## Tourist profiles and atmospheric emissions in Spain

Topic: Environmental IO models 3

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Estimating the economic impact of tourism means to estimate both benefits and costs associated with touristic activities. One of the major costs, that presents the character of a negative externality is that related to environmental pollution. The economy needs to produce a range of goods and services to support the touristic final demand vector, and the production of these goods and services is associated to the generation of pollution.

Due to the demand-driven nature of tourism activity, the specific combination of industries involved in tourism in a given destination depends on the characteristics of the tourists traveling to that destination, in particular these characteristics directly related to tourist expenditure. It is usual in the tourism literature to categorize such characteristics according to "tourist profiles" that describe the demand vectors associated with them. Public policy measures can be designed to incentive or discourage the inflow of tourists corresponding to profiles deemed as desirable or undesirable.

This paper offers an estimation of the main atmospheric emissions associated with touristic consumption disaggregated by industry in Spain, using data from the Tourism Satellite Account (TSA), the Environmental Accounts, and the 2005 Input-Output framework. We differentiate between 12 types of atmospheric emissions, some of them associated with greenhouse gases, and two different touristic profiles (inbound and domestic). This estimation is then used to give an indication of the potential impact of policy measures directed to stimulate inbound international tourism (in the context of the current economic crisis) on the objectives of emissions reduction explicitly adopted by the Spanish government, through an augmented Leontief model approach.