

## Carbon impact assessment provider

**Through timber construction, there is a future in which forests can support cities and, in return, cities can support forests.** As the global population increases, particularly in cities, the construction sector is expected to exponentially grow in order to accommodate the demand for housing and other infrastructure. Current construction techniques are a significant contributor to the global climate crisis and urgently need to be transformed. By substituting the carbon-intensive materials commonly used in construction with forest economy biomaterials, such as wood and bamboo which sequester carbon, we can create buildings with reduced carbon emissions. However, this timber construction industry is still in its nascency and there is a need to address its market gaps and leverage opportunities to accelerate its development and increase its uptake.

**These interventions for the mass timber construction industry can be segmented into seven main categories of solutions that affect the value chain and enablers of the ecosystem.** Through various internal and external discussions, Climate Smart Forest Economy Program (CSFEP) has categorized potential solutions as relating to i) Finance and insurance; ii) Product and process certifications; iii) Communication and awareness building; iv) Timber knowledge ecosystem; v) Forest management and timber policies; vi) Value chain linkages; and vii) Timber-based real estate. The proposed solutions can be executed as for-profit, philanthropic, or blended ventures, with the services developed as individual offerings or paired with complementary services in a single offering. Additionally, while some solutions may be set up as a free-standing entity, other solutions may be similar to services provided by existing actors in or adjacent to the CSFE sector. In the case of the latter, it may make sense to approach these existing providers as potential partners to find a suitable and effective home for needed services.

### TIMBER KNOWLEDGE ECOSYSTEM

**Carbon accounting services for mass timber construction are still not widely available, and the available standards and procedures to measure this carbon impact are underdeveloped.** Producers and processors in the forest economy find it difficult to collect and analyze the necessary data required for carbon accounting. Timber construction actors also struggle to measure the carbon stored by their buildings and are therefore unable to monetize the carbon benefits they accumulate in the form of carbon-credits. These actors also find it challenging to measure and monitor the downstream impact and carbon sequestration from their timber sourcing activities. There is an industry need for carbon assessment services in the mass timber construction industry to demonstrate the climate benefits of these projects and leverage the opportunities presented when carbon emissions are avoided by their activities. This is more pertinent for the Global South, given most research and assumptions are based on Global North models.

**A carbon impact assessment provider will enable more accurate and comprehensive understanding, monitoring, and assessment of carbon emissions across the value chain.** This assessor will serve two main objectives:

- Have one standard method of accounting for carbon impacts across all CSFE value chain actors utilizing the 3S Framework<sup>1</sup>
- Support CSFE actors in undertaking comprehensive carbon assessments at all stages

**Organizations like BeZero Carbon are already demonstrating what carbon accounting mechanisms and incentives could be employed by this carbon impact assessor for the mass timber construction industry.**

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<sup>1</sup> The 3S Framework (carbon Sink, carbon Storage, and biomaterial Substitution) quantifies carbon benefits and tradeoffs along forest economy value chains. Refer to the [Climate Smart Forest Economy Program](#) for more

Using their BeZero Carbon Rating (BCR), which is a publicly available and risk-based framework for assessing carbon efficacy, the organization is able to rate qualifying carbon credits in all sectors. These credits represent CO<sub>2</sub>e avoided or removed and can be used in the Voluntary Carbon Market. The BCRs for the projects BeZero has assessed are then made available publicly on their platform, including the data and analytics for these ratings. The aim is to enable investors, developers, intermediaries, and end buyers to find and compare projects, accelerate their due diligence, and assess and forecast credit issuance.<sup>2</sup> A new and similar entity that is tailored for timber structures and uses the 3S framework would need to be developed.

**In order for the carbon assessor to meet these objectives, they will need to provide carbon accounting analysis and reporting support, carbon accounting verification, and develop carbon evaluation indicators.**

Verification will support those who are able to conduct independent carbon accounting by confirming their methodology to ensure the inclusion of all relevant factors. Indicators will enable projects to more easily and more accurately track ongoing accounting of carbon impact. This can be tailored to local community contexts, where applicable. The assessor will be:

- Enabling actors to accurately report their carbon footprints and impacts to tap into carbon financing
- Ensuring that actors within the CSFE value chain are at least net positive with respect to carbon emissions
- Enabling actors to perform value chain analysis of different options for decision making
- Enabling easier comparison of carbon impacts between actors

If you would like to know more about carbon impact assessments, you can reach out to [BeZero Carbon](#).

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<sup>2</sup> BeZero Carbon website, accessed: 2022