

Regional Input-Output for the Sub-Middle Hydrographic Region of the São Francisco River Basin in Brazil.

Topic:

Author: Ana Cristina Guimaraes Carneiro

Co-Authors: Ignacio Tavares Araujo Jr, Márcia Guedes Alcoforado de Moraes

In the last years, the Brazilian government has been investing large amounts to expand the water infrastructure to provide water to new irrigated areas especially in the Northeast of Brazil, the poorest region of the country. Undoubtedly, the main effort on this direction is transposition of the São Francisco River which involves resources on the order of US\$ 2.7 billion. Its worth noting that supply or demand management of water across the hydrographic basins is necessary given the potential conflicts in water use due to low productivity of irrigation schemes in the Northeast and the increasing necessity of water availability for other purposes. Under this scenario, this paper uses a regional Input-output matrix for the Sub-Middle hydrographic region of the São Francisco river basin (IO-SMSF), to simulate economics impacts induced by water availability. The availability of technical coefficients of direct use of water for the Brazilian economy enables the assessment proposed in this paper. The regionalization of the input-output system was carried out using the Cross-Hauling Method. The main data used was the Brazilian Resources and Use Table, the Brazilian regional account system and the GDP of Brazilian Municipalities. The results may indicate that new ecological demands (minimum reservoir release), if imposed, can lead to high costs for irrigated agriculture and energy. On the other hand, it can point out which activities have been associated with this new scenario, such as tourism for example.