IWC's 2021 ESG Report

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A growing interest in sustainable nature-based solutions

2020 is likely to be long remembered, as the pandemic profoundly changed our social interactions, working styles, acknowledgement of science, health, education, and not least – the way we cherish nature.

We continued to witness an increasing number of pledges and actions from the public sector, corporations, and institutional investors towards emissions reduction[1], the halt and reversion of ecosystems and biodiversity loss[2], and a "green recovery"[3]. Furthermore, regulators kept putting forward ambitious frameworks to channel green investments and increase ESG integration[4] – **what was once niche is rapidly becoming mainstream**.

However, there is still a gap between announced long-term targets and the short-to-medium term actions needed to accomplish them[5]. And while current policies are moving the world away from the worst-case emissions scenario, we have no more, and maybe less, than a decade of carbon budget left to limit warming and ensure nature's health[6]. This translates into several thematic opportunities, including nature-based solutions specifically targeting to partake into the **circular bioeconomy**, to be an active participant on the **carbon market**, to protect **ecosystems and biodiversity**, or to contribute to **sustainable food production**. For this year's edition of our ESG report, we have elected to shortly present each of these four themes.

Investing in what is often referred to as natural capital solutions, means **generating financial returns from nature-based real assets without compromising their ecological carrying capacity, or even improving it**, and participating in the global economic transition by building climate- and nature-aligned portfolios.

IWC has over 30 years of expertise and experience within natural capital investing, overseeing today around a million hectares across five continents, and is therefore well positioned to assist in this transition by identifying opportunities aligned with investor preferences – be it sustainable forestry, targeted climate change mitigation investment strategies, biodiversity protection or improvement strategies, ecosystems restoration and preservation, sustainable food production – or simply adjusting existing portfolios to improve financial resiliency in relation to future climate scenarios.

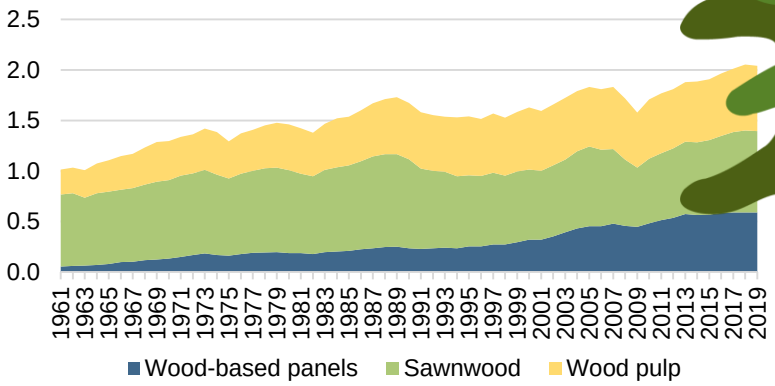
IWC works together with reputable investment partners, embodying our ESG framework throughout the full investment lifecycle. **ESG integration is not only a risk mitigation tool to us, but a mindset**. This is why we are actively participating in industry initiatives (most recently testing the EU taxonomy in a PRI-led peer group and becoming a member to the TNFD Stakeholder Group), staying abreast of forthcoming regulations, and continuously increasing our efforts to integrate and showcase the positive impacts sustainable nature-based investments have on financial portfolios, people, wildlife, and climate.

Circular bioeconomy and wood industry

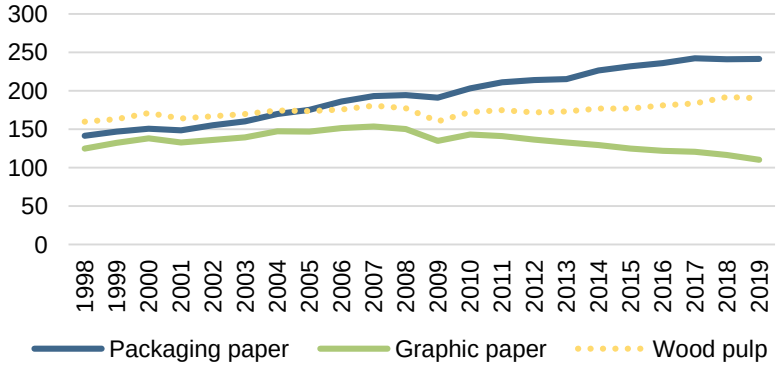
There has always been a fundamental demand for wood[7], that is increasing significantly for many decades. For example, global industrial wood production has doubled since the 60's (top graph). Construction and consumer goods are the two main end-markets for wood, mainly driven by population and income growth[8]. The bioeconomy transformation will further strengthen wood demand and sustainable forestry investments' attractiveness:

- **Wood in construction** – a fast-growing sector, as building codes start accommodating multi-story wood constructions and industry investments in cross-laminated timber (CLT) lines. The CLT industry is rising by 15-20% p.a. and is forecast to reach 7 million m³ total capacity by 2024.
- **Sustainable packaging** – paper packing is today one of the biggest wood industry sectors, rising 2-3% p.a. (lower graph). The demand from packaging and other paper sectors should drive wood pulp production further up, even if the decline in print (graphic) paper is mitigating the short-term growth. A critical factor for sustainable production going forward, will be maintaining the current high recycling rate of about 80%.
- **Wood fibers for textile** – 107 million tons of textile were produced in 2019, from petrochemicals (69%), cotton (23%), and wood fibers (8%). Although still costlier, the less environmentally-intensive production methods of textile from wood (lyocell) are increasingly gaining traction, and some of the largest pulp producers are expanding into the growing textile market by producing dissolved pulp.
- **Wood replacing plastics** – many pulp companies are making products (nano-cellulose) that can be used in a range of applications, by adding strength to food packaging and composite materials used in cars, substituting petroleum-derived plastic with biodegradable bioplastic and paper. By 2050, 17% of the conventional plastic may be replaced by paper and plastic made from wood and other biomaterials.
- **Resource efficiency** – not only is the applicability of wood in new products rising, but so is the utilization of timber by-products. Wood residues and co-products are transformed into energy feedstock, biofuels, and are used in the construction, pharmaceuticals, clothing, and food industries. Recycling rates targets are rising, further stimulating growth in wood end-use.

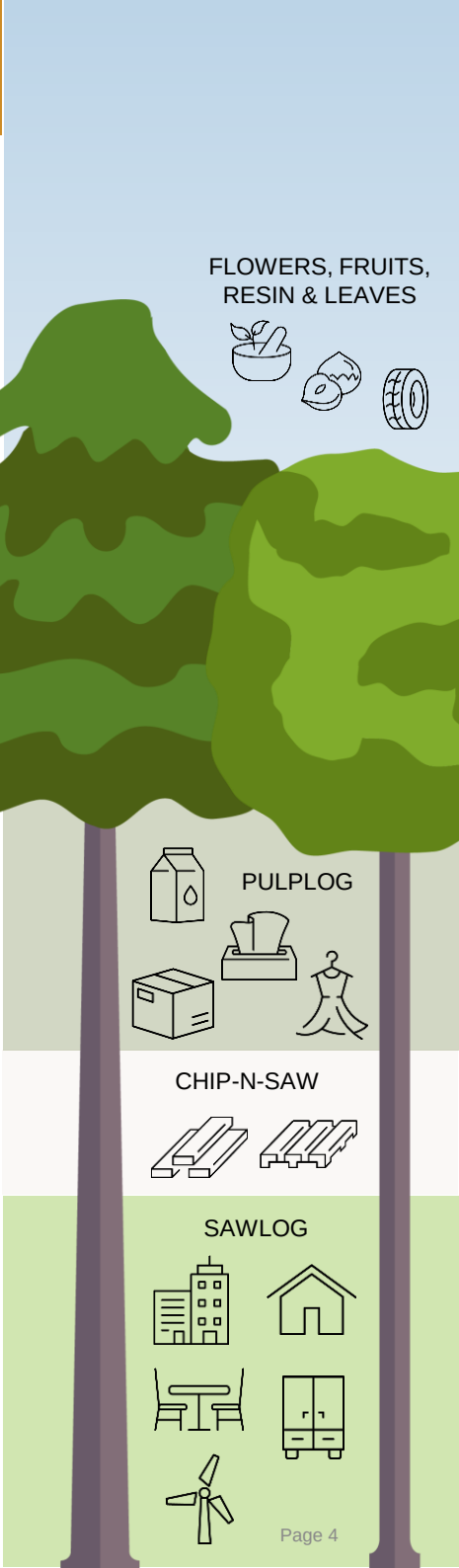
Global industrial wood demand (billion m³ roundwood equivalent, FAO)



Global graphic paper, packaging, and pulp for paper (million tonnes, FAO)



All these trends are making the sustainable production and use of wood as a **natural, versatile, renewable, and climate-benefiting material** a compelling investment case.



Cost-efficient high-quality forestry carbon solutions

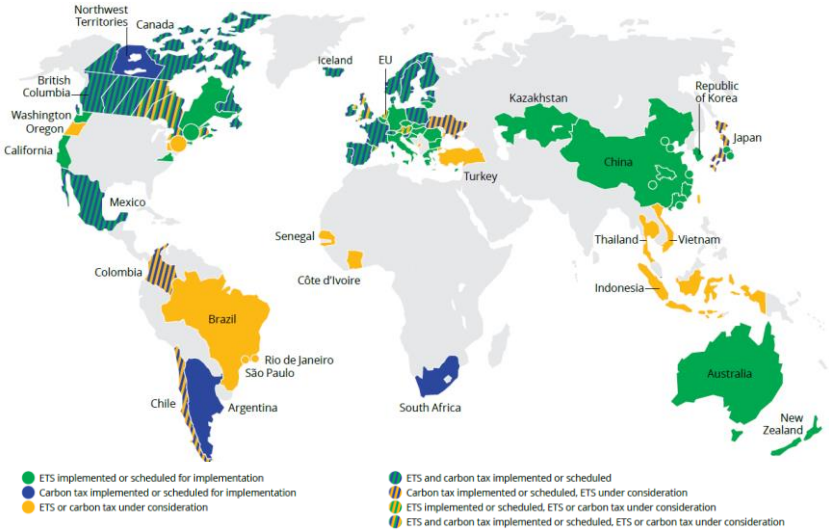
The “Net Zero” movement built momentum in 2020, with the private sector doubling its pledges[9] and some groups even aiming to remove all their historic CO_2 emissions from the atmosphere – using forestry as a central element in achieving this ambitious goal.

Full implementation of countries’ current commitments to Net Zero would though only result in a 50% chance of limiting global warming to 2°C, and we have no more than a decade left to close the emissions gap[5]. This challenge cannot be met by reducing emissions alone. **Negative emission technologies and land uses will have to play a vital, carbon-removal role.**

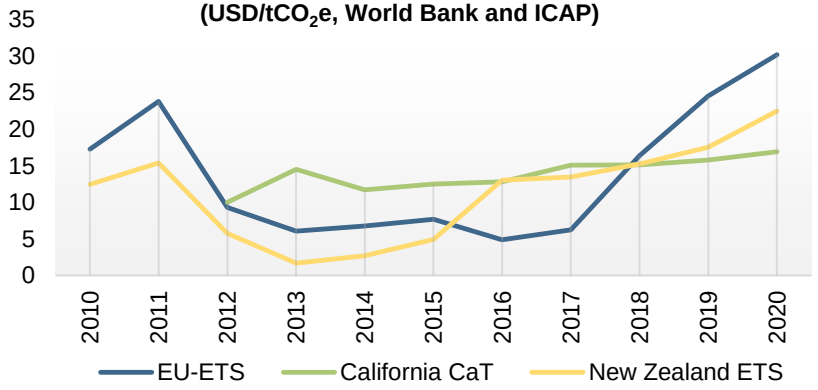
Over the past five years, forestry has taken the lead and accounted for 42% of the carbon offsetting market[10], largely attributable to forestry’s ability to deliver sizeable quantities of cost-efficient and high-quality carbon credits, often with co-benefits contributing to several other SDGs[11]. IWC expects this trend to continue as **demand for high-quality nature-based solutions increase**, along tightening climate policies, expanding carbon markets, and rising carbon prices[12].

Despite carbon prices increasing in many jurisdictions[13], their levels remain low relative to those required to meet the Paris Agreement. Prices of at least USD 50–100/tCO_2e by 2030 are needed[14] to cost-effectively reduce emissions – a signal some jurisdictions and transition scenarios are starting to cast. Meanwhile, corporations’ Net-zero pledges and private sector-led initiatives on scaling an effective and efficient voluntary carbon market[15] are driving its size upward to a likely USD 200 billion by 2050[16].

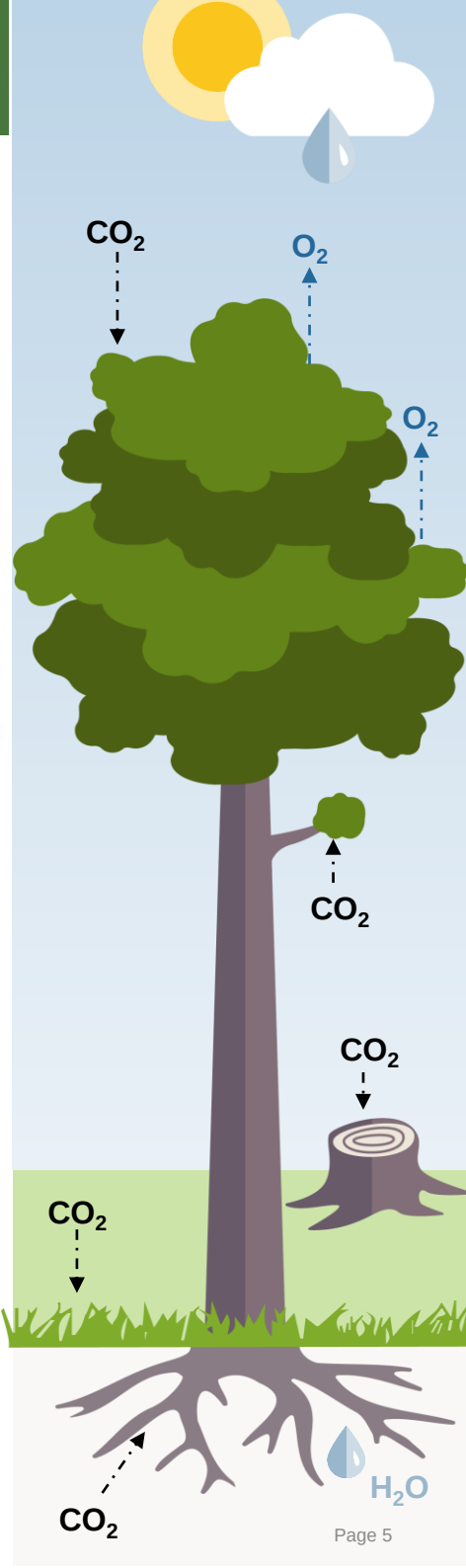
Regional, national, and subnational carbon pricing initiatives active, scheduled for implementation and under consideration (World Bank, 2020)



CO_2 market price trends (USD/tCO_2e, World Bank and ICAP)



While **carbon credit markets are likely to grow many folds**, along with opportunities for land-based carbon sinks, capitalizing on such growth requires expertise in forestry and carbon markets. Forest projects’ suitability varies across geographies, species, management regimes, and strategies, and so are carbon credits’ quality and prices – depending on credit scheme, additionality, permanence, geography, vintage, and credits’ co-benefits. Via our global timberland investment network, services and products, **IWC is well-positioned to enable one’s participation in the growing carbon market opportunities.**



The blooming of biodiversity

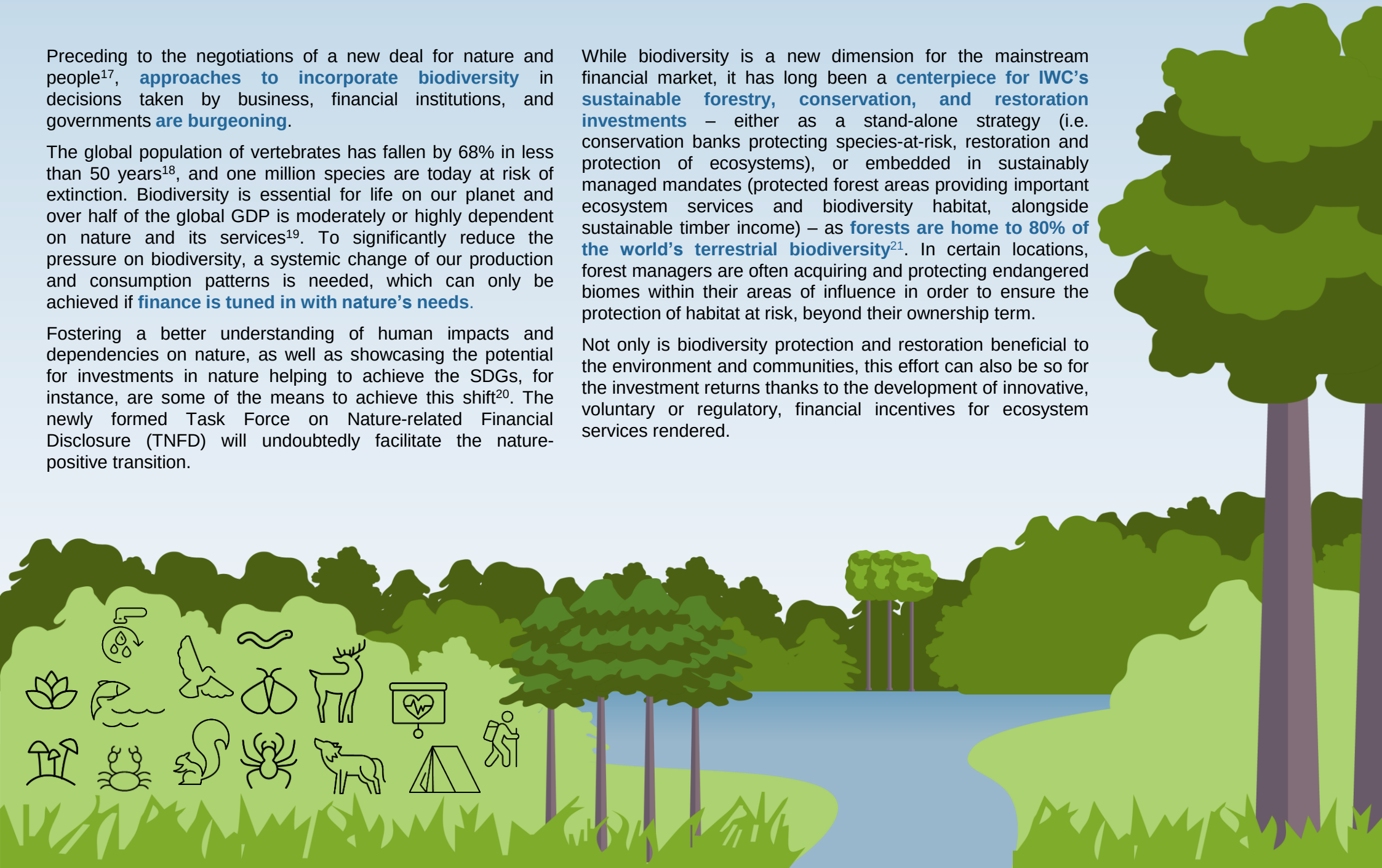
Preceding to the negotiations of a new deal for nature and people[17], **approaches to incorporate biodiversity** in decisions taken by business, financial institutions, and governments **are burgeoning**.

The global population of vertebrates has fallen by 68% in less than 50 years[18], and one million species are today at risk of extinction. Biodiversity is essential for life on our planet and over half of the global GDP is moderately or highly dependent on nature and its services[19]. To significantly reduce the pressure on biodiversity, a systemic change of our production and consumption patterns is needed, which can only be achieved if **finance is tuned in with nature's needs**.

Fostering a better understanding of human impacts and dependencies on nature, as well as showcasing the potential for investments in nature helping to achieve the SDGs, for instance, are some of the means to achieve this shift[20]. The newly formed Task Force on Nature-related Financial Disclosure (TNFD) will undoubtedly facilitate the nature-positive transition.

While biodiversity is a new dimension for the mainstream financial market, it has long been a **centerpiece for IWC's sustainable forestry, conservation, and restoration investments** – either as a stand-alone strategy (i.e. conservation banks protecting species-at-risk, restoration and protection of ecosystems), or embedded in sustainably managed mandates (protected forest areas providing important ecosystem services and biodiversity habitat, alongside sustainable timber income) – as **forests are home to 80% of the world's terrestrial biodiversity**[21]. In certain locations, forest managers are often acquiring and protecting endangered biomes within their areas of influence in order to ensure the protection of habitat at risk, beyond their ownership term.

Not only is biodiversity protection and restoration beneficial to the environment and communities, this effort can also be so for the investment returns thanks to the development of innovative, voluntary or regulatory, financial incentives for ecosystem services rendered.



Efficient sustainable crop production

Food is a necessity, and feeding a growing population expected to reach 9 billion by 2050, requires **a further expansion of the global agricultural output**. This can be achieved by productivity gains, or by expanding acreage devoted to the industry. However, increasing the area devoted to agricultural production will destroy natural habitats.

Innovative technologies such as vertical farming, urban farming, and food waste reduction will alleviate some of the food demand pressure, but **the most scalable way to a sufficient supply of calories is to produce these where it is most efficient**. High productivity includes classic input-output efficiency, but also reducing the negative footprint on nature, climate, and society. IWC firmly believes that future productivity gains can go hand in hand with improved biodiversity and lower GHG-emissions.

Sustainable agricultural management requires choosing the right measures for the right circumstance:

- **Organic farming** - generally better for biodiversity, tends to have lower yields and therefore requires larger area for the same food output, and (due to an increased need for mechanical cultivation) emits more GHGs.
- **Regenerative agriculture practices** - disturb the soil less, improve microbe biodiversity, and reduce GHG emissions, but require more pesticides.
- **Conventional farming** - not one system, but a range of practices which can provide economic, social, and environmental sustainability. Water is scarce in some places, while abundant elsewhere. The use of manure as substrate for biogas production is advantageous due to the energy production, because the nitrogen utilization of the degassed manure is increased, which reduces the emission of greenhouse gases.

Even though the investment regions IWC is overseeing are characterized by high input-output efficiency, ideal climate, and stringent legal regulations and industry standards that ensure low pressure on the environment and protection of workers and cultural heritage, we go even further to ensure sustainably yielded agricultural products.

At IWC, we seek to ensure a sustainable agricultural production by focusing on long-term ownership and continuous improvement. We identify fertile soils and local environmental risks to find assets where high efficiency production practices are most advantageous. By identifying top tenants with local knowledge and the right mindset for continual improvement, we achieve solid financial returns under a low or no environmental impact.

2020 ESG highlights

- 660,000 hectares of forested areas managed sustainably
- 163,000 hectares preserved and managed primarily for conservation purposes
- 490 terrestrial species and their habitat protected
- 47,000,000 newly planted trees
- 22 main tree species managed sustainably

- 187,000,000 tCO_2e stored in forest[22]
- 2,577,000 tCO_2e sequestered in 2020 (net of 0.1 $mtCO_2e$ of forestry-related emissions and inclusive of 0.4 mtCO2e stored for the long-term in HWP)
  = 318,683 European citizens' annual emissions[23]

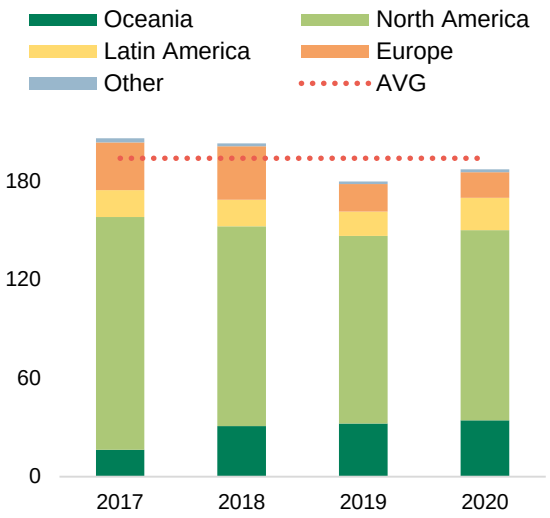
- 6,500,000 m^3 of annual timber growth
- 5,045,000 m^3 of sustainable timber production, of which 4,726,000 m^3 is certified and approximately
  - 54% ends as construction / indoor material = 91,397 houses
  - 44% ends as paper and paper-related products
  - 2% is used for other purposes

- 16,900 hectares of forest watersheds protected from development or disturbances
- 3,650 kilometers of forested streams protected from development or disturbances
  - 9 kilometers of streams restored and protected from development (mitigation mechanisms)
  - 4,715 hectares of wetlands restored and protected from development (mitigation mechanisms)
  - 2,880 tons of nutrients and sediments eliminated from watersheds (mitigation mechanisms).

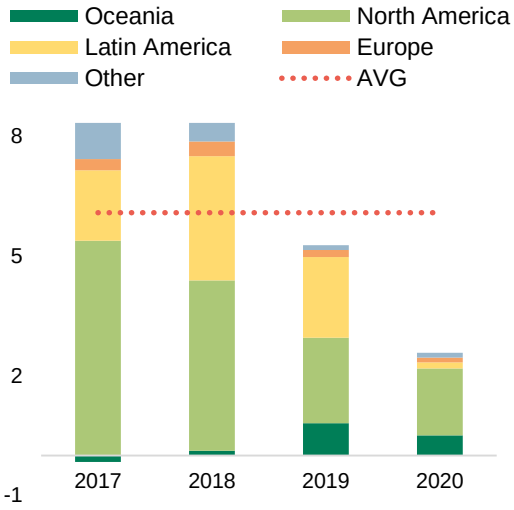
- 2,300 hectares of productive farmland managed in a high-efficient and resource-mindful environment
- 12,800 peoples' annual food calories intake produced
- 21% of the farmland is organically farmed and 11% is low-till practice

IWC Group's 2020 ESG highlights

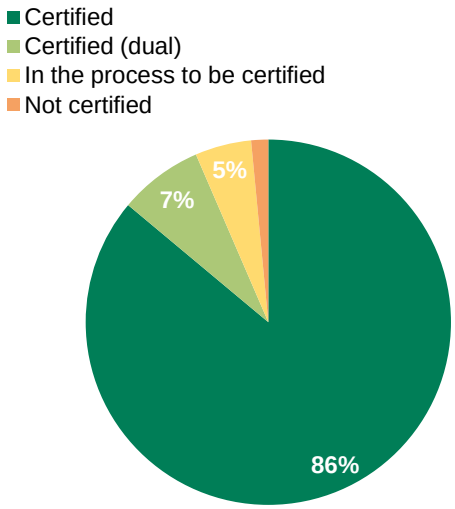
Carbon stock over time[23] ($mtCO_2e$)



Annual sequestration[24] ($mtCO_2e$)



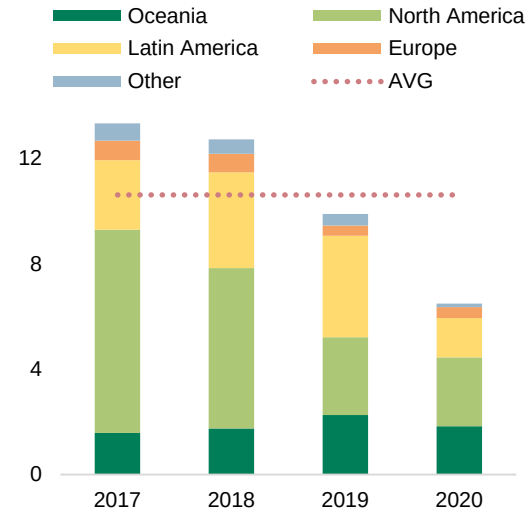
Certification status (%)



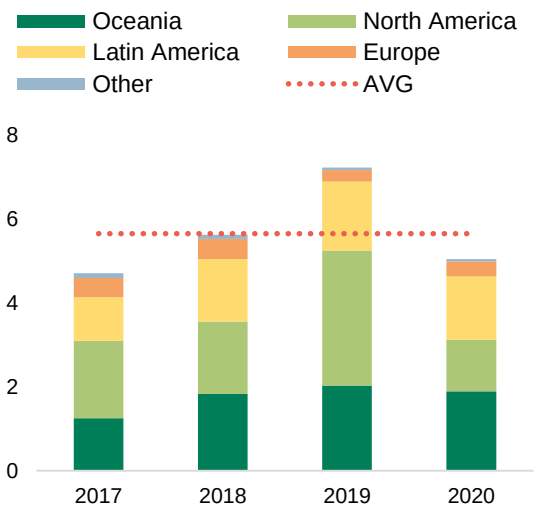
93% of IWC's advisory portfolio is certified

Main changes to the carbon metrics are driven by funds' exit and forests' maturity (harvesting levels)

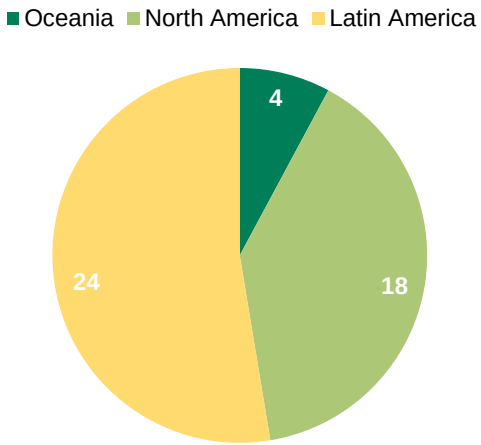
Annual timber growth (million m^3)



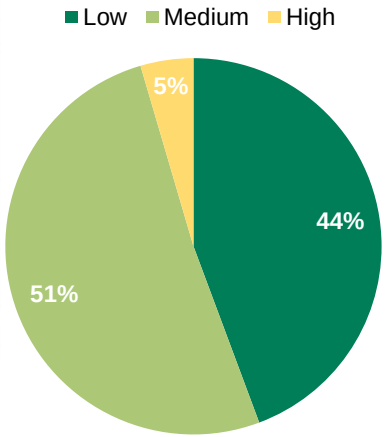
Annual timber harvest (million m^3)



Trees planted (million) in 2020

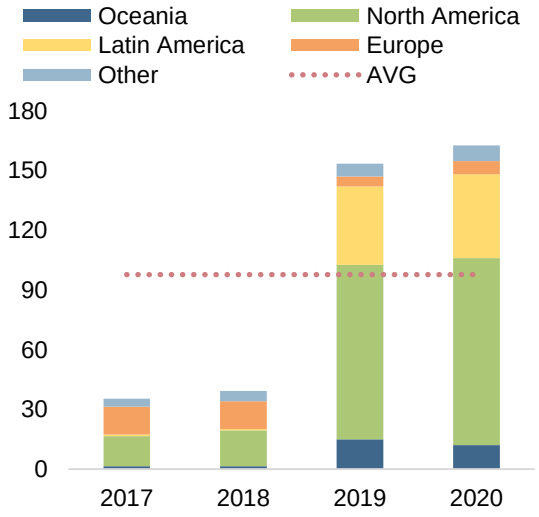


ESG risk categorization[25]

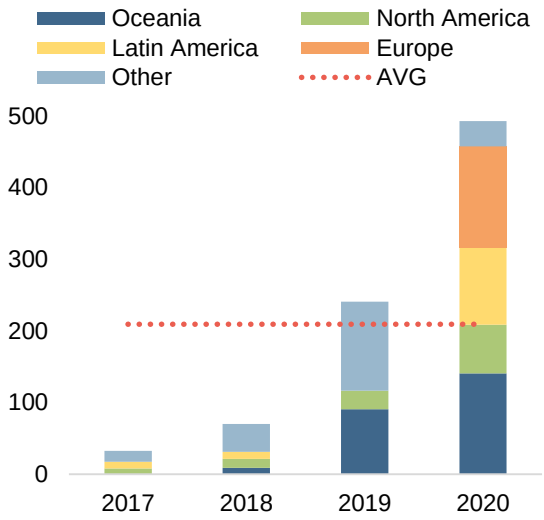


IWC Group's 2020 ESG highlights

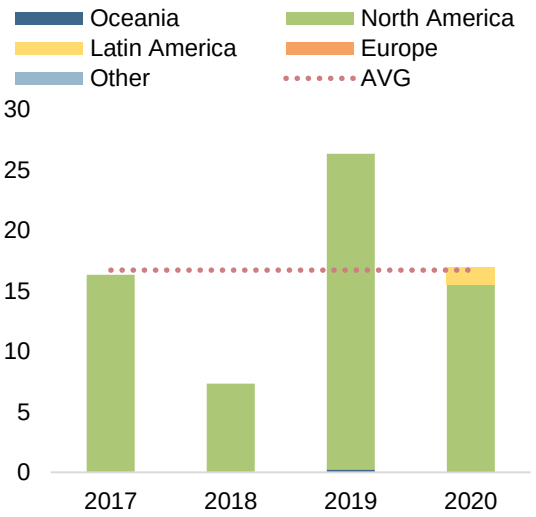
Protected areas (000 hectares)



Protected species (number)

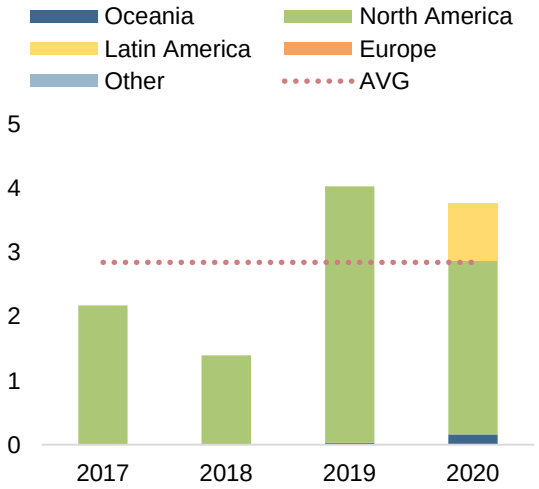


Protected forest watersheds[26] (000 ha)

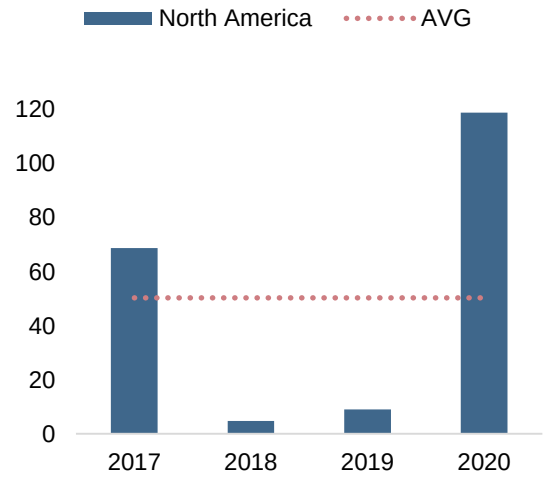


Around 20% of the total area is protected alongside working forests, preserving critical habitat and essential ecosystem services

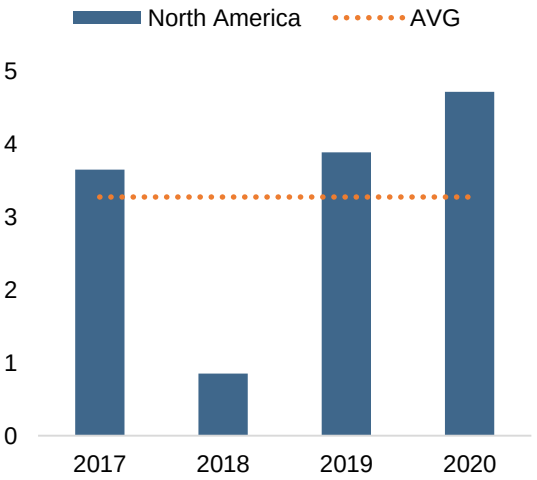
Protected forest streams[26] (000 km)



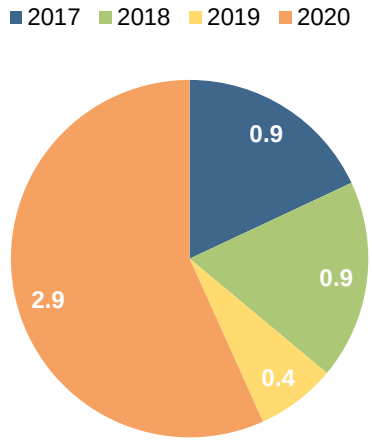
Restored & protected streams[27] (km)



Restored &protected wetlands[27] (000 ha)



Nutrients eliminated[27] (000 t)



References

1. 127 countries (63% of global GHG) have net-zero goals that are either formally adopted, announced, or under consideration; so are corporates (USD 11.4 trillion combined revenues) and investors (USD 5 trillion of combined AUM). Sources: United Nations Environment Programme Finance Initiative, Climate Action Tracker.
2. EU 2030 Biodiversity strategy (protect 30% land, 30% of sea, restore degraded ecosystems, unlock EUR 20 billion p.a. for biodiversity); US 2030 (Biden-Harris) plan to conserve 30% of America's land and waters, and to create programs enhancing reforestation.
3. 2020 EU (30% of the multiannual budget and coronavirus recovery fund for net-zero transmission); Governments from South America to Europe raised a record of USD 235 billion in green bonds to fund environmentally friendly projects; 2021 US has laid down an ambitious climate plan, including USD 1.7 trillion investments in clean energy and green jobs.
4. EU Sustainable Finance Action Plan's first four acts (i) channeling environmentally sustainable economic activities (Taxonomy, EU 2018/0178), (ii) regulating sustainability-related disclosure (SFDR, EU 2016/2341), (iii) creating new low-carbon and positive-carbon benchmarks (EU 2016/1011)), (iv) integrating ESG matters in investment firms' advice (MiFID II).
5. Climate Action Tracker: Paris Agreement turning point, December 2020.
6. To either of 1.5 or 2ºC. United Nations Environment Programme: Emissions Gap Report, 2020.
7. Partly because of its low substitutability (wood-based panels and packaging) and its flexibility, allowing on-site modifiability.
8. 1% growth in real GDP results, on average, in a 0.5% growth in wood production.
9. During the Covid-19 pandemic. EcoSystem Marketplace: State of the Voluntary Carbon markets 2020 Instalment #2: The only Constant is Change, December 2020.
10. World Bank Group: State and Trends of Carbon Pricing, 2020.
11. United Nations' Sustainable Development Goals.
12. Fitch Ratings: Tightening Climate Policy to Drive Carbon Offsetting and Emissions Trading, 2020.
13. World Bank Carbon Pricing Dashboard and IWC analysis.
14. CPLC: Report of the High-Level Commission on Carbon Prices, May 2017; Carbon Tracker; EU ETS carbon prices to double by 2021 and could quadruple by 2030 (EUR 55/tCO2), if EU legislates its current emissions targets alignment with the Paris Agreement.
15. Task Force on Scaling Voluntary Carbon Markets.
16. Within 2017-2018, the voluntary carbon market doubled in size and in value, and in 2019 outnumbered the compensatory market with 65% of the total number of annual carbon credits issued. World Bank; Vivid Economics: An Investor Guide to Negative Emission Technologies and The Importance of Land Use, 2020.
17. The 15th Conference of the Parties to the Convention of Biological Diversity (CBD) and the 26th Conference of the Parties on Climate Change later this year.
18. Between 1970-2016. WWF (2020) Living Planet Report 2020 - Bending the curve of biodiversity loss.
19. Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy. World Economic Forum in collaboration with PwC. January 2020.
20. Aligning Global Finance with Nature's Needs. A Framework for Systemic Change, 2020. Finance for Biodiversity.
21. Forests and climate change. International Union for Conservation of Nature (IUCN). Last reviewed: February 2021.
22. Carbon stock (tons of CO2e; mt=million tons) in the forest biomass (above and below ground) at the end of each period; HWP stands for the harvested wood products' carbon pool.
23. European Environment Agency. Data on greenhouse gas emissions, reported by countries to the UNFCCC and the EU Greenhouse Gas Monitoring Mechanism.
24. Annual sequestration (million tons of CO2e; in 2020, inclusive of Scope 1 and 2 emissions, and of carbon stored in HWP; net of carbon credit sales, where relevant). Where direct carbon metrics have not been provided by managers (mostly on stock and sequestration, less so on emissions and HWP), but underlying data was, IWC utilized the methodology of IPCC Guidelines for National GHG Inventories and regional data in estimating these.
25. ESG risk rating is a compilation of managers' ESG capabilities and assets' ESG sensitivity grading, per IWC's Procedure for Investees' Monitoring and Engagement – here depicted as number of investees from total portfolio falling in a certain category. The underlying gradings are further based on number of ESG factors, though special focus is put on the country's operating environment, the investment managers' ESG practices, and the assets' third-party forest certification (encompassing elements of internationally recognized criteria for sustainable and responsible business conduct).
26. Forested watersheds include lakes, ponds, and streams (shown separately in km) and are providing water supplies of highest quality (drinking water, aquatic habitat for native species, and contact recreation), which is the main reason for the establishment of forest reserves.
27. Streams and wetlands restored through investments in mitigation banking type of nature-based solutions.

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