

Evolution of Tourism in the world economy 2005-2015: an analysis through the ICIO tables from OECD

Topic: Input-Output Analysis: Sustainable Production and Consumption Policies - V

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The importance of tourism has been consolidated in the world economy over the last decades. Tourism has become one of the world's leading economic activities, growing from 3.26% of global GDP in 2010 to 4.1% in 2019. However, due to COVID19, in 2020 it dropped to 1.8% (UNWTO, 2023). In relation with tourists' arrivals, they grew from 957.2 million in 2010 to 1465.8 million in 2019. During the pandemic the arrivals dropped to 409.1 million in 2020 and recovered until 917 million in 2022 (UNWTO, 2023). Therefore, the analysis and monitoring of the tourism activities evolution is crucial. The growth of these activities has had important direct and indirect effects on the world economy and trade patterns. We believe Input-output analysis and tables can play a very relevant role in this analysis. Polo and Valle (2012) confirm that a close relationship has existed between tourism analysis and Input-Output Tables (IOT) and models (IOM) for a long time. This important tradition in the use of input output tables analysing tourism, is now reinforced by the existence of Inter Country Input-Output Tables (ICIO) for 67 countries (38 OECD countries and 28 non-OECD economies), the Rest of the World and split tables for China and Mexico and 45 industries from 1995 to 2015 from the OECD. There are other global multiregional input-output databases available, (in alphabetical order): Eora, EXIOPOL, Global Trade Analysis Project (GTAP), World Input-Output Database (WIOD) from the European Commission, but only WIOD and ICIO have made the effort to account for non-resident expenditure. The ICIO database shows the consumption of non-residents separated from those of the residents. which the value added created by tourism expenditure by country of origin has been analysed for all the countries included in the database (OECD, 2019).

Despite tourism development has a great economic impact on many economies, it also brings some environmental and socio-economic negative impacts. Tourism input-output model and multiregional input-output model appear in many research efforts related to environmental impacts. Lenzen et al. (2018) combine the information provided by tourism satellite accounts, integrated into a multi-region IO table, to estimate the carbon footprint of the tourism flows using IO models. Sun (2014) combines the use of tourism satellite accounts with an environmentally extended IO model to calculate the direct, indirect, and induced effects that are due to tourism demand. Sun (2016) adds structural decomposition analysis (SDA) to calculate different sources of the direct and indirect tourism GHG effects like intensity, structure final demand and Leontief effects. Tang and Ge (2018) used an Input-Output model to calculate the carbon emissions resulting from tourism consumption in Shanghai in 2012, finding that tourism carbon costs represented a higher rate of GDP than tourism direct gross value added. Similar results are found by Bouwmeester et al. (2014) for the EU27 countries between 2000-2007.

Using the ICIO tables we plan to describe the importance of tourism in the world economy for the period 1995-2015. We also pretend to calculate the impact of the carbon emissions related with tourism using these tables. In this respect, for the time being, we plan to concentrate in emissions related to air transport of tourists.

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