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CLIMATE CHANGE IMPACTS ON CASSAVA YIELD AND MITIGATION MEASURES FOR THE BRAZILIAN SEMI-ARID ZONE

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INTRODUCTION

Cassava (*Manihot esculenta* Crantz) is known as "the drought, war and famine crop of the developing world"[1]. It's one of the most important crops in tropical countries[2] (Figure 1). It has been cultivated as a strategic crop in semi-arid regions, as in the Brazilian Semi-arid zone (Figure 2), also due to its considerable drought tolerance[3].

Figure 1: Cassava plant and roots. Source: a. Photo from the author; b. http://www.greenhealthyfarm.com/2016/10/10-food-by-products-derived-from-cassava.html.

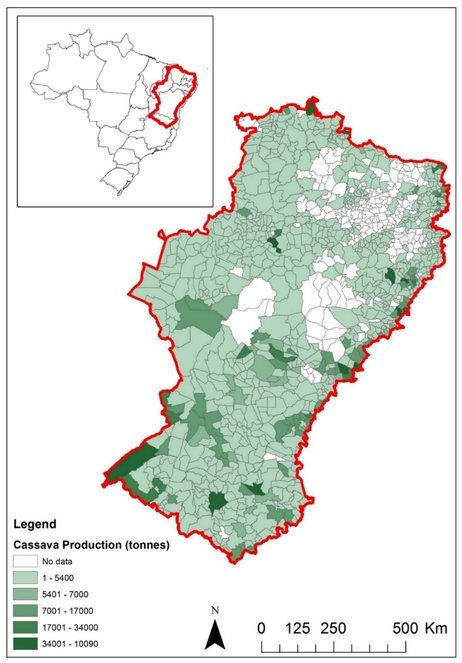


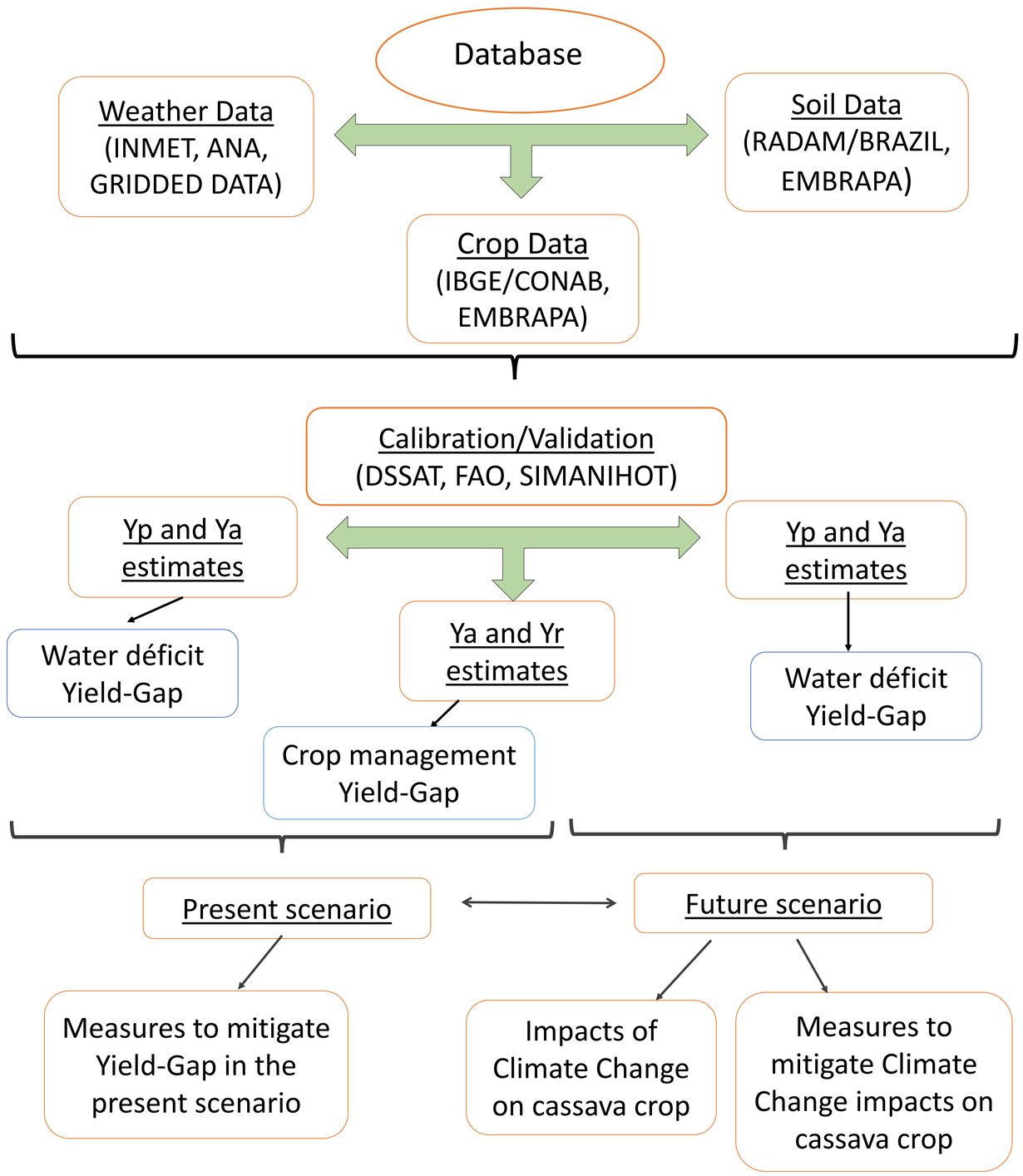
Figure 2: Delimitation of Brazilian Semi-Arid zone and its cassava production, in tonnes, in 2012. Source: INSA (Instituto Nacional do Semiárido).

Climate change has affected rainfall intensity and distribution in arid and semi-arid regions, and it has increased their temperatures, which results in rise of all plants evapotranspiration level[4]. As for cassava, it may also increase its vulnerability to diseases and pests[5] and limit its root production[6].

OBJECTIVE

The objective of this research is to identify and analyze the impacts of climate change on cassava crop yield by using crop simulation models, and study mitigation measures for the Brazilian semi-arid zone.

MATERIAL AND METHOD'S FLUXOGRAM



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