FOREST SECTOR NET-ZERO ROADMAP

Phase I: Enabling the transition to a net-zero economy
Key messages

The world is at a pivotal moment in the fight against climate change. Reaching net-zero emissions by 2050 has emerged as the target to hit to avoid its worst effects. An increasing number of governments and major companies around the world are stepping up their ambition, relying on carbon removals from forests and forest products to meet their net-zero goals. As a result of this, forest companies will experience significant changes to their operating environment. This unique moment in time brings tremendous opportunities for the forest sector to reach its full potential and position itself as a leader in enabling the transition to a net-zero economy.

A deep understanding of the forest sector's singular attributes and the continuous monitoring of future developments will help forest companies successfully navigate this rapidly changing landscape. The combination of three key levers of impact constitutes the forest sector's unique contribution to the transition to a net-zero economy:

A. Reduce greenhouse gas emissions in operations and across the value chain.

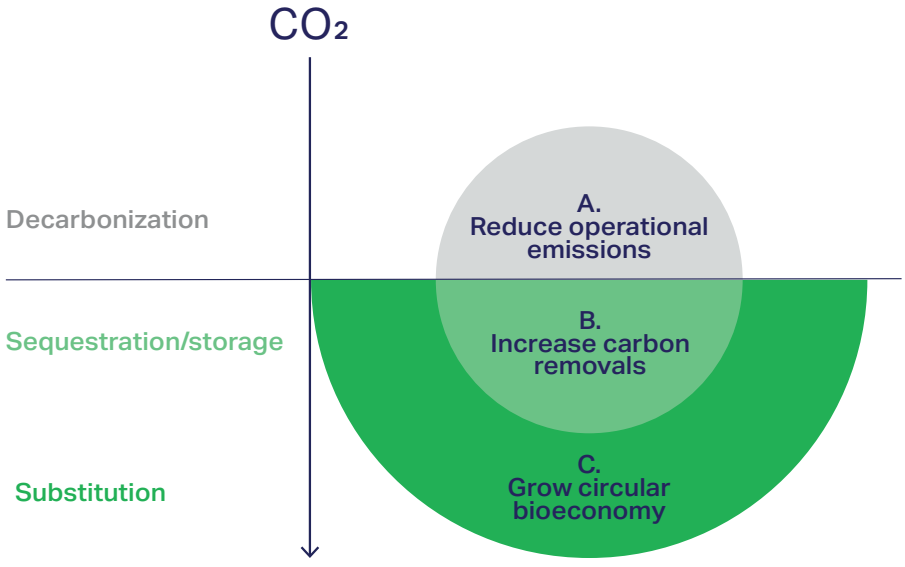
B. Increase carbon removals through sequestration in sustainable working forests and storage in forest products.

C. Grow the circular bioeconomy through the substitution of non-renewable and fossil-based materials with forest products.

The climate change mitigation potential of all three levers is simultaneous and cumulative.

In alignment with the carbon mitigation hierarchy, the forest sector's first lever of impact is to avoid and reduce emissions before focusing on other compensation mechanisms.

Figure 1: The forest sector's three levers of impact



A. Reduce greenhouse gas emissions in operations and across the value chain.

In alignment with the carbon mitigation hierarchy, reducing emissions across the value chain forms the bedrock of a coherent climate strategy. As some segments of the forest sector are energy intensive, leading forest companies have already demonstrated strong progress in reducing their carbon footprint through energy-efficiency gains, the use of renewable bioenergy or the substitution of emissions-intensive energy sources with cleaner alternatives. Further reductions will come from investments in technologies and processes that do not yet exist or are in the pre-commercialization phase. To drive momentum and impact across the sector, forest companies need to rely on credible and science-based guidance on net-zero strategies.

B. Increase carbon removals through sequestration in sustainable working forests and storage in forest products.

Through the sustainable management of working forests of all types (natural, semi-natural, plantations) forest companies maintain and increase carbon sequestration in forests, and storage in forest products, while securing valuable ecosystem services. Sustainable forest management helps mitigate the effects of climate change on forests (e.g., fires, disease outbreaks) that threaten the permanence of these carbon stocks when the world needs them most. It also contributes to driving up the value of forests, which is a proven way to avoid the conversion to other land uses, thereby countering the drivers of deforestation. When the trees are harvested, the carbon is transferred from the forest to the products that store it for the duration of their lifetime, including through recycling. Thus, forest products provide a scalable and cost-effective solution for carbon capture and storage, especially in long-lived products.

C. Grow the circular bioeconomy through the substitution of non-renewable and fossil-based materials with forest products.

In addition to the carbon stored in forest products, the use of these products to complement or substitute for fossil-based and non-renewable alternatives brings large-scale climate change mitigation potential. The absence of broadly recognized accounting frameworks prevents the direct attribution of these impacts to the forest sector, pointing to the need for holistic accounting of the full climate change mitigation potential of forest products as part of an integrated system: the circular bioeconomy. Forest companies grow the circular bioeconomy by increasing the uptake of wood-based products in traditional and niche markets – providing alternatives for more carbon-intensive materials – and by maximizing material efficiency.

Forest companies can realize the potential of all three levers of impact through targeted interventions in four key opportunity spaces tied to these levers:

Figure 2: Four key net-zero opportunity spaces to realize the potential of all three impact levers

Most companies have different degrees of activity in these opportunity spaces. Enabling policies and engaging in carbon markets to generate additional value from activities will amplify the realization of these opportunities.

Low-carbon operations

Vision: The forest sector is taking action to decarbonize its operations in alignment with 1.5°C pathways and credible net-zero strategies, thereby sending a strong signal to customers, investors and regulators. This contributes to unlocking capital and spurring innovation and collaboration across the forest sector value chain to accelerate decarbonization.

Climate-positive land use

Vision: The forest sector contributes its resources and expertise to scaling up efforts by land managers to deploy high-quality land-based carbon sinks, thereby bringing more forests under sustainable management and driving investment into sustainable landscapes that provide environmental, social and economic benefits.

Circularity

Vision: The forest sector brings bio-based, resource-efficient and circular business models to scale. Products are designed to optimize the use and recovery of renewable resources, waste from production is minimal and valorized, and the global recycling rates of forest products improves through collaboration across sectors and value chains, and with local authorities.

Product innovation

Vision: The forest sector ramps up investments in research and innovation to scale up the use of sustainably sourced forest products and build awareness on their unique attributes over non-renewable and fossil-based materials: low-carbon production, carbon storage and end-of-life benefits.

Achieving a net-zero economy will require a deep transformation of every aspect of the economy. Forest companies, like many others, will be facing a very different operating landscape in the coming decades. In the development of this roadmap, leading companies and key stakeholders in the forest sector have come together on a shared understanding of the forest sector's role in enabling the transition to a net-zero economy. By doing so, they are paving the way for their own success, as well as the success of the broader economy and society. To accelerate this urgent and far-reaching transition, we – the members of WBCSD's Forest Solutions Group – call on peers, customers, investors and policy-makers to join the effort to unleash the full transformative potential of the forest sector.

Forest companies: Take decisive action to decarbonize your company's operations and value chains, guided by ambitious, science-based net-zero strategies. Leverage the unique attributes inherent in the forest sector to realize the opportunities that stem from the transition to a net-zero economy.

Customers: When sourced responsibly, forest products are renewable and recyclable, and they store carbon for the duration of their lifetime. Join forces with the forest sector to increase recycling rates and accelerate your decarbonization journey by using forest products to complement or substitute for less sustainable alternatives.

Investors: Accelerate your portfolio's transition to net-zero emissions with forest sector investments that sequester carbon, substitute for fossil-based materials, protect nature, and provide rural livelihoods, while generating competitive financial returns. Demonstrate leadership in recognizing the inherent value of sustainable working forests before markets develop to more accurately value the ecosystem services and products they provide.

Policy-makers: The forest sector is a key enabler of the urgent transition to a net-zero economy. To deploy the forest sector's full climate change mitigation potential, promote policies that account for the renewability and climate benefits of working forests and wood-based products as part of a holistic and integrated system: the circular bioeconomy.

BACKGROUND

Developed by the members of the World Business Council for Sustainable Development's (WBCSD) Forest Solutions Group (FSG), Phase I of the Forest Sector Net-Zero Roadmap aims to bring the forest sector together on a shared understanding of its role in enabling the transition to a net-zero economy through interventions across the full value chain. Based on WBCSD's SOS 1.5 framework, Phase I of the Roadmap delivers a holistic narrative of the forest sector's contributions to climate change mitigation, with a focus on its unique role in enabling the global transition to a net-zero economy. This report lays the groundwork for Phase II of the project to come in 2022, which will provide guidance for businesses in the forest sector to drive credible and science-based net-zero strategies.