

Wooden construction, supply difficulties due to the loss of forest mass due to forest fires, among other causes

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Abstract

In Chile, programs are promoted to strengthen the use of wood in construction and reduce carbon dioxide emissions in the construction sector. Forests, planted and natural, help reduce atmospheric carbon, although the data still doesn't allow adjusting a model of use vs. conservation to maintain the balance, since it underlies the fact that, in the face of the inability of state control and of the owners, the forests are exposed to forest fires with high intentionality as the cause, burning the vegetation to use the soil for other purposes or to sell it as firewood, so the purpose of conservation is lost. The owners of mostly certified plantations manage sustainable harvests, adjusting their planting rates to their needs, supplying the industrial wood sector, mainly with radiata pine for the sawmill industry, which in turn supplies wood remanufacturing and engineering (cross-laminated, plywood, reticulated, laminated), strengthening the availability of products for wood construction. The supply is in uncertainty scenario because the forestry sector is not growing at the speed it had. The study measured citizen perception and expert panel from a region affected by forest fires, consulting them regarding: -substitution of steel and concrete by wood to reduce emissions associated with manufacturing, transportation, installation and reuse of construction materials, -plantations and native for structural use in the construction sector, -greater use of wood products as a climate solution, -greater area of native forest to increase carbon reserves, -planted forests for industrial use and/or integration of native forests, - such as stopping deforestation (COP26 agreement) and, -current legislation for forest fires, -perception native stocks and plantations loss for fires and, -social and environmental benefits that forests satisfy. It is a complex socio-ecological scenario, this joint analysis methodology (citizens and experts) allowed a better understanding that the population focuses its responses on perceptions rather than knowledge, associating forest fires with climate change, since they do not know how to maintain the balance between resources and needs and the expert panel recommends that it is the duty of the State, academic and private actors to improve the understanding and adaptation of all for a sustainable industrial development, avoiding excesses, abuses, but also providing the assurances so that they continue to operate and grow to satisfy the "better with wood" needs of the population.

Keywords: wood construction, forest fires, decarbonization, sustainable forest management, forest plantations

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