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## Impacts of Climate Changes on Food Production in Brazil: What Are We Going to Eat?

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## Abstract

Climate changes are one of the most complex challenges of this century, and no country is immune to their consequences. Defined by IPCC, climate changes refer to any change in climate over time, whether due to natural variability or as a result of human activity. Climate changes scenarios point to an average temperature increase of over  $2^{\circ}$ C on planet Earth, including major imbalances in ecosystems that are fundamental for the survival of humanity. It is estimated that global warming will cause environmental, social, economic and cultural changes in urban areas. In the agricultural sector, there may be impacts throughout the food chain, leading to changes in food practices and food safety. The fact that Brazil is one of the largest food producers on the planet raises its level of importance in global discussions. The effects of climate changes in Brazil will be perhaps most damaging because of the country's historical vulnerability to natural disasters such as droughts, floods and landslides. There is also the prediction of greater frequency of extreme phenomena that can be harmful to agriculture. The agricultural scenarios point to a reduction in the cultivable area of low risk and high potential in Brazil, which could lose approximately 11 million hectares of land suitable for agriculture due to climate changes by 2030. All this could put food production in Brazil at risk if no mitigation and adaptation measures are taken. In this framework, an exploratory research was carried out on articles in Google Scholar, in order to elucidate the main impacts of climate changes on food production in Brazil in general. The preliminary results show that such impacts will be concentrated mainly in the poorest regions of the country. And, due to the country's history and high engagement with conventional farming, and the slow and insufficient rhythm of the process of transition to an agroecological model, there are strong indications that in the short and medium term the environmental horizon in Brazil will remain uncertain, with real threats to the climate, biodiversity and environment, directly influencing food production in the country and in the world.

Keywords: Brazil, climate changes, food production, food security, socioenvironmental vulnerability

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