

The economic impact of the artisanal fishing fleet: an application of input-output analysis for the case of Asturias (Spain)

Topic: Regional Input-Output Modeling

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Artisanal fisheries are defined as small scale fishing companies, normally owned by fishermen, developing their activity in the coastal area within a few hours from the ports where the vessels are based. At a European level it is widely accepted that artisanal vessels represent around 75–80% of the boats making up the European fishing fleet, and they are generally thought to constitute an important source of employment and income for many South European coastal communities as Asturias (northern Spain). However, there is little empirical quantification of the economic impact of this activity, due to the lack of detailed information on its output, intermediate consumptions or the primary inputs it uses.

This paper aims at quantifying the impact of artisanal fisheries in the region of Asturias by means of standard IO analysis. Taking as point of departure the symmetric IO table compiled by the regional statistical agency (SADEI) for 2010, and combining it with a recent survey conducted among the artisanal fisheries in the region, we disaggregate the IO information regarding the fishing activity distinguishing between artisanal and non-artisanal fisheries (industrial fisheries and aquaculture). This disaggregation is done by applying a standard matrix balancing technique based on the cross-entropy divergence (similar to RAS adjustment). The new IO table that differentiates the artisanal fishing industry from other types of fishing allows for estimating the impact of these fisheries in terms of output, income and employment in the region.