Structural analysis of Bio-economy sectors in the European Union: the BioSAMs

Topic: IO modeling: Computable General Equilibrium Modeling and Social Accounting Matrices

Author: Alfredo J. MAINAR CAUSAPÉ

Co-Authors: Ana Isabel SanjuÃin López, George Philippidis

Bio-economy includes the production of renewable biological resources and the transformation of these resources and waste streams into value-added products, such as food, feed, biological products and bioenergy. In this way, the bio-economy groups different sectors of the economy: agriculture, forestry, fishing, food, chemical products and bio-based materials and bioenergy, and also encompasses academic disciplines and political areas. Therefore, it is of great interest to analyse the structure and characteristics of these sectors. To carry out this analysis, one of the great obstacles is the lack of information and complete databases that allow the analysis of the bio-economy and its effects on the overall economic activity. To overcome this issue, a set of Social Accounting Matrices has been obtained for highly disaggregated bio-based sectors for the 28 European Union member states (and an aggregate for EU28) for 2010, called BioSAMs. This communication shows the estimation process of these matrices, and also includes an illustrative key sector analysis based on three different and complementary methods (Rasmussen-Jones, Hypothetical Extraction Method and Eigenvector method) to show the potential of this database and the significance of bio-based sectors. Finally, the current work to updating the BioSAMs is presented.