

MWP – Young Researcher Abstract 2023

Project title: Demand-driven climate change mitigation of wood product substitution from Swedish harvest potentials	
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Abstract (approx. 200 words): The forest sector contributes to climate change mitigation by sequestering carbon in forests and storing it in wood products, while greenhouse gas emissions are avoided due to replacement of more emission intensive fossil materials or energy sources, i.e. the substitution effect. The Swedish forest sector is among the largest in the European Union in terms of harvest volumes and production of wood products. The national carbon sequestration in forests and storage in wood products has been quantified for several years and is part of official Land Use, Land Use Change and Forestry (LULUCF) sector reporting. However, how large is the Swedish forest sector's substitution effect based on the wood product demand within and outside Sweden? By integrating official national harvest projections with the global forest sector model GLOBIOM-forest and a wood flow and life cycle assessment model, this research project jointly assesses the demand-driven substitution effect and the carbon balances of forest and wood products of the Swedish forest sector. The substitution effect is assessed for wood products consumed in Sweden as well as for those exported to increase knowledge on where wood product substitution occurs and which role it plays for the total Swedish forest sector's climate effects.	
Key words: Swedish forest sector, climate change mitigation, HWP carbon, substitution effect, wood product trade	