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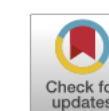
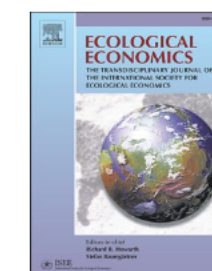
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## A new accounting framework for assessing forest footprint of nations

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### ABSTRACT

In a tele-coupled and globalized World, understanding the links between demand for wood products and land use is becoming challenging. World's economies are increasingly open and interconnected, and international trade flows of wood products are continuously growing. The increasing resource consumption of humanity is increasingly dependent on international trade. In this context, the study of forest products demand from a global-multi-regional perspective emerges as a critical issue to achieve the goal of sustainable consumption and production. In this paper, we introduce a novel accounting framework for assessing the forest footprint of nations. The method combines Multi-regional Input-Output techniques and detailed data from the Food and Agriculture Organization of the United Nations on production, consumption and bilateral trade of primary, intermediate and final wood products, advancing with respect to existing approaches with these practical distinctions for more accurate computations. The approach tracks resource flows along the global supply chain and provides detailed information on the production, transformation, international trade, and final use of 20 forest products in 223 countries, having also much wider coverage than most previous studies. We test this framework to analyse forest footprint of nations in the year 2014, showing that 22 Million hectares (Mha) of forest were harvested for the extraction of roundwood for global demand, being 9.1 Mha to satisfy the foreign demand of wood products (42% of the total forestland harvested area). Harvested forestland is concentrated in America (32%), Asia (29%) and Europe (28%), representing Africa (7%) and Oceania (4%). More than 50% of the reported forest area harvested worldwide is located in USA (15%), China (14%); Russia (11%) and Canada (8%). In terms of forest footprint, Asia shows the highest share of the total forest footprint (44%), followed by America (25%), Europe (21%),