Uncertainties in the Estimates of Carbon in Harvested Wood Products for Portugal

Ana Cláudia Dias, Margarida Louro, Luís Arroja, Isabel Capela*

CESAM & Department of Environment and Planning, University of Aveiro
3810-193 Aveiro, Portugal
**E-mail: acdias@ua.pt*

Abstract

This study compares the uncertainty levels in the estimates of carbon accumulation in harvested wood products (HWP) for Portugal using two different methods suggested by the Intergovernmental Panel on Climate Change Good Practice Guidance for Land Use, Land-Use Change and Forestry, namely a simplified method that most countries could use (GPG tier 2 method) and a method requiring country-specific data (GPG tier 3 method). The later method produced more reliable results, leading to a reduction up to 50% in the uncertainty of the estimates of carbon accumulation in HWP when compared to the GPG tier 2 method. This study has also identified the input parameters contributing more to the uncertainty in the estimates of carbon accumulation in HWP.

Key words:
atmospheric-flow approach, carbon, greenhouse gas inventories, harvested wood products, Monte Carlo simulation, Portugal, production approach, stock-change approach, uncertainty