

# Deforestation tools assessment and gap analysis:

## *How investors can manage deforestation risk*

A REPORT PREPARED FOR KLP, STOREBRAND AND RAINFOREST FOUNDATION NORWAY  
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# Contents

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<b>Executive summary</b> .....	<b>4</b>	<b>Section 3</b> .....	<b>45</b>
<b>Section 1</b> .....	<b>7</b>	Gap analysis and recommendations .....	45
An overview of investor deforestation initiatives and expectations .....	7	Supply chain complexity .....	46
New York Declaration on Forests .....	9	Risk exposure for international investors .....	46
Accountability Framework Initiative .....	10	Differing investor motives .....	46
The investment case for zero-deforestation .....	11	Current problems for companies .....	46
Investor Initiatives on Deforestation .....	12	Current problems for investors .....	46
Investor statement on deforestation and forest fires in the Amazon .....	13	Suggested best practice assessment process .....	48
Investor working groups and statements of expectations .....	14	Investor best practice case studies .....	50
Other investor initiatives .....	15	Mapping tools and datasets to investor expectations .....	51
Summary of investor initiatives .....	17	Gap Analysis .....	52
Key investor policies .....	18	Information gaps .....	52
Summary of selected financial sector policies on deforestation .....	19	Reality gaps .....	53
Demand for tools and data .....	22	Recommendations .....	54
Implications for data and tools .....	23	For investors .....	54
<b>Section 2</b> .....	<b>24</b>	For NGOs .....	54
An assessment of existing tools and datasets .....	24	For governments and regulators .....	55
Methodology .....	26	For donors .....	55
CDP Forests Program .....	28	For ESG ratings agencies .....	55
Certification schemes .....	29		
ZSL SPOTT .....	31		
Forest 500 .....	33		
WWF scorecards .....	34		
Supply Change Initiative .....	36		
Trase .....	37		
Global Forest Watch .....	38		
RepRisk .....	39		
Encore .....	40		
GHG emissions from deforestation .....	41		
Integrating data into investor systems .....	41		
Summary .....	44		



# Executive summary

# Introduction

In a recent statement, institutional investors said that they “recognize the crucial role that tropical forests play in tackling climate change, protecting biodiversity and ensuring ecosystem services” and “are concerned about the financial impact deforestation may have on investee companies, by potentially increasing reputational, operational and regulatory risks.” However, despite this increasing financial sector awareness, investors are finding it challenging to identify and address risks arising from deforestation.

This report aims to support investors to manage deforestation risks in a systematic manner, by identifying relevant tools and data gaps and by presenting options for integrating deforestation data into existing systems for ESG and risk analysis. It is split into three sections:

- An overview of investor initiatives, policies and demand for existing tools and databases
- An analysis of existing deforestation tools and databases and their suitability for investors
- Gap analysis and recommendations

# Overview

The report looks at the evolution of private sector initiatives on deforestation, examining how corporate disclosure and policies have developed and analysing the various investor statements on expectations of companies in the palm oil, soy and cattle industries. The Accountability Framework Initiative is highlighted as an important NGO-led initiative which has established a common methodology for corporate policies on deforestation and is now working on a framework for investors to assess company performance towards a deforestation-free supply chain. The report also examines the investment case for removing deforestation from portfolios, with case studies of value destruction and accretion for shareholders.

A range of investor and bank policies on deforestation are examined to illustrate best practice and to pick up common requirements. There is reasonable consistency across finance sector policies and statements, enabling the identification of key information which investors need to evaluate companies.

# Analysis of tools and databases

There does not appear to be a clear commercial product in this space from the mainstream ESG providers such as MSCI and Sustainalytics, though progress is being made. In the absence of such a product, investors have been reliant on NGOs and independent research organisations to provide data and tools.

There are a number of reasons to believe that financial sector demand for tools and data in this space will increase over the coming year. Biodiversity appears to be moving very rapidly up the priority list of global issues, as evidenced by its inclusion in the WEF top economic risks for 2020, while the establishment of a Task Force on Nature-related Financial Disclosures, together with the extension of French climate regulation to include biodiversity, will increase investor awareness of the systemic risks they face.

The report assesses the quality and suitability of the ten leading tools and datasets in terms of scope, methodology used, availability and comparability of the data. It also examines the suitability of the tools and databases for the purposes of deforestation risk management by institutional investors in their global equity portfolios. Finally, it highlights the problems for investors to integrate data from NGO tools into their systems, and examines the development of methodologies to calculate greenhouse gas emissions from deforestation and land-use change.

While no single tool covers the precise requirements of the majority of investors, there are possibilities to synthesise the various products to produce a working assessment of deforestation risk for major downstream companies that are likely to feature in a global equity portfolio.

## Gap analysis

Before analysing gaps in the available data and tools, a number of different factors were considered:

- Complexity of supply chains
- Risk exposure for international equity investors
- Differing motives across the investor universe, from financial risk assessment through to ethical values
- Current problems facing companies, including supply chain transparency, the limitation of companies to affect complex issues and the difficulties of engaging smallholder producers
- Current problems facing investors, including how to define deforestation risk and methodologies to assess company performance.

Given the current constraints of limited information, investors are following a process to evaluate deforestation risk based on available data, analysis and independent corroboration where possible. In order to assist this, a suggested best practice assessment process is set out and some of the possible uses of the different datasets and tools within this process are highlighted. The report also examines some case studies of investor best practice on deforestation.

Across the various statements of investor expectations for the different commodities, there are eight broad requirements, such as traceability, deforestation policies, GHG emissions reduction targets and public disclosure of progress. The report assesses which of these requirements are currently monitored by the various tools and databases and what information is missing.

Taken in isolation, none of the existing tools and datasets offer information which is both necessary and sufficient for investment decisions. This is due to a number of issues, some of which can be resolved with better corporate disclosure and a common assessment methodology, while some are a function of complex supply chains and missing information which would need to be addressed by regulations. Nonetheless, in aggregate, the tools and datasets offer much useful information. Investors are able to conduct risk assessments on companies throughout the supply chain, using available information from companies, NGOs and other sources such as media and satellite imagery.

## Conclusions

We made thirteen recommendations for investors, NGOs, donors, ESG data providers and governments and regulators. We believe that all stakeholders should support the Accountability Framework Initiative in their development of a common assessment methodology, while investors should also work with organisations who are working on methodologies to estimate emissions from deforestation and land use change. We would like to see collaboration from NGOs to establish a central framework to provide data to investors in a user-friendly format, with funding from donors. Both regulators and investors can demand better corporate transparency throughout supply chains, as well as setting up a strong Task Force to look at nature-related financial disclosure. Finally, there is a role for ESG ratings agencies and other commercial data providers to incorporate existing data into their frameworks in order to help investors identify deforestation risk.

*“There are a number of reasons to believe that financial sector demand for tools and data in this space will increase over the coming year.”*

SECTION 1

# An overview of investor deforestation initiatives and expectations





## Introduction

In a recent statement<sup>1</sup>, institutional investors said that they “recognize the crucial role that tropical forests play in tackling climate change, protecting biodiversity and ensuring ecosystem services” and “are concerned about the financial impact deforestation may have on investee companies, by potentially increasing reputational, operational and regulatory risks.” However, despite this increasing financial sector awareness, investors are finding it challenging to identify and address risks arising from deforestation.

This report aims to support investors to manage deforestation risks in a systematic manner, by identifying relevant tools and data gaps and by presenting options for integrating deforestation data into existing systems for ESG and risk analysis.

## Background

Forests hold more than three-quarters of the world’s terrestrial biodiversity, while more than a billion of the world’s poorest people rely on forests for their livelihoods<sup>2</sup>. Forests also regulate rainfall patterns and are a vital source of carbon absorption<sup>3</sup>. Much of the biodiversity is stored in tropical forests, which are especially threatened today<sup>4</sup>.

Over half of the tropical forests worldwide have been destroyed since the 1960s, and every second, more than one hectare of tropical forests is deforested or degraded<sup>5</sup>. The major driver of this is land clearance for agricultural crops, such as palm oil and soy, as well as for cattle grazing and timber products<sup>6</sup>. This deforestation is causing enormous biodiversity loss, affecting local rainfall patterns and causing around 10% of global greenhouse gas emissions<sup>7</sup>.

1) <https://www.unpri.org/amazon-fires>

2) <http://www.fao.org/3/i9535en/i9535en.pdf> page x

3) <http://www.fao.org/sustainable-forest-management/toolbox/modules/forest-and-water/basic-knowledge/en/?type=111>

4) <https://www.pnas.org/content/114/23/5775>

5) <https://www.iucn.org/resources/issues-briefs/deforestation-and-forest-degradation>

6) <https://science.sciencemag.org/content/361/6407/1108>

7) <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg3-chapter9-1.pdf> p 543



The Food and Agriculture Organization of the United Nations (FAO) defines deforestation as the conversion of forest to another land use or the long-term reduction of the tree canopy cover below the minimum 10 percent threshold. Forest degradation is defined as changes within the forest which negatively affect the structure or function of the stand or site, and thereby lower the capacity to supply products and/or services, for example through the removal of high-value trees and the building of roads through a forest. Degradation often leads to deforestation as the forest ecosystem collapses.<sup>8</sup>

The primary concern of scientists and campaigners is tropical deforestation and forest degradation, given the scale and impact, though other key areas, such as ancient forests in Russia and the Cerrado in Brazil, are also being closely monitored.

The response to this deforestation has been considerable, from governments and companies to investors and consumers. While there have been some successes – Amazon deforestation fell by 75% between 2004 and 2012<sup>9</sup> – deforestation continues at a pace which is likely to cause an environmental catastrophe. The focus of campaigners has therefore shifted over the past decade to focus on the drivers of deforestation – unsustainable agricultural practices and the financing behind the companies involved.

Company deforestation policies have evolved over the past decade, starting in 2010 with the Consumer Goods Forum which announced a public commitment to achieve zero-net deforestation by 2020.<sup>10</sup> The following year, palm oil company Golden-Agri Resources introduced a Forest Conservation Policy which defined ‘high conservation value (HCV)’ and ‘high carbon stock (HCS)’ forests – broadly speaking referring to intact tropical forests which need to be preserved, as opposed to degraded land which could be turned into palm oil plantations. The policy also included a commitment not to plant on peatland, due to its high carbon stock and the release of huge amounts of greenhouse gases when it is burned.<sup>11</sup>

In 2013, major palm oil traders, including Wilmar<sup>12</sup>, built on this set of commitments which evolved into a ‘no deforestation, no peat, no exploitation’ (NDPE) policy, which is the current best practice standard today.

## New York Declaration on Forests

At the United Nations Climate Summit in 2014, a coalition of governments, civil society and private sector actors endorsed the New York Declaration on Forests (NYDF), a voluntary commitment to take action to halt global deforestation.<sup>13</sup> There are more than 200 signatories to the declaration, but a review of progress over the first five years concluded that ‘there is little evidence that these goals are on track, and achieving the 2020 NYDF targets is likely impossible.’ The review did note that ‘many private and public actors have taken action to address deforestation — but these often lack ambition and remain isolated’. The review made several recommendations, of which the following are especially relevant to investors:

‘Increases in the number of companies with commitments to reduce or eliminate deforestation from their supply chains have stalled in the last three years. Of the companies with existing commitments, only eight percent have a zero-deforestation commitment that covers all of their supply chains and operations. Companies have been slow to implement commitments due to lack of agreement on priority actions, limited understanding of where risks are, and hesitation to invest in sustainable activities where the financial returns are unclear. Furthermore, company reporting on actions taken and progress made toward achieving these commitments remains inadequate to assess the efficacy of supply chain-based zero-deforestation approaches.’

‘Achieving international and national forest goals is not possible without dedicated and reliable financing from domestic, international, public, and private sources to address each of the above drivers of forest loss. This implies a need for new finance streams, but, even more importantly, a redirecting of mainstream finance toward activities that have positive conservation outcomes (‘green’ finance). Today, green finance comprises a fraction of the grey finance flowing into countries with high levels of deforestation; development finance for agriculture amounts to 15 times more than climate mitigation finance with a forestry objective. In addition, companies and governments continue to provide subsidies and support to activities that potentially harm

8) <http://www.fao.org/3/t0829e/T0829E04.htm#Deforestation%20and%20its%20impacts>

9) <https://news.mongabay.com/2015/10/deforestation-declines-in-the-amazon-rainforest/>

10) <https://www.theconsumergoodsforum.com/initiatives/environmental-sustainability/about/our-commitments+and+achievements>

11) [https://goldenagri.com.sg/wp-content/uploads/2016/01/1.\\_GAR\\_Forest\\_Conservation\\_Policy\\_-\\_updated\\_links\\_10\\_Jan\\_2014.pdf](https://goldenagri.com.sg/wp-content/uploads/2016/01/1._GAR_Forest_Conservation_Policy_-_updated_links_10_Jan_2014.pdf)

12) [https://www.wilmar-international.com/docs/default-source/default-document-library/sustainability/policies/wilmar-ndpe-policy---2019.pdf?sfvrsn=7870af13\\_2](https://www.wilmar-international.com/docs/default-source/default-document-library/sustainability/policies/wilmar-ndpe-policy---2019.pdf?sfvrsn=7870af13_2)

13) <https://forestdeclaration.org/>

forests. Even where there is interest, financial institutions and lenders largely lack the safeguards necessary to ensure that investments and finance are not supporting deforestation.’

‘Demand-side measures play an important role in addressing drivers of deforestation. International pledges such as the Amsterdam Declaration have been made to eliminate deforestation from commodity supply chains. However, only the timber sector has seen concrete actions and regulatory measures adopted (e.g. European Union Timber Regulation, the Lacey Act in the United States). A recent European Communication on “Stepping up EU Action against Deforestation and Forest Degradation” signals that the EU is considering a set of regulatory and non-regulatory measures that reduce the import of embedded deforestation into the Union and that strengthen international cooperation in support of forest conservation and restoration. The EU is also contemplating measures that re-direct finance to support more sustainable land-use practices.’<sup>14</sup>

*“Companies and governments continue to provide subsidies and support to activities that potentially harm forests.”*

## Accountability Framework Initiative

While much progress has been made on corporate commitments, they are voluntary and vary considerably in ambition and execution, and many companies have yet to set any deforestation policies. As a consequence, the Accountability Framework Initiative (AFi) was set up in 2016 by a coalition of major NGOs to ‘accelerate progress and improve accountability on company commitments to protect forests, natural ecosystems, and human rights.’<sup>15</sup> It has established an ‘Accountability Framework’, which is a common set of deforestation and land-use definitions, norms and guidelines to enable companies to set and implement deforestation commitments.

The Framework notes a number of key obstacles which have hindered companies from making progress to honour their commitments:

- ‘Misalignment of definitions, metrics, and requirements across different standards, tools, and initiatives makes it difficult for companies to know which tools to use to fulfil their commitments, as well as how context-specific tools relate to global commitments.
- The lack of broad-based consensus of environmental and social NGOs has created further ambiguity regarding expectations for responsible supply chains.
- Norms and good practices for numerous aspects of implementation – including supply chain management, respect for land rights, remediation, traceability, monitoring, reporting, and claims – have not been sufficiently well articulated.
- There has been no standard way to assess progress or outcomes.’

The Framework is ‘intended to be applied directly by companies and their service providers to help guide the establishment, implementation, and monitoring of commitments. As a global “umbrella” of harmonized norms, the Framework can also help companies better navigate existing tools to implement their commitments across disparate contexts. In addition, the Framework is being used to help guide the development and updating of other standards, monitoring tools, guidelines, and regional and sector initiatives to align with global norms and best practices in the Framework. This helps create a more coherent and effective overall set of tools to address social and environmental risk in supply chains. Finally, the Framework is informing efforts to track progress relative to company commitments and broader pledges such as the New York Declaration on Forests.’<sup>16</sup>

14) [https://forestdeclaration.org/images/uploads/resource/2019NYDF\\_ES.pdf](https://forestdeclaration.org/images/uploads/resource/2019NYDF_ES.pdf)

15) <https://accountability-framework.org/>

16) <https://accountability-framework.org/the-initiative/>

# The investment case for zero-deforestation

As with climate change, there are various ways in which deforestation can generate risks and opportunities for investors.

At a reputational level, owning shares in a company which is revealed to be linked, directly or indirectly, with deforestation can damage the credibility of an investor, especially one with a responsible investment mandate. In addition to environmental concerns, there are also links between deforestation and slave labour, as well as exploitation of local communities. However, this creates business opportunities for investors to develop new funds which address customer demand, such as:

- deforestation-free funds
- funds aligned with the Sustainable Development Goals or the EU's green taxonomy
- impact funds, such as those launched by Impax and AXA which aim to have a net positive impact on the environment.

At a company holding level, there are an increasing number of examples where a business has suffered serious financial damage due to its involvement in deforestation. For example, the Brazilian meatpacking company JBS lost many international customers due to NGO concerns that it was sourcing cattle from farms on illegally deforested pasture.<sup>17</sup> Similarly, the palm oil company IOI Group was suspended from the Roundtable on Sustainable Palm Oil (RSPO) in 2016 due to forest clearance in violation of its own policies, and the share price dropped 18%.<sup>18</sup> Conversely, increasing demand for sustainable palm oil led to one of the leading companies, New Britain Palm Oil, being taken over by Sime Darby in 2014 at an 85% premium to the stock price.<sup>19</sup>

Changing regulations can also affect companies and lead to 'stranded assets'. For example, in 2018 the Indonesian government signed a 3-year moratorium on new licences

for palm oil plantations, which left some companies with unlicensed land which they could not use.<sup>20</sup> Stranded assets can also be caused by other factors, as the Smith School of Enterprise and the Environment highlighted in a 2016 report on the palm oil industry. They include: 'land degradation and declining ecosystem services; fire and air pollution; weather variability and climate change; GHG targets and regulations; biofuel policies; land use regulations; and pressures from sustainable development and green industry paradigms.'<sup>21</sup> In particular, evidence suggests that deforestation is raising temperatures and reducing rainfall.<sup>22</sup> These impacts, combined with the decrease in biodiversity from deforestation, resulting in lower pollination, are having a detrimental effect on crop yields. This will affect asset values at an individual company level as well as having implications at a portfolio level for investors.

Given the impact of deforestation on climate change, biodiversity and rainfall patterns, both at a local and global scale, there is a clear systemic risk for investors at a portfolio level. For example, agriculture and food systems are already seeing disruptions from drought associated with deforestation in Brazil, which has also affected hydropower and hence industrial production.<sup>23</sup> The impacts on the global economy from deforestation are expected to be severe and global investors have a vested interest in ending deforestation and reducing its climate change impacts.

In 2016, CDP published a report on 'Why addressing deforestation is critical to business success', which provides further detailed analysis.<sup>24</sup>

*“Given the impact of deforestation on climate change, biodiversity and rainfall patterns, both at a local and global scale, there is a clear systemic risk for investors at a portfolio level.”*

17) <https://www.foodmanufacture.co.uk/Article/2012/06/07/Tesco-fires-Brazilian-supplier-over-environmental-concerns>

18) <https://chainreactionresearch.com/report/ioi-corporation-customers-and-investors-want-sustainability/>

19) <https://www.reuters.com/article/us-sime-darby-bhd-new-britain-idUSKCN0HY05820141009>

20) <https://news.mongabay.com/2018/09/indonesian-president-signs-3-year-freeze-on-new-oil-palm-licenses/>

21) [https://www.smithschool.ox.ac.uk/research/sustainable-finance/publications/Stranded\\_Assets\\_in\\_Palm\\_Oil\\_Production.pdf](https://www.smithschool.ox.ac.uk/research/sustainable-finance/publications/Stranded_Assets_in_Palm_Oil_Production.pdf)

22) <https://journals.ametsoc.org/doi/pdf/10.1175/1520-0442%281991%29004%3C0957%3AADARCC%3E2.0.CO%3B2>

23) <https://news.mongabay.com/2015/11/brazil-climate-change-report-warns-of-failed-hydropower-and-crops/>

24) [https://6fefcb88e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/001/328/original/CDP\\_2016\\_for-ests\\_report.pdf?1482313940](https://6fefcb88e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/001/328/original/CDP_2016_for-ests_report.pdf?1482313940)

# Investor Initiatives on Deforestation

Over the past decade, we have seen a number of investor initiatives to address the issue of tropical deforestation. The Forest Footprint Disclosure Project was set up in 2009 by Global Canopy and later became CDP's Forests Program.<sup>25</sup> This initiative asks companies, on behalf of investors, to disclose their policies and actions to ensure that they are not causing deforestation and was the first collaborative investor action on this issue. This was followed in 2011 by the Principles for Responsible Investment (PRI) setting up an Investor Working Group on sustainable palm oil.<sup>26</sup>

The Tropical Forest Alliance was formed in 2012 to act as a collaborative space between governments, NGOs and the private sector and has a small number of finance-sector members.<sup>27</sup> In 2014, the Banking Environment Initiative and the Consumer Goods Forum created the Soft Commodities Compact to look, from the banking side, at what actions could be taken to prevent deforestation.<sup>28</sup> In 2017, the Investor Initiative for Sustainable Forests (IISF) was launched by PRI and Ceres to focus on soy and cattle supply chains and their role in deforestation.<sup>29</sup> In September 2019, an investor statement was issued in response to fires in the Amazon, calling for business leaders to reverse the trend of increasing deforestation.<sup>30</sup> This followed on from investor statements of expectations for companies in the palm oil (April 2019)<sup>31</sup>, soy (March 2019)<sup>32</sup> and cattle industries (September 2018).<sup>33</sup>

Other important private sector initiatives which investors have supported include the Soy Moratorium and the Cerrado Manifesto. The Soy Moratorium is an agreement signed in 2006 by key soy companies to ensure that soy in the Amazon was only allowed to be grown on existing converted land, not on newly deforested land.<sup>34</sup> The Cerrado Manifesto is a Statement of Support, created in 2017, which calls for "immediate action in defense of the Cerrado by companies that purchase soy and meat from within the biome, as well as by investors active in these sectors."<sup>35</sup>

Because of the climate implication of deforestation – both in terms of emissions from felling trees and the climate regulation services provided by tropical forests – investor work on deforestation is closely aligned with various climate initiatives.

The Paris Agreement in 2015 broke new ground by including, for the first time within the UNFCCC process, a collective goal to leverage finance to address climate change: "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development". (Article 2.1) It also made clear the importance of forests in climate solutions:

"5.1: Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests.

5.2: Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches."<sup>36</sup>

This has been reinforced by various Sustainable Development Goals, such as SDG 12 (responsible consumption and production) and SDG 15 (life on land). SDG 15 in particular calls for governments to "protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss."<sup>37</sup>

More recently, the Task Force on Climate-related Financial Disclosures (TCFD) has developed a

25) <https://www.cdp.net/en/forests>

26) [https://www.unpri.org/Uploads/z/k/l/termsreferencepriwgonsustainablepalmoil\\_576986.pdf](https://www.unpri.org/Uploads/z/k/l/termsreferencepriwgonsustainablepalmoil_576986.pdf)

27) <https://www.tropicalforestalliance.org/>

28) <https://www.cisl.cam.ac.uk/business-action/sustainable-finance/banking-environment-initiative/programme/sustainable-agri-supply-chains/soft-commodities>

29) <https://www.ceres.org/sites/default/files/Fact%20Sheets%20or%20misc%20files/IISF%20One-Pager%20PDF.pdf>

30) <https://www.ceres.org/sites/default/files/Investor%20statement%20on%20deforestation%20and%20forest%20fires%20in%20the%20Amazon.pdf>

31) [https://d8g8t13e9vf2o.cloudfront.net/Uploads/y/y/p/investorexpectationsstatementonsustainablepalmoil\\_551518.pdf](https://d8g8t13e9vf2o.cloudfront.net/Uploads/y/y/p/investorexpectationsstatementonsustainablepalmoil_551518.pdf)

32) [https://www.ceres.org/sites/default/files/Letters/Investor\\_Expectations\\_SoyLetter\\_0319.pdf](https://www.ceres.org/sites/default/files/Letters/Investor_Expectations_SoyLetter_0319.pdf)

33) <https://www.ceres.org/sites/default/files/Fact%20Sheets%20or%20misc%20files/Investor%20expectations%20statement%20on%20deforestation%20in%20cattle%20supply%20chains.pdf>

34) <https://abiove.org.br/en/sustainability/>

35) <https://cerradostatement.fairr.org/>

36) [http://unfccc.int/files/meetings/paris\\_nov\\_2015/application/pdf/paris\\_agreement\\_english\\_.pdf](http://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf)

37) <https://sustainabledevelopment.un.org/?menu=1300>

standardised way of assessing climate risks, looking at physical, transition and regulatory risks. Deforestation is a driver of some physical risks, such as localised droughts and floods, and companies involved in deforestation face increasing regulatory risks. The TCFD framework has been used by initiatives such as the Investor Initiative for Sustainable Forests (see below) to help define and structure their expectations of companies.<sup>38</sup>

*“Because of the climate implication of deforestation – both in terms of emissions from felling trees and the climate regulation services provided by tropical forests – investor work on deforestation is closely aligned with various climate initiatives.”*

Photo: Araquém Alcantara



## Investor statement on deforestation and forest fires in the Amazon

In September 2019, PRI and Ceres coordinated an investor statement in response to devastating fires in the Amazon, partly fuelled by deforestation in Brazil and Bolivia. Investors noted that “it is with deep concern that we follow the escalating crisis of deforestation and forest fires in Brazil and Bolivia. As investors, who have a fiduciary duty to act in the best long-term interests of our beneficiaries, we recognise the crucial role that tropical forests play in tackling climate change, protecting biodiversity and ensuring ecosystem services.”

The statement was endorsed by 254 investors, representing around \$18 trillion of assets under management, and called for the following corporate actions:

1. A commodity-specific no deforestation policy with quantifiable, time-bound commitments covering the entire supply chain and sourcing geographies.
2. Assessing operations and supply chains for deforestation risk and reduce this risk to the lowest possible level, disclosing this information to the public.
3. Establishing a transparent monitoring and verification system for supplier compliance with the company’s no deforestation policy.
4. Reporting annually on deforestation risk exposure and management, including progress towards the company’s no deforestation policy.
5. The essential elements of this are a policy, a risk assessment, a monitoring system and public reporting on progress. We compare these elements with other expectations documents in the following sections.

38) <https://www.fsb-tcfid.org/>



Photo: Araquém Alacantara

## Investor working groups and statements of expectations

The investor statement on fires in the Amazon sets out broad elements for companies across different commodities and different parts of the supply chain. There are two key initiatives looking at specific commodities associated with deforestation.

### Palm Oil

The PRI Investor Working Group on sustainable palm oil has three key aims:

- raising investor awareness of the ESG issues within the palm oil value chain;
- providing a unified investor voice in support of sustainable palm oil;
- engaging with companies across the value chain in support of more sustainable practices.

The group has more than 50 signatories who have endorsed a palm oil statement of expectations, which highlight three areas for company action:

1. To adopt and implement a publicly available 'no deforestation, no peat, no exploitation' (NDPE) policy.
2. To commit to full traceability of palm oil to the plantation level and report on progress and practices towards these commitments. In particular, they expect companies involved in the production of palm oil to map and disclose their palm oil concession areas
3. They strongly encourage these companies to make efficient investments to improve palm oil yield and productivity

### Soy and cattle

The Investor Initiative for Sustainable Forests (IISF) is a collaboration between PRI and Ceres, to 'help investors to understand how deforestation within cattle and soybean supply chains represents a material risk to companies. It is coordinating collaborative investor engagement with companies that have either a direct or indirect exposure to commodity-driven deforestation, whilst also addressing other ESG issues related to soft commodity production, such as poor working conditions, land rights and impact on indigenous peoples. More than

35 investors are already engaging with over 20 companies across the soy and cattle value chains.<sup>39</sup>

The soy and cattle recommendations are made in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. These address four key areas: governance, risk management, strategy and metrics/targets.

For soy, the key elements of the expectations are:

1. Board-level oversight
2. Commodity-specific deforestation policy (consistent with the investor statement earlier)
3. Assessment of deforestation risks and clear commitment to traceability and monitoring/verification, and disclosure of metrics used
4. Disclosure of compliance with the company's policy and clear protocol for non-compliance
5. Strategy to reduce all GHG emissions and public disclosure of these emissions

For cattle, the key elements of the expectations are:

1. Board-level oversight
2. Commodity-specific deforestation policy (consistent with the investor statement earlier)
3. Assessment of deforestation risks and clear commitment to traceability and monitoring/verification, and disclosure of metrics used
4. Disclosure of procurement standards, verification systems and participation in collaborative initiatives
5. Public disclosure of progress towards commitments and GHG emissions

## Other investor initiatives

### Soft Commodities Compact

While the soft commodities compact is a banking sector initiative, we note the expectations for companies, which were to be able to verify that their operations were consistent with zero deforestation by 2020. The Compact has not been especially successful and is being restructured.

### CDP Forests

CDP's Forests Program is backed by 525 investors managing \$96 trillion in assets. It also has a supply chain component, in which 14 large purchasing companies request information from their supply chain on deforestation policies and actions. The investor request is sent to 1,500 companies chosen for their involvement in sectors which are traditionally linked with deforestation such as food and mining. In 2018, 306 of these companies responded with information.

The request focuses on seven key commodities:

- Palm oil
- Cattle products
- Soy
- Timber products
- Rubber
- Cocoa
- Coffee

The information requested is consistent with investors' expectations, looking at policies, commitments, various metrics, risk assessments, traceability, etc. It does, however, cover more commodities than the specific investor expectations documents.

### Natural Capital Finance Alliance (NCFA)

The NCFA was created by UNEP FI and Global Canopy in 2012 as the Natural Capital Declaration for the Rio +20 Summit. The Declaration was signed by 40 financial institutions and commits them to the integration of natural capital considerations into financial sector reporting.

While not specifically focused on deforestation, it covers biodiversity and natural capital more broadly and many of the members are involved in deforestation initiatives. The Alliance also produces a tool, Encore, which will be considered later in this report.<sup>39</sup>

39) <https://encore.naturalcapital.finance/en>

Photo: Araquém Alacantara



### Ceres/INCR shareholder resolutions

Ceres and their investor network have filed shareholder resolutions in the US for the past decade or so. Over that time, 78 resolutions have been filed on deforestation-related topics, of which 35 were withdrawn due to company commitment to comply, and a further 6 were withdrawn due to a dialogue being started with the company, illustrating reasonable success at influencing corporate behaviour.

The majority of the resolutions have focused on requesting a report on supply chain deforestation impacts or adopting a supply chain deforestation policy, consistent with the main investor expectation documents. Earlier resolutions tended to focus on specific commodities, especially palm oil and timber products.<sup>40</sup>

### Climate Action 100+

The Climate Action 100+ initiative is an investor-led program which seeks “to engage systemically important greenhouse gas emitters and other companies across the global economy that have significant opportunities to drive the clean energy transition and help achieve the goal of the Paris Agreement.”<sup>41</sup>

There are several deforestation-related companies included in the target list, such as Bunge, Suzano and Weyerhaeuser, together with other important players in the consumer goods sector, such as Unilever, Colgate-Palmolive, Nestle and Danone. Deforestation is explicitly mentioned as a driver of emissions and a focus for engagement:

“The 14 consumer product companies engaged by Climate Action 100+ represent a mix of retail, food and beverage, consumer products, and paper companies. These companies are exposed to physical risks, (from shifting rainfall patterns, temperature variation, and extreme weather events), as well as risks associated with GHG emissions via their operations and supply chain. The key challenge for these companies is to address emissions from their extended supply chain (scope 3) emissions. Investors are advocating for Science-based Targets that include scope 3 emissions, and for the disclosure of specific emission reduction plans for important sources such as livestock production, deforestation, and product waste.”<sup>42</sup>

40) <https://www.ceres.org/resources/tools/climate-and-sustainability-shareholder-resolutions-database>

41) <http://www.climateaction100.org/>

42) <https://climateaction100.files.wordpress.com/2019/10/progressreport2019.pdf> p 56



# Summary of investor initiatives

Photo: Araquém Alcantara



Initiative	Primary aim(s)	Commodities covered	Company asks
<b>Investor statement on deforestation</b>	Set out key expectations for companies	All	<ul style="list-style-type: none"> <li>• Policy</li> <li>• Risk assessment</li> <li>• Supplier compliance</li> <li>• Public reporting</li> </ul>
<b>PRI working group on palm oil</b>	<ul style="list-style-type: none"> <li>• Raise investor awareness;</li> <li>• Support sustainable palm oil;</li> <li>• Engage with companies for more sustainable practices.</li> </ul>	Palm oil	<ul style="list-style-type: none"> <li>• NDPE policy</li> <li>• Full traceability</li> <li>• Productivity improvements</li> </ul>
<b>Investor Initiative for Sustainable Forests</b>	<ul style="list-style-type: none"> <li>• Raise investor awareness of materiality;</li> <li>• Engage with companies for more sustainable practices.</li> </ul>	Cattle and soy	<ul style="list-style-type: none"> <li>• Board-level oversight</li> <li>• Deforestation policy</li> <li>• Assessment of deforestation risks and clear commitment to traceability</li> <li>• Disclosure of progress and compliance</li> <li>• Strategy to reduce all GHG emissions</li> </ul>
<b>INCR deforestation-related resolutions</b>	Corporate behaviour change	All	<ul style="list-style-type: none"> <li>• Deforestation policy</li> <li>• Assessment of deforestation risks</li> </ul>
<b>CDP Forests Program</b>	Corporate disclosure of deforestation-related policies and metrics	All	<ul style="list-style-type: none"> <li>• Deforestation policy</li> <li>• Commodity volumes</li> <li>• Traceability</li> <li>• Commitments</li> <li>• GHG emissions</li> </ul>
<b>Natural Capital Finance Alliance</b>	Financial institutions integrating natural capital considerations into processes	All	n/a
<b>Climate Action 100+</b>	Engage companies to help reduce emissions in line with Paris Agreement	All	<ul style="list-style-type: none"> <li>• Strategy to address risks</li> <li>• GHG emissions reductions</li> </ul>
<b>Soft Commodities Compact</b>	Zero net deforestation of all banking customers	Palm oil, timber, soy	<ul style="list-style-type: none"> <li>• Certification</li> </ul>

# Key investor policies

We considered a range of investors and banks to examine their policies on deforestation (if they have one) and to assess the information which they require from companies and from other sources. We looked at the most recent “Forest 500” report, which sets out the 500 most influential companies in the deforestation-related commodity supply chains, including 150 financial institutions. We chose the top-ranking banks and investors in this report as they were likely to have the most in-depth requirements, as well as adding other relevant investors.

**The following 19 companies were examined:**

- Aberdeen Standard
- AXA Investment Managers
- Stewart Investors
- Zevin Asset Management
- Rathbone Greenbank
- BNP Paribas
- Rabobank
- Deutsche Bank
- Standard Chartered
- ING
- HSBC
- Westpac
- ABN Amro
- Credit Suisse
- Storebrand
- Aviva Investors
- Hermes EOS
- KLP
- Nordea

**Some key requirements to note:**

**BNP:** policies required including free, prior and informed consent (FPIC), protection of High Conservation Value (HCV) Forests

**Rabobank, Deutsche Bank:** forestry/palm oil companies certified, zero deforestation, traceability

**Standard Chartered:** ban on soy in the Amazon or Cerrado, ban on conversion of HCV Forests; expect certification and sustainable sourcing policy (require for palm oil)

**ING:** ban on all new palm oil clients, ban on conversion of HCV Forests, require traceability, certification, NDPE policy for palm oil

**Westpac:** require all companies to be certified, NDPE policy in palm oil

**Storebrand:** aim to have an investment portfolio that does not contribute to deforestation by 2025.



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# Summary of selected financial sector policies on deforestation

Photo: Shutterstock



Company	Specific deforestation policy	Commodities covered	Certification required	Deforestation policy required	Excluded from business	Notes
Aberdeen Standard	No, but engages with companies					Acknowledgement of material risks from deforestation
ABN Amro	Sustainability policy	All	Yes for timber and palm oil, encouraged for others	Effectively		
Aviva Investors	For Stewardship Funds					“Certain sectors, including consumer goods companies, retailers and the financial sector also have a significant climate footprint via deforestation in their supply chain/client and investments. We therefore engage with these companies to encourage them to strengthen their deforestation policies and performance.”
AXA Investment Managers	Palm oil policy	Palm oil	Yes	Effectively (through certification)	Companies not committed to RSPO certification plus several other criteria	
BNP Paribas	Yes	All	Encouraged	No HCV, no slash-and-burn		
Credit Suisse	Yes	All	Yes, for palm oil, all others encouraged		No peat, no HCV	

Company	Specific deforestation policy	Commodities covered	Certification required	Deforestation policy required	Excluded from business	Notes
Deutsche Bank	Set of guiding principles	All	Yes	Yes		
Hermes EOS						"Corporate engagement. Long-term outcomes we seek include: no net loss and the long-term rehabilitation of all land forms such as tropical forests"
HSBC	Yes	All	Yes for palm oil	NDPE for palm oil	No deforestation, peat or exploitation (NDPE)	
ING	Yes	All	Yes	NDPE for palm oil	No new palm oil companies, no deforestation or HCV forests	
KLP	Expectations document	All	Encouraged		Severe environmental damage. Various black-listed companies inc Genting, Halcyon Agri and IJM	In line with Paris Agreement. "KLP expects companies to minimise the negative impact on the environment and biodiversity caused by their use of resources, land occupation and use, and pollution."
Nordea	Palm oil policy	Palm Oil	Yes	NDPE		
Rabobank	Yes	Timber, palm oil, soy	Yes	Yes		
Rathbone Greenbank	No, working to promote awareness and transparency					
Standard Chartered	Yes	All	Yes	NDPE for palm oil	No new plantations or ranches on HCV, HCS or peat; no soy from Brazilian Amazon or Cerrado	

Company	Specific deforestation policy	Commodities covered	Certification required	Deforestation policy required	Excluded from business	Notes
Stewart Investors	No, but set of requirements sent to companies	All	Encouraged	Encouraged		
Storebrand	Yes	All	Encouraged	Expectation	No HCV	To have an investment portfolio that does not contribute to deforestation by 2025
Westpac	Yes	All	Yes	NDPE for palm oil		
Zevin Asset Management	No, but engaging with companies	All	Encouraged	Encouraged		

Photo: Araquém Alácantara



# Demand for tools and data

There does not appear to be a clear commercial product in this space from the mainstream ESG providers such as MSCI and Sustainalytics, though we believe progress is being made. In the absence of such a product, investors have been reliant on NGOs and independent research organisations to provide data and tools.

While it is difficult to ascertain the exact adoption and use of tools and databases provided by NGOs, it would seem that CDP's Forests program has the widest support from investors. Whether they are directly using the data which is collected is another question, but the program is nonetheless a clear driver of corporate awareness and disclosure on deforestation issues.

From conversations with banks and investors, we believe that the other main tools and databases which investors are using are ZSL's SPOTT, Global Forest Watch and Trase.

There are a number of reasons to believe that demand for tools and data in this space will increase over the coming year. Biodiversity appears to be moving very rapidly up the priority list of global issues, as evidenced by its inclusion in the WEF top economic risks for 2020. Given that deforestation is a major source of biodiversity loss, the following important developments should have a knock-on effect on demand from investors.

## Links between Covid-19 and biodiversity loss

The Covid-19 pandemic has focused attention on the links between habitat destruction and animal-borne viruses (zoonoses). A recent study by Stanford University concluded that 'viruses that jump from animals to people, like the one responsible for COVID-19, will likely become more common as people continue to transform natural habitats into agricultural land.'<sup>43</sup> This has been supported by many other studies, such as a 2005 article in the *Emerging Infectious Diseases* journal which noted that 'zoonoses are associated with a wide range of drivers, but changes in land use and agriculture and demographic and societal changes are most commonly cited'.<sup>44</sup>

## Extension of French law to include biodiversity

In 2016, the French government included Article 173 in its 'energy transition for green growth' law, following on from

the Paris Agreement. The Article asks investors to report how they integrate ESG criteria in their investment policies, with a particular focus on climate.<sup>45</sup> The government recently announced that Article 173 would be extended to include biodiversity from 2021.<sup>46</sup> This will require all major French companies and investors to disclose their risks relating to biodiversity and has prompted several French asset managers to issue a request for proposals for a new biodiversity tool from ESG ratings providers.<sup>47</sup>

## Dutch Central bank report on biodiversity

The Dutch National Bank is due to release a report in 2020 on the possible systemic risks of biodiversity to the Dutch banking sector. Depending on the outcome of the report, this could be taken up by the Network for Greening the Financial System (NGFS) group of central banks and integrated into their policies across Europe and globally.

## Task Force on Nature-related Financial Disclosures

Work is underway to replicate the TCFD's work on climate to include natural capital more broadly, given its systemic risk to the finance sector. This work is being driven by major European governments as well as a number of NGOs. It is likely that a Task Force will be set up this year and this could have a huge impact on awareness and action in the financial sector.

The TCFD established a consistent framework for climate risk assessment across all economic sectors, and a similar framework for natural capital risk would enable investors to understand and measure deforestation risk within that context, as well as linking natural capital more clearly to climate-related issues such as GHG emissions. A Task Force led by credible finance and corporate sector actors would also reinforce the materiality of natural capital-related issues and help to define clear risk management and strategic best practice for companies.

## Convention on Biological Diversity (CBD)

The Convention was due to meet in China in 2020, but this is now likely to be early next year due to the Covid-19 pandemic. The convention will announce new global biodiversity targets, which could set out a clear direction of travel for global government policies on biodiversity protection going forward and increase the financial risk of non-compliance or changing regulations for companies and therefore their investors.

43) <https://news.stanford.edu/2020/04/08/understanding-spread-disease-animals-human/>

44) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3367654/>

45) [https://www.frenchsif.org/isr-esg/wp-content/uploads/Understanding\\_article173-French\\_SIF\\_Handbook.pdf](https://www.frenchsif.org/isr-esg/wp-content/uploads/Understanding_article173-French_SIF_Handbook.pdf)

46) <https://www.novethic.fr/actualite/environnement/climat/isr-rse/loi-energie-climat-ce-qu-il-faut-retenir-147741.html>

47) [https://www.mirova.com/sites/default/files/2020-01/CEI%20-%20Biodiversity%20CP%20EN\\_FINAL.pdf](https://www.mirova.com/sites/default/files/2020-01/CEI%20-%20Biodiversity%20CP%20EN_FINAL.pdf)



## Implications for data and tools

The Investor Expectations documents which have been communicated to companies are consistent in their requirements. Individual investor and bank policies are also broadly consistent in their requirements and recommendations. The key requirements from companies across the affected sectors are:

- A public commodity-specific policy
- Risk assessment and monitoring
- Strategy for compliance
- Public metrics and reporting on progress

For specific sectors, there is slight variation depending on the success of the accepted certification system, but the common elements are:

- Certification
- Traceability
- Responsible supply chain policy
- GHG reductions

Most of these can be independently verified by external sources – eg public policy, strategy, certification – but compliance with policies and effective monitoring and verification of supply chains is very hard to independently corroborate. In the next section, we will consider whether this data is necessary and sufficient for investors to be able to assess deforestation risks in their portfolios and what further information might be needed.

SECTION 2

# An assessment of existing tools and datasets





# Background

This section provides an assessment of the quality and suitability of existing tools and datasets, in terms of scope, methodology used, availability and comparability of the data. It also examines the suitability of the tools and databases for the purposes of deforestation risk management by institutional investors in their global equity portfolios.

# Introduction

There are a number of tools and databases which are relevant to deforestation risk. Some of them are specifically aimed at quantifying this risk, while others are indirectly relevant as they look at deforestation-related aspects of climate change, biodiversity or natural capital. The following tools and databases were initially considered for analysis:

CDP Forests program	Forest 500
Commodity roundtables (RSPO/FSC/RTRS)	ENCORE
ZSL SPOTT	IBAT
Trase	SCRIPT
Global Forest Watch & WRI RADD	Supply Change.org
RepRisk	Land-use Finance Tool
WWF Palm Oil Buyers', Soy and Timber Scorecards	GHG emissions tools for land use change (eg Science-based targets Initiative, Quantis)

After closer examination and conversations with investors, we have not provided a full assessment of the Land-use Finance Tool or IBAT – the former because it is not directly relevant to the target audience of equity portfolio managers and the latter because it is incorporated into other tools such as Encore and Global Forest Watch. We have also not reviewed SCRIPT as it is no longer supported and is being merged into the Trase tool where relevant.

# Methodology

For the initial universe of tools and databases, we have assessed the following criteria in the table below:

- Geographic coverage
- Number of companies covered
- Datapoints covered
- Source of data

We have then looked in detail at the selected tools and databases to consider the following criteria:

- What does it measure and across what scope?
- Is what it measures material to investors?
- What is the methodology?
- What level of granularity does it have – e.g. is it company or site-specific?
- What level of verification does it have?

Finally we provide a critical assessment of the tool or database, looking at the following elements:

- How relevant is the information/data?
- How reliable is the information/data?
- What percentage of relevant companies does it cover?
- How useful is it as a source of information and does it need context or other data?



Photo: Araquém Alcantara

# Methodology

Product	Datapoints	# Companies	Geography/value chain	Source of data
CDP Forests	Policies, volumes, traceability, certification	1,500 asked, 306 responded	Global/all	Company questionnaire
RTRS Member annual reports	Volumes, operations, targets	83 (industry, trade finance) 10 (producers)	Global, see companies on left	Company questionnaire
RSPO ACOP	Land area (jnc concessions), certification, volumes, targets, GHG emissions	849 (2017)	Global, all palm oil value chain	Company questionnaire
FSC	GIS maps of FSC-certified forests	1,168	Global, landowners & chain of custody	Voluntary company disclosure
ZSL SPOTT	Public disclosure of policies, operations and ESG commitments	211	Forestry, palm oil, rubber companies, global	Publicly available data and media coverage
Forest 500	Zero deforestation commitments; commodity-specific policies; traceability; whether progress is reported transparently.	350 companies plus 150 financial institutions	Global, all value chain	Publicly available data
WWF Palm Oil Buyers', Soy & Timber Scorecards	Policies, traceability, certification	Palm oil - 173 companies Soy – 133 companies Timber – 122 companies	Retailers, manufacturers, food service, construction, paper, global (UK focus for timber)	RSPO ACOP, company questionnaire, publicly available corporate information
Supply-Change.org	Identifies at-risk companies, monitors commitments and progress	865	Global, all	Publicly available data
Trase	Trade flows in high-risk commodities	100+	8 countries, 13 commodities, traders only	Publicly available data



Photo: Araquém Alacantara

# Methodology

Product	Datapoints	# Companies	Geography/value chain	Source of data
Global Forest Watch	Forest change, land cover, land use, climate, biodiversity, deforestation alerts (to incorporate RADD tool, see below)	n/a, but can overlay company data via GFW Pro	Global	Satellite data and various underlying datasets
WRI RADD	Real-time deforestation monitoring and alert tool, integrating radar technology	Major palm oil companies involved	Initially Malaysia and Indonesia	Satellite & radar data
RepRisk	ESG and business conduct risks (inc impacts on landscapes, ecosystems, and biodiversity)	141,000 companies, plus projects and countries	Global, all value chain	Media and AI/big data
ENCORE	Impacts and dependencies of sub-sectors on natural capital	Sub-sector level only	Global, all value chain	Various datasets
IBAT	Threatened Species; Protected Areas; Key Biodiversity Areas	n/a	Global	IUCN, UNEP databases
SCRIPT	Policy benchmarking, corporate risk analysis (based on exposure to commodities and corporate policies)	1,000+ companies	Global	Publicly available data
Quantis	Guidance for measuring GHG emissions from land, forests and soils across the supply chain	n/a	Global	Guidance only
Land-use Finance Tool	Diagnostic tool that enables an analysis of the alignment of public and private spending with climate and forest objectives	n/a	Global	Publicly available data

# CDP Forests Program

## Introduction:

<https://www.cdp.net/en/forests>

CDP is an NGO which sends an annual questionnaire out on behalf of signatory investors to thousands of companies, covering carbon emissions, water and deforestation. Their Forests questionnaire goes out to 1,500 companies involved in the key commodities responsible for most deforestation. Companies are asked about their policies, use of commodities, traceability and certification. Completed questionnaires can be accessed as individual pdfs by anyone, via the CDP website; signatory investors also receive an excel spreadsheet with the full disclosures all together.

## Scope:

CDP has the largest database of corporate deforestation-relevant information sourced directly from companies themselves. It asks them to disclose either a minimum set of data or a full set, depending on the size of the company and whether they have disclosed before. The information is aligned with the TCFD recommendations, the AFI Framework and definitions and the SDGs.

The broad categories of disclosure are:

**Present state** - position in the value chain, location of sites, commodities covered, volumes and sources of commodity

**Procedures** – risk identification and assessment

**Risks and opportunities** – identification of and strategic response to risks and opportunities from commodities

**Governance and strategy** – board responsibility, forest-related policies, public commitments, how forest-related issues fit into business strategy

**Implementation** – targets, traceability, certification, compliance with Brazilian Forest Code, supplier engagement

**Barriers and challenges** – difficulties in eliminating deforestation from operations and supply chain

## Materiality to investors

The questions asked by CDP's Forests questionnaire are clearly relevant to investors as they cover all of the information expected from companies in the various investor statements. This information is material in so far as it allows investors to assess whether companies have

in place an awareness of deforestation risk and policies to address it effectively. However, as there is no verification of the disclosures from companies, it is unlikely that investors would rely on the information as it stands in order to make any investment decision.

## Methodology:

**Source:** The information is sourced directly from companies themselves, via a questionnaire.

**Granularity:** The information requested is very granular, asking for site-specific and company-specific information.

**Verification:** The information has no formal verification and relies on companies to disclose honestly and in full. There is an argument that, as this is a public disclosure to investors, signed off by a named individual, then any deliberately false information could leave the company liable to legal action. There is also the possibility to check information disclosed with other sources, such as the company website or regulatory filings. This has led to legal action from NGOs on the climate questionnaire, where a company has disclosed that climate is a material risk via the questionnaire, but not via regulatory filings.

**Availability & comparability:** The questionnaire is dependent on companies filling it in, and therefore there is limited availability for just over 300 companies. As the questionnaire is standardised and makes attempts to clarify the precise scope of company information, comparability is good.

## Critical appraisal:

### Relevance

As the information is requested by investors specifically on deforestation, it is highly relevant and is currently the major forum for sourcing material information from companies. It is not, however, an especially solid measure of a company's implementation of its policies, nor of its compliance with its own policies, and it does not reference any third-party sources which might contradict a company's disclosure. There is also concern that much information is out of date by the time it has been submitted and processed by CDP.

### Reliability

The information relies on corporate disclosure without external verification and therefore there are issues with reliability. Companies sometimes exclude certain operations from their disclosure, for example. There could be greater efforts made by signatory investors to engage companies on their disclosures and challenge their submissions, which could help improve reliability.

### Coverage

The request is sent to a reasonable selection of companies, though a disclosure rate of 20% is disappointing. It is not

clear how much of the information is available publicly and it may encourage disclosure - and ease the burden on disclosing companies - if publicly available information were included for all companies (disclosing and non-disclosing), enabling a fuller dataset and better comparability.

### Summary

If all companies disclosed in full to CDP Forests, it would be a valuable source of comparable data and go a considerable way towards enabling investors to assess the potential risks of a company, based on their understanding and strategic response. It could be argued that investors can already use it as such, given that non-disclosing companies could be assumed to have a higher risk and strategic vulnerability.

However, the information does not enable investors to understand what the companies are actually doing and whether there is compliance or illegality in their operations or supply chains. Investors would need to cross-reference this database with on-the-ground sources of information to make a more informed risk assessment.

*“If all companies disclosed in full to CDP Forests, it would be a valuable source of comparable data and go a considerable way towards enabling investors to assess the potential risks of a company.”*

Photo: Araquém Alcantara



# Certification schemes

### Introduction:

For the key commodities responsible for most deforestation – soy, palm oil, timber products and cattle – there are certification schemes to verify that the products are being produced and sourced in a responsible, sustainable, deforestation-free way. These schemes are at different stages of maturity, from FSC timber, which has been around for almost 30 years, through to very nascent schemes for cattle in Brazil. As part of the verification process, some certification schemes require or request member companies to complete annual questionnaires to set out their progress towards 100% certification and other relevant information, which are publicly available as individual downloads from their websites. We look at the schemes for responsible soy (RTRS), palm oil (RSPO) and timber (FSC), as they are most developed.

### Scope:

RTRS publishes annual reports from some of its members, currently 83 from industry and trade finance and 10 producers. There are more than 200 members, though some are observers and civil society.

The annual reports take the form of a questionnaire which covers the following areas:

- Region of operations, type of company, soy policy
- Volumes of soy
- RTRS soy – volumes, uses
- Time-bound plan for certification and progress
- Other promotional and support activities

The RSPO publishes mandatory Annual Communications of Progress (ACOP) reports from its members, totalling around 850 companies. These cover the following areas:

- **Operations** – land areas and locations, new planting, suppliers
- **Volumes** – total and certified volumes inc different types of certification
- **Time-bound plan** – commitments, progress
- **Concession map**
- **GHG footprint** – methodology, reduction measures
- **Actions** – to advance certification efforts and promote certified products
- **Support** – for value chain operators
- **Challenges**

The FSC publishes GIS maps of FSC-certified forests from its 1,168 members. This is based only on FSC-certified forests voluntarily provided by forest managers.

### Materiality to investors

The questions asked by the RTRS and RSPO questionnaires are relevant to investors as they cover much of the information expected from companies in the commodity-specific investor statements. Some information is not explicitly requested, such as board-level oversight and GHG reductions for soy.

The information is material in so far as it allows investors to assess whether companies have appropriate commodity-specific policies and commitments and to evaluate their progress compared to their peers.

The FSC maps are of little materiality to investors as they do not address corporate policies, strategy or commitments.

### Methodology:

**Source:** The information is sourced directly from companies themselves, via a questionnaire.

**Granularity:** The information requested is very granular, asking for site-specific and company-specific information.

**Verification:** While there is no direct verification of the disclosures from companies, the provision of false or misleading information would likely lead to the loss of certification and so there is some onus on the companies to provide accurate data.

**Availability & comparability:** The RTRS questionnaire is dependent on companies filling it in, and therefore

there is limited availability for less than 100 companies. As the questionnaire is standardised and makes attempts to clarify the precise scope of company information, comparability is good. The RSPO questionnaire, being compulsory for all relevant members, has better availability, with around 850 companies. Comparability is also good.

### Critical appraisal:

#### Relevance

The information is relevant and an important source of commodity-specific company data. However it does not provide a clear measure of a company's compliance with its own policies, and it does not reference any third-party sources which might contradict a company's disclosure. It also only covers those companies who are at least partly certified and therefore misses out the likely worst actors in each commodity.

#### Reliability

The information relies on corporate disclosure without external verification and therefore there are some issues with reliability. The public nature of the disclosure, for all stakeholders and competitors to see, means that obvious errors or omissions are very unlikely, and the sanction of loss of certification is also likely to encourage accurate reporting.

#### Coverage

Coverage for the RTRS questionnaire is reasonable, while the RSPO questionnaire is mandatory and covers all relevant companies. As noted above, it only covers certified companies.

#### Summary

The information provided is a valuable source of data for investors, especially the RSPO data which is mandatory and therefore includes data from some companies who do not disclose elsewhere. It can be cross-referenced with other sources of information to check for consistency and to map concessions onto GIS systems.

However, the information does not enable investors to understand what the companies are actually doing and whether there is compliance or illegality in their operations or supply chains. Investors would need to cross-reference this database with on-the-ground sources of information to make a more informed risk assessment. The data also does not cover non-certified firms, who are likely to be a source of higher risk for investors.

# ZSL SPOTT

## Introduction:

<https://www.spott.org/>

The Zoological Society of London (ZSL) is an international conservation NGO. As part of their conservation work, they seek to reduce deforestation and have developed a Sustainability Policy Transparency Toolkit (SPOTT) which “supports the financial sector and supply chain stakeholders to manage ESG risk through transparency assessments of soft commodity producers and traders”. Essentially the kit provides a critical independent evaluation of corporate ESG-related policies, with a focus on deforestation, available as a web-based dashboard which includes Thomson Reuters, Bloomberg and ISIN tickers for companies.

## Scope:

SPOTT covers 211 major companies in the palm oil (99 companies), timber and pulp (97 companies), and natural rubber (15 companies) sectors. It assesses their policies and commitments and provides a media monitor which covers relevant company activities. For palm oil, 181 indicators are used, for timber and pulp 131 indicators and for rubber 120 indicators, all evaluated across the following 10 categories:

- Sustainability policy and leadership
- Landbank, maps and traceability
- Deforestation and biodiversity
- HCV, HCS and impact assessment
- Peat, fire & GHG emissions
- Water, chemical and pest management
- Community, land and labour rights
- Certification standards
- Smallholder and suppliers
- Governance and grievances

## Materiality to investors

The assessments are relevant to investors as they independently evaluate companies based on many of the relevant issues which investors have raised in their commodity-specific expectations documents. This information is material in so far as it allows investors to assess the strengths and weaknesses of companies’ policies and commitments compared to others in their sector, as well as highlighting any media coverage of possible controversies. They are, nonetheless, based on an evaluation of publicly available information and do not provide a full picture of a company’s on-the-ground actions. Some investors may also disagree with the overall weightings of indicators, but this can be overcome due to the transparency of individual scores.

## Methodology:

**Source:** The assessments are performed by an independent ZSL team, based on publicly available corporate information and media reports.

**Granularity:** The information is very granular, covering company-specific information on a large number of relevant indicators.

**Verification:** The assessments are independent and provide a relative ranking of companies’ public policies and commitments, but are reliant on public information from companies themselves.

**Availability & comparability:** There is reasonable availability for the major players in each commodity. Comparability within each commodity is good, as each company is evaluated on the same criteria, which is publicly available, and a breakdown of scores is provided.



Photo: Araquém Alácantara



Photo: Araquém Alacantara

**Critical appraisal:**

**Relevance**

The information provided is relevant to investors and provides a useful independent evaluation of corporate policies and commitments in each commodity. The addition of a media section which highlights possible poor practice on the ground is a valuable cross-check for investors, though not a full risk assessment of company on-the-ground behaviour.

**Reliability**

The ZSL SPOTT team is highly regarded and the methodology and indicators are open source, while the scores are broken down by indicator. The evaluation process is therefore reasonably robust, although it relies on the assessment of publicly available corporate information which could itself be misleading or ‘greenwashing’. A company could receive a high score for having excellent policies and commitments without necessarily implementing them well.

**Coverage**

The scores cover the major players in each commodity, which provides a reasonable coverage of those companies most likely to be in an international investor’s portfolio.

**Summary**

The scores provide a useful independent assessment of the strengths and weaknesses of corporate policies, commitments and progress and can help investors to highlight high-risk companies who do not have an acceptable strategy to mitigate risks. They could provide a useful basis for ESG ratings agencies to develop deforestation metrics.

However, the information does not enable investors to understand what the companies are actually doing on the ground and whether there is compliance or illegality in their operations or supply chains, though the media section would pick up any major known issues.



# Forest 500

## Introduction:

<https://forest500.org/>

The Forest 500 is an initiative from Global Canopy, a deforestation-focused NGO based in the UK. It “identifies the 500 most influential companies and financial institutions in forest risk supply chains. These are annually assessed and scored on their commitments and action to tackle deforestation.” The outputs are a report which summarises progress and highlights, and excel-based data downloads for all companies and all financial institutions, which are publicly available from their website.

## Scope:

The Forest 500 covers 350 companies and 150 financial institutions who are regarded as the most influential within deforestation-related commodity supply chains. The list is reviewed every two years and the methodology for selection is publicly available. Companies are assessed on a broad range of indicators, split into the company's overall approach, covering commitments, memberships, targets and reporting, and a commodity score which assesses the following three areas:

**Commitment strength** – priority forests, HCS/peatlands, traceable supply chain

**Reporting and implementation** – reporting against commitments, independent verification, suppliers

**Social considerations** – FPIC, labour rights, gender equality, inclusion of small-scale farmers

## Materiality to investors

The assessments are relevant to investors as they independently evaluate companies based on many of the relevant issues which investors have raised in their commodity-specific expectations documents. This information is material in so far as it allows investors to assess the strengths and weaknesses of companies' policies and commitments compared to others in their sector. They are, nonetheless, based on an evaluation of publicly available information and do not provide a full picture of a company's on-the-ground actions. Some investors may also disagree with the overall weightings of indicators, but this can be overcome due to the transparency of individual scores.

## Methodology:

**Source:** The assessments are performed by an independent Global Canopy team, based on publicly available corporate information.

**Granularity:** The information is very granular, covering company-specific information on a large number of relevant indicators.

**Verification:** The assessments are independent and provide a relative ranking of companies' public policies and commitments. They also assess the verification of corporate policies and progress.

**Availability & comparability:** There is good availability for the major players across all relevant commodities. Comparability is good, as each company is evaluated on the same criteria, which is publicly available, and a breakdown of scores is provided.

## Critical appraisal:

### Relevance

The information provided is relevant to investors and provides a useful independent evaluation of corporate policies and commitments in each commodity, and also adds social considerations.

### Reliability

The Global Canopy team is highly regarded and the methodology and indicators are open source, while the scores are broken down by indicator. The evaluation process is therefore reasonably robust, although it relies on the assessment of publicly available corporate information which could itself be misleading or 'greenwashing'. Direct quotes from the company are given for each indicator, enabling an easier understanding of the scores.

### Coverage

The scores cover the major players across commodities, which provides a good coverage of those higher-risk companies most likely to be in an international investor's portfolio.

### Summary

The scores provide a useful independent assessment of the strengths and weaknesses of corporate policies, commitments and progress and can help investors to highlight high-risk companies who do not have an acceptable strategy to mitigate risks. It also provides information on whether a company's reporting is independently verified.

However, the information does not enable investors to understand what the companies are actually doing on the ground and whether there is compliance or illegality in their operations or supply chains.

# WWF scorecards

## Introduction:

WWF is an international conservation NGO which has a considerable network of individual members. As part of their work on deforestation, they produce scorecards for **palm oil**, **soy** and **timber**, focusing on end-user companies with valuable brand recognition, due to WWF's networks and ability to organise campaigns against companies. The scorecards assess each company's progress towards sustainable commodity sourcing and are publicly available on their website, together with a summary report.

## Scope:

WWF has a Palm Oil Buyers' scorecard, a Soy scorecard and a Timber Scorecard.

The Palm Oil Buyers' scorecard assesses 173 companies on their commitments and actions to prevent deforestation in their supply chains and to support a sustainable palm oil industry more broadly. 173 companies are covered and the score is based on their RSPO ACOP data (see above), which is pre-populated into a questionnaire and sent to companies for further information. The scores cover the following indicators:

**Own supply chain** – commitments to certification, volumes of certified product, supplier obligations

**Beyond supply chain** – member of initiatives, investment in sustainable landscapes

The Soy scorecard assesses 133 companies based on publicly available information, backed up by contact with the companies to check further details. The scores cover the following indicators:

**Public commitments** – RTRS/ProTerra membership, no deforestation or HCV, Soy Moratorium

**Soy purchasing** – Transparency around soy use in animal feed, volumes of certified soy, supply chain

**Support of SME producers** – purchases of credits, financial support of projects

The Timber scorecard assesses 122 companies based on publicly available information, backed up by contact with the companies to check further details. The scores cover the following indicators:

- Commitments to eliminate unsustainable practices in supply chains
- Transforming commitments into action
- Monitoring and public reporting against these commitments
- Whether the company is on track to achieve legal and sustainable supply chains by 2020

## Materiality to investors

The assessments are relevant to investors as they independently evaluate companies based on some of the relevant issues which investors have raised in their commodity-specific expectations documents. This



Photo: Araquém Alcantara



information is material in so far as it allows investors to assess the strengths and weaknesses of companies' policies and commitments compared to others in their sector. They are, nonetheless, based on an evaluation of publicly available information and do not provide a full picture of a company's on-the-ground actions. Some investors may also disagree with the overall weightings of indicators, but this can be overcome due to the transparency of individual scores.

#### **Methodology:**

**Source:** The assessments are performed by an independent WWF team, based on publicly available corporate information backed up by follow-up contact with all companies to give them the opportunity to clarify or add further detail.

**Granularity:** The information is very granular, covering company-specific information on a number of relevant indicators.

**Verification:** The assessments are independent and provide a relative ranking of companies' public policies and commitments.

**Availability & comparability:** There is good availability for the major players across all three commodities. Comparability is good, as each company is evaluated on the same criteria, which is publicly available, and a breakdown of scores is provided.

#### **Critical appraisal:**

##### **Relevance**

The information provided is relevant to investors and provides a useful independent evaluation of corporate policies and commitments in each commodity.

##### **Reliability**

The WWF team is highly regarded and the methodology and indicators are open source, while the scores are broken down by indicator. The evaluation process is therefore reasonably robust, although it relies on the assessment of publicly available or additional corporate information which could itself be misleading or 'greenwashing'.

##### **Coverage**

The scores cover the major players across commodities, which provides a good coverage of those companies most likely to be in an international investor's portfolio.

##### **Summary**

The scores provide a useful independent assessment of the strengths and weaknesses of corporate policies and commitments and can help investors to highlight high-risk companies who do not have an acceptable strategy to mitigate risks.

However, the information does not enable investors to understand what the companies are actually doing on the ground and whether there is compliance or illegality in their operations or supply chains.

# Supply Change Initiative

## Introduction:

<https://www.supply-change.org/>

The Supply Change initiative was created by Forest Trends, a US-based NGO focused on forest conservation. It is a collaborative project involving several other NGOs who provide evaluations and data on companies, and attempts to provide a centralised point for stakeholders to access all relevant NGO assessments of companies involved in the major commodities associated with deforestation. The information is publicly available on their website, split by commodity, and each company has a summary information page, with Bloomberg tickers and links to the underlying evaluations of that company by each NGO.

## Scope:

The initiative was set up to provide information on the extent and value of commitment-driven commodity production and demand. It is effectively a meta-database of commodity-related scores, sourcing from CDP's Forests program, the Forest 500, WWF's palm oil and soy score cards, ZSL's SPOTT program plus other relevant NGO assessments.

The initiative covers 498 companies, of whom 59 have made a general deforestation commitment, 307 palm oil commitments, 93 soy commitments, 265 timber & pulp commitments and 55 cattle commitments. Note that some companies appear in multiple categories.

For each company, a profile sets out their commitments and the various scores received by the different NGO ratings. There are then links to relevant reports and initiatives for more details.

## Materiality to investors

The initiative provides a broad overview of commitments across all commodities and a brief summary of corporate progress, which is relevant to investors as it allows them to analyse the profile of a given company and access more details on various different scores. It also allows investors to check the consistency between the various scoring methodologies and across different commodities. It does not add any analysis of its own at company level and only focuses on NGO analysis of companies' commitments and progress. It does not include companies without commitments, which are likely to be higher risk for investors.

## Methodology:

**Source:** The scores are sourced from a variety of NGOs, as detailed above, supplemented with their own publicly-sourced information.

**Granularity:** The information is somewhat granular, covering company-specific information on a number of relevant indicators, but for full details, investors would need to follow multiple links to other initiatives.

**Verification:** The assessments are all independent and there is some element of verification in being able to see the consistency of scores between different providers.

**Availability & comparability:** There is good availability for the major players across all relevant commodities. Comparability is reasonable, as each company is evaluated on the same criteria, which is publicly available, and links to the breakdown of scores are provided, but the period between reviews varies and so some may be more than a year old.

## Critical appraisal:

### Relevance

The information provided is relevant to investors and provides a useful overall source of independent evaluations of corporate policies and commitments in each commodity.

### Reliability

The Forest Trends team is highly regarded and there is a steering committee for the initiative. The methodology and indicators are open source and clearly identified. The source ratings come from other highly respected NGOs. The process is therefore robust but is dependent on the quality of the underlying ratings.

### Coverage

The scores cover the major players across commodities, which provides a good coverage of those companies most likely to be in an international investor's portfolio.

### Summary

The initiative provides a useful comparison of different NGO assessments across different commodities for each company, enabling investors to check consistency between different ratings and consistency across commodities.

However, the information adds little new for investors, and is basically a portal for comparison.

# Trase

## Introduction:

<https://trase.earth/>

Trase is a tool developed by Global Canopy and the Stockholm Environment Institute (SEI) to map trade flows of deforestation-related commodities from producing regions through to destination ports. It identifies those traders which are responsible for each shipment and allows stakeholders to trace exports back to the region of origin. The information is publicly available on the website in visual form and also as downloads of data for analysis. There are also plans to develop a [Trase Finance website](#) which will track financial flows to traders in high-risk commodities.

## Scope:

Trase uses publicly available data to map the links between consumer countries and places of production, via trading companies, for key commodities and countries associated with deforestation. It uses a version of flow analysis for three capabilities:

- It systematically links individual supply chain actors to specific, subnational production regions, and the sustainability risks and investment opportunities associated with those regions;
- It identifies the individual companies that export, ship and import a given traded commodity; and
- It covers all of the exports of a given commodity from a given country of production.

Countries and commodities currently covered are:

**Argentina** – soy

**Brazil** – beef, chicken (pork and soy to be added shortly)

**Colombia** – coffee

**Indonesia** – palm oil

**Paraguay** – soy (beef to be added shortly)

## Materiality to investors

The Trase tool allows investors to track which trading companies are involved in which commodities and sourcing from which regions. It allows them to identify those traders who source from high-risk regions and those who source only from low-risk areas. While it cannot definitively show that a company is causing deforestation, it can identify those companies who are unlikely to be causing deforestation. This is material to investors, though it only covers trading houses, many of whom are privately owned. There is also some concern that the data is out-of-date and provides only a historic analysis.

## Methodology:

**Source:** The data is sourced from publicly available channels, mostly governments, though some data sources are behind paywalls.

**Granularity:** The information is somewhat granular, providing company-specific information but only down to a production region rather than back to source.

**Verification:** The data is mostly government-sourced and therefore reasonably reliable, though there may be discrepancies.

**Availability & comparability:** There is good availability for all traders across some relevant commodities. Comparability is good.

## Critical appraisal:

### Relevance

The information provided is relevant to some investors and provides a useful source of independent data which can be used to engage with major traders and their customers.

### Reliability

The data sources are clearly identified, together with the methodology for each commodity and country. As many sources are directly from customs and tax data, the reliability is likely to be high, but there could still be some anomalies and much of the data is more than a year old.

### Coverage

The tool covers all traders in a given commodity from a given country, but does not look at any other parts of the value chain. The data only covers exported commodity flows and not domestic sales.

### Summary

The tool covers only trading houses, few of which are likely to be in investors' portfolios, but does provide one of the most robust sources of independent data to assess whether a company is involved in high-risk regions or not. The tool could be used to positively identify those trading companies who are likely to be low risk in terms of deforestation. As it does not cover domestic sales, it may underestimate deforestation risk for those companies who have high domestic revenues, especially Brazilian meatpackers.

# Global Forest Watch

## Introduction:

<https://www.globalforestwatch.org/>

Global Forest Watch is an online platform developed by the World Resources Institute (WRI) and supported by a number of other NGOs. It utilises satellite imagery to provide near-real time monitoring of deforestation across the globe, which can be linked to concession data in order to monitor individual sites through an online dashboard. The basic data is freely available, but linking to concessions requires a subscription to the GFW Pro version.

## Scope:

Global Forest Watch uses datasets to allow analysis of various forest-related metrics as well as monitoring deforestation on a weekly basis. Indicators available for analysis are split into five main categories:

- **Forest change** – deforestation and fire alerts, tree cover change
- **Land cover**
- **Land use** – commodity concessions, protected areas, infrastructure, land rights
- **Climate** – carbon emissions, carbon density and projected carbon gains
- **Biodiversity**

There is also a commercial version – Global Forest Watch Pro – which investors could use to overlay corporate data onto the analytical information. Some corporate data is already pre-loaded, such as the location of 800 palm oil mills in the PALM Risk Tool.

## Materiality to investors

Most of the indicators are indirectly material to investors in that they allow granular geographic assessments which could be cross-referenced to corporate data to assess, for example, whether concessions are in areas of high conservation value.

However, the daily fire alerts and weekly deforestation alerts are more directly relevant as they could be used by investors as an early warning sign of illegal clearing or poor practice from companies which they own, though this would also require cross-referencing with corporate data via the GFW Pro tool.

## Methodology:

**Source:** The data is sourced from multiple channels such as NASA, IUCN, University of Maryland, etc, as well as satellite data.

**Granularity:** The information is geographically very granular, providing data down to 375m<sup>2</sup> for fire alerts and 30m<sup>2</sup> for deforestation alerts.

**Verification:** The data is sourced from credible providers and therefore reliable, though some data is several years old.

**Availability & comparability:** In terms of corporate level data, there is some reasonable coverage of, for example, palm oil mills, but investors would need to upload much of their own data.

## Critical appraisal:

### Relevance

The information provided is relevant to investors in producer companies as it provides a unique source of on-the-ground alerts for fires and deforestation on a daily (fires) or weekly (deforestation) basis, which could be used as an early warning indicator.

### Reliability

The data sources are clearly identified and the reliability for alerts is likely to be high, as there will be follow-up from local NGOs and authorities in some cases. However, an indication of fires or deforestation is not necessarily an indication that a company is at fault.

### Coverage

The tool covers all global locations, though only some limited corporate data.

### Summary

The tool is likely to be used only by banks and investors with exposure to producer companies, but provides a unique alert system which could be used for engagement purposes. It is unlikely to be used directly for investment purposes, as the alerts do not necessarily translate into poor corporate practice, especially with fires.

# RepRisk

## Introduction:

<https://www.reprisk.com/>

RepRisk is a Swiss-based privately owned company which provides a commercial subscription service aimed primarily at the finance sector. The service uses artificial intelligence to analyse media and other public sources and scan for environmental, social and governance (ESG) risks. This information is available as a Software as a Service (SaaS) platform or via data feeds directly into an organisation's internal systems.

## Scope:

RepRisk provides four different types of rating:

- RepRisk Index of a company's exposure to ESG risks
- RepRisk Rating, a holistic appraisal of a company and its sector/country of operation
- UNGC violator flag, for high risk of violating one of the UN Global Compact Principles
- RepRisk Violator Index – a customized metric (which could be used to highlight deforestation risks)
- The services are provided via their own ESG Risk Platform or via data feeds into investors' internal systems.

## Materiality to investors

The indicators are clearly material to investors as they provide an assessment of the reputational and operational risks of a company.

## Methodology:

**Source:** The data is collected via machine learning algorithms using publicly available information from 90,000 sources.

**Granularity:** The information is company specific.  
**Verification:** The data is publicly sourced and verified by analysts, with a 'transparent rules-based methodology'.

**Availability & comparability:** the service covers 140,000 public and private companies using ratings for comparability.

## Critical appraisal:

### Relevance

The information provided is relevant to investors and could be tailored to highlight deforestation and land-use risks for a portfolio.

### Reliability

The data sources are public and are weighted by analysts, but there could be mis-information in the public domain which may take time to remove.

### Coverage

The service covers all listed companies.

### Summary

The service is already used by many investors to monitor ESG risk more broadly in their portfolios and could be tailored to highlight deforestation-related risks. While media coverage is not a perfect measure of deforestation risk, it could provide an important indicator of possible corporate malpractice which might be used as an overlay for other tools.



Photo: Araquém Alcantara

# Encore

## Introduction:

<https://encore.naturalcapital.finance/en>

The Encore tool is an open-source tool provided by the Natural Capital Finance Alliance, an investor-led organisation supported by UNEP FI and Global Canopy. It is focused on natural capital, which it defines as “a way of thinking about nature as a stock that provides a flow of benefits to people and the economy. It consists of natural capital assets – such as water, forests and clean air. The goods and services that natural capital provides – such as foods, water, or climate regulation – are called ecosystem services.” The tool is available as a web-based platform only.

## Scope:

The Encore tool looks at all the major production processes in the economy and identifies which natural capital assets and services they rely upon and impact. This provides a sub-sector level risk assessment, which can then be cross-referenced with country-level data to provide a more granular evaluation.

Investors can look at a relevant sub-sector, eg agricultural products, and examine a production process such as large-scale livestock. The tool will identify the ecosystem services and natural capital assets upon which that process relies, and the materiality of those services and assets to the production process. It also identifies the drivers of environmental change – including deforestation - which are affecting those services and assets.

## Materiality to investors

The indicators are material to investors as they provide a sub-sector level assessment of the reliance upon natural capital and the materiality of that reliance.

## Methodology:

**Source:** many data sources are used, including government, scientific and NGOs organisations. The sources are listed clearly for every indicator.

**Granularity:** The information is not company specific, only down to production process level, with a geographic overlay.

**Verification:** The data is publicly sourced from reputable organisations and analysed by the UN World Conservation Monitoring Centre (WCMC). A section on limitations of the data has been included.

**Availability & comparability:** The tool covers all economic sub-sectors and offers comparable data.

## Critical appraisal:

### Relevance

The information provided is relevant to investors as it provides a unique assessment of the dependencies of production processes on natural capital and the materiality of those dependencies. It also provides an evaluation of the drivers of natural capital degradation, which is relevant for deforestation.

### Reliability

The data sources are public and are assessed by UN WCMC but there are limitations to some of the data sets.

### Coverage

The service covers all sub-sectors and geographies.

### Summary

The tool is already used by some banks and investors to provide a high-level risk assessment of sub-sectors to identify those most materially dependent on natural capital. It is also adding a layer of impacts to complement the dependency analysis, though this may be less relevant to investors as the drivers of deforestation are generally well-known. While the tool is not designed to assess corporate-level deforestation risk, it can be used to analyse which sub-sectors and geographies are at greatest risk from deforestation itself in order to compile an initial universe of potentially high-risk companies.





## GHG emissions from deforestation

Given the increasing regulatory requirements on the finance sector to address the systemic risks from climate change, most investors are now looking at climate risks and developing policies to address them. However, despite accounting for around 10% of all emissions, deforestation is not yet taken into account in corporate emissions data. A practical methodology to include emissions from deforestation in company calculations could therefore have a significant impact on deforestation by increasing pressure from mainstream investors on companies to reduce their emissions. However, measuring GHG emissions from deforestation and degradation is problematic and there does not yet appear to be a standardised methodology.

We looked at a variety of different organisations whose work might be relevant to GHG calculations, including:

- Quantis
- Science-based Targets Initiative (SBTi)
- Gold Standard
- Ceres
- CDP
- WRI
- WBCSD
- FAO
- Cool Farm Tool
- Fieldprint Platform
- Consumer Goods Forum

Of these, both Quantis and the Science-based Targets Initiative have programs which could potentially be helpful for investors.

## Quantis

<https://quantis-intl.com/metrics/databases/wfldb-food/>

The consultancy Quantis has teamed up with other organisations to produce “*Accounting for natural climate solutions. Guidance for measuring GHG emissions from land, forests and soils across the supply chain*”, with support from climate organisations and companies including CDP, South Pole, Mars, Pepsico and Ikea.

The guidance “provides a robust methodology to effectively measure GHG emissions from land forests and soils across the supply chain to be embedded in corporate and product footprints which can be used for science-based climate target setting efforts”. It builds on relevant frameworks (IPCC, UNFCCC, FAO) and corporate and product accounting standards (GHG Protocol, PAS2050 and PEF). It takes a supply chain approach and is not designed for direct land management.

With 48 pages of guidance and 142 pages of technical Annex, it is necessarily complex, covering both positive and negative carbon impacts, and is therefore suited to reporting on impacts of regenerative farming. It is, however, over-complex for the purposes of no-deforestation farming. There are many parallels between the development and adoption of this guidance and the early vigorous adoption of product carbon footprints. Verifiable calculations (to PAS2050 or PEF standards) are onerous and expensive to apply widely.

The Quantis work is primarily guidance and methodology. While the methodology could be constructively applied using information from certification schemes, and alongside certification schemes such as the Science Based Targets initiative, it does not in itself have a certification scheme nor is it obviously adopted by any international standardisation bodies (ISO, or PAS etc). It currently has no obvious defined deployment mechanism for business although if it is used alongside other GHG emissions calculation efforts, it could be identified as ‘compatible with NCS Guidance’.

For investors, this is highly specialised and complex. Until the methodology is integrated into more holistic schemes such as SBTi, it is unlikely to be directly useful and less complex process-based schemes such as certification standards are likely to be more practical. However, there may be a role for investors to encourage companies to begin to report using this methodology.

## Science-based Targets initiative

<https://sciencebasedtargets.org/sector-development/forest-land-and-agriculture/>

The Science Based Targets initiative was set up to encourage alignment of corporate emission reduction targets with climate science. It is a partnership between WRI, CDP, WWF and We Mean Business. A total of 841

companies have signed up to the proprietary step by step process including large companies such as Unilever, Mondelez and Mars.

The initiative requires public commitment, provides technical guidance on target setting and carries out an independent validation of targets set. It does not as yet appear to validate progress towards those targets and therefore strictly it is a process verification initiative rather than a performance achievement verification.

Guidance and action with regard to deforestation and LULUCF emissions is currently limited to the document “*Value change in the Value chain: Best Practices in scope 3 greenhouse gas management*”, produced with consultancy Navigant and Gold Standard. This is a management and best practice guide rather than the technical specification document from Quantis.

## SBTi FLAG

SBTi's Forest Land and Agriculture (FLAG) project led by WWF will ‘develop methods and guidance to enable the food, agriculture, and forest sectors to set SBTs that include deforestation and possibly other land emissions impacts.’ The project runs from Q1 2020 through to the final toolkit being published in June 2021. There is a limited opportunity for involvement in the development via a public consultation in Jan 2021.

While it is as yet unclear as to the technical complexity of the guidance, this broadened scope to the SBTi framework will be a useful addition for investors aspiring to judge deforestation and land use elements of corporate supply chain greenhouse gas emissions.

# Integrating data into investor systems

Some investors might experience difficulties in accessing some of the tools and databases due to firewalls and protection of confidential information. For example, investors would be reluctant to upload their portfolio into an external tool in order to analyse holdings, though a clear and secure confidentiality agreement might be sufficient for some.

There is a notable difference between the functionality offered by commercial ESG data providers and NGOs. The former offer data feeds directly into investor systems, or a standalone platform which investors can use to analyse holdings, whereas the latter tend to offer a web-based tool which investors cannot link directly to their portfolios.

A data download, such as an Excel file containing the necessary deforestation-related data, could be used by investors within their existing processes, and some NGOs offer this. However, for the data integration to work, it is also necessary to include company identifiers, such as company tickers from Bloomberg or International Securities Identification Numbers (ISINs). Company identifiers enable investors to map information provided by NGOs to the holdings into their systems. Without such identifiers manual intervention is required, which can be time consuming, especially when there are inconsistencies in company names, the challenge of mapping subsidiaries to parent companies, and linking specific bonds and stocks to the ultimate parent company. The addition of company identifiers could assist investor take-up of some tools, but currently only ZSL SPOTT and Supply Change include any tickers.

In developing a data feed such as an Excel file or another format, having consistency in the data format is key. This is important because an investor might need to create a dedicated set up in their IT architecture in order to be able to transfer the data to relevant people in their organisation, such as portfolio managers, analysts and responsible investment staff. Changing the format from time to time will therefore hamper data transfer from an NGO to the investor. As such, it is important that files used in the data feed follow the same formatting and structure over time, to ensure that data flow integrity remains consistent and to avoid increases in the cost of using the NGO tool for investors.

There is scope for an integrated NGO platform with improved functionality for investors, with company identification and easier integration into investor systems. This is likely to increase investor use of information.



Photo: Araquém Alcantara

# Summary

The tools and databases can broadly be summarised into three categories:

- **Source Data** – eg CDP, RSPO annual reports
- **Analysis** – eg ZSL SPOTT, Forest 500, RepRisk
- **Tools** – eg Encore, Trase

Between the various tools, the following data is provided:

- Company policies, targets and progress towards commitments
- Analysis of the strength of these policies and commitments
- Media and other coverage of corporate-level deforestation-related controversies
- Concession-level near real-time satellite monitoring of fires and deforestation.

There are also clearly missing datapoints, especially upstream, and we will assess these gaps and analyse possible solutions in the next section.

While no single tool or database covers the precise requirements of the majority of investors, there are possibilities to synthesise the various products to produce a working assessment of deforestation risk for major downstream companies that are likely to feature in a global equity portfolio. We examine these possibilities in the next section.

Photo: Araquém Alacantara





SECTION 3

# Gap analysis and recommendations



# Initial considerations

Before analysing gaps in the available data and tools, we considered a number of different factors.

## Supply chain complexity

Identifying whether a primary producer is responsible for deforestation is considerably easier than for a downstream company, as complexity increases with every step on the supply chain, while responsibility becomes more difficult to apportion. For a primary producer, given coordinates of the land which they control, together with satellite monitoring, it is possible for an investor to assess whether deforestation is occurring on company land (though this does not necessarily equate to companies causing it). For a downstream company such as a European retailer, for example, a much more sophisticated set of data would need to be gathered which is not yet practical, and so investors are reliant on proxies such as traceability and certification. Therefore different datasets and tools may be required for different parts of the supply chain.

## Risk exposure for international investors

Deforestation is generally caused by upstream companies who own or lease concessions where there may be high conservation value forests. However, most international equity investors have limited exposure to upstream companies, partly because many of them are privately owned and partly because most listed companies are based in emerging markets and are sometimes too small for international investors to invest in. Downstream companies can generally only be indirectly linked to deforestation through their supply chains, but they are much more prevalent in international investors' portfolios. From an investor's perspective, therefore, this may put an emphasis on data which can be applied to downstream companies, in particular on traceability metrics.

## Differing investor motives

We acknowledge that investors may require different data and tools, and may have different end goals. Some investors are looking for information to manage risk or to make an investment decision, while others are looking to engage with companies. In particular, passive investors may have limited options to sell a holding and may have no choice but to engage.

Similarly, some investors may have an ethical or impact remit, or a particular interest in alignment with Sustainable Development Goals. Others may be focused on deforestation within the context of their climate strategy and be primarily interested in GHG emissions data, while many investors will simply be looking to reduce investment risk and enhance returns.

In considering the tools and datasets and identifying gaps, we have looked at the range of information which would be useful for different investors, from achieving real-world positive impacts through to performing a portfolio financial risk assessment.

## Current problems for companies

There are many considerable challenges for companies to ensure that they are not contributing to deforestation and these have implications for how investors can assess risks.

Proforest, in their report 'Accelerating implementation of responsible sourcing commitments: A Framework for Progress to 2020 and Beyond', identified three key areas:

**“Supply chain transparency:** global supply chains are complex, and it takes time to map supply bases and link purchases back to production areas – a necessary pre-requisite for implementing commitments about production practices. It has been especially challenging for large downstream companies that may have hundreds or even thousands of mills or aggregators in their supply base. However, good progress is now being made across many commodities.

**Limitations of company-led approaches:** issues such as deforestation and exploitation are extremely complex with a range of underlying drivers many of which cannot be addressed by companies on their own, but require collaboration with governments, civil society and local people. It took time to fully recognise this and to begin to identify approaches and build coalitions with other stakeholders which are needed to change practices on the ground.

**Engagement with SMEs (including smallholders):** responsible sourcing commitments have mostly been made by large multinational companies, but supply chains also include thousands of smaller local companies and individuals, most of whom have not made commitments, have low levels of awareness and capacity and do not see an obvious value proposition in changing production or sourcing practices. It is necessary, but very challenging, to engage with these actors in order to support and drive change.”

In addition to these issues, there are ongoing problems with the take-up of certified commodities and in particular the willingness to pay for deforestation-free commodities.

## Current problems for investors

There is no single definition of deforestation risk for a company, nor in most cases is there sufficient information to be able to be certain whether a company is causing deforestation or not. Investors are therefore having to use proxies for deforestation risk and work with partial information sets, limited by the problems which companies

face, as detailed above. Two specific issues are addressed in more detail below.

**Defining deforestation risk**

Investors rely on external sources of expertise for definitions. This is likely to be the Accountability Framework Initiative (AFi) for deforestation-related definitions, given that it reflects the broad consensus of major NGOs in this area. Investors are less concerned with a precise definition than with a practical definition which they can work with to address risks. They have a clear focus on the most material aspects, whether this is climate or biodiversity impacts (eg prioritizing tropical forests due to their higher conservation/carbon values) or the highest risk sectors and geographies.

Defining deforestation risk from an investor’s point of view is complicated by the question of what risk we are considering – is it the risk of causing deforestation, the risk of suffering financial losses from holding a poor-performing company, or risk to the portfolio and to market returns from deforestation-related economic damage, for example? Investors may categorise these as reputation, ESG and/or operational risks and are likely to use different tools accordingly. For example, they might use RepRisk to avoid reputational damage, an ESG provider such as MSCI or Sustainalytics to evaluate ESG risk and financial analysis combined with other relevant data to assess operational risk.

The metrics required, and likely responses from investors, may also differ according to the different risk lenses. For example, company-level risk can be reduced by divestment, whereas portfolio level risk may require a broad engagement strategy. Some of these issues are similar to those which investors are dealing with around climate change, and a parallel process could be helpful to address deforestation.

**Methodology for assessment of companies**

In a world with perfect information, it would be possible to trace back all commodities to their originating farm or field and identify which have been responsible for

deforestation. In practice, much information is missing, especially the links between upstream aggregators such as slaughterhouses or mills and the farms or fields that supply them. The further down the supply chain we travel, the harder traceability becomes. There is a clear need for a methodology to assess companies throughout the supply chain based on partial information.

NGOs and investors are currently using proxy metrics such as a company’s track record, its policies, traceability metrics, certification, engagement with suppliers, etc., though there is no standard methodology for turning these all into a risk metric. As we have highlighted in this report, implementation is a difficult area to assess and there is no commonly agreed proxy for this as yet.

The Accountability Framework Initiative is currently working on a common methodology to assess companies, drawn from its existing recommendations, and this has the potential to be an important step forward for investors. We note that, as technologies develop, best practice and risk tolerances may also change over time. For example, blockchain may help with tracking and traceability technology, enabling a product to be verified back to source. Similarly, it is not currently feasible for many cattle companies to be 100% certified due to the paucity of certification schemes, but as these schemes develop over time, it may become a pre-requisite for investment by international investors. Any common methodology should therefore evolve to incorporate new developments, as we believe the AFi plans to do.



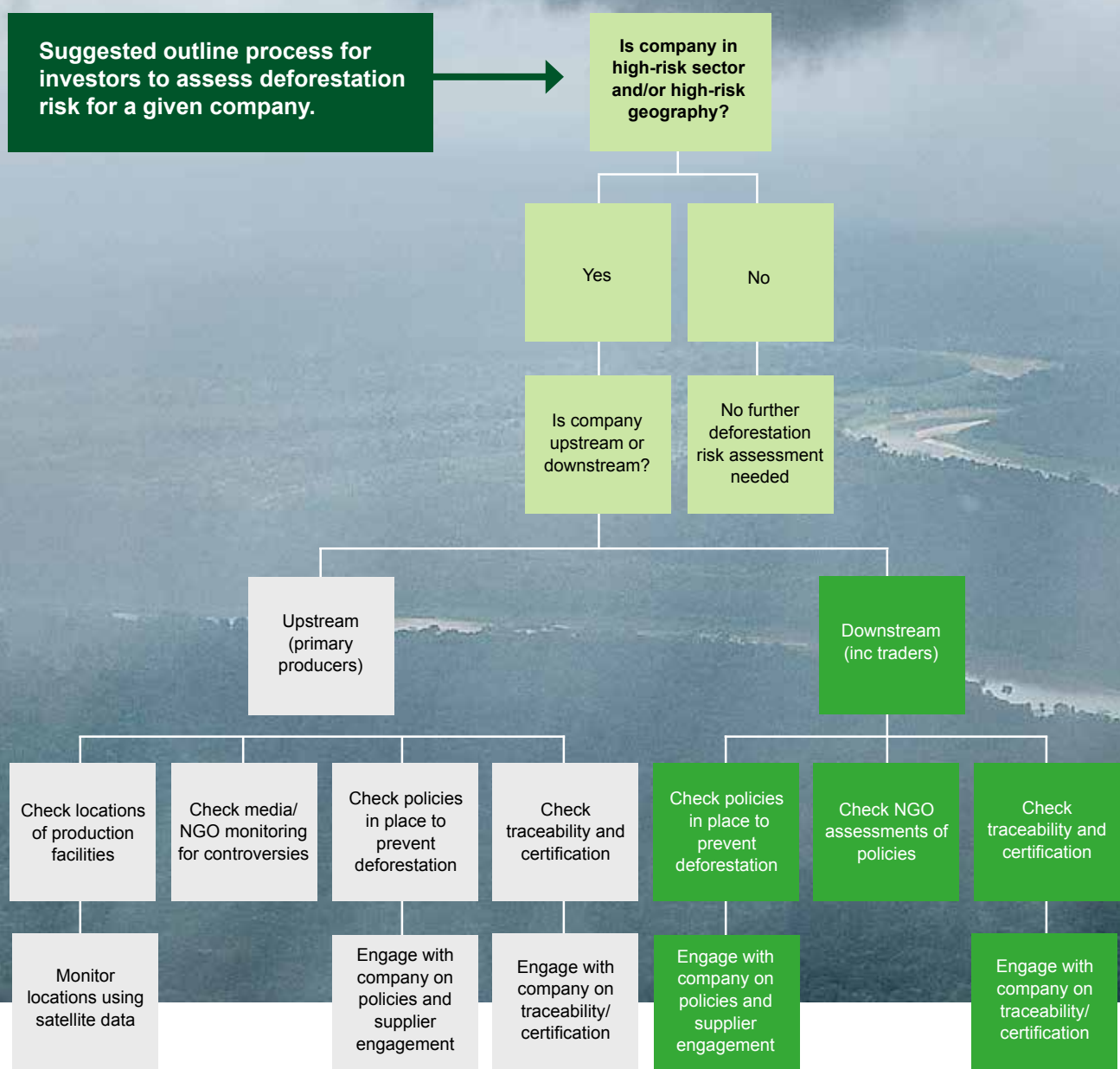
Photo: Shutterstock

# Suggested best practice assessment process

Given the current constraints of limited information, investors are following a process to assess deforestation risk based on available data, analysis and independent corroboration where possible. We set out a suggested best practice assessment process as follows:

1. Create a universe of relevant companies. This could be done from first principles, using a tool such as Encore to identify production processes which could cause deforestation, countries where deforestation is especially high-risk and then a tool such as Bloomberg to assess which companies have a material exposure to those processes, supply chains and locations. However, for most investors, it would be sufficient to use the CDP Forests universe of around 1,500 companies across various sectors, which have already been identified as potentially high-risk. This could be backed up by cross-referencing with other NGO tools to add any companies which are not included in the CDP universe. This universe can then be mapped to an investor's portfolio to identify relevant holdings for further analysis.
2. The analysis for companies will involve standard elements, but the process may be slightly different for upstream and downstream companies as the available tools have different applications. For upstream companies who produce commodities (or other sectors which may directly cause deforestation, such as mining), investors should obtain the locations of all production facilities where possible. These can then be mapped onto tools such as Global Forest Watch Pro in order to check for recent deforestation and for ongoing monitoring of concessions or facilities. For downstream companies, there will be more emphasis on strong policies, traceability and transparency of supply chains, as well as supplier engagement.
3. For all upstream and downstream companies, investors should ensure that there are deforestation policies in place – usually in the form of a commodity-specific policy – and that it contains the elements set out in the investor expectations document for that particular commodity, such as traceability, certification and supply chain engagement. This can be cross-referenced with NGO tools such as ZSL SPOTT and the WWF scorecards to evaluate the strength of the policy. Some companies may also use third-party verification services to ensure that their policies are enforced. Finally, investors can check tools such as RepRisk and the ZSL SPOTT media monitor to see if there are any known controversies for the company. Some ESG ratings agencies also offer a controversy assessment tool and investors could use this where available, as well as checking for any relevant ESG issues.
4. For trading companies, the upstream assessment can be followed where they also have production or aggregation facilities, such as palm oil mills. Where they do not have any primary production or aggregation facilities, the assessment in step 3 can be used. Assessments can be made in conjunction with the Trase tool, which identifies which areas the traders are sourcing commodities from, and whether these areas are associated with deforestation risk.
5. Investors could assess companies according to their compliance with investor expectations for each commodity, using NGO analysis and controversy alerts as proxies for implementation until a standard methodology has been agreed. This process could be used to create sector rankings or to identify those companies who are clearly falling short of expectations and may be candidates for engagement or exclusion.
6. Investors may engage with companies on specific elements of their assessment, or more broadly to ensure that all companies are engaging with their supply chains to drive increased transparency and better traceability. For poor-performing companies, investors could highlight the expectations documents as minimum requirements.





The flow chart above shows the suggested outline process for investors to assess deforestation risk for a given company. We highlight some of the possible uses of the different datasets and tools in the table below:

Investment process stage	Suggested tools/datasets
Is company in high-risk sector and/or high-risk geography?	Encore, IBAT, CDP, Forest 500
Check locations of production facilities	CDP, certification scheme annual reports, GFW Pro
Check media/NGO monitoring for controversies	RepRisk, ZSL SPOTT
Check policies in place to prevent deforestation	CDP, ZSL, Forest 500, WWF scorecards
Check traceability and certification	Certification schemes, CDP, Trase, WWF scorecards
Monitor locations using satellite data	GFW Pro
Check NGO assessments of policies	CDP, ZSL, Forest 500, WWF scorecards, Supply-change.org

# Investor best practice case studies

## Satellite monitoring - Robeco:

In 2019, Robeco published a [statement paper](#) setting out their palm oil policy and embarked on a three-year engagement program with the palm oil industry to stop deforestation and improve standards in Malaysia and Indonesia. “A key benchmark in Robeco’s engagement program is increasing the amount of land under cultivation that has been certified by the Roundtable on Sustainable Palm Oil (RSPO), a not-for profit group that Robeco joined in January 2019. If a company has less than 20% of its land RSPO certified, then it will be excluded from the investable universe. Certified land of between 20% and 80% means the company is eligible for enhanced engagement to raise its investability. Any company which has between 80% and 100% of its land RSPO certified can be included in the Robeco SI Focused range of funds. This makes them more attractive investments – so it’s in their own interests to become more sustainable.”

However, as they explained, ‘checking up on investee companies is logistically difficult. Unless you have boots on the ground to cover thousands of hectares of plantations, companies have significant leeway to ignore the requests of their shareholders and carry on regardless.’ In order to address this, Robeco teamed up with Satelligence, a Dutch satellite data company which monitors deforestation.

Robeco noted that: “building on the annual benchmark of palm oil companies as published by the Zoological Society of London’s Sustainability Policy Transparency Toolkit (ZSL-SPOTT), which we use in our engagement program, this project now gives us the ability to develop real time monitoring of the palm oil companies commitments to no deforestation.”

The satellite imagery has already been successful: ‘It has already detected one breach at a plantation owner. The evidence from the satellite imagery shows forest cover before 1 January 2019 and the deforestation of 25 hectares of forest that took place after 1 September 2019.’

## Engagement - Hermes EOS:

Hermes EOS has been engaging with Kuala Lumpur Kepong Berhad (KLK), a Malaysian palm oil and rubber producer, since 2012, following allegations of deforestation and poor labour standards. The company’s initial reaction was to deny any wrong-doing but eventually a constructive dialogue began.

In 2014, the company achieved 100% RSPO certification for its Malaysian operations and issued its first group sustainability policy, including labour standards. Members of the PRI working group on palm oil sent a letter to the Chair of KLK calling for more details on the implementation of a labour policy, while discussions continued through 2015 and 2016 on the company’s progress towards full RSPO certification. The company now has a programme to support smallholder suppliers to achieve RSPO certification, and engagement continues on no-deforestation commitments.



# Mapping tools and datasets to investor expectations

Across the various statements of investor expectations for the different commodities, we have defined eight broad requirements:

1. To commit to full traceability of commodities to the appropriate level (eg palm oil to the plantation level)
2. Mapping and disclosure of palm oil concession areas for producers
3. Board-level oversight
4. Commodity-specific deforestation policy (NDPE for palm oil)
5. Disclosure of compliance with the company's policy and clear protocol for non-compliance
6. Strategy to reduce all GHG emissions and public disclosure of these emissions
7. Disclosure of procurement standards, verification systems and participation in collaborative initiatives
8. Public disclosure of progress towards commitments and GHG emissions

We assess which of these requirements are currently monitored by the various tools and databases and what information is missing:

## Traceability

Commitments to traceability are monitored by many of the tools, including CDP, ZSL SPOTT, Forest 500 and the WWF scorecards.

## Mapping of production sites

This is currently only an investor requirement for palm oil companies, though could be extended to other commodities. Both CDP and the RSPO provide companies with the opportunity to disclose their concessions, while disclosure is incorporated into some of the scoring methodologies such as ZSL SPOTT.

## Board-level oversight

This is covered by CDP and the ZSL SPOTT database, and the TCFD framework requests this information on climate more broadly.

## Deforestation policy

Deforestation policies are monitored and assessed for strength by several of the tools, including CDP, ZSL SPOTT, Forest 500 and the WWF scorecards.

## Disclosure of compliance

This information is partly covered by some of the tools such as ZSL SPOTT. It can also be partially checked by the media monitoring tools – RepRisk and ZSL SPOTT. Nonetheless, it remains an important gap in the information required by investors.

## GHG emissions disclosure and reduction strategy

This is covered by CDP's questionnaire and also by the TCFD's framework, although this is a nascent area of emissions measurement and is not widely reported on by companies. It is incorporated into some of the scoring methodologies such as ZSL SPOTT.

## Disclosure of standards

This is covered, in part or in full, by CDP's questionnaire, the WWF scorecards, ZSL SPOTT, Forest 500, and the RTRS and RSPO annual reports.

## Disclosure of progress

This is covered by CDP, Forest 500 and to an extent by ZSL SPOTT, the WWF scorecards and the RTRS and RSPO annual reports.

*“Investors have serious issues identifying whether policies are implemented, and how effective traceability is in practice. This can be addressed to some extent by NGOs, who often have good information, but there is a need for a central information depository that investors can access which highlights poor practice.”*

# Gap Analysis

## Information gaps

- Investors could perform effective risk assessments on producer companies if they were able to identify all corporate concessions and locations and check these sites via satellite imagery to see if there has been any deforestation. This is becoming increasingly practical for investors, via tools such as Global Forest Watch, although further on-the-ground checks may be needed to verify the cause of deforestation (eg fires, small-holder incursions). Some concession data is still missing and some companies are obscuring ownership through complex holding company structures, although NGOs are working on untangling these structures, notably Trase for Finance and the ClimateWorks Foundation.
- Investors could perform effective risk assessments on downstream companies if they could assess corporate deforestation policies and supply chain traceability measures, and obtain external verification that policies and measures were being implemented effectively on the ground. There is considerable transparency around corporate policies, with NGOs providing independent assessments of their strength and ambition. However, independent verification of implementation and effectiveness is still very rare and this is a significant gap which needs to be addressed.
- Taken in isolation, none of the existing tools and datasets offer information which is both necessary and sufficient for investment decisions. This is due to a number of issues: lack of information from companies, missing traceability data, no common methodology for assessing companies, lack of proxies for implementation, etc. Some of these issues can be resolved with better corporate disclosure and a common assessment methodology, while some are a function of complex supply chains and missing information which would need to be addressed by regulations.
- Nonetheless, in aggregate, the tools and datasets offer much useful information. Investors are able to conduct risk assessments on companies throughout the supply chain, using available information from companies, NGOs and other sources such as media and satellite imagery. They are filling in data gaps by encouraging corporate disclosure through company websites, CDP and TCFD-compliant annual reports, while satellite imagery and other technology such as blockchain is improving and offering potential new verification methods.

- Many downstream commodity-related companies have good deforestation policies, but these are reliant on effective traceability and/or certification. Individual companies have limited influence within supply chains to demand traceability back to field or farm and so coordinated efforts are needed to improve traceability at each stage of the supply chain. Leading investors are involved in encouraging improved transparency and traceability through their shareholdings.
- There is a shortage of information around aggregation facilities, such as palm oil mills or slaughterhouses. Some of this is due to poor disclosure or lack of policies from companies, which can be addressed by investor pressure. However, some is due to the practical difficulties in tracing products right back to their source, eg cattle from hundreds of smallholders sent to slaughterhouses. This makes it currently very difficult to tie deforestation risk to key upstream aggregation facilities and hence further on down the supply chain. This could be addressed by regulations within producer countries and regions, by improved traceability technology such as tagging, or by more stringent requirements from aggregators, most likely supported financially by governments to alleviate the increased burden on smallholders.

*“Regulators could drive improvements in traceability by requiring transparency at all stages of the supply chain, back to the producing farm or field.”*



Photo: Araquém Alcantara

### Reality gaps

- Given these information limitations, we would caution against putting a quantitative metric on deforestation, other than a traffic light system of high, medium and low risk. Creating a real-world metric, such as hectares of deforestation caused, runs the risk of creating a false sense of precision about measurements. However, we acknowledge that some quantitative metric will be needed to calculate scope 3 emissions from deforestation and forest degradation. It is also worth noting that the AFi plans to develop ‘impact metrics’ to move beyond commitments and policy assessments, which could be helpful for investors.
- Investors have serious issues identifying whether policies are implemented, and how effective traceability is in practice. This can be addressed to some extent by NGOs, who often have good information, but there is a need for a central information depository that investors can access which highlights poor practice. We believe such a central depository is being planned, subject to

donor funding. There is also a need for proxy metrics for implementation, which we also believe is being planned as part of the AFi work. Finally, there is a role for increased third party verification of company policies, which should be encouraged by investors.

- Many of the information gaps can be filled with sufficient technology and financing. However, in the absence of significant demand for sustainably sourced products, or government regulation, most supply chain actors will not finance improvements unless they can pass the cost on to their customers. There does not currently seem to be a willingness to pay for traceability and this is preventing investors from having clarity of deforestation risks in their portfolios. This may be partially addressed by buyer countries such as the United Kingdom and the European Union countries, creating a regulatory framework which obliges purchasing companies to verify the traceability of their products.

# Recommendations

## For investors

1. Investors should provide input to the AFI's work on a commonly accepted methodology for assessing corporate deforestation risk, to ensure that the output is practical and will be taken up by the investment community, either directly or through ESG data providers. Investors may benefit from working together to integrate such a methodology into investment processes and to develop case studies and best practice. This could be facilitated by working groups, set up either by investors or by organisations such as PRI, in a similar vein to how investors and banks have worked together to adopt the TCFD recommendations.
2. As part of their statements on expectations, investors should request public disclosure of all production facilities for all commodity producers in high-risk regions. This could help improve traceability of upstream commodity flows and bring additional transparency to upstream companies. Investors should also encourage companies to obtain third-party verification that its policies are being implemented, and to use the AFI Framework principles and guidance.
3. Investors should support the Science-Based Targets initiative and other organisations such as Quantis who are developing methodologies for estimating emissions from deforestation and land-use change. They should also encourage ESG data providers to support the development of these tools and to incorporate the resulting data into their models as soon as practicable.

## For NGOs

1. The AFI should develop its common methodology for assessing companies and work with investors to ensure that the methodology is practical and can be integrated into their investment processes.
2. A common platform should be developed to integrate NGO assessments into a single framework, aligned with investor expectations statements and with the common methodology for assessment, to enable investors and other stakeholders to analyse company performance. If feasible, this platform should have the functionality to feed directly into investors' systems.
3. NGOs should try, where possible, to include company-level identification in their outputs, including tickers such as Bloomberg and ISINs, and maintain consistent formatting over time.
4. Work on estimating emissions from deforestation should be prioritised, as it is a key data gap for investors which has the potential to be very impactful given the existing widespread investor focus and action on climate change and emissions reductions.

Photo: Araquém Alácantara



**For governments and regulators**

1. More work still needs to be done to integrate thinking around climate change, deforestation and natural capital. The proposed Task Force on Nature-related Financial Disclosures should be created, with deforestation as a key element, given its very clear links to emissions and biodiversity loss.
2. Regulators could drive improvements in traceability by requiring transparency at all stages of the supply chain, back to the producing farm or field. This will require coordination between producer and purchaser governments and possibly financial incentives for smallholders.

**For donors**

1. Donors should support the AFi in its development of a common methodology for company assessment, and the proposed NGO common platform for sharing data and analysis.
2. Donors should ensure that work on developing methodologies for assessing GHG emissions from deforestation is well funded, given the potential impact of investors incorporating these emissions into their targets and engagement activities.

**For ESG ratings agencies**

1. ESG ratings agencies should work to incorporate any future common methodology for assessing companies into their frameworks. They should be aware that there is investor demand for deforestation to be incorporated into ESG evaluations, and the ZSL SPOTT methodology may be a helpful interim basis for assessment metrics.
2. ESG ratings agencies should work with relevant organisations to integrate estimates of emissions from deforestation and land use change into their emissions calculations for companies.



Photo: Araquém Alácantara

