Climate Smart Forest Economy Program

CSFE value chain linkages application

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-BASED REAL ESTATE

Due to the nascency of the mass timber construction industry, the supply chains for timber construction are not yet well-developed. Actors face challenges in sourcing local timber with low carbon footprints and in sourcing wood products that are certified as sustainably produced. The process of finding designers, architects, builders, and permit-support organizations familiar with mass timber construction is also difficult because these skills are still scarce. There is an opportunity to create supply chain and resource linkages to accelerate the development of mass timber structures as new projects and actors enter the market.

Creating a supply chain platform to connect real estate actors to the service and product providers best positioned to provide what is needed will help address these challenges. The firm would aim to identify a custom suite of service and product providers based on parameters provided by construction players, match them with suitable suppliers, and offer additional premium services based on individual custommer requests and needs.

This opportunity arises from the positive role a virtual warehouse would have to guide project proponents on where to start and where to find the resources they need as they build timber structures. Similar to ride-sharing or home-sharing applications, where the agency does not own the goods and assets or hire the staff needed to provide the service, the platform would connect the customer to the multiple service providers who do. Currently, there is no portal serving the climate-smart forest economy where customers can find verified architects, engineers, insurers, and suppliers, for their timber projects.

Based on a questionnaire, the platform will determine a client's needs and identify the most suitable service, and product providers for particular projects. Additional services could be provided upon request

to offer insight and guidance on meeting their needs. Over time, an algorithm can be developed that can match any demand with supply across the value chain in different locations and contexts. A subscription model could be offered for the basic service, with a pay-for-service model to provide additional insight or advice.

If you would like to know more about similar applications that offer value chain linkages, have a look at DigiFarm, a digital solution for smallholder farmers that provides access to agricultural and financial services for them offered in the region.