

Live session at the IUFRO World Day (Talk)

# Assessing wood use for traditional products along with new products for their environmental profiles

Division 5 - Sustainable Utilization of Forest Products - Unit 5.12.00

28 September 2021, 16:00 - 17:30 UTC

• Chicago, USA (on the IUFRO World Day Map)

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### **ABSTRACT**

For many countries, forests provide harvested wood products for structures, energy, and food. There is a global impetus for materials that have a low carbon footprint (CFP) from sustainable resources while avoiding GHG emissions. By measuring all the direct and indirect energy and material inputs to product manufacturing and quantifying the GHG emissions per unit of product using life cycle assessment (LCA), the CFPs of product are found.

There are new opportunities to utilize wood for replacing other products to aid in climate change mitigation strategies while maintaining a sustainable source of raw material. This talk will discuss this. In addition, the talk will cover LCA and carbon and topical uses of the LCA results. Tracking carbon throughout its whole life cycle involves a full and thorough assessment because carbon flows for forests and accompanying wood products are complex. Topical uses include environmental product declarations and green procurement systems.

### **KEYWORDS**

- Sustainable Forest Management
  - Forest Products
  - Climate Change
  - Wood Processing
  - Wood Utilization

## **SPEAKERS**



Dr. Richard Bergman

Dr. Richard (Rick) Bergman is a Supervisory Research Wood Scientist at the U.S. Forest Product Laboratory. His major research objectives include:

- 1) developing life-cycle assessments (LCA) and conducting comparative LCAs for product, building, and energy systems,
- 2) investigating GHG mitigation strategies using forest products in conjunction with forest management practices and final disposition of wood products,
- 3) conducting system and scale-up analyses using robust artificial intelligence-based data analytics, and
- 4) minor focus on economic assessments. Rick has a Bachelor's degree in Chemical Engineering and a Master's degree and PhD in Wood Science from University of Wisconsin-Madison. Rick participates in product category rule development.



Dr. Hongmei Gu

Working at USDA Forest Service Forest Products Laboratory, the Research Unit of Statistics, Life Cycle Analysis, and Economics. Dr Gu has been engaged in advancing forest biomass utilization and greenhouse gas emission reduction applying the life cycle assessment tool and economic analysis tool, bolstering innovation of wood use in green building products development and nanocellulose applications. Recent years, Dr Gu has been focusing on mass timber building sustainability development with whole building life cycle assessment and life cycle cost analysis studies to support US Forest Service policies in resource management and utilization.

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