



Biodiversity is a matter of existence

Forests cover almost a third of the global land area, and harbour most of the terrestrial biodiversity.¹ It is important to balance the sustainable use of forests with the safeguarding of forest biodiversity, and such solutions are possible. We're committed to being part of the solution to conserving biodiversity and restoring nature. Here we explain why and how.

What is biodiversity, and why does it matter?

The world's biodiversity underpins life on Earth and the ecosystem services on which we depend. It can be defined as the variety of all living things; the different plants, animals and micro-organisms, the genetic information they contain and the ecosystems they form.² Biodiversity is usually explored at three levels: genetic diversity, species diversity and ecosystem diversity. These three levels work together to create the complexity of life on Earth.

However, we humans are putting increasing pressure on the planet, using and consuming more resources than ever

before. According to the Food and Agriculture Organization of the United Nations (FAO), despite some positive trends the loss of biodiversity continues at an alarming rate.¹ Halting deforestation is critical not only to combating climate change, but because it contributes massively to the ongoing loss of biodiversity. Deforestation is chiefly caused by the conversion of forest land to agriculture and livestock areas. FAO is thus calling for a transformational change in the way we manage our forests and their biodiversity, produce and consume our food, and altogether interact with nature.¹ The management of working forests is important in securing biodiversity, and practices to enhance biodiversity should be mainstreamed.

Why is biodiversity important to Sappi?

Forests provide habitat to an estimated 80% of terrestrial plant and animal species, making them the most diverse ecosystems on land. Healthy forests and plantations are dependent on biological processes including soil regeneration, nutrient cycling, pollination, decomposition, reforestation/regeneration, forest stand succession following disturbance events and predator-prey relationships – all of which, in turn, rely on biodiversity.

Given that woodfibre is one of the primary inputs into our manufacturing processes, conserving the biodiversity that underpins the delivery of ecosystem services and the health of the forests and plantations is paramount.

In other words, biodiversity is at the foundation of our business.

¹ FAO and UNEP. 2020. *The State of the World's Forests 2020. Forests, biodiversity and people*. Rome. <https://doi.org/10.4060/ca8642en>

² <https://www.nationalgeographic.org/encyclopedia/biodiversity/>

In this FAQ you can find

- What is biodiversity, and why does it matter?
- Why is biodiversity important to Sappi?
- Is biodiversity conserved within managed forests?
- How does Sappi conserve biodiversity on the land it owns and manages?
- How do Sappi and our suppliers conserve biodiversity in the forests and plantations from which woodfibre is sourced?
- How else is Sappi contributing to nature & biodiversity recovery?

“The solution starts with understanding and accepting a simple truth: our economies are embedded within Nature, not external to it.”

Citation: Dasgupta, P. (2021), The Economics of Biodiversity: The Dasgupta Review. HM Treasury, London

Is biodiversity conserved within managed forests?

Sustainable forest management planning aims to maintain, conserve or enhance the biodiversity of forest ecosystems. The great diversity of forest types calls for a variety of silvicultural approaches and measures, which often imitate natural processes. Modern forest practices include measures like leaving fallen and standing dead wood, decaying wood, groups of retention trees, as well as maintaining buffer zones and enhancing diverse tree species composition or protecting key biotope areas to enhance biodiversity within managed forests.

Healthy, robust, well-managed forests support community well-being, provide a haven for wildlife and diverse plant species, protect watersheds and play a critical role in the carbon sequestration cycle. When timber is responsibly harvested, it can, and often does, contribute to the maintenance and restoration of resilient, renewable forests. When planned and supervised by qualified foresters, responsible timber harvesting supports - and can enhance - fish and wildlife habitats, improved water quality, reliable water supplies, and recreation.

Active management can also reduce the risk or impact of catastrophic natural disturbance events such as fire, disease, insect infestations, wind and floods. These events can have substantial direct and indirect impacts on forest biodiversity but also at times costly impacts to society. At a landscape-scale, active forest management via timber stand improvement thinnings, harvesting and regeneration activities also plays an essential role in maintaining biodiversity.

In the context of addressing global deforestation, active, sustainable forest management is a solution to help create value in standing forests, promoting the regeneration necessary to keep forests thriving and avoid conversion of forests to other uses.

Forest Certification systems including the Forest Stewardship Council™ (FSC™ N003159), Programme for the Endorsement of Forest Certification (PEFC/01-44-43) and Sustainable Forestry Initiative® (SFI®) all have requirements within their forest management standards, which focus on maintaining or enhancing biodiversity and managing or protecting high conservation and ecosystem values. Through the inclusion of these requirements in forest management practices, attention is placed on maintaining and conserving biodiversity while implementing other management objectives. The impact of FSC, PEFC and SFI standards also extend beyond certified forests. Each aforementioned system requires the conservation of critical biodiversity values during all harvesting activities, including those on non-certified forestlands, through implementation of a due diligence system and risk-based mitigation measures, where necessary.

Sustainable forestry is an art and a science that involves management of forests and people in order to achieve balanced objectives. One might assume the best thing for a forest is to leave it in its natural state, yet variation in age classes, tree species mixture, silvicultural regimes, and regeneration methods within a forested landscape help to promote biodiversity of both plant and animal species.

How does Sappi conserve biodiversity on the land it owns and manages?

In **South Africa**, where we are one of the country's major landowners, we own and lease approximately 400,000 hectares (ha) of land, of which about 261,600 ha are planted. The remainder is unplanted natural areas totalling approximately 138,000 ha that are managed for biodiversity conservation. All this land – planted and unplanted – is FSC and PEFC certified.

Some of the many ways we invest and act on our commitment to biodiversity conservation include:

- Maintaining about 160 **Important Conservation Areas** (ICAs) including seven nature reserves on our plantations.
- Monitoring **water quality**: We use the aquatic biomonitoring South African Scoring System (SASS) methodology to determine the composition of macroinvertebrate in rivers on our landholdings, as well as river health. Understanding what species occur within our smaller river systems helps us understand the importance value of aquatic ecosystems and, where possible, to implement management actions to reduce our impact on the natural environment. We also involve local schools in mini-SASS monitoring programmes.
- Developing and implementing long-term **integrated weed management plans** on all our plantations as invasive alien plants are widely considered as a major threat to biodiversity, human livelihoods and economic development.
- **Maintaining and enhancing soil function** – a crucial component of sustainable forest management and biodiversity, because soil is the foundation of the forest system. The trees we grow in our plantations are deep rooted and long-lived, with little or no mechanical cultivation occurring. As a result, the structure of soils is maintained or improved, while topsoil nutrients are increased as nutrients and minerals are taken up deep within the soil profile. Trees are also able to take up nutrients from relatively acidic soil (soil with low pH) and are thus able to grow on degraded soils that are unsuitable for agriculture.
- **Partnering** with the South African National Biodiversity Institute and other plantation owners through Forestry South Africa, to mainstream biodiversity into the forestry sector. This includes the stewardship programme, which facilitates the proclamation of nature reserves and protected areas on forestry land.

Towards Sappi's 2025 biodiversity conservation target, we have committed to enhancing, biodiversity in conservation areas on our landholdings by 10% by 2025. We have mapped our baseline and are developing and implementing management plans. From a conservation management perspective, our priority is to identify those vegetation types that are least protected and of greatest conservation importance and prioritise efforts to safeguard those types.

³ FAO and UNEP. 2020. *The State of the World's Forests 2020. Forests, biodiversity and people*. Rome. <https://doi.org/10.4060/ca8642en>

⁴ https://www.panda.org/discover/our_focus/forests_practice/importance_forests/tropical_rainforest/

How do Sappi and our suppliers conserve biodiversity in the forests and plantations from which woodfibre is sourced?

FAO reports³ that the forest biodiversity varies significantly according to factors like forest type, geography, climate and soils, and about 60 percent of all vascular plants are found in tropical forests. According to WWF, tropical rainforests are perhaps the most endangered habitat on earth and most vulnerable to deforestation.⁴ Sappi neither harvests nor buys 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 and ensuring that suppliers implement practices to promptly regenerate forests post-harvest, which is required under the global forest certification standards that Sappi upholds.

All Sappi's mills are certified under one or more of the leading global Chain of Custody (CoC) standards, including the FSC, PEFC, and the SFI systems. In addition, all the woodfibre we procure for use in our pulp, paper, packaging and speciality products is traceable to its origin and is sourced from legal, controlled, non-controversial sources in accordance with the FSC Controlled Wood Standard, as well as PEFC (and SFI in the United States of America) risk-based due diligence systems. For more information, refer to our [FAQ](#) on forest certification.

Sappi's rigorous internal due diligence systems identify and mitigate risk of controversial sources in Sappi's fibre stream and include risk assessments for rare species and habitats that may be threatened by management activities (e.g. *ecologically important forest areas* defined by PEFC and *high conservation values* identified by FSC Controlled Wood National Risk Assessments).

Additional actions we take to conserve biodiversity through our woodfibre sourcing include:

- Sappi North America's certification to the SFI Fiber Sourcing Standard includes **proactive measures to promote and conserve biodiversity at landscape-scale** via requirements for smallholder (landowner) outreach, the use of trained loggers and resource professionals, investment in forest research and adherence to best management practices (BMPs) during harvesting operations.

- Collaborating with SFI Implementation Committees (SIC) and other partners on **innovative research and conservation projects** such as:
 - Conducting an **assessment of imperilled species and native plant communities** across our wood and fibre supply areas in North America to better conserve biodiversity at both local and landscape levels.
 - Funding the **deployment of trail cameras to survey carnivore species** in areas across the state of Maine to assess, among other things, how timber harvesting may influence carnivore distributions of conservation interest.
 - Supporting a thirteen-year effort to develop and complete a comprehensive **survey of every road-stream crossing** in the state of Maine. This database, managed by The Nature Conservancy (TNC) and known as the Fisheries Improvement Network (FIN), is not only the first in the country but also one of the largest in the world. FIN, as an up-to-date database will be critical in allocating limited funding to the most important places on public and private lands and will help managers target the best opportunities for improving fish habitat.
 - Successfully **connecting the efforts of teachers and youth to indigenous cultures and sustainability** and building bat-boxes that help battle white-nose syndrome, a disease caused by a fungus that affects hibernating bats.
- We are a signatory to **Business for Nature's Call to Action**, a global coalition of non-governmental organisations and business groups. The initiative calls on governments to adopt policies now, to reverse nature loss in this decade.⁵ We have also signed up for the **Make it Mandatory** campaign which supports Target 15 of the Global Biodiversity Framework committing governments to require all large businesses and financial institutions to assess and disclose their risks, impacts and dependencies on biodiversity by 2030.
- We have supported the Textile Exchange in launching a new tool to help the fashion and textile industry take urgent action on biodiversity. The **Biodiversity Benchmark** will enable companies to understand their impacts and dependencies on nature, chart a pathway to delivering positive biodiversity outcomes and benchmark their progress.

How else is Sappi contributing to nature & biodiversity recovery?

Through partnership and active collaboration, we seek to accelerate change and build solutions to the challenges facing our planet. Some of the related initiatives where we are currently active include:

- Sappi, together with other Forest Solutions Group members of the World Business Council for Sustainable Development (WBCSD), is working to shape a strategy on how the forest sector can best contribute to a **"Nature Positive" future**. The forest sector has an important role to play in achieving the Global Goal for Nature: Zero net loss of nature from 2020, net positive by 2030, and full recovery by 2050. The objective of our collaboration is to create a roadmap to support companies in the forest sector in setting science-based (SBTN aligned) nature-related goals and targets, contributing to halting and reversing nature loss, and disclosing progress through quantifiable impacts and outcomes. Phase 1 of this Roadmap was published in 2022 and provides a comprehensive definition of nature-positive. Subsequent phases will focus on implementation and supporting the relevant developments from, i.e the Science Based Targets Network (SBTN) and the Taskforce on Nature-related Financial Disclosure (TNFD).

Reintroducing an endangered tree in Southern Africa

Endemic to the forests of Southern Africa, the Pepper-bark tree (*Warburgia salutaris*) is an endangered species according to the IUCN Red List. The tree is highly prized by the indigenous people of Southern Africa as it is used to treat numerous common ailments. Accordingly, it has been heavily harvested in the wild.

With Sappi's support, 60,000 Pepper-bark trees have been distributed to communities free of charge. The Sappi Shaw Forestry Research Centre has been instrumental in developing new methods to secure better germination and propagation of the Pepper-bark tree. Traditional healers and community representatives have attended workshops on planting, tending and sustainable harvesting from the trees. Due to the success of the programme, the South African government has asked Sappi to consider adopting further endangered species to re-establish with similar methods. Beyond South Africa in Swaziland, we provided trees to the eSwatini Traditional Healers Association and delivered seeds to Zimbabwe in partnership with Botanic Gardens Conservation International.

⁵ <https://www.businessfornature.org/call-to-action>