

Water Rates and Responsibilities of Direct, Indirect and End-Users in Spain

Topic: Water input-output analysis

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Abstract

In Spain, irrigation is the main user of water, approximately 80% of direct use, and the price paid for this water has been lower than its cost. The recent Water Framework Directive of the EU requires that all cost should be recovered but its application is having perverse effects. In some cases, farms become economically unviable and, in others, cultivation is intensified (double harvests, changes of crops,...) and water consumption is increased. This paper uses the computable general equilibrium (CGE) model developed by International Food Policy Research Institute (IFPRI 2002), in which we have introduced some changes. We use a SAM of the province of Huesca, a region in north-east of Spain that has nearly 200.000 hectares of irrigated land. The model disaggregates the agricultural sectors in irrigated and unirrigated land and these in different crops. It also incorporates improvements in irrigation efficiency and associated changes in crops. Under this framework, we analyse different scenarios of payments (as they fall on direct users, exporters or end-users). In this way, we go deeply into the responsibility of users, the impact of international market and macroeconomic impacts on agriculture and industry in Spain.