



Generation of SEEAW asset accounts based on water resources management models

María Pedro-Monzonís, Abel Solera, and Joaquín Andreu

Research Institute of Water and Environmental Engineering (IIAMA), Universitat Politècnica de València, Valencia, Spain

One of the main challenges in the XXI century is related with the sustainable use of water. This is due to the fact that water is an essential element for the life of all who inhabit our planet. In many cases, the lack of economic valuation of water resources causes an inefficient water use. In this regard, society expects of policymakers and stakeholders maximise the profit produced per unit of natural resources. Water planning and the Integrated Water Resources Management (IWRM) represent the best way to achieve this goal.

The System of Environmental-Economic Accounting for Water (SEEAW) is displayed as a tool for water allocation which enables the building of water balances in a river basin. The main concern of the SEEAW is to provide a standard approach which allows the policymakers to compare results between different territories. But building water accounts is a complex task due to the difficulty of the collection of the required data. Due to the difficulty of gauging the components of the hydrological cycle, the use of simulation models has become an essential tool extensively employed in last decades.

The target of this paper is to present the building up of a database that enables the combined use of hydrological models and water resources models developed with AQUATOOL DSSS to fill in the SEEAW tables. This research is framed within the Water Accounting in a Multi-Catchment District (WAMCD) project, financed by the European Union. Its main goal is the development of water accounts in the Mediterranean Andalusian River Basin District, in Spain. This research pretends to contribute to the objectives of the “Blueprint to safeguard Europe’s water resources”. It is noteworthy that, in Spain, a large part of these methodological decisions are included in the Spanish Guideline of Water Planning with normative status guaranteeing consistency and comparability of the results.