



# INVESTING IN SUSTAINABLE FORESTRY

**Global timber consumption has risen 24% in the past two decades due to urbanisation and global housebuilding requirements (Gresham House, 2020). As a real asset with increasing market demand, forestry can be an attractive investment, however it also contains significant risks, particularly related to communities and biodiversity. This brief introduces the key considerations for responsible investors in the forestry sector.**

## FORESTS AS AN INVESTMENT

Forests are an asset class that generates a financial return but are also a form of natural capital that provides humanity with indispensable ecosystem services. Forests purify the air, regulate global and local temperatures, enrich soil, regulate the water cycle, provide food, fibre, and medicine, and act as an invaluable carbon sink, absorbing 7.6 billion metric tons of CO<sub>2</sub> annually (WRI, 2018). Forests also harbour an estimated 80% of terrestrial biodiversity (WWF). As such, responsible investment in forestry pays due consideration to maintenance of the natural capital and, increasingly, seeks to generate additional returns from this capital.

Forests are defined as ‘real assets’ – meaning they hold underlying value due to both the land and the physical assets on it, as opposed to intangible assets such as stocks and shares. Global demand for timber continues to rise due to increasing focus on renewable materials, while supply is constrained by increased regulation and the exhaustion of unlogged tropical forests. Timberland investments increase in value over time as the timber grows, providing a potential hedge against financial crises or drops in timber prices. Investors can simply leave their timber standing and it will continue to grow until the markets or prices improve. However, forestry investments are illiquid – typical lock-ins are 10 years or more and cashflow realisation is constrained by the time it takes to grow trees.

## PRODUCTS AND GEOGRAPHIES

Wood harvested from forestry operations has a number of different end uses. Primary processed woods include products such as sawnwood, veneer, plywood, wood pellets, wood pulp and fibreboard. These products are increasingly used in construction, and overall consumption of primary processed wood products is expected to grow 37% by 2050 in a business-as-usual scenario (FAO, 2022). Secondary processed wood products (SPWPs) include wooden furniture and parts (which account for almost two thirds of SPWP trade values), joinery, kitchen items, packaging and mouldings. The US, Japan and European countries such as Germany, France and the UK, are the largest importers of SPWPs.

The geographies involved in supplying and consuming wood vary depending on the type of product, however, taking unprocessed tropical roundwood as an example, the top five producer countries are Indonesia, India, Vietnam, Brazil and Thailand. These countries collectively account for 73% of total ITTO (International Tropical Timber Trade Organisation) production (ITTO, 2021). A significant proportion of this tropical roundwood is being consumed domestically, but the top five importing countries are all in Asia – China, India, Vietnam, Indonesia and Taiwan. However, products manufactured in these countries from their wood imports are mainly then exported to developed markets. As well as being the largest importer of tropical roundwood, China is one of the most significant financiers of the forestry sector. A 2021 report from Rainforest Action Network revealed China as the second largest financier of forest-risk commodities behind Brazil. Of Chinese financial institutions’ \$14.9 billion in forest-risk loans (lending to companies operating in commodity supply chains driving deforestation) and underwriting services in the years 2016-2020, 40% were in the timber, pulp and paper industries (RAN, 2021).

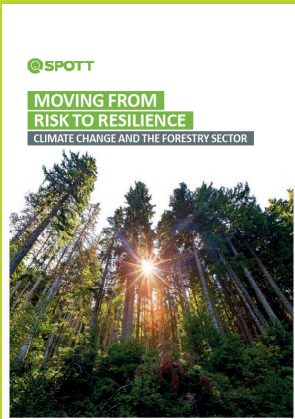


## ZSL'S WORK WITH THE TIMBER AND PULP INDUSTRY:



ZSL ASSESSES 100 TIMBER AND PULP PRODUCERS, PROCESSORS AND TRADERS ON THEIR ESG DISCLOSURES THROUGH THE [SPOTT.ORG](https://www.spott.org) TOOL. ZSL ENGAGES WITH THE

INDUSTRY AND HAS FIELD STAFF IN THE CONGO BASIN WHO CONDUCT ON SITE VISITS TO TIMBER CONCESSIONS. IN 2021, ZSL PUBLISHED A RESEARCH REPORT ON THE INTERDEPENDENT RELATIONSHIP BETWEEN THE CLIMATE AND THE FORESTRY SECTOR.



## FORESTRY VALUE CHAIN

A forestry company may not own the underlying asset, which is typically held by government, but it manages concessions which it uses either for plantation development or natural forest management. The relationship of the company to the underlying asset leads to vastly different value chains. There are many operators in the forestry industry that are sole traders or only employ a few workers, and which require limited resources. Except for acquiring access to the land needed to grow the trees and the permission from a local government to harvest them, the barriers to entry are generally low for starting a new forestry business.

Supply chain companies can provide inputs such as seedlings, forest management services, harvesting, transport and processing. Downstream companies include timber mills, pulp and paper factories, furniture, fencing and packaging makers, and construction industry suppliers. Usually, capital inputs are required for vehicles, sawmills, kilns, and ancillary equipment, with larger factories and processing facilities requiring significant investment. In contrast, large forestry asset owners and managers can reach significant size, with International Woodland holding €5.5 billion of timberland investments for example.

## PROFIT DRIVERS

Forests are managed to maximise the crop yield, whilst minimising the risks for the owner. Value is realised through a sale of the crop (harvesting) or by disposing of the asset. Returns from forestry are driven by three main variables: biological growth of the crop, increases in the value of timber, and increases in the value of land. In turn, these are determined by the agro-climatic conditions, particularly the length of the growing season, and the quality of the soil, which can get depleted after multiple rotations.

In addition, there are costs associated with timber selection, forest management, and harvest, as well as fixed management costs of operation.

The level of maturity for the asset and region in question will also have a direct impact on potential profits. For forestry assets located in well-established forestry regions, where productivity, costs and risks are well understood, forecasts in market pricing will have a significant impact on profitability and thus asset valuations. For emerging assets and investment regions on the other hand, the level of uncertainty on all major inputs (costs, productivity, and pricing for wood fibre) will have a wider level of uncertainty. These issues are typically reflected in higher discount rates applied to valuations.

## FOREST FINANCING

In developing countries, institutional investors are the main market participants. Data on official development assistance also indicates that financial institutions from Germany, Japan, the UK, Finland, the Netherlands, Australia, and Sweden have historically made significant donations to sustainable forest finance.

Aside from investing directly in publicly listed companies, limited partnerships and trusts tend to be the most prevalent vehicles that facilitate institutional investors making investments into forestry assets. Prospective investors in forestry can also invest in a timber investment management organisation (TIMO), which is a management group that aids investors in managing their timber funds, invest directly in existing forestry funds, or buy shares in forestry investment and management companies such as New Forests.



A growing number of governments and development banks are also developing their own national forest financing strategies, including setting up financing mechanisms like trust funds to support sustainable forest management.

The financing described above, however, does not usually include consideration of private timber companies. Private forestry operators have faced increasing difficulties in accessing traditional sources of finance. Investment in sustainable forestry is often limited in developing countries due to market, political, and natural resource risks. There continue to be some sources for private sector financing, but this is very much limited to those companies which meet sustainable forest management and certification requirements and now, additional legality and due diligence. The World Bank has nearly eliminated its for-profit forest sector financing due to major criticism of its failure to internalise sustainability standards.

## RISKS

Investing in the forestry sector does not come without risks and unsustainable forest management can have landscape level consequences for people and nature including increased erosion, flooding and biodiversity loss. Aside from contributing to the climate crisis, a loss of forests means the withdrawal of critical ecosystem services that expose humanity to not only an increased prevalence of forest fires and flooding, but a reduction of clean air, clean water and a loss of temperature regulators. Forestry operations can also have detrimental impacts on biodiversity as habitat is cleared for plantations or access routes. The extent of environmental impact from wood production depends on the method of forest management: clear felling, selective logging, or conversion to plantations. Aside from environmental risks, there is also a range of different risks that forestry poses to investors, such as:

**Transition Risks:** including the possibility that the value of carbon in a standing forest becomes worth more than the timber due to global shifts in priorities.

**Operational Risks:** Effective management of slash (the debris left after a tree is harvested) is critical to preventing fuel build-up and high fire risk that can cause significant damage to forest assets and operations.

**Stranded Assets Risks:** Land rendered unusable/unprofitable due to changes in law, ecology, or climate is a stranded asset risk. For example, an asset could be stranded due to invasive plants or insect pests, or prohibition of extractive activity in an area due to high fire risk.

**Financial Risks:** Financial risks can include the over-valuation of forest assets because of an under-estimation of the extent of forest degradation.

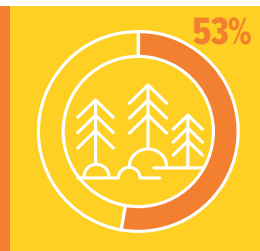
**Reputational Risks:** Violations of procurement policies and environmental, social and governance (ESG) criteria imposed by investors, buyers, and certification standards can damage companies' and investors' reputations.

**Regulatory risk:** Due to forests' crucial role in the fight against climate change, policy and regulation around forests are likely to increase in coming years as nations act to maintain and increase carbon storage. This could lead to penalties and stranded assets for those timber companies and financiers who do not comply.

For example, with the imminent introduction of the EU's regulation on deforestation-free products, tropical timber and pulp companies will need to provide evidence of deforestation monitoring. Research by ZSL published on its [SPOTT platform](#) shows that the majority of companies they assess in the sector are still failing to do so.

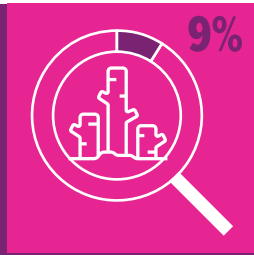
**53% OF COMPANIES (48/90)**

**ASSESSED ON SPOTT HAVE A CLEAR COMMITMENT TO ZERO DEFORESTATION...**





**ONLY  
9% OF  
COMPANIES  
(9/100)**



**ASSESSED ON SPOTT  
PROVIDE EVIDENCE  
OF MONITORING FOR  
DEFORESTATION IN  
THEIR OPERATIONS**

**Procurement Risks:** Companies relying on land conversion for large-scale plantations may no longer be compliant with corporate buyers' procurement policies. A species of tree may be, or may become, protected, and become unavailable for commercial use. Procurement of land for logging can also come at the risk of causing conflict with Indigenous communities due to the extent of customary land in tropical regions.

**Legal Risks:** Illegality is a pervasive issue in timber supply chains and can cause significant fines and share price reductions. It is estimated that logging in violation of national laws accounts for 8-10% of global production and trade in forest products (WWF).

Companies are not doing enough to combat the risk of illegal activity: 39/90 (43.3%) SPOTT-assessed timber and pulp companies report evidence of protecting forest areas from illegal activities, but only 19/90 (21.1%) explicitly commit to protect forest areas from illegal activities.

## FORESTRY REGULATION

Most countries with high proportions of tropical forests have laws, regulations and policies that integrate sustainability effectively. However, the implementation and enforcement of these laws is often inadequate. With vast areas of forest to monitor, limited budgets, poorly trained or limited personnel numbers and corruption, illegal logging is a significant concern for the sector. Tropical timber importing countries have attempted

to address this through timber import regulation, such as the President's Initiative Against Illegal Logging in the US, including the Lacey Act, which imposes due diligence requirements on importers, and the Forest Law Enforcement Governance and Trade (FLEGT) initiative in the EU. FLEGT comprises Voluntary Partnership Agreements (VPAs) with exporting countries to create national definitions of legal timber, and the EU Timber Regulation (EUTR), which came into force in March 2013. It prohibits importers in Europe from placing illegally harvested timber or products derived from illegal timber on the EU market.

More recently, the 2022 EU Deforestation Regulation (EUDR) aims to minimise the EU's contribution to deforestation and promote sustainable consumption. The new regulation aims to ensure that products bought in the EU are not associated with deforestation and forest degradation. Under the regulation, any commodities associated with lands deforested after 31 December 2020 will be prohibited from import into the EU.

## CERTIFICATION AND TRACEABILITY

The use of third-party certification is a proxy to signal that the end product, be it timber or other forest products, come from sustainably managed forests and, furthermore, adhere to ESG standards at every stage of production. At present, there are two global certification programs and several regional or national schemes. The Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) reportedly cover approximately 700 million hectares of certified forests between them which equates to almost 20% of working forests. PEFC also endorses regional certification schemes, such as the Sustainable Forestry Initiative (SFI) in North America and The Malaysian Timber Certification Council (MTCC), to help with international recognition.

As certification only covers a relatively small area of forest globally, investors and the public need to demand certified forest products in order to drive certification. Financiers need to be aware of the different types of certification which cover a forest, keeping in mind that increasing regulatory requirements for verification of sustainability is on the rise for importing countries. Certification by itself may be inadequate and should be combined with due diligence including traceability assessments of sourcing locations.



## INDUSTRY TRENDS

Demand for timber used as bio energy or biofuel is gaining more popularity in the global forestry and logging products market. Woodfuel is typically derived from woody biomass, such as trees and branches, and is a popular source of renewable energy for heating and cooking. According to the ITTO, woodfuel will account for 57% (719 million m<sup>3</sup>) of total roundwood production in tropical producer regions by 2050. There is also a rise in demand for engineered wood products for construction. For example, Cross Laminated Timber (CLT) is increasingly used in high rise developments as a replacement for carbon intensive materials such as concrete or steel.

Technology is an increasing driver of change in the sector. Remote sensing (the mapping of a particular

location using LIDAR, aerial photography and satellite imagery) can be implemented to spatially and temporally map forest areas for the purposes of inventory management, carbon estimation and identifying illegal logging. Digital traceability systems including blockchain and eDNA are also being adopted in the market.

Carbon offsets are having a growing impact on forests as more companies and individuals look to carbon offset programs linked to forests to meet their climate goals. The market for carbon offsets is expected to increase in the future as more emphasis is placed on mitigating climate change. However, effective policies and oversight are necessary to ensure that the assets used for carbon offsets are fulfilling their intended purpose, with transparent and clear accounting practices that allow offset users and policymakers to easily verify the validity of offset claims.

**ZSL PROVIDES SUPPORT FOR INVESTORS ON HOW TO ENGAGE WITH INVESTEE COMPANIES IN THE FORESTRY SECTOR. PLEASE GET IN TOUCH AT [SUSTAINABLE.FINANCE@ZSL.ORG](mailto:SUSTAINABLE.FINANCE@ZSL.ORG) FOR MORE INFORMATION.**



## SOURCES

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- WWF – [We need to safeguard our forests](#) (webpage)
- WWF – [Timber overview](#) (webpage)



Developed by the Zoological Society of London (ZSL), SPOTT is a free online platform supporting sustainable commodity production and trade. By tracking transparency, SPOTT incentivises the implementation of corporate best practice. For more information, visit [spott.org](https://spott.org)



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