FCWG Latte and Learn Science Series: Carbon and Harvested Wood Products

Speakers:

- Kathryn Fernholz (Dovetail Partners)
- George Berghorn (MSU)
- David Wear (RFF)

Additional Q+A

1. How does wood product production benefit forest resilience?
   Answer (please initial):

   (KF) The answer to this question can vary widely across forest types and local conditions. For a discussion of the "power of silviculture" with a focus on the North Central USA, please see this report: https://dovetailinc.org/upload/tmp/1586802634.pdf. As discussed in that report, and what can be true in a variety of settings is: "The use of intermediate treatments and modified harvest regimes, so as to provide a more even flow of forest outputs than is typical, and to develop a greater diversity of species, age classes, and structures, may be the key to increasing active engagement of forest owners in forestry, and to gaining greater public support for forestry. Such practices could also lead to greater forest productivity over the long term and increased forest use options."

   Here are some other links to information and discussions about the connection between management activities, harvesting of wood products, and forest resilience:

   - Restoring Forest Health for Wildfire and Climate Resilience (ca.gov)
   - AFRI Resilient Agroecosystems in a Changing Climate Challenge Area | National Institute of Food and Agriculture (usda.gov)
   - Forest Resilience | Bureau of Land Management (blm.gov)
   - Scottish Forestry - Overview of forest resilience
   - Resilient Forest |
   - Diversity, functionality, and resilience under increasing harvesting intensities in woodlands of northern Patagonia - ScienceDirect
   - How can we measure forest resilience? | European Forest Institute (efi.int)

2. Are there well recognized wood product carbon methodologies that can estimate carbon benefits of different products?
   Answer (please initial):

   (KF) There are a number of well recognized and established methodologies for estimated carbon benefits and storage in wood products. There is also competition between methodologies for a variety of reasons, as articulated in this statement: "If the issues were only technical and dependent upon sound research for resolution, then accounting for carbon in harvested wood products (HWPs) would likely have been incorporated into climate protocols long ago. While a few technical questions remain, the primary obstacles are political. The HWP question, like many others linked to climate negotiations, is mired in international politics. For instance, in the case of internationally traded wood, what nation should get credit for carbon stored in harvested wood products – the nation in which trees were grown, or the nation in which the wood is used? Will acknowledging carbon storage in wood lead to more forest harvesting? Will recognizing the longevity of stored carbon in discarded products within landfills encourage waste and discourage durability and recycling? These are a few of the questions that are keeping resolution of the HWP issue in limbo.The question now is how to move forward so that the carbon benefits of wood products can be realized." (Source: https://dovetailinc.org/upload/tmp/1620145828.pdf)

   You can read more about the science and the scientific debate in these articles:

   - The Carbon Impacts of Wood Products (fs.fed.us)
   - Recognition of Carbon Storgae in Harvested Wood Products: A Post-Copenhagen Update
   - Wood Products and Carbon Protocolss

3. Do the tree to building/ wood product carbon estimates encompass the carbon emitted from the entire process (e.g., impacts on landscape from logging, such as impacts on soil carbon; emissions from manufacturing a product)?
   Answer (please initial):

   (KF) Yes, the methodologies for carbon estimating can include defining the scope of analysis to include the entire process, including emissions and impacts associated with

management, transportation, etc. Different studies will define "study boundaries" differently due to factors such as the availability of quality data, the sphere of influence of the interested parties, and other considerations. For a discussion of study design and other life cycle analysis (LCA) practices, see:

- A Review of Life Cycle Assessment Tools
- A Toolkit Approach to Sustainability