

Resource-based Industries and CO2 Emissions Embedded in Value Chains: a regional analysis for selected countries in Latin America

Topic: Sustainable production and consumption II (Chair: Shuning Chen, Kyushu University)

Author: Eduardo Rodrigues Sanguinet

Co-Authors: Carlos R Azzoni, Augusto Mussi Alvim

This paper analyses the relative content of CO2 emissions embedded in regional supply chains in four different countries in Latin America: Brazil, Chile, Colombia and Mexico. We estimate both the value-added (TiVA) and the embedded CO2 incorporated in interregional and international exports, mapping the relative intensity polluting level on value chains. We apply an inter-regional input-output model to determine the interplay between the polluting intensity of resource-based industries and their linkages with the others economic sectors, revealing a map of CO2 emissions to value-added trade in a subnational dimension. The main result reveals an interregional dependence, indicating for resource-based industries, usually intense in pollution, a higher level of embedded CO2 on value-added in each regional economy. This finding has considerable implications for the sustainable development of these subnational areas.