

Climate-related financial disclosures (TCFD)

The Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD) recommends a framework for disclosing climate-related risks and opportunities. Stora Enso's disclosures with reference to TCFD recommendations are listed in an online index table, available at storaenso.com, with references to those locations where these issues are addressed in the Group's annual reporting.

Scenario analysis in 2022

Aligned with the TCFD recommendations, Stora Enso utilises scenarios to assess the impacts of climate change.

During 2022, a quantitative resilience analysis was conducted for tree plantations in South America against three global Shared Socioeconomic Pathway (SSP) scenarios: SSP1-1.9 (Sustainability – Taking the Green Road), SSP2-4.5 (Regional Rivalry – a Rocky Road) and SSP5-8.5 (Fossil-fuelled Development – Taking the Highway). Results show a relative resilience of Stora Enso's tree plantations in all the three scenarios. Financial impacts are not expected to be material in SSP1-1.9 and SSP2-4.5 scenarios but in SSP5-8.5 scenario the growth conditions of tree plantations would be affected resulting in potentially material financial impacts.

Scenario analysis during the previous years

In 2020, Stora Enso developed a scenario analysis with the qualitative assessment of the physical climate impacts on the Nordic forests and the Group's business until 2050. This work was based on the Business-As-Usual scenario by the International Panel for Climate Change (RCP 8.5 scenario) that would deliver a temperature increase of 4–5 degrees by the end of the century. The climate change attributes considered were pests, diseases, droughts, wildfires, floods, periods of frost, water scarcity, changes to precipitation patterns, rise in sea level and changing temperatures. In 2021, the work with physical climate impacts continued by a deeper analysis of measures improving resiliency of the forests against the negative impacts of global warming. Results showed that sustainable forest management practices as well as possibilities to monitor and to react to events such as forest fires and diseases, play an important role in mitigating the negative impacts of climate change.

During 2021, Stora Enso assessed a business impact scenario for 2030 according to the global transition required to limit the global average temperature increase in line with the Paris agreement of 1.5 degrees (RCP 1.9). The work concluded that the overall transition to a low carbon, circular bioeconomy is well aligned with Stora Enso's strategy. The scenario work also showed that potential new regulations and market mechanisms motivated by the ambitions to limit climate change and its effects on the society and environment could impact Stora Enso's operating costs by limiting wood harvesting volumes or forest management practices as well as increasing greenhouse gas emission costs and energy prices. Sustainable product initiatives and requirements may also have an impact on the Group's future market access, product demand growth and product development requirements.

Recommended disclosure	Key locations and comments
I – Governance	
a) Describe the board's oversight of climate-related risks and opportunities	Governance: Board of Directors, The Board of Directors' and management's annual working cycle Report of the Board of Directors: Risk management – Risk governance Sustainability reporting: Sustainability governance
b) Describe management's role in assessing and managing climate-related risks and opportunities	Governance: Management of the Company, The Board of Directors' and management's annual working cycle Sustainability reporting: <ul style="list-style-type: none"> • Sustainability governance • Climate change: emissions • Sustainable forestry and biodiversity • Energy
II – Strategy	
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term	Report of the Board of Directors: Risk management Our strategy: Strategy Sustainability reporting: Climate change: emissions
b) Describe the Impacts of Climate related risks and opportunities on the organisation's business, strategy and financial planning	Report of the Board of Directors: Risk management Our strategy: Strategy Sustainability reporting: Climate change: emissions
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2C or lower scenario	Our strategy: Strategy Report of the Board of Directors: Risk management, TCFD Scenario analysis in 2022
III – Risk management	
a) Describe the organisation's processes for identifying and assessing climate-related risks	Report of the Board of Directors: Risks management Sustainability reporting: Strategy, governance and stakeholders
b) Describe the organisation's processes for managing climate-related risks	Report of the Board of Directors: Risk management
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	Report of the Board of Directors: Risk management
IV – Metrics and targets	
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	Sustainability reporting: <ul style="list-style-type: none"> • Sustainability targets and KPIs • Climate change: emissions • Sustainable forestry and biodiversity • Circularity • Energy
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	Sustainability reporting: <ul style="list-style-type: none"> • Climate change: emissions • Energy • Sustainable sourcing Report of the Board of Directors: Risk management
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	Sustainability reporting: Sustainability targets and KPIs