



# 7<sup>th</sup> INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

“CLEANER PRODUCTION FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS”

## Sustainability Assessment of Agribusiness Expansion in the Brazilian Savanna

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### Abstract

MATOPIBA is an acronym of the initials of the states of Maranhão, Tocantins, Piauí and Bahia, together they form the new agricultural frontier of the country. This region has been gaining national prominence due to its high production of soybeans, corn and cotton. In 2015, the Brazilian Government published the MATOPIBA Agricultural Development Plan (PDA) through Decree No. 8,447 of May 6, 2015, with the purpose of promoting and coordinating public policies aimed at the sustainable economic development of this region. While these incentives may result in socio-economic benefits, socio-environmental costs may also arise. In this sense, the objective of this work is to evaluate the degree of sustainability of the agribusiness advance in MATOPIBA. The conceptual model of sustainability Input-State-Output is used, considering three indicators (emergy / capita, HDI and GDP / capita) that represent each sector of this model; the time window from 1991 to 2015 is evaluated. The results show an improvement in the GDP / capita numbers during this period, increasing about 10 times the value of 2015 compared to the year 2000), as well as the increase of the HDI (approximately 3 times higher), but the demand for nature remained high. These figures indicate that the progress of agribusiness in MATOPIBA has resulted in the improvement of social and economic indicators, as the region is becoming more efficient in the conversion of resources (emergy / capita) to wealth (GDP / capita), at the same time increasing the quality of the population (IDHM). In this way, considering the limitations and methods used in this work, we can consider that the development plan of MATOPIBA resulted in the improvement of social and economic indicators, but still needs to improve its efficiency in exploring the resources of nature to reduce the value of Emergia / capita, so that it can be considered as a sustainable region.

**Keywords:** Agribusiness, MATOPIBA, Multicriteria sustainability assessment, Regional sustainability.

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