

How a climate-smart forest economy could help mitigate climate change and its worst impacts

21 December 2022

The global population is rising, and cities, particularly, are taking the strain. Each week 1.5 million people move to urban areas. All these people need places to live and work and to provide this, it's forecasted that an area as large as New York City must be built every 34 days for the next 40 years.

As a result, the pressure on the world's resources is accelerating exponentially, but perhaps surprisingly, this does not have to be to the detriment of the environment. There is a way that the surging demand for new and retrofitted buildings could actually help accelerate natural climate solutions, such as reforestation, and lead to an increase in global carbon absorption and storage.

Typically, building work contributes to the degradation of the environment and loss of ecosystems. There is a growing body of evidence. However, that shows that if building work drives demand for sustainable timber sourced from climate-smart forests that absorb and store carbon and help to stabilise and improve soils, it could actually play an instrumental role in reaching net zero and mitigating the worst impacts of climate change. A recent study estimates, for instance, that if 90% of the new urban population is housed in newly built urban mid-rise wooden buildings, 106Gt of additional CO₂ could be saved by 2100. As a bonus, it could help provide clean water and jobs for rural communities, as described in a recent report by WRI.

Bio-based as an alternative to fossil-fuel-based materials

Concrete, cement and steel are the go-to building materials worldwide, but in their current forms, they emit vast amounts of carbon in their manufacture and lifespan. While these industries explore ways to reduce their carbon footprint, it could be hugely beneficial if some of this growth in new buildings and refurbishments were to be built using a material that stores carbon instead of emitting greenhouse gasses into our atmosphere.

In a future built on a carbon-smart forest economy, forests can support cities and, in return, cities can – and need to – support forests. It's a future of beautifully designed buildings lining leafy city streets that maintain vibrant forest communities. The latest technology means that sustainable engineered wood, such as cross-laminated or mass timber, is proving to be a long-lived material with the properties needed to meet construction needs, as it is fire, earthquake and even explosive-resistant.

Building a global climate-smart forest economy

A few areas worldwide are already building climate-smart forest economies with the help of the Climate Smart Forest Economy Program (CSFEP) and other stakeholders. A climate-smart forest economy refers to the usage of forest products in circumstances where this provides net climate benefits in terms of maintenance or enhancement of the carbon sink function of the forests, long-term carbon storage in wood products and substitution of commodities with high fossil carbon footprints, while also meeting social and ecological safeguards.

There is still time to create a global climate-smart forest economy. Within this decade, we can create a global Climate Smart Forest Future, where forests, forest products and buildings help avert a full-scale climate emergency – a climate-smart future in which, as Sir David Attenborough so inspiringly put it, we “have more forests than any of us have ever known.”

Managing unprotected forests to maintain or enhance their carbon sink capacity is feasible. It can even provide tools to make them more resilient to future climate hazards. A typical package of climate-smart forest management practices has been, for instance, designed for Europe. It would protect forests from natural disturbances and increase their sink capacity by 50% compared to current values.

Turning sustainable timber into a mass-market construction material inevitably comes with various adjoining responsibilities around environmental stewardship, which requires transparency across the

supply chain. If this is managed well, however, along with its climate benefits, a climate-smart forest economy could also drive significant investment in job creation and rural community development.

Using timber as a viable climate solution

With a carefully conceived, systems-driven strategy – grounded in rigorous science and designed to shape policy and drive investment and market demand for the development and testing of alternative materials and pilot projects — this climate solution could be in plain sight.

Imagine that a new neighbourhood was built using today's typical construction methods and materials, namely concrete and steel and that this neighbourhood was replicated across the world, adding an urban area the size of New York City every month.

Now, imagine instead a new neighbourhood built out of wood sourced from a local forest that upholds the highest environmental and social standards and whose carbon removal capacity remains unimpaired after careful harvesting and sensitive forest management. Imagine that the architect, construction firm and local authority involved with the project's development deployed funds towards reforestation and agroforestry projects locally and worldwide. Imagine that the neighbourhood underwent significant greening as part of the development commitments and that the timber used in the building replaced what was initially specified as steel or concrete. Imagine that the buildings were set to remain standing for more than 100 years — storing carbon for over a lifetime — and designed to eventually be de-constructed so that their component parts (beams and frames) are used in other buildings or products.

Realizing this vision is theoretically plausible. Isn't that a vision worth chasing?

Unlocking a climate-smart forest economy

Here is a compelling opportunity to maximise the climate benefits of forests by using a systemic approach to create a climate-smart forest economy that unlocks the full climate potential of forests and forest products.

Building a climate-smart forest economy could protect, adapt and manage forests sustainably while assigning greater value to wood and forests, creating further incentives for restoration and reforestation. It offers an opportunity to decarbonise sectors that interface with forests through their value chains, such as construction. In addition to positive climate outcomes, this can also result in substantial social and economic benefits.

Explore how Bhutan is moving towards a climate-smart forest economy that could be structured to help maintain its managed forest areas and support its inevitable urban growth.

Source: World Economic Forum

Source: <https://www.hellenicshippingnews.com/how-a-climate-smart-forest-economy-could-help-mitigate-climate-change-and-its-worst-impacts/>