

Abstract for “Globalization Drives Environmental Pressure in China”

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In today's increasingly globalized economy, international trade chains accelerate China's environmental pressure due to consumption far from the place of production. We use a global multiregional input-output model to assess the environmental pressure for China. We quantify China's total environmental pressures (resource consumption and pollutant emissions) caused by consumption all over the world using material footprint. Material footprint takes the consumer responsibility approach to account for the total direct and indirect effects of a product or consumption activity. We assess (1) the quantity of China's environmental pressure are induced by the consumption activities of an average person in the world; (2) the displacement of China's resource consumption and pollutant emissions through exports of products with embodied pressures; (3) the key international supply chains or structural path causing China's environmental pressure (Structural Path Analysis is able to provide a collectively exhaustive and mutually exclusive representation of material flows in a global economic system). Our study emphasizes the importance of examining China's environmental pressure as a global systemic phenomenon, instead of looking at the resource consumption and/or pollutant emissions in isolation.