**Is it recyclable?**

Wood is considered as a renewable resource, it is recyclable, and environmentally friendly in consumers perspective. But it is not as simple as it is known for. There's a lot of hidden elements such as energy, water, and labor inputs behind the curtain of “good resources”. In addition, in recycling construction use of wood, the amount of flow of wood is the greatest. It is important to maintain and track the system to balance the material reuse loop.

Understanding the lifecycle system could help users/decision makers to perform comparative analysis to products of similar functions. In addition, being mindful of sustainability of future material innovation. There's a huge group of stakeholders in the construction business that leverage the decision of the journey of wood throughout its lifecycle. The lifecycle awareness is essential for stakeholders to understand and create resilience in this decision system.

The lifecycle of wood as a renewable resource presents a multifaceted system characterized by various properties and dynamics. Its renewability, recyclability, and perceived environmental friendliness gave the material a substantial amount of attention and increase in investment.

Despite these positive aspects, challenges are present. Processing and recycling wood requires substantial energy, water, and labor resources, which can offset some of the environmental benefits. On the other hand, transportation and processing contribute significantly to carbon emissions and have a crucial role in scaling the system's efficiency and sustainability. Regulatory and market barriers can also hinder efficient recycling and reuse, making it challenging to maximize the benefits of wood as a renewable resource.

The recycling of wood, especially in the construction industry, involves substantial flows of material, which signifies the importance of maintaining and tracking the system to balance the material reuse loop. A diverse group of stakeholders influences the wood lifecycle. Understanding this system allows stakeholders to make informed decisions that promote sustainability and resilience.Material lifecycle awareness enables comparative analysis of products with similar functions and encourages innovation in sustainable material use, ultimately supporting long-term environmental goals.

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Extreme weather event resiliency

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design for the ease of use and understanding - “design must provide critical clues required for its proper operation”

“design faults led to human error”

I think difficult design/system in some sense led to the gap in human knowledge or availability in resources