

THE ESG RISK RATINGS

MATERIAL ESG ISSUE –
LAND USE AND BIODIVERSITY



SUSTAINALYTICS' MATERIAL ESG ISSUE: Land Use and Biodiversity

How companies manage the impacts and risks related to issues of biodiversity loss, deforestation and land use within their own operations and/or their supply chains, is captured through Sustainalytics' ESG Risk Rating. Within the Risk Rating framework, Sustainalytics assesses two separate material ESG issues (MEI): 'Land Use and Biodiversity', speaking to the issue in relation to a company's own operations, and 'Land Use and Biodiversity – Supply Chain', focusing on a company's supply chain practices. Sustainalytics' assessments of these two material ESG issues inform investors about the degree of exposure companies face regarding land use and biodiversity, and the extent to which this exposure is managed. This background piece will explore where exposure to this issue stems from, and how companies manage these risks.

The Growing Importance of Land Use and Biodiversity

Issues related to land use and biodiversity, and deforestation in particular, have risen to prominence in the past few years, exacerbated by reports of widespread and destructive wildfires taking place in Indonesia and Brazil, as well as reports highlighting the scale of deforestation and the implications of biodiversity loss on both global eco-systems, and the global food system that an increasing global population is depending on. According to the Food and Agriculture Organization of the United Nations (FAO), since 1990, 178 million hectares of forest have been lost, which is an area roughly the size of Libya.¹ The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) reported in 2019 noted that the rate of species extinction is accelerating alarmingly, which will have severe consequences on the global economy, -food security, and -health.² Moreover, deforestation can lead to more infectious diseases in humans, such as the Nipah and Lassa viruses.³

Companies, consumers, investors and regulators seem to also increasingly take note of issues related to land use and biodiversity, and the impact and risks involved. Companies have become increasingly aware of how these issues can impact their business, and are increasingly scrutinizing their supply chains regarding deforestation and biodiversity loss, for example with the use of satellite monitoring. Meanwhile, consumers are slowly waking up to this issue and are pressuring companies and governments to act, for example by demanding deforestation-free products. Investors are increasingly aware of the long term related risks, such as decreased agricultural yields due to depleted soils, regulatory risks, potentially stranded assets, supply chain disruptions and reputational fallout. Finally, governments in the coming year(s) are expected to put forward regulations that will address deforestation in relation to imported commodities. For example, the United Kingdom has proposed a law requiring companies to demonstrate that their products and supply lines are free from illegal deforestation⁴, with the European Union expected to draft similar regulation in the near future.

Assessing the Unmanaged Risk of the Land Use and Biodiversity by Industry

Some industries, such as agriculture, forestry, mining, and pulp and paper, are directly exposed to issues of land use and biodiversity, as they either need to clear land to use the land, or use trees in their production processes. However, companies that are not directly involved in land clearing can still be exposed to considerable risk related to land use and biodiversity in their supply chain. This is particularly so in the case of beef cattle-, palm oil-, soy-, and timber value chains.

The risk rating for the Land Use and Biodiversity MEIs combines the risk a company cannot manage due to its business model and operations with the risk that it is not actively managing through lacking

¹ <http://www.fao.org/3/ca8753en/CA8753EN.pdf>

² <https://ipbes.net/global-assessment>

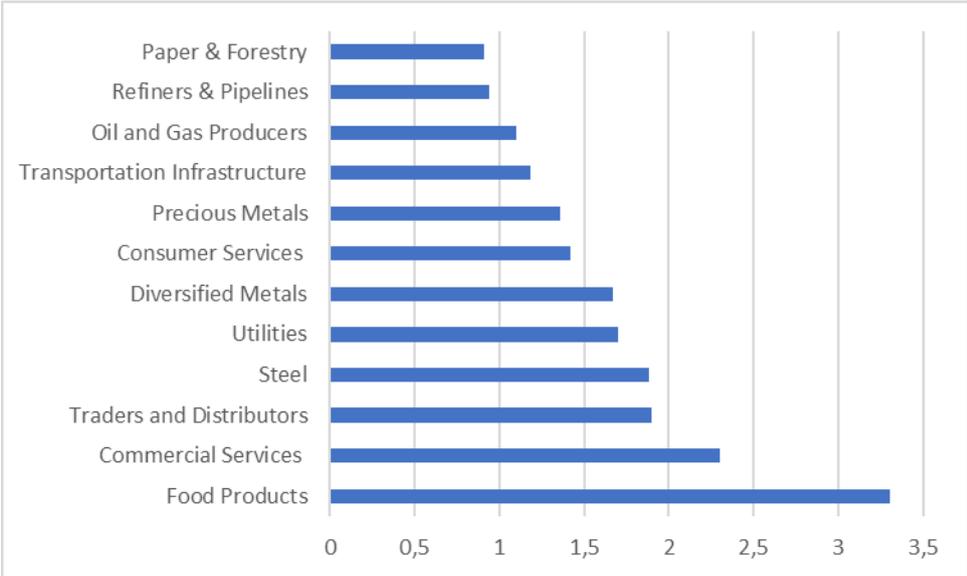
³ <https://www.nationalgeographic.com/science/2019/11/deforestation-leading-to-more-infectious-diseases-in-humans/>

⁴ <https://www.bbc.com/news/science-environment-53891421>

implementation of relevant programs and policies. Applying our consistent and comparable ESG Risk Ratings model, we see that Land Use and Biodiversity is material for over 795 companies in our Ratings+ universe, spanning 12 industries and 22 subindustries. The MEI for Land Use and Biodiversity – Supply Chain applies to 364 companies in 7 industries and 11 subindustries.

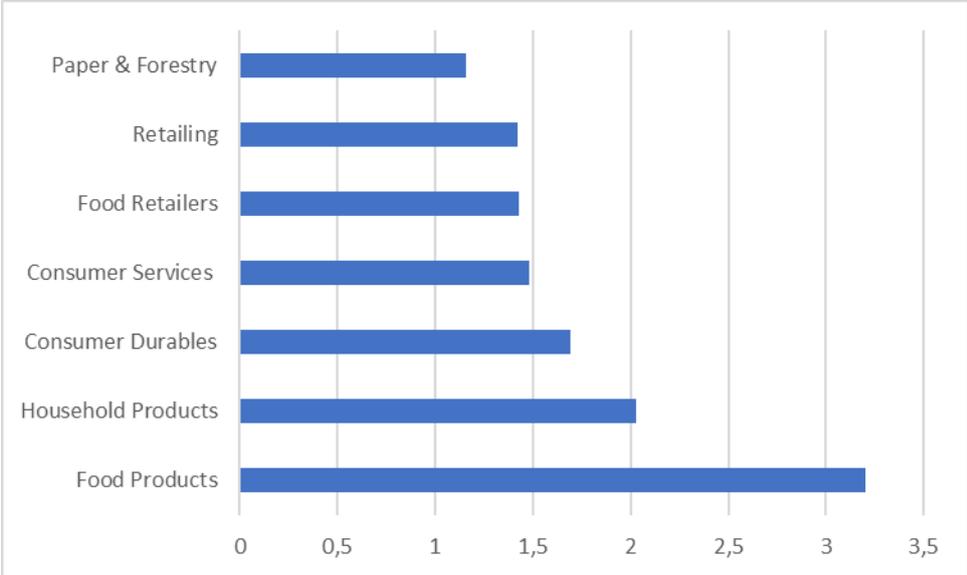
As indicated in Exhibit 1.1 and Exhibit 1.2 below, the Food Products industry has the highest unmanaged risk scores on average, on both MEIs.

Exhibit 1.1: Land Use & Biodiversity: Unmanaged Risk by Industry



Source: Sustainalytics, data as of December 2022

Exhibit 1.2: Land Use & Biodiversity – Supply Chain: Unmanaged Risk by Industry

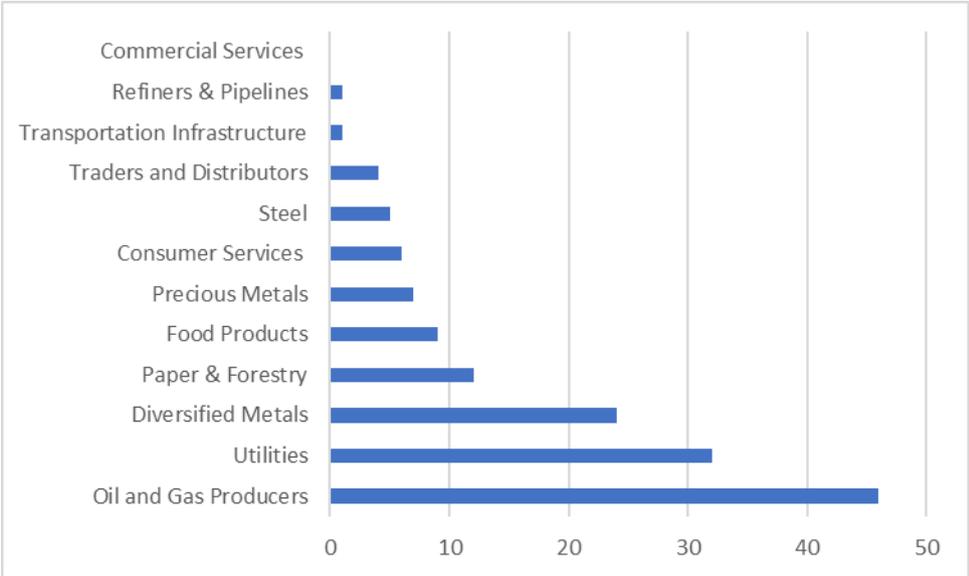


Source: Sustainalytics, data as of December 2022

As seen in Exhibit 2.1 and Exhibit 2.2 below, as of December 2022, Sustainalytics has recorded a total of 147 events related to Land Use and Biodiversity, and another 74 events related to Land Use and Biodiversity – Supply Chain (in the Ratings+ universe). Such events are captured through our news

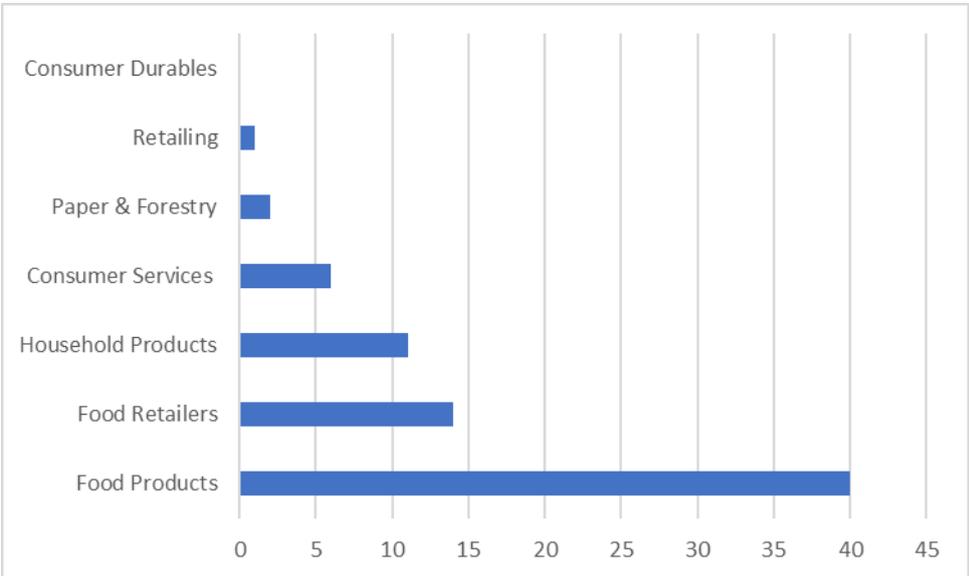
screening of more than 700,000 news items, third party sources or company and regulator reporting. For Land Use and Biodiversity, events often relate to issues of deforestation and loss of biodiversity resulting from business activities from companies in the agricultural-, extractive-, and utilities sectors. For Land Use and Biodiversity – Supply Chain, events often pertain to commodities that are closely linked to issues of deforestation, such as beef cattle, palm oil, soy, and timber.

Exhibit 2.1: Land Use & Biodiversity: Controversies by Industry



Source: Sustainalytics, data as of December 2022

Exhibit 2.2: Land Use & Biodiversity – Supply Chain: Controversies by Industry



Source: Sustainalytics, data as of December 2022

How Sustainalytics’ Evaluates Companies on the Land Use and Biodiversity MEIs

Sustainalytics’ ESG Risk Ratings framework scores companies on a set of subindustry-specific exposure- and management indicators. For instance, we assess whether companies within a certain sub-industry have exposure to issues related to Land Use and Biodiversity that divert from the sub-industry default because of their business model, or whether exposure to Land Use and Biodiversity is greater in a company’s own operations or its supply chain. In assessing management of the issue, depending on the sub-industry, we look at indicators such as the presence and quality of biodiversity programmes, deforestation policies and programmes, environmental management systems, supplier environmental programmes, and green procurement policies, among other factors.

One example of a company with strong management of its exposure to the issue of Land Use and Biodiversity regarding its own operations, is Spanish oil and gas firm Repsol. The company is committed to mitigating potential impacts on biodiversity during the planning and development of its projects and operations. The company was the first in the oil and gas sector to apply the Biodiversity and Ecosystem Services Management Ladder, and follows a biodiversity impact mitigation hierarchy. Repsol is considered the leader in the Oil and Gas industry, owing to its strong management of the issue of Land Use and Biodiversity, as displayed below.

Management Indicators	Raw Score	Weight	Weighted Score
Biodiversity Programmes	100	47.5%	47.5
EMS Certification	100	19.0%	19.0
Environmental Management System	100	28.5%	28.5
 Land Use and Biodiversity	Category 1	5.0%	0.0
Weighted Sum			95.0

Source: Sustainalytics Risk Rating Report, Repsol S.A. (December 2022)

A company that stands out when it comes to the management of the issue of Land Use and Biodiversity in its supply chain is Swiss chocolate manufacturer Barry Callebaut. The company sources no less than a fourth of global cacao production. Aside from its principal ingredient cacao, the company also sources hazelnuts, shea, soy, sugarcane, beet, vanilla, and palm oil. Through its Forever Chocolate strategy launched in 2016, it has set 2025 targets to achieve 100% sustainable ingredients for all of its products. Barry issued a deforestation policy in 2020, showcasing its commitments to address the issue, and published a heat map providing an overview of the ingredients that are linked with deforestation and their origins.

Management Indicators	Raw Score	Weight	Weighted Score
Deforestation Policy	100	25.0%	25.0
Deforestation Programme	100	30.0%	30.0
Green Procurement Policy	100	5.0%	5.0
Supplier Environmental Programmes	100	20.0%	20.0
Sustainable Agriculture Programmes	100	20.0%	20.0
 Land Use and Biodiversity - SC	Category 0	0.0%	0.0
Weighted Sum			100.0

Source: Sustainalytics Risk Rating Report, Barry Callebaut AG (December 2022)

Deforestation on the Radar

With the ongoing growth in ESG investing, it is expected that interest and awareness regarding issues of Land Use and Biodiversity will continue to increase. And rightly so, given the reports on the decline of the Earth's biodiversity and forests, and the knock-on effects this will have on the global economy, food system, and climate. Shareholders can play a role in stimulating better management of Land Use and Biodiversity issues, for instance by engaging, voting, and the threat of disengagement if companies are reluctant to address these issues. Whereas some investors have already woken up to the importance of this pressing environmental issue, there also many that are yet to adjust their strategies to address the risks associated with Land Use and Biodiversity.⁵ Like the companies exposed to these issues, either through their own operations or through their supply chains, investors too need to be aware of these issues, and adjust themselves accordingly.

⁵ <https://chainreactionresearch.com/the-chain-deforestation-as-a-climate-risk-for-investors/>

