

Forests matter! How Sappi is promoting forests as the solution.

sappi



Healthy, well-managed forests make a significant contribution to the UN Sustainable Development Goals.

Our business depends on woodfibre, a **renewable resource**.

At the social level, **sustainable forest management** contributes to livelihoods, income generation and employment.

We have **world-class expertise** in forest sciences R&D.

Sustainable forestry contributes to important **ecosystem** services such as carbon sequestration as well as water resources, soil and biodiversity **conservation**.

Why do forests matter?

The importance of forests can be seen in their contribution to the UN Sustainable Development Goals (SDGs) which are essentially a blueprint to achieve a better and more sustainable future for all.¹

Forests act as a source of food, medicine and fuel for more than a billion people (*SDG 1: No poverty*). Forests and trees support sustainable agriculture by, for example, stabilising soils and climate, regulating water flows, providing shade, shelter, and a habitat for pollinators and the natural predators of agricultural pests. When integrated into agricultural landscapes, forests and trees can increase agricultural productivity (*SDG 2: Zero hunger*). Approximately 75% of the world's accessible freshwater comes from forested watersheds (*SDG 6: Clean water and sanitation*). Overall, forests supply about 40 percent of global renewable energy in the form of woodfuel – as much as solar, hydroelectric and wind power combined (*SDG 7: Affordable and clean energy*). Some studies suggest that forests and trees may provide around 20 percent of income for rural households in developing countries, both through cash income and by meeting subsistence needs. Non-wood forest products (NWFPs) provide food, income, and nutritional diversity for an estimated one in five people around the world, notably women, children, landless farmers and others in vulnerable situations. (*SDG 8: Decent work and economic growth*).

Acting as carbon sinks, forests absorb the equivalent of roughly 2 billion tonnes of carbon dioxide (CO₂) each year (*SDG 13: Climate*

action). (To put this into perspective, in 2018 global carbon emissions were estimated at 37 billion tonnes.) A landmark United Nations report warns that because of human pressures, one million species may be pushed to extinction in the next few years, with serious consequences for human beings as well as the rest of life on Earth.² In addition to helping to respond to climate change and protect soils and water, forests hold more than three quarters of the world's terrestrial biodiversity (*SDG 15: Life on land*). This means deforestation has serious negative impacts on biodiversity and climate change.

Sappi's business depends on forests. As forests are directly or indirectly linked to all of the SDGs, be it about poverty mitigation or gender equality, this reliance is both an opportunity and a responsibility. Our opportunity is to invest and promote healthy forests for our benefit and the myriad of benefits they deliver to the planet. Our responsibility is to ensure that our reliance on forests does not come at the expense of other products and ecosystem services that forests provide. With our strong commitment and expertise on forestry, we strongly believe sourcing and using wood sustainably and responsibly is part of the solution, not the problem.

About deforestation

Deforestation is chiefly caused by the conversion of forest land to agriculture and livestock areas. It is the second-leading cause of climate change after burning fossil fuels and accounts for nearly 20 percent of all greenhouse gas emissions — more than the world's entire transport sector.³

Approximately a third of the forest plantations which Sappi owns and leases in South Africa are managed to **conserve natural habitats**.

All our mills are Chain of Custody certified to one or more of the following: **FSC™, PEFC™, SFI®**.

All our plantations in South Africa are **FSC™ certified** for Forest Management.

We **neither harvest nor buy wood** which originates from **tropical natural forests**.

We have a **stringent wood sourcing policy** in place and robust sourcing practices to ensure daily conformance.

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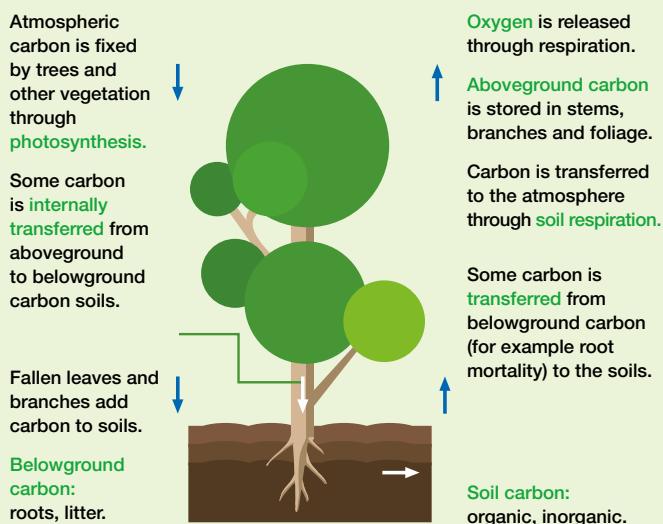
What role do trees play in the global carbon cycle?

Trees and forests play an integral role in the global carbon cycle. Through sequestering carbon dioxide from the atmosphere and storing it in forest biomass and soils, forests store vast amounts of carbon and release oxygen back into the atmosphere. Recent studies point to the further contribution that trees and forests could deliver to mitigate climate change if reforestation and restoration efforts were scaled up substantially.⁴

Managing forests for wood production can help to maximise their contribution to carbon sequestration. It also produces wood, a renewable, natural material which can substitute fossil-fuel derived alternatives.

Harvesting managed semi-natural forests in a sustainable manner, in accordance with internationally recognised forest certification systems as Sappi does, promotes growth and carbon uptake. As with our timber plantations in South Africa and in the managed semi-natural forests from which we source woodfibre, the cycle of regeneration, growing, thinning and harvesting is actively managed to enhance biodiversity and maintain ecological condition.

The forests and plantations from which we source woodfibre help mitigate global warming by acting as carbon sinks.



Where does Sappi's wood come from?

Sappi's global production is distributed across three regions: Europe, North America and South Africa. In each region, dedicated procurement teams are focused on providing the woodfibre needs of each mill, in line with requirements of Sappi's global woodfibre procurement policy.

The European mills are located in Germany, Austria, Finland, Belgium, the Netherlands, United Kingdom and Italy. Our wood sourcing partners (Sapin S.A. in Belgium, proNARO GmbH in Germany, Papierholz Austria GmbH in Austria and Metsä Forest in Finland) buy

wood mainly from non-industrial private forests, municipalities and state-owned forests. Given that the use of local raw material makes both ecological and economic sense, most of the wood originates from local, managed semi-natural forests. In Europe, the forests close to Sappi mills are mainly PEFC-certified. Wood chips, a by-product from sawmilling, are purchased from sawmills. Sappi also purchases paper pulp from external pulp suppliers, mainly from Europe and the Americas. The primary tree species are spruce and pine (softwoods) and beech, poplar, aspen and eucalyptus (hardwoods).

Sappi's mills in the United States are located in Maine and Minnesota. Wood is sourced from landowners and commercial loggers. Woodfibre is procured from temperate forests in Maine, New Hampshire, Michigan, Minnesota and Wisconsin, and from the Canadian provinces of New Brunswick, Quebec and Ontario. Sappi North America also purchases paper pulp from external suppliers in the Americas. The primary tree species used are maple, poplar, aspen, beech and birch (hardwoods) and spruce, pine and fir (softwoods). Cloquet Mill uses mixed northern hardwoods to produce dissolving wood pulp: aspen (approximately 65%) and maple (35%) sourced from Minnesota, Wisconsin and Michigan, and if sourced outside traditional procurement areas, the roundwood will meet FSC controlled wood standards, at a minimum.

The South African mills receive all their fresh wood raw material from Sappi's own or leased timber plantations, or through contracted local supply. The primary tree species are eucalyptus (hardwood) and pine (softwood). Some paper pulp is purchased from external suppliers, mainly from Brazil, New Zealand, Spain and USA.

How does Sappi ensure that all its woodfibre is responsibly sourced?

Knowing the origin of woodfibre is a fundamental prerequisite for responsible woodfibre sourcing.

Sappi requires rigorous tracing practices and documentation of the origin of all woodfibre. Suppliers must provide evidence that all woodfibre is sourced from controlled, non-controversial sources in accordance with the FSC Controlled Wood Standard, as well as PEFC (and SFI in North America) risk-based due diligence systems.

We neither harvest nor buy woodfibre which originates from tropical natural forests and our wood sourcing causes zero deforestation. Our commitment to zero deforestation means knowing the source of woodfibre; ensuring that suppliers implement practices to promptly regenerate forests post-harvest, which is required under the global forest certification standards that Sappi is committed to upholding. It also means implementing our Supplier Code of Conduct to continually assess supply-chain, ethical and legal risk; and not sourcing from suppliers associated with deforestation. We work to build transparent supply chains and maintain close relationships with our suppliers.

Forest certification systems with third-party verified forest management and chain-of-custody processes ensure that responsible forest management practices are implemented in the forest and that woodfibre from certified forests can be identified throughout the supply chain. Accordingly, we utilise the following leading global certification systems: The Forest Stewardship Council™ (FSC™) programme; the Programme for the Endorsement of Forest Certification™ (PEFC™); and the Sustainable Forestry Initiative® (SFI®) program, and other PEFC-endorsed systems.

⁴ Bastin JF, Finegold Y, Garcia C, Mollicone D, Rezende M, Routh D, Zohner CM, Crowther TW: The global tree restoration potential, Science, 5 July 2019, available at: <https://ethz.ch/en/news-and-events/eth-news/news/2019/07/how-trees-could-save-the-climate.html>

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Sappi's woodfibre procurement commitments and ambitions are stated in the Sappi Group Woodfibre Procurement Policy. Tree species identified as endangered by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are neither utilised nor imported. Sappi complies with the US Lacey Act, EU Timber Regulation, Australian Illegal Logging Prohibition Regulation, and other regional legality requirements.

Across the group, over 75% of woodfibre supplied to our mills is certified (2018) and we strive to increase the amount of woodfibre originating from certified forests. In Europe, North America and South Africa, the share of certified woodfibre supplied in 2018 was respectively: 78%, 58% and 82%. Our timber plantations in South Africa are 100% FSC-certified.

About sustainable forest management

Sustainable forest management can be defined as: "The stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems."⁵

What are the key principles used by Sappi to manage its timber plantations sustainably?

In South Africa, timber is sourced from about 250,000 ha of plantations managed by Sappi, 129,000 ha managed by private farmers and smallholders contracted to supply Sappi and a small amount from independent growers.

Sappi has a comprehensive plantation management system which it implements to ensure that its plantations are sustainable. This management system promotes:

- Legal compliance with all laws;
- Workers' rights, health and safety;
- That Sappi is a valued member of the communities in which it operates;
- That optimal benefits are derived and sustained from the plantations;
- The protection of the environment, especially water, soil, biodiversity and the air;
- The monitoring of impacts, both positive and negative; and
- The implementation of best practice in plantation management.

The plantation management system and its implementation meet all the requirements for FSC Forest Management certification. Plantations are healthy functional forests that are managed to promote tree growth and all-natural processes, and are protected from damage caused by over-exploitation, fire, pests, diseases and soil degradation.

In South Africa, natural forest has been successfully protected since the early 1900s, so there has been no forest conversion. Sappi balances harvesting with replanting to maintain the forest cover of our plantations.

About plantations and biodiversity in South Africa

Natural forest has been successfully protected in South Africa since the early 1900s, so there has been no forest conversion in South Africa. The vast majority of the plantations were planted into grassland landscapes and so have increased tree cover in the country. They are replanted after harvesting so do not cause any loss in tree cover. In fact, if there was no plantation supply of wood in South Africa, tree cover would almost certainly have been depleted many years ago.

Plantations in South Africa are situated in biodiversity hotspots, and plantations do displace the natural biodiversity. In Sappi and South Africa this impact is largely reduced by the fact that at least 30 to 35% of the plantation land remains natural and most of this land is managed for conservation purposes. This unplanted land is generally well managed, and it has been recognised by the South African National Biodiversity Institute as a major contribution to national conservation targets. Sappi alone owns six proclaimed nature reserves and about 160 other sites that are recognised and managed for the important conservation values they contain.

How does Sappi work with forest owners in the United States?

The Sappi Maine Forestry Program and the Sappi Lake States Private Forestry Program, staffed by Sappi North America foresters, offer a wide range of services to private landowners. Sappi's staff monitor the implementation of best management practices on harvest sites to ensure adequate regeneration, conservation of soil and water resources, and adherence to harvest plan/s.

Sappi's procurement practices extend far beyond avoidance of controversial sources by requiring the promotion of biodiversity, logger training, forest research, landowner and community outreach, and implementation of best management practices for soil and water conservation, as evidenced by our conformance to the SFI Fiber Sourcing Standard.

How does Sappi contribute to preserving the world's most precious forests?

Given the forest certification and due diligence systems implemented, we are confident that our woodfibre is legally sourced, avoids rare and endangered species and habitats, and does not compromise, but rather supports, the high conservation values in forests.

Where forests are identified as having a unique combination of high conservation values, in line with forest certification systems, woodfibre is procured in a way that maintains or restores the ecological, economic, cultural and social condition of these forests. In addition, the forest certification systems Sappi subscribes to align with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which specifically prohibits trade of certain tree – and other – species.

⁵ As defined in 1993 at the pan-European Ministerial Conference on the Protection of Forests in Europe, see https://ec.europa.eu/growth/sectors/raw-materials/industries/forest-based/sustainable-forest-management_en

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Sappi has great respect for the important work being undertaken collectively by public, private and civil society organisations to manage and protect the world's forest resources. We're mindful of the different categorisations of forest land attributes introduced by various organisations to bring attention to different priority issues. When it comes to defining forest types and forest use, we defer to the internationally agreed-upon definitions approved by intergovernmental organisations, including the Food and Agriculture Organisation and the associated interpretations set out in legislation at national and/or regional level/s.

How does harvesting directly benefit forests?

The forest-products industry plays a key role in keeping forestland forested and has even helped reverse deforestation trends in certain regions.

The pulp and paper industry provides dependable markets for responsibly-grown woodfibre, thereby incentivising long-term forest management. This assurance of financial returns enables and encourages landowners to manage their forestlands as working forests instead of selling the land for development or converting it to non-forest uses. Furthermore, the pulp and paper industry typically utilises smaller diameter, 'lower-value' species that are not desirable in the solid wood industry. By providing a market and revenue stream for this fibre, the industry is supporting necessary holistic forest-stand-improvement activities that are essential for maintaining and restoring forest health, species and age-class balance, wildlife habitat and biodiversity, wildfire mitigation and hazardous fuels reduction, etc.

Responsible, active forest management is critical for maintaining a healthy balance of economic, social and ecological attributes from the world's forests to meet the needs of the present and future generations.

Are there better alternatives to woodfibre?

There have been suggestions that using non-wood-based materials, including bagasse, bamboo, cereal straw, esparto, grass, kenaf or reed for pulp and paper manufacturing, would alleviate the pressure on forests. In fact, when Sappi first began manufacturing in 1936, the main ingredient used was straw. Currently, we use a certain amount of bagasse (sugar cane waste residue) in the paper-making process at our Stanger Mill in South Africa. However, there are a number of reasons why using non-wood-based materials is problematic:

- The availability of a constant, year-round supply of fibre is a primary concern for pulp and paper mills. Given that most non-wood-based materials are annual crops, a large storage capacity must be developed to ensure a constant supply. This is further complicated by the fact that most non-woodfibre sources are high in volume and low in density when compared with wood.
- Other disadvantages of using non-woodfibre are the high inputs of water and chemicals required for growth and harvesting of these annual crops and their low levels of carbon absorption when compared with trees.

That said, innovation is in our DNA at Sappi and we continually strive to question assumptions and find new solutions. This relates to considering the future viability of additional fibre sourcing options, as well as to our investments in biotechnology and aspirations to continually create new products and solutions from our wood and related by-products.

