

A regional hybrid social accounting matrix: poverty, natural resources (groundwater and primary energy) and its link with the economy of Yucatan Mexico

Topic: Environmental Applications

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The objective of this work is to build a hybrid social accounting matrix for the state of Yucatan Mexico and show the relationship of economic structure, availability of natural resources (groundwater, primary energy) and the flow of income to the local system in order to elucidate the causes of permanent state of economic stagnation, high poverty and growing gap between rich and poor households. To this end, we created a database with information available on the economy of the state of Yucatán such as the income and expenditure survey (INEGI, 2008), reports of public finances (INEGI, 2003), government accounts and economic information of system of national accounts (INEGI, 2003); information on primary energy consumption and emission of greenhouse gases (CICY, 2005); and water statistics (CNA, 2003). This work is an attempt to contribute to the development of regional hybrid social accounting matrices in Mexico and the world since to date only have been documented the construction of some matrices as that developed by Allan McGregor and Swales (2011) for Shetland Islands in Scotland and McGregor, Swales and Karen (2008) for Scotland and the rest of the UK. To build a strong database, it was estimated a regional system of supply and use accounts that formed the basis for estimating the input-output matrix and then the social accounting matrix. Since information on the economic structure, income and expenditure surveys, water and energy consumption correspond to different time periods a number of assumptions are made for use in an information system base year 2003. This article describes the results as a first approach to a complex and difficult reality to explain without a sound scientific basis as it seeks to develop in this article.