HYMANS 🗱 ROBERTSON

Deforestation what does it mean for investors?



Andre Ranchin Investment Consultant



Simon Jones Head of Responsible Investment

Globally, we cut down around 15 billion trees each year, losing over 10 million hectares of forest – an area the size of Scotland and Wales combined. This contributes to carbon emissions and biodiversity loss, creating financial risk for asset owners, with broader implications for communities and society.

Asset owners can take steps to understand exposure to deforestation within their investment portfolios, work with managers to identify targets for engagement, and influence the companies they invest in to eliminate deforestation in a timely manner. This paper explores deforestation's impact on climate change and biodiversity, and provides more detail on what asset owners can do.

What is deforestation?

Deforestation is the removal of forest areas that are then converted to other uses, such as agriculture, mining or urbanisation. Deforestation is not simply 'cutting down trees'. If natural forests are replaced by a tree plantation, or if a forest is managed poorly, many of the ecological, societal and climate regulation services that forests provide are likely to be lost. Deforestation is best understood as the loss of natural forests from:

() conversion to agriculture or other non-forest land use



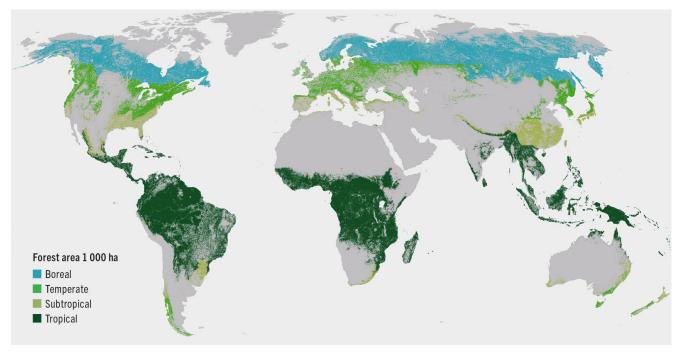
conversion to a tree plantation



severe and sustained degradation.ⁱ



Figure 1: Global distribution of forests (FAO 2020)ⁱⁱ



The scale of deforestation

At the COP26 conference, over 130 countries – which account for 90% of the world's forests – pledged to halt and reverse deforestation by 2030. At COP27, the Forests and Climate Leaders' Partnership was set up as a voluntary partnership of 26 countries committed to delivery, accountability and innovation to achieve this goal. So far, progress has been slow, and deforestation is still happening at an alarming rate.

The current rate and scale of global deforestation is unprecedented. In the first two months of 2022, forest clearing in the Amazon amounted to 430 square kilometres (166 square miles), more than twice the average over the past ten years.^{III} The forestry, land and agricultural industries are critical drivers of this deforestation^{iv} but also rely intensely on the services that forests provide.

Deforestation, therefore, has critical consequences not only for human and ecological health, but also for the sustainability of financial institutions and businesses. **Close to \$1 trillion** of turnover in publicly listed companies is dependent on commodities linked to deforestation, 32% of which are already experiencing associated challenges such as reduction in supply, increased costs or reputational risks.^v



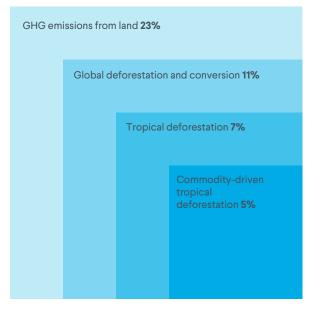
How is deforestation linked to climate change, biodiversity loss and society?

Forest loss has alarming consequences for businesses, people's livelihoods and the stability of our planet:

Accelerating climate change

Forests absorb greenhouse gas (GHG) emissions, enabling local cooling and regulating global temperatures. As forests are destroyed, their role as carbon sinks is reversed and stored carbon is released. As a result, deforestation contributes 11% of total global GHG emissions.

Figure 2: Global emissions breakdown (Ceres)^{vi}



Businesses are likely to be particularly associated with emissions from commodity-driven tropical deforestation (see figure 2). Those making net-zero pledges need to consider and address emissions from deforestation within their supply chains.

Biodiversity loss

Eighty percent of all species make their homes in forests.^{vii} Deforestation causes habitat destruction and fragmentation, placing species at risk. If tropical deforestation continues unabated, research has shown that it has the potential to cause a mass extinction event on a global scale.^{viii} This is unlikely to take place as a simple 'wipe out' of all species, but rather through an alteration in the mix of species. Some will thrive, while others die out. Reducing the diversity of Earth's species irreversibly alters the way whole ecosystems function and will reduce resilience to shocks in future.

Displacement of Indigenous Peoples and local communities

It's estimated that 2.6 billion people rely directly on forests for their work, culture and homes. Deforestation means that areas of cultural importance are destroyed, and Indigenous Peoples face increased threats and violence. Of all reported killings of environmental defenders, 40% were indigenous, despite their making up only 5% of the global population.^{ix}

Food insecurity

Destruction of forests compromises the ecosystem services that are crucial to food production, such as regulation of hydrological cycles, pollination services and invasive-species control. For instance, disruption of the water cycle due to tropical deforestation is linked to droughts in key agricultural areas in China, India and the United States.^{xi}

Disease and ill health

Deforestation is associated with increased pathogen transmission to humans – for example SARS, MERS, Ebola and Covid-19 – as human activity increasingly intrudes on natural habitats. Biodiversity loss arising from deforestation can also mean lost potential to access new medicines for treating disease.

^{vi}Ceres - Investor Guide to Deforestation and Climate Change (2020) ^{vii}IPBES - Global Assessment Report (2020)

viiiGlobal biodiversity loss from tropical deforestation (2017)

^{ix}WWF - We need to safeguard our forests (2022) ^xGlobal witness, Defending Tomorrow (2020) ^{xi}Yale Environment360, Rivers in the Sky (2018)



How deforestation impacts investors

As deforestation continues, it will have increasing implications for the financial bottom lines of companies and consequently the returns for investors. In a similar manner to climate change, this manifests in the form of physical and transition risks that impact economic activity and, in turn, create financial risk.

Physical risks

- Disruption of ecosystem services
- Soil erosion
- Loss of carbon sequestration

Transition risks

- Increased regulation
- Reputational damage
- · Changing trade policies
- Impact on economic activity
- Reduction in productivity
- Insecurity of commodity supply
- Need to relocate/adjust activities

Financial risks

- Increased costs/lower profits
- Higher lending costs; increased risk of defaults
- Stranded assets

\bullet

Physical risks consider the adverse consequences of deforestation that affect crop yields, including increased soil erosion, altered hydrological cycles, increased flood risk, reduced pollination services and increased risk of pests and disease, as well as disruption to infrastructure. For example, a food processing company reliant on soy production in the Cerrado region of Brazil faces operational risks from deforestation impacts, including a potential 10% reduction in soy productivity.^{xii} Transition risks refer to issues that companies may face if they fail to react to changes in regulations, consumer behaviours or market systems in the transition to a deforestation-free economy. For example, upcoming European Union regulations will require companies to carry out due diligence to ensure that forest-risk commodities are not linked to either legal or illegal deforestation. The reputation of a company or asset manager is also a source of transition risk, with growing scrutiny of potential impacts and business activities.

Physical and transition risks translate into higher costs and reduced sales for a portfolio company. As commodity production becomes less efficient and less predictable, companies in supply chains will have to pay more and face insecurity of supply. This will drive up the cost of operations and of products, increasing financial risk for investors.

There are, however, significant opportunities in addressing these issues. By engaging with suppliers, companies can ensure that their supply chains are deforestation-free, enhancing their resilience to regulatory, reputational or operational risks. Asset owners and large corporations have the scale and capacity to influence change. By working with suppliers, governments and other organisations, investors can help to tackle deforestation and biodiversity loss at multiple levels.

xiiTNC - Incentives for Sustainable Soy in Cerrado (2019)

What actions can asset owners take to tackle deforestation?

To ensure their portfolios and holdings are not contributing to deforestation, and therefore the interlinked climate and biodiversity crises, asset owners should work with their managers to understand and eliminate their exposure to deforestation through their investments. While this may seem a daunting task, there are five steps that asset owners can take now:

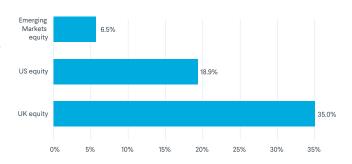
Understand exposure to deforestation and the associated risks, working with asset managers where relevant.

The Forest 500 dataset is a good place to start. Forest 500 ranks the most influential 350 companies operating in the supply chains of six key commodities (palm oil, soy, beef, leather, timber and paper) and 150 financial institutions driving tropical deforestation. These are the companies with the greatest exposure to deforestation risk, either directly or through their supply chains and financing, and therefore the companies with the greatest potential impact were they to act on deforestation.

2 Set an effective policy to manage the risks arising from deforestation.

This could be incorporated into an existing climate change or stewardship policy, or framed as a standalone policy. Policies could include expectations of providers, the provision of information and goals for engagement. The level of ambition may range from recognising the importance of sustainable forest management to setting a strict zero deforestation objective.

Figure 3: Proportion of selected global equity markets in Forest 500 deforestation list



Source: Forest 500 (2021 company data), Hymans Robertson calculation.

Note that UK equity markets have a strong bias towards sectors driving global deforestation, such as energy and mining, which is reflected in the figure above. Engage with asset managers to set expectations and timeframes for required improvements, as well as expectations on reporting. Monitor progress and continue engagement as needed. The 150 financial institutions included in Forest 500 are assessed annually on their policies and practices to tackle deforestation and associated human rights abuses in their portfolios. This assessment can be used by investors as a tool to guide stewardship action and measure the progress that is being made.

3

4

5

Collaborate with other financial institutions to build capacity, advocate for effective systemic policy change and amplify engagement impact. The Forest 500 dataset can help investors identify where companies are acting on deforestation and associated human rights abuses, and where there are gaps in their approaches. This detailed information can support collaborative engagement with other institutions to increase awareness of deforestation issues and drive real world change, including the development of time-bound improvement plans for companies to tackle commodity-driven deforestation in their supply chains.

Publicly disclose activities, results of monitoring and progress made towards implementing your policy.

Disclosure can also open opportunities to collaborate with other financial institutions that are engaging with the same investees and/or asset managers – for example, by supporting the Finance Sector Deforestation Action initiative. More detailed guidance on these steps can be found in the Finance Sector Roadmap for eliminating commodity-driven deforestation. The roadmap links to many other datasets that can be used for each step.

Please don't hesitate to **get in touch** if you would like to discuss how to eliminate deforestation from your asset portfolio.

About Global Canopy

This paper was written with the support of **Global Canopy**, a data-driven not for profit that targets the market forces destroying nature. They do this by improving transparency and accountability. Global Canopy provides innovative open-access data, clear metrics and actionable insights to leading companies, financial institutions, governments and campaigning organisations worldwide to help them make better decisions about nature, forests and people.

We are particularly grateful to Sarah Draper, Emma Gollub and Florence Wiggins for their contributions. globalcanopy.org

London | Birmingham | Glasgow | Edinburgh

T 020 7082 6000 | www.hymans.co.uk

Hymans Robertson LLP (registered in England and Wales - One London Wall, London EC2Y 5EA - OC310282) is authorised and regulated by the Financial Conduct Authority and licensed by the Institute and Faculty of Actuaries for a range of investment business activities. A member of Abelica Global.