

## **Input-Output analysis and the richness of environmental applications: A researcher's perspective**

Topic: IO's role in covering environmental policy needs

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This paper analyzes the possible applications of IO analysis as an environmental policy support tool. We discuss several examples and their results to demonstrate how IO analysis can be applied to feed environmental policy decisions in the Belgian region of Flanders with quantified measurements and potential impact assessments of (hypothetical) policies. We argue that, despite the construction of interregional IO tables, the application of these IO models for environmental policy purposes can be hindered if environmental policy is set at a subnational rather than the national level, as is the case for Flanders. To this end, we integrated the regional Flemish IO model for the year 2010 constructed by the Belgian Federal Planning Bureau with the EXIOBASE interregional model and include the necessary environmental and economic extensions for the Flemish tables. We show that these tables can be used for the analysis of carbon and material footprints to highlight to policy makers the need to think of environmental policy in a trans-territorial way. Additionally, they can also be applied for monitoring how the environmental footprints evolve over time. Another route to support policy is through the analysis of (hypothetical) scenarios which are integrated within the IO tables through the alteration of existing industries, the addition of industries or the alteration of consumption patterns. We show several examples where such an approach was applied. The aim of this research is to gather examples on the possible application of IO, harvest the full potential of IO tables for environmental policy purposes and to ignite the debate on other interesting routes for the support of environmental policy.