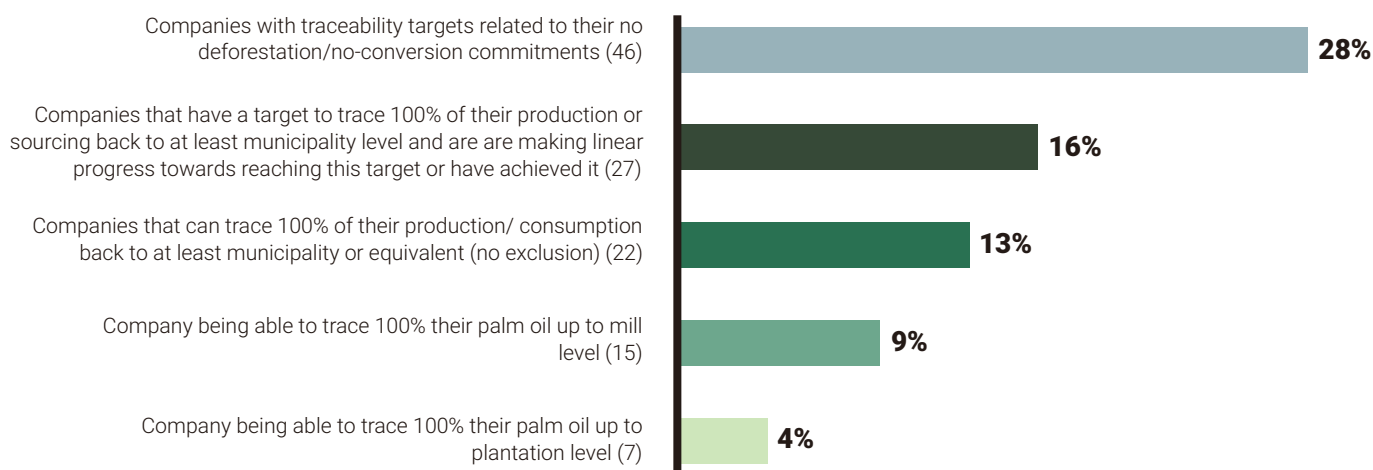
CDP's analysis found that most companies (87%) have traceability systems for their palm oil products. However, only 25% of companies reported being able to trace more than 90% of their production or consumption back to at least the municipality/processing facility level – which is the minimum level of traceability necessary to start identifying deforestation risk (KPI #7).

Only a handful of companies reported fully tracing their palm oil to mill (9%) and plantation (4%) level. Traceability to the plantation level – and to some level to the mill – allows companies to monitor and manage deforestation risk at or close to the supply sources to ensure compliance. The low number of companies able to

trace their palm oil products highlights the complexity of the palm oil supply chain and the challenges needed to be overcome to ensure full traceability.

The supply chain of palm oil is complex for various reasons. These include issues surrounding ownership, land legality, conflicts of interest and the lack of consensus on the definition of deforestation<sup>30</sup>. Supply chain complexity is consistently reported by companies (39%) as the main challenge in eliminating deforestation from their business model; as palm oil is passed from upstream producers to retailers, there are multiple changes in which stakeholders own the product. This has hindered efforts to achieve greater levels of traceability.

**Figure 7. Target vs progress on traceability for companies sourcing palm oil from Indonesia**



## KAO Corporation

Japan

**KAO** conducted surveys of Tier-4 by contacting Tier-1 suppliers to verify traceability to Tier-4. KAO have prepared a palm mills map from the palm mills list confirmed by the suppliers and used satellite imagery to check whether there are national parks, protected forests, and peatlands within a 50km radius of the palm mill location. KAO also carried out hearings with Tier-1 suppliers to assess risks in their mills. In addition, KAO carried out an on-site survey by a third-party in response to palm mills that are extremely high risk. If a non-compliance is suspected, KAO will conduct a fact-finding survey through refineries (Tier-1) in the supply chain, regarding palm kernel mills (Tier-2), palm oil mills (Tier-3) and plantations (Tier-4). Upon discovery of non-compliance in this study, KAO will cease doing business with the company and request the company to take corrective actions and comply with NDPE and HCSA.

30. Lyons-White, J. L. W., & Knight, A. T. K. (2018). Palm oil supply chain complexity impedes implementation of corporate no-deforestation commitments. ScienceDirect. <https://www.sciencedirect.com/science/article/pii/S0959378017310117>

# Targets

**81%**

of companies report forest-related targets

Despite this, only

**52%**

link their targets with a no-deforestation/ no-conversion commitment

**66%**

of companies report third-party certification targets

But only

**4%**

were making progress on their goal to source 100% no-deforestation certified commodities by 2030

**For policies and commitments to be implemented effectively, specific targets must be set. Regular reporting of progress against set targets allows companies, investors and other CDP data users to track a company's efforts in establishing ethical, deforestation-free supply chains.**

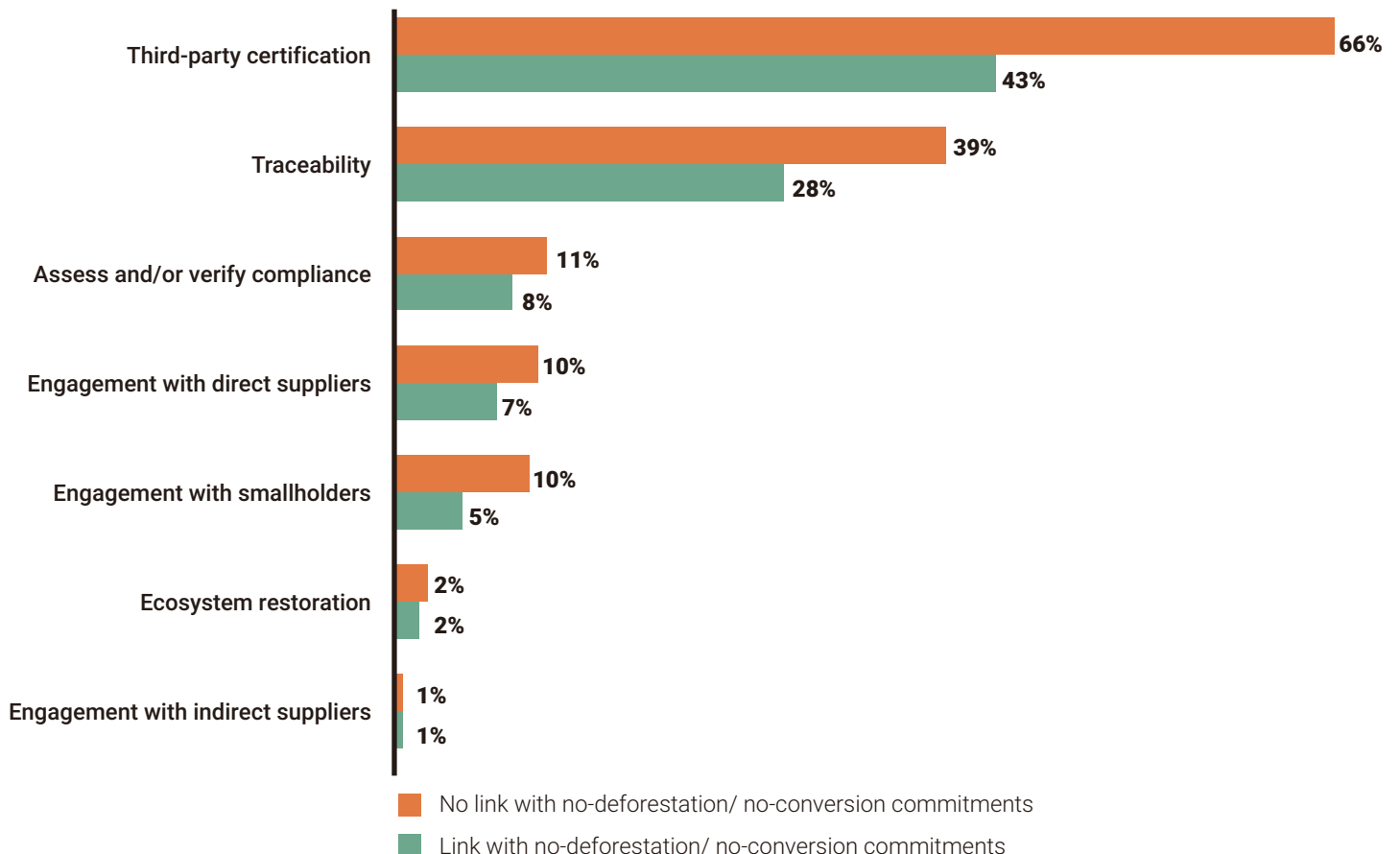
CDP's analysis found that companies sourcing palm oil from Indonesia are lacking ambitious targets and milestones. While 81% of companies report forest-related targets, only 52% link their targets with a no-deforestation/ no-conversion commitment, whether related to traceability, certification, compliance, supplier engagement or ecosystem restoration.

Sufficient progress in achieving targets is uncommon among reporting companies. Only 4% of companies with

goals to source 100% no-deforestation certified commodities by 2030 were making progress on this target, while 16% have reported making progress on their traceability targets. These involve tracing 100% of palm oil supply back to the municipality or equivalent level at a minimum (KPI #8).

There is an urgent need for better transparency within supply chains to identify where forest-related risks can be reduced most.

**Figure 8. Type of target reported by companies**



# Compliance

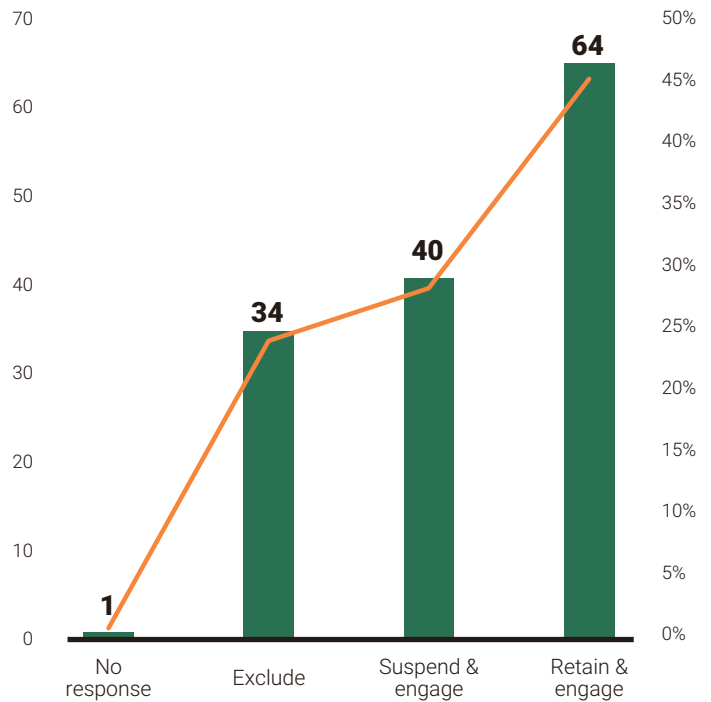
**To achieve ethical supply chains, companies need systems in place to control, monitor and verify compliance with no-deforestation targets. Robust monitoring and verification of targets facilitates accountability, ensuring that a company is complying with their targets and managing their supply chain effectively. Through establishing compliance mechanisms, suppliers not in line with no-deforestation goals can be engaged and informed of corrective actions to take. Capacity building will be key in enabling companies to better manage their supply chains; [CDP's Supply Chain Forest Program](#) offers support to help them do so.**

Data reported in 2021 indicates that 69% of companies have a system to control, monitor, or verify their suppliers' compliance on no-deforestation policies. Only 32% of companies that have a no-deforestation policy or comprehensive commitment have such a system which further covers all relevant direct operations and more than 90% of total volume in compliance (KPI #9)<sup>31</sup>.

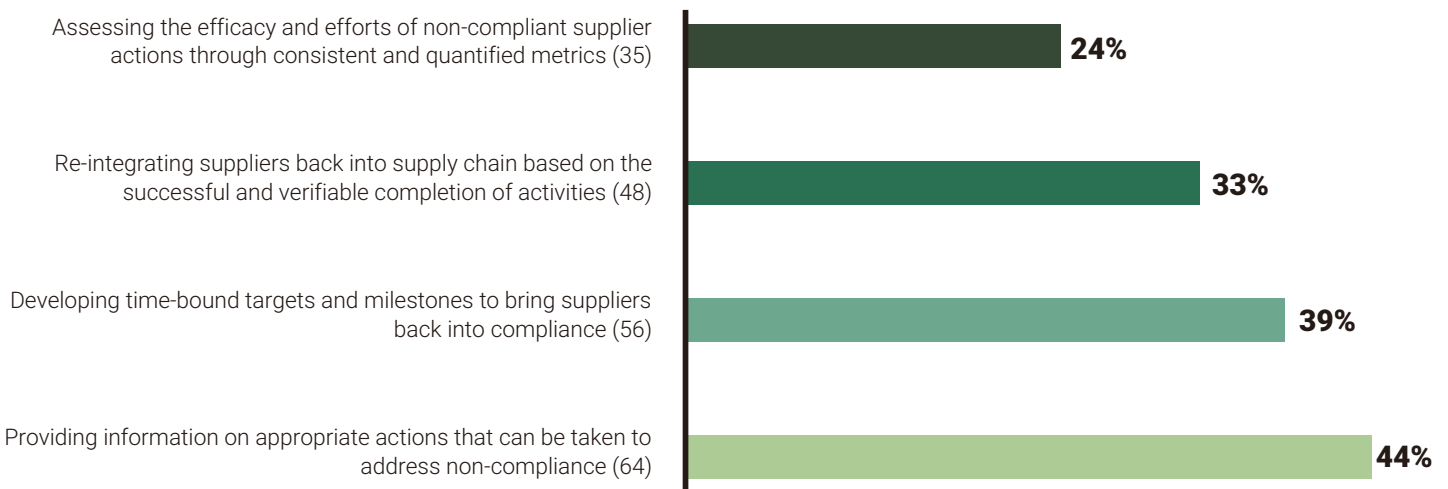
To manage non-compliance, there are several routes commonly taken by companies. 'Retain and engage' is reported as the most common response to non-compliant suppliers (44%)<sup>33</sup>. This means that the buyer continues to purchase the palm oil product while engaging with the supplier to resolve any non-compliance(s)<sup>34</sup>.

When non-compliant suppliers are identified, buyers should take follow-up actions to address and resolve non-compliance. The most common action is to provide information on appropriate steps that can be taken, which was reported by 44% of companies<sup>35</sup>.

**Figure 9. Response to non-compliance in supply chains**



**Figure 10. Procedures to address and resolve non-compliance with suppliers**



31. These numbers are out of 137 companies reporting to the question, ie those disclosing through the full-tier questionnaire that have a forest-related policy or public commitment and a system to monitor compliance.

32. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

33. Accountability Framework. (2019). Operational Guidance on Supply Chain Management. Accountability Framework. [https://accountability-framework.org/wp-content/uploads/2019/06/Operational\\_Guidance\\_Supply\\_Chain\\_Management.pdf](https://accountability-framework.org/wp-content/uploads/2019/06/Operational_Guidance_Supply_Chain_Management.pdf)

34. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

# Legal compliance

**72%**

of companies report assessing legal compliance within their supply chains

Despite this, only

**7%**

report assessing legal compliance from both suppliers and owned/managed land

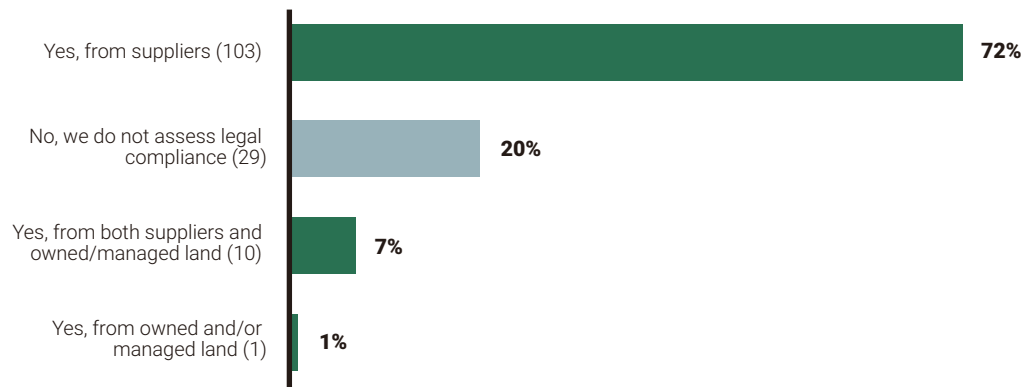
**23%**

of companies used ISPO to assess compliance of their Indonesia palm oil products in 2021

**Assessment of compliance through using legal frameworks within supply chains represents good due diligence when sourcing from forest-risk countries. It demonstrates to investors and other CDP data users that the company respects forest regulations and mandatory labor standards in countries of operations.**

Data disclosed through CDP showed that 79% of companies reported assessing legal compliance within their supply chains related to either their suppliers, their owned and/or managed land, or both<sup>35</sup> (KPI #10). Despite the importance of legal compliance, 20% of companies reported no assessment in their supply chains<sup>36</sup>.

**Figure 11. Detail on assessment of legal compliance**



Initiated by the Gol, the Indonesian Sustainable Palm Oil (ISPO) certification was rolled out in 2011. This serves as a mandatory requirement for all palm oil plantations operating in Indonesia – including smallholders – to address legal, environmental and social issues surrounding palm oil. Often referred to as Indonesia’s legal standard for palm oil operations, ISPO’s criteria is based on existing legal and regulatory requirements, notably the Indonesian Environmental Feasibility Assessment (AMDAL)<sup>37</sup>. In 2021, 23% companies reported using ISPO

to assess compliance of their Indonesia palm oil products<sup>38</sup>.

In 2020, approximately 32% of Indonesia’s total palm oil plantation area was ISPO certified<sup>39</sup>. Yet despite managing 40% of the total palm oil area<sup>40</sup> only 0.19% of total smallholder plantations were ISPO certified<sup>42</sup>. This lack of certification poses a legal risk within a company’s palm oil operations, making it increasingly important for smallholder farmers to be supported in the transition towards a no-deforestation future.

35. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

36. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

37. EFECA (2020) Palm Oil Certification Schemes: ISPO. Efeca. <https://www.efeca.com/wp-content/uploads/2020/03/Certification-Scheme-ISPO-Infobriefing-5-Part-2-Final.pdf>

38. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

39. Mongabay. (2020). Indonesia aims for sustainability certification for oil palm smallholders, Mongabay. <https://news.mongabay.com/2020/04/indonesia-aims-for-sustainability-certification-for-oil-palm-smallholders/>

40. Dikin, A., Gartina, D., Sukriya, R.L.L. (2020) Statistik Perkebunan Indonesia 2018–2020: Kelapa Sawit; Sekretariat Direktorat Jenderal Perkebunan. <https://ditjenbun.pertanian.go.id/template/uploads/2021/04/BUKU-STATISTIK-PERKEBUNAN-2019-2021-OK.pdf>

41. Pramudya, E.P., Wibowo, L.R., Nurfatriani, F., Nawireja, I.K., Kurniasari, D.R., Hutabarat, S., Kadarusman, Y.B., Iswardhani, A.O., Rafik, R. (2022) Incentives for Palm Oil Smallholders in Mandatory Certification in Indonesia. MDPI. <https://www.mdpi.com/2073-445X/11/4/576>



# Value chain engagement

5

# Smallholder engagement

**36%**

of companies report working with smallholders

Despite this, only

**17%**

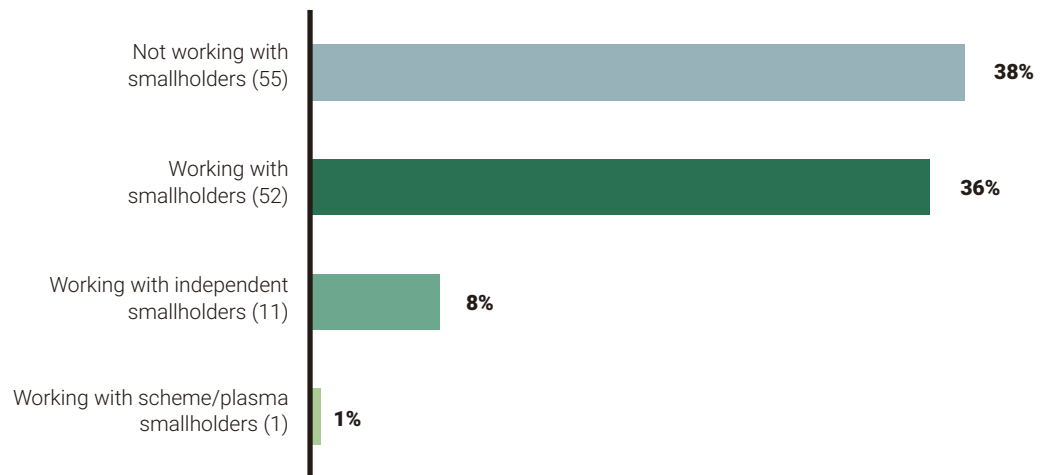
of companies provide financial and technical support to smallholders

Smallholder farmers experience significant challenges, notably economic and educational barriers<sup>42</sup>. Independent smallholders are particularly vulnerable due to these challenges as well as market insecurity<sup>43</sup>. Smallholders play a critical role in Indonesia's palm oil production. They manage around 40% of total Indonesia's plantations<sup>44</sup> which is expected to rise to 60% by 2030<sup>45</sup>. It is fundamental that companies engage with and support smallholders. Despite this, only 44% of companies reported working with smallholders to reduce deforestation and/or the conversion of natural ecosystems<sup>46</sup>. Only 8% provide support to independent smallholders<sup>47</sup>.

Businesses must recognize the importance of providing technical and financial support to smallholders if no-deforestation/no-conversion commitments are to be met<sup>48</sup>. Without this support, any efforts to reduce deforestation cannot be transformative as key social factors such as poverty are not being addressed or alleviated. An intersectional approach is essential given that these social factors are deeply intertwined with issues related to deforestation<sup>49</sup>.

Despite being critical, provision of meaningful financial and technical support is uncommon among reporting companies with only 17% reporting this action<sup>50</sup>.

Figure 12. Smallholder engagement



42. Accountability Framework. (2019). Terms and definitions. <https://accountability-framework.org/wp-content/uploads/2019/07/Definitions.pdf>

43. WR (2018). Smallholder Farmers Are Key to Making the Palm Oil Industry Sustainable. <https://www.wri.org/insights/smallholder-farmers-are-key-making-palm-oil-industry-sustainable>

44. DJP 2015 via Jelsma, I., Schoneveld, G. C., Zoomers, A., & Van Westen, A. C. M. (2017). Unpacking Indonesia's independent oil palm smallholders: An actor-disaggregated approach to identifying environmental and social performance challenges. Land Use Policy.

45. Saragih, B (2017): Oil palm smallholders in Indonesia: Origin, development strategy and contribution to the national economy. <https://www.iopri.org/wp-content/uploads/2017/10/WPLACE-17-1.1.-OIL-PALM-SMALLHOLDER-Bungaran-Saragih.pdf>

46. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

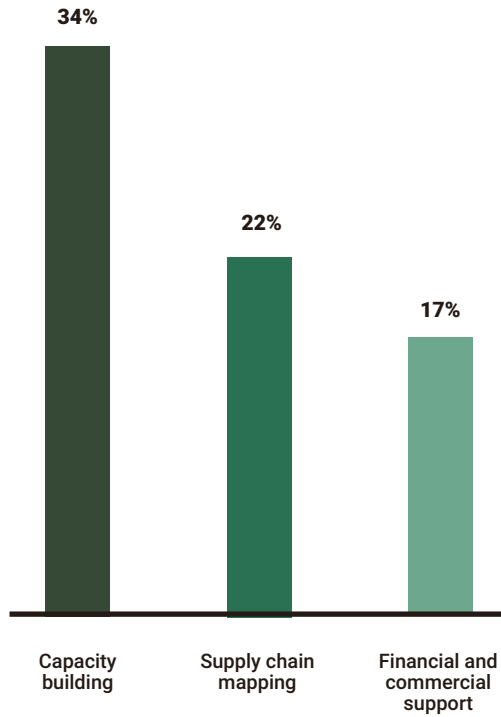
47. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

48. Climate Focus (2020). Company Progress in Engaging Smallholders to Implement Zero Deforestation Commitments in Cocoa and Palm Oil. [https://climatefocus.com/wp-content/uploads/2022/06/20200312-Smallholder-Cocoa-Palm-Report-Edited\\_FINAL\\_0.pdf](https://climatefocus.com/wp-content/uploads/2022/06/20200312-Smallholder-Cocoa-Palm-Report-Edited_FINAL_0.pdf)

49. Ibid

50. These numbers refer to the percentage of companies disclosing through the full-tier questionnaire.

**Figure 13.** Smallholder engagement approach



## Musim Mas

Singapore

**Musim Mas** works closely with smallholders through various programmes. These include a smallholder scheme programme; aiding in capacity building for best management practices and certified products; and an Initiate Fire Free Village Programme (FFVP). As of December 2020, Musim Mas' FFVP covered 75 villages spanning 468,569 hectares and conducted 144 trainings in the communities. Additionally, Musim Mas supports joint monitoring of conservation areas, provides a CSR program to smallholders, and is piloting a smallholder certification scheme with IFC (International Finance Corporation). As of 2020, 2,092 smallholders have been RSPO-certified, and Musim Mas is further working on the implementation of an Extension Service Platform for its landscape areas to extend services to independent smallholders in the third-party supply chain.



# Direct supplier engagement

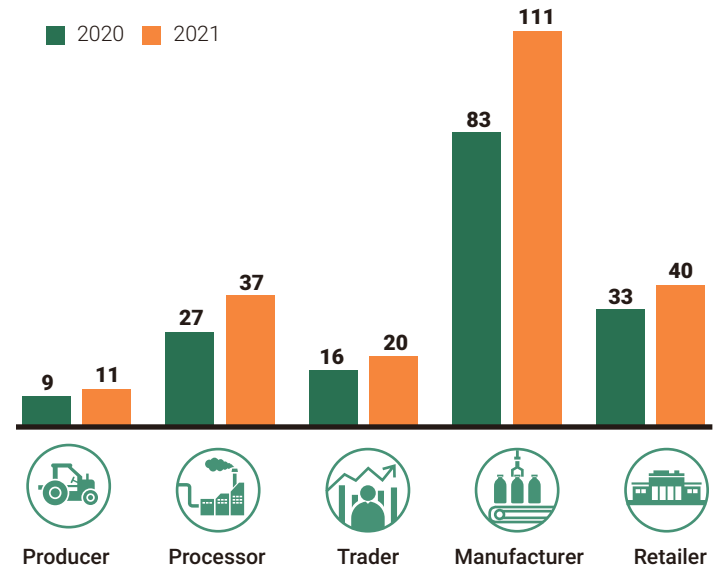
**Forest-positive and net-zero commitments are gaining momentum. To fulfil these commitments, companies must ensure their supply chains are protecting forests, natural ecosystems, and local communities. Simultaneously, decarbonization must be incorporated into all aspects of their business models. This can be achieved through reducing Scope 1<sup>51</sup>, Scope 2<sup>52</sup> and Scope 3<sup>53</sup> greenhouse gas (GHG) emissions.**

Scope 3 emissions have the most significant impact, accounting for approximately 24% of global emissions<sup>54</sup>. One company demonstrating this is **Hershey's**; they reported that 94.4% of its total GHG emissions fall under Scope 3, with 41.5% of these coming from land-use change<sup>55</sup>.

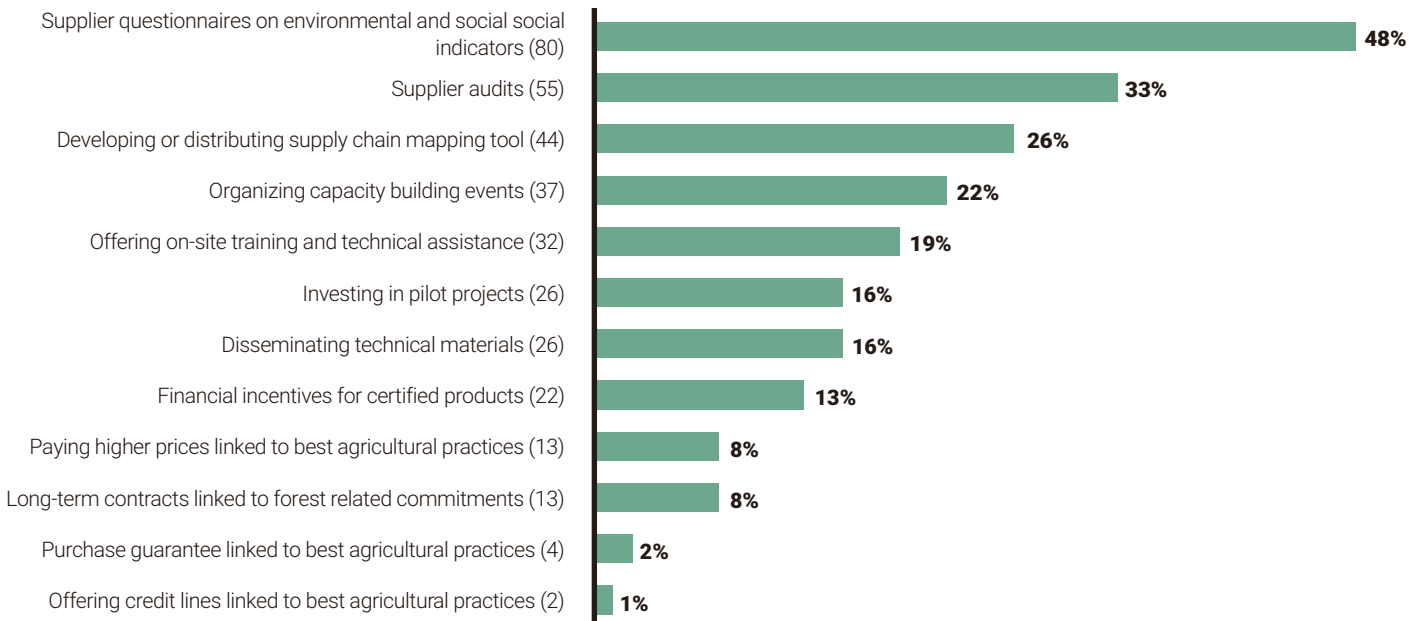
Net-zero and forest-positive economies cannot be achieved without companies engaging, influencing and supporting their suppliers to accelerate the adoption of sustainable commodity production. Whether this is achieved through adopting more regenerative practices, community inclusion, or improved land-use management, these approaches are central to protect forests and ultimately limiting global temperature rise to 1.5°C.

In 2021, 83% of processors, traders, manufacturers and retailers sourcing palm oil from Indonesia reported engaging with their direct suppliers. However, only 35% reported taking further action by providing financial and technical support to these same suppliers (KPI #12).

**Figure 14.** Number of companies reporting through CDP that produce and/or source palm oil from Indonesia, broken down by supply chain stage



**Figure 15.** Type of direct supplier engagement



51. Scope 1 emissions refer to direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organization. This includes all land-use emissions from companies that own or control land to produce agricultural and forest-risk commodities (GHG Protocol).

52. Scope 2 emissions refer to indirect GHG emissions associated with any purchases of electricity, steam, heat, or cooling (GHG Protocol).

53. Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain. This includes the emissions linked to downstream companies where sourced commodities are being produced from forest-risk products through the AFOLU sector (GHG Protocol).

54. Crippa et al. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. Nature <https://www.nature.com/articles/s43016-021-00225-9>

55. Hershey company (2021). 2020 Sustainability Report. [https://www.thehersheycompany.com/content/dam/hershey-corporate/documents/pdf/hershey\\_2020\\_sustainability\\_report\\_.pdf](https://www.thehersheycompany.com/content/dam/hershey-corporate/documents/pdf/hershey_2020_sustainability_report_.pdf)

# Beyond first-tier supplier engagement

**Among traders, manufacturers and retailers, engagement beyond the first-tier is reported by 53% companies<sup>56</sup> (KPI #13). As first-tier refers to direct suppliers, engagement can depend on the stage of the value chain that the buyer is a part of. Engagement beyond the first-tier focuses mainly on capacity building and supply chain mapping. The most common approach includes distributing supplier questionnaires on socio-ecological indicators (27%) and supply chain mapping tools (24%).**

## Neste Oyj

Finland

Since 2015, **Neste** engaged with 20 palm oil suppliers for biofuel through Traceability, Human Rights and Greenhouse Gas workshops to foster a dialogue about suppliers' concerns. To implement the Neste Responsible Sourcing Principle, it benchmarked its supplier guidelines against the Accountability Framework. Its core processes for sustainable sourcing of renewable raw materials include supplier engagement and submission of proof of sustainability documents, managed by Neste's Supplier Sustainability Portal (SSP). In 2020, the portal became fully operational which supports Neste's suppliers in the development of sustainability policies, management systems, transparency, traceability, due diligence and continuous improvements.



56. Out of companies disclosing through the full-tier questionnaire.

## Enabling greater transparency and actions towards a forest-positive future

[CDP's Supply Chain membership program](#) helps companies to tackle their environmental impact, putting suppliers on their own pathway towards environmental excellence. Purchasing members request their suppliers to disclose through CDP and provide details about relevant impacts related to climate change, forest, and water. Through CDP forests disclosure, these suppliers are engaged to increase transparency and progress to remove deforestation and forest degradation from their operations.

In 2021, 822 suppliers worldwide were requested by 21 purchasing companies to provide information on the actions being taken to tackle deforestation. Of these, only four suppliers were located in Indonesia. As this report has highlighted, the palm oil sector in Indonesia is a global hub for palm oil production and is having a severe impact on forests, ecosystems and people. It is therefore of critical importance that suppliers in Indonesia are engaged with if they are to transition towards a forest-positive, no-deforestation future. This is a matter of both ecological and economic urgency. It is in a company's best interest to take action.

The CDP forests questionnaire is equipped and annually renewed with relevant questions that drive action to transition towards forest-positive futures. Downstream companies can use this platform to ensure that their direct and beyond first-tier suppliers - particularly those in high-risk production areas - are well-informed and guided to fulfil their clients' sourcing policies and wider industry expectations.



# Forest-related external activities or initiatives

**Transformation towards a sustainable palm oil sector calls for collective actions from all stakeholders across the supply chain. To ensure that supply chains are free from deforestation, companies must align their sustainability goals with stakeholders upstream in the production landscape.**

Encouragingly, 84% of companies reported participating in external initiatives to promote the implementation of their forest-related policies and commitments. However, only 14% are involved in jurisdictional approaches<sup>57</sup> (KPI #14). Almost 50% of these companies reported engaging stakeholders beyond their value chain through landscape and jurisdictional approaches, contributing to positive impacts in Indonesia's production landscape<sup>58</sup>.

From 2021, nine companies disclosed that they are sourcing from Riau, Indonesia and are involved in a landscape project in the Siak and Pelalawan districts of

Riau. These companies work with non-profit organizations to eliminate deforestation from their supply chains and align this goal with achieving the subnational government's sustainability objectives.

To understand a company's implementation of these approaches, CDP has introduced a new set of questions in the 2022 forests questionnaire. These explore the overall initiative, type of engagement, goals, actions, and monitoring of progress within companies' landscape and jurisdictional approaches.

**Figure 16.** The 10 biggest palm oil sourcing areas as disclosed by companies vs number of companies involved in landscape/jurisdictional approaches in the respective sourcing areas



**PepsiCo**  
United States

Engaging in landscape approaches directly supports **PepsiCo's** strategy of achieving the 100% No Deforestation, No Peat, No Exploitation (NDPE) commitment. Apart from joining the coalition of companies to develop deforestation-free supply chains throughout the Siak Pelalawan Landscape Project in Indonesia, PepsiCo voluntarily pursued an ecosystem restoration project together with other companies under the Coalition for Sustainable Livelihoods in Aceh Tamiang District, Aceh Province, Indonesia.

57. Jurisdictional approach is a type of landscape approach to advance shared sustainability goals where the landscape is defined by administrative of sub-national governments and the approach is implemented with a high-level of government involvement.  
58. Landscape approach involve a collaboration of stakeholders within a landscape to advance shared sustainability goals and reconcile and optimize multiple social, economic, and environmental objective across multiple economic sectors and land uses. They are implemented through processes of integrated landscape management, convening diverse stakeholders to develop and implement land use plan, policies, investments and other interventions.

# Ecosystem restoration and protection





Restoration activities can reduce a country's emissions by up to

**35%** by 2030

But only

**6,600ha**

of land has been restored between 2018 and 2020

**61%**

of companies producing, sourcing or using Indonesian palm oil products are supporting or implementing initiatives focused on ecosystem restoration and/or protection

17% of companies have implemented and/or supported restoration initiatives in Indonesia

**The GoI has committed to curb 60% of its emissions by 2030 through transforming Indonesia's FOLU sector into a net carbon sink. Reducing deforestation and restoring degraded land is essential to achieve targets related to this commitment.**

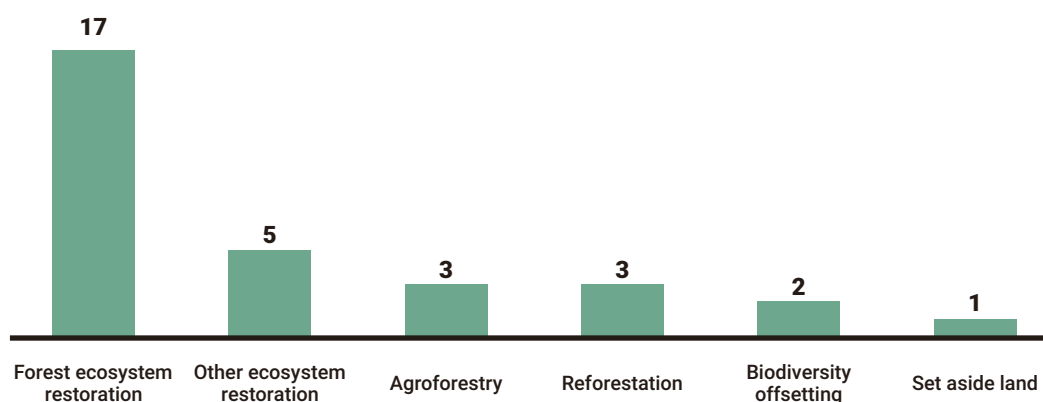
Restoration, such as set-aside land and agroforestry, can re-establish the natural function of ecosystems, increase biodiversity and enhance essential ecosystem services. In Indonesia, restoration could reduce up to 35% of the country's emissions by 2030<sup>59</sup>. Despite this, the total area of restoration in Indonesia is minimal, with only 6,600ha of land restored from 2018 to 2020<sup>60</sup>.

CDP urges companies to go beyond removing deforestation from their supply chains by protecting and restoring degraded forests within or outside of their operations. In 2021, 61% of companies producing, sourcing or using Indonesian palm oil products were supporting or implementing initiatives focused on ecosystem restoration and/or protection within some part of their global operations (in Indonesia or otherwise). 17% of companies reported implementing or supporting initiatives in Indonesia itself, the majority being forest restoration.

Any remediation efforts taken should be monitored to demonstrate the delivery of environmental and social impacts. Only 49% of companies reporting to CDP conducted timely monitoring and measured the outcomes of their relevant project(s) (KPI #15).

The need to restore Indonesian forests is increasingly urgent given the scale at which palm oil production is perpetuating forest degradation. Furthermore, as Indonesia's dry season has become more severe, a growing area of forest is being converted into grassland and shrubland due to increased fire activity<sup>61</sup>. Environmental drivers such as this emphasize the urgency to restore forests given the coupled risk that unsustainable palm oil plantations and mismanaged fire poses to ecosystems, climate and public health.

**Figure 16. Type of ecosystem restoration and protection projects implemented in Indonesia**



59. Basuki, I., Adinugroho, W.C., Utomo, N.A., Syaugi, A., Tryanto, D.H., Krisnawati, H., Cook-Patton, S.C., Novita, N. (2022). Reforestation Opportunities in Indonesia: Mitigating Climate Change and Achieving Sustainable Development Goals. MDPI. <https://www.mdpi.com/1999-4907/13/3/447>

60. Jong, H. N. (2021). Deforestation in Indonesia hits record low, but experts fear a rebound. Mongabay. <https://news.mongabay.com/2021/03/2021-deforestation-in-indonesia-hits-record-low-but-experts-fear-a-rebound/>

61. Kemen G Austin et al (2019). What causes deforestation in Indonesia? Environ. Res. Lett. 14 024007. <https://iopscience.iop.org/article/10.1088/1748-9326/aaf6db/pdf>

# The way forward

**Most companies reporting through CDP were lacking ambition to decouple deforestation from Indonesian palm oil supply chains. No companies have met all relevant KPIs in addressing deforestation. Only 17% of companies reported progress in maturity level, with the majority continuing to take limited action. Given stakeholders' increased concern and awareness of the issues related to deforestation, companies risk increasing their exposure to forest-related risks if they do not strengthen their policies and commitments and accelerate their rate of change.**

Companies need to set robust policies and commitments which integrate both environmental and social issues. These should be coupled with ambitious, measurable and time-bound targets to ensure compliance with no-deforestation commitments. Such targets include increasing traceability back to plantation level alongside adopting more stringent certifications such as Segregated and Identity Preserved.





Downstream companies must ensure supplier accountability towards NDPE commitments and maintain progress in their sustainability journey. At the same time, they need to provide meaningful technical and financial support to their suppliers - especially smallholders - to accelerate the transition. CDP's disclosure mechanism facilitates the monitoring of supplier progress and enables them, their investors, lenders and governments to make better informed decisions to continue driving improvement.

Opportunities exist for companies to tackle environmental and social forest-risks within their value chains. Jurisdictional or landscape initiatives are amongst some of the approaches that offer a tool for downstream companies to reduce supply chain risks and contribute to sustainable development in the production landscape.

Deforestation presents a systemic issue that can only be tackled collectively. Given its global extent and influence within supply chains, multi-stakeholder collaboration is essential alongside recognizing that forests are crucial for the global market. In taking action to protect and restore Indonesian forests, companies will not only enhance their sustainability commitments but they will be supporting biodiversity, climate action and local communities. Through enhanced transparency and action, there can be financial, environmental and social benefits for all.




# Annex:

## Key Performance Indicators

Category	KPI	KPI Description	Question Number	AFI Principle*	2020	2021
<b>TOTAL DISCLOSURE</b>					<b>130</b>	<b>167</b>
 Governance	1 Board-level oversight	Companies where one of five key board positions has oversight of forest-related issues - Board Chair, Director on Board, Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Risk Officer (CRO).	F4.1, F4.1a	Core Principle 4: Company systems to drive implementation	104	135
	2 Policy	Companies with either a publicly available general or commodity specific company-wide no-deforestation policy with social elements, remediation and restoration. Commitment to eliminate conversion of natural ecosystems, commitment to eliminate deforestation, commitment to no-deforestation, to no planting on peatlands and to no exploitation (NDPE), commitment to remediation, restoration and/or compensation of past harms, commitment to protect rights and livelihoods of local communities.	F4.5, F4.5a, F4.5b	Core Principle 1: Protection of forests and other natural ecosystems	90%	94%
	3 Commitments	Companies with a public no-deforestation (no-conversion of natural ecosystems, zero gross deforestation/no-deforestation) forests-related commitment with social elements, remediation and restoration that is timebound, set to be completed by 2030, includes a cutoff date before 2020, with Free, Prior, Informed Consent (FPIC), covers 100% of production/consumption and applies to all relevant operations. Includes commitments to operations in accordance with the UN Declaration on the Rights of Indigenous Peoples, remediate any adverse impacts on indigenous people and local communities, adoption of the UN International Labour Organization principles, resolution of complaints and conflicts through an open, transparent and consultative process, recognition of legal and customary land tenure rights, restoration and compensation to address past deforestation and/or conversion.	F4.6, F4.6b	Core Principle 2: Respect for human rights  Core Principle 3: Specification of commitments	18	36
 Strategy	4 Strategy	Companies that integrate forest-related issues into all parts of their long-term strategic business plans: financial planning, long-term business objectives and strategy for long-term objectives.	F5.1	Core Principle 4: Company systems to drive implementation	14%	22%
	5 Risk assessment	Companies who conduct a comprehensive forest-related risk assessment: full coverage of relevant operations with risks beyond 6 years considered and availability of forest risk commodities, quality of forest risk commodities, impact of activity on the status of ecosystems and habitats, social impacts, local communities are included in the assessment.	F2.1, F2.1a, F2.1b, F2.1c	Core Principle 2: Respect for human rights	2	3
 Risk Management	6 Certification	Companies with at least 90% of total production/consumption volume of a commodity certified in a no-deforestation compliant certification.	F6.3, F6.3a	Core Principle 5: Supply chain assessment and traceability	85	123
	7 Traceability	Companies that can trace more than 90% of their production/consumption volume of a commodity back to at least municipality or equivalent level.	F6.2, F6.2a	Core Principle 5: Supply chain assessment and traceability	65%	74%
 Measuring and Targets	8 Targets	Companies that have achieved or are making linear progress towards targets to source 100% no-deforestation certified commodities.	F6.1, F6.1a	N/A	38	55
		Companies that have achieved or are making linear progress towards targets to trace 100% of supply back to at least municipality or equivalent level.			33%	38%
	6 Certification	Companies with at least 90% of total production/consumption volume of a commodity certified in a no-deforestation compliant certification.	F6.3, F6.3a	Core Principle 5: Supply chain assessment and traceability	6	4
8 Targets	Targets	Companies that have achieved or are making linear progress towards targets to source 100% no-deforestation certified commodities.	F6.1, F6.1a	N/A	5%	2%
		Companies that have achieved or are making linear progress towards targets to trace 100% of supply back to at least municipality or equivalent level.			24	27
8 Targets	Targets	Companies that have achieved or are making linear progress towards targets to source 100% no-deforestation certified commodities.	F6.1, F6.1a	N/A	18%	16%
		Companies that have achieved or are making linear progress towards targets to trace 100% of supply back to at least municipality or equivalent level.			8	6
8 Targets	Targets	Companies that have achieved or are making linear progress towards targets to source 100% no-deforestation certified commodities.	F6.1, F6.1a	N/A	6%	4%
		Companies that have achieved or are making linear progress towards targets to trace 100% of supply back to at least municipality or equivalent level.			24	27
8 Targets	Targets	Companies that have achieved or are making linear progress towards targets to source 100% no-deforestation certified commodities.	F6.1, F6.1a	N/A	18%	16%
		Companies that have achieved or are making linear progress towards targets to trace 100% of supply back to at least municipality or equivalent level.			8	6

# Annex:

## Key Performance Indicators

Category	KPI	KPI Description	Question Number	AFI Principle*	2020	2021
 Measuring and Targets	9 Compliance	Companies that have either a no-deforestation policy or comprehensive commitment and have a system to control, monitor, or verify compliance and this system covers all relevant direct operations or supply chains and more than 90% of total volume in compliance.	F6.4, F6.4a	Core Principle 11: Monitoring and verification	35 <sup>62</sup>	44
	10 Legal compliance	Companies that produce or source commodities from regions with a high deforestation risk and assess their own compliance and/or the compliance of their suppliers with forest regulations and/or mandatory standards.	F6.6		33%	32%
					86	114
 Value Chain Engagement	11 Supply chain engagement Smallholder	Companies working with smallholders to support good agricultural practices and reduce deforestation and/or conversion of natural ecosystems by providing financial or technical assistance to help them achieve this. Financial or technical assistance includes offering on-site technical assistance and extension services, investing in pilot projects, paying higher prices linked to best agricultural practices, and financial incentives for certified products.	F6.7	Core Principle 6: Managing for supply chain compliance	75%	79%
	12 Supply chain engagement Direct suppliers	Processors, traders, manufacturers and retailers working with direct suppliers to support and improve their capacity to comply with forest-related policies, commitments, and other requirements and are providing financial or technical support to help them achieve this. Financial or technical assistance includes offering on-site training and technical assistance, investing in pilot projects, paying higher prices linked to best agricultural practices, financial incentives for certified products, offering credit lines linked to best agricultural practices.	F6.8		32	43
	13 Supply chain engagement Beyond first-tier suppliers	Traders, manufacturers or retailers working beyond first-tier suppliers to manage and mitigate deforestation risks through supply chain mapping or capacity building.	F6.9		28%	30%
					39	58
					30%	35%
					45	69
 Ecosystem Restoration and Protection	14 Forest-related external activities or initiatives	Companies participating in external activities or initiatives to promote the implementation of their forests-related policies and commitments through jurisdictional approaches.	F6.10	Core Principle 10: Collaboration for landscape and sectoral sustainability	45%	53%
	15 Beyond no-deforestation	Companies supporting or implementing projects focused on ecosystem restoration and protection with timely <sup>63</sup> monitoring and measured outcomes.	F6.12, F6.12a		N/A	10
					8%	14%
					49	71
					47%	49%

62. These numbers are out of 105 companies reporting to the question, ie those disclosing through the full-tier questionnaire that have a forest-related policy or public commitment and a system to monitor compliance.

63. 'Timely' is defined here as up to every two years.

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## About CDP

CDP is a global environmental non-profit that runs the world's environmental disclosure system for investors, companies, cities and governments to assess their impact and take urgent action to build a truly sustainable economy. Founded in 2000 and working with more than 680 financial institutions with over \$130 trillion in assets, CDP pioneered using capital markets and corporate procurement to motivate companies to disclose their environmental impacts, and to reduce greenhouse gas emissions, safeguard water resources and protect forests. Over 14,000 organizations around the world disclosed data through CDP in 2021, including more than 13,000 companies worth over 64% of global market capitalization, and over 1,200 cities, states and regions. Fully TCFD aligned, CDP holds the largest environmental database in the world, and CDP scores are widely used to drive investment and procurement decisions towards a zero carbon, sustainable and resilient economy. CDP is a founding member of the Science Based Targets initiative, We Mean Business Coalition, The Investor Agenda and the Net Zero Asset Managers initiative.

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