

Mapping the carbon, air pollution, and biodiversity footprints of nations: A GIS + global supply chains

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"Spatial footprinting" is an approach for locating the actual hotspots where impacts driven by consumption occur. Spatial footprinting offers the potential to link any remote sensing or earth observatory GIS data that is tagged to an economic sector to any MRIO-based economic model. We present new method for locating at a subnational level the environmental emissions induced by global supply chains. As the world economy becomes more complex it is increasingly difficult to connect consumers and other downstream users to the origins of their GHG emissions and other impacts. Given the important role of subnational actors in GHG abatement and other environmental protection efforts, it is advantageous to connect consumers to the locations where their purchases are driving environmental pressure. We present spatial footprint results for 187 countries showing the footprint of GHG emissions, air pollution hotspots, and biodiversity threats, and discuss our spatial footprinting methodology.

