Winds of Bahia: an analysis of the socioeconomic impacts of wind farms in Bahia municipalities

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The state of Bahia has a significant wind power potential, estimated at 195 GW for a height of 150m, is the leader in the contracting of wind energy in Brazil and has 21 municipalities with projects in implementation. Unlike the other states of the Northeast region, which has a higher incidence of coastal winds, Bahia concentrates its wind potential in the interior, more specifically in the semi-arid region that suffers from a scarcity of rainfall. In this sense, it is questioned how the implementation of wind farms in Bahia municipalities assists in the sustainable development of the semi-arid Bahia? Thus, this work seeks to evaluate the socio-economic impacts of the implementation of wind farms in Bahia municipalities with the advent of wind activity in the State. To do so, it uses the input-output matrix estimated by the Superintendency of Economic and Social Studies of Bahia (SEI) for the year 2015. The analysis will be based on an exploratory study of the impacts of wind activity in the sectors of economic activities inserted in the State of Bahia, through the use of input-output indicators (as a key sector, economic multipliers of employment and production, indices of Rasmussen-Hirschman intersectoral links, field of influence and hypothetical extraction of sectors), in order to investigate the creation of jobs and production associated with wind farms and, in turn, the wind energy production chain. The study will show how total production is used and how much direct and indirect jobs have the potential to generate by wind activity and its productive chain. The results of this article will enable us to understand how wind energy can make a significant contribution to the generation of jobs in several rural areas, promoting local and sustainable development.

Keywords: Socio-economic Impacts; Wind farms; Input-output; Sustainable development. Semi-arid region