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WP 3 "Wood products and technologies"

Task 3.5.2 "Increasing efficiency and accuracy in the use of wood resources, smart technology solutions"

Recommendation for Policymakers
"Lightweight stabilised board and other wood based panel production content"

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FOREST4LV

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Content

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Introduction

When calculating the environmental impact of the wood industry - the production and use of wood products, emissions from transport for additional materials and chemicals (Life Cycle Assessment or LCA) are often fully included. However, in the early stages of innovation and new product development, the volumes of these materials are usually small, as a result of which transport emissions disproportionately increase the overall impact indicator and can create a misleading impression of the sustainability of the created product solution. It should be considered that as production volumes increase, transport becomes more efficient (emissions per unit of product decrease), including for adhesives, chemicals and other additional materials. In addition, if a specific wood product, which is currently in the development or implementation stage, were to become widely used in the future, there is a high probability that the non-proprietary or generic chemicals and auxiliary materials required for it would be produced locally or regionally.

Therefore, the recommendation is as follows:

In environmental impact assessments of innovative wood products, it is assumed that widely used generic components, such as adhesives, chemicals and other auxiliary materials, are produced locally in the long term, rather than transported over long distances, which not only facilitates the development of new wood materials, but also opens up easily identifiable niches with documented potential volumes for potential producers of these raw materials.

1. Recommendation on the disposal of wood products and the regulation of used chemicals

One of the most significant benefits of the end of the life cycle of wood products is their potential use in energy - combustion, leaving no solid waste and at the same time obtaining thermal energy. However, today, various adhesives and chemicals are increasingly used in the production of wood products, the combustion of which can have a significant negative impact on the environment and human health in the long term.

Some of these substances form “aggressive” compounds during the combustion process that can damage flue structures, including stainless steel chimneys, as well as create emissions harmful to health and the environment. This significantly reduces the advantages of wood as a sustainable and “clean” or environmentally friendly fuel.

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2. Recommendations to the policymakers involved

Therefore, it is recommended that:

- legislators, based on scientific research and emission data, evaluate the possibilities of limiting or regulating the types of chemicals used in wood products, giving preference to less harmful alternatives. This means, rather than "blindly" banning, determining how realistically it is permissible to use certain chemicals, glues, paints, impregnating agents, flame retardants, etc. binding components, so that any wood product is still considered suitable for combustion – for energy production;
- develop regulations that determine the maximum permissible amount of chemicals per certain volume of wood material, so that the product can be classified as environmentally friendly ("green") also at the disposal stage. This means determining real volumes at the time of production, for example, that glue "X" or a product from a specific manufacturer can be used in a certain volume per volume of wood product, while the product retains properties favorable for combustion.

3. Summary

To study the combustion products of glues and wood products (by funding such studies) and then, based on the results of these studies, determine how much glue, paint, with what paint, etc., can be used, so that it can be burned and energy obtained after the end of the product's life. Because, for example, when burning a worn-out particle board - you can feel it in the smell in the air, on the contrary, when burning an old worn-out wooden door even with ten layers of paint, you can only smell the resin.

So, so that the manufacturer of wood products does not have to think about what and how will happen after the end of the product's life cycle - in the assessment of the possible consequences of burning and the impact on the environment. So that the manufacturer can purchase glue, paint and incorporate it into the product in the permissible amount to fit into the potentially developed burning standard.

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