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Dairy Production and Energy Crisis in Goiás: Analysis of Rural Development and Solar Energy

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Abstract

Dairy producers in Goiás, a Brazilian midwestern state, have been facing troubles due to poor performance of its energy company (ENEL), which was privatized in 2017. In 2019, family farmers made serious allegations about energy supply interruptions, instability and huge delays in responding to demands because of staff cuts. This scenario led to an investigation by Goiás state Legislative Assembly, which concluded that the company did not invest the contracted amount on maintenance and caused damage to rural activity, especially those dependent on refrigeration equipment, such as dairy producers. Goiás State is one of the greater producers of dairy in Brazil, which is the fifth greater dairy producer in the world according to FAO. In Goiás, almost 50 thousand families produced more than 1,4 billion liters of milk in year 2017. Even though these families live in a region with a great capacity photovoltaic energy, they cannot avoid using traditional and non-renewable energy matrices, such as oil and hydroelectric because access to solar panels are still too expensive. To understand the challenges for expanding solar energy use in Brazil, mainly in the countryside, specifically in Goiás, in order to promote social, environmental and economic development, this research analyses public policies for rural development and the obstacles that prevent solar energy from becoming a main source of energy in the countryside. After price analyzes, dairy farmers annual income and existing public policies to increase solar energy usage, it deduces that the high costs for implementing photovoltaic systems and the absence of incentives by the government part are obstacles to the autonomy and better living conditions of family farmers in Goiás. Although farmers express the want to cease dependency on non-renewable energy matrices, the expansion of Goiás Solar Program is not enough to successfully resolve energy distribution crisis in the state, consequently generating a development that expands individual and collective freedoms.

Keywords: Clean energy, climate change, energy crisis, public policies in Brazil, rural development