## CLIMATE CHANGE VULNERABILITY TO PADDY PRODUCTION IN BALI, INDONESIA

(Replicated Article Given)

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## ABSTRACT

Indonesia is one of the countries most vulnerable to climate change. The damage caused by the impacts of climate change is already evident in Indonesia. The combination of high population density and high biodiversity, the existence of islands with more than 15,000 islands and a coastline of tens of thousands of kms, makes Indonesia one of the countries most vulnerable to the impacts of climate change. Bali, as a small island in Indonesia, is likely to be affected by climate change which has an impact on various aspects such as rising sea levels, drought, flooding, and rice production. Some evidence suggests that rainfall patterns have changed according to data between 1951 and 2000 (Badan Meteorology, Climatology and Geophysics (BMKG), 2010). The start of the rainy and dry seasons is delayed or even more advanced, depending on the location. This paper aims to show how vulnerability assessment areas in Bali were identified based on a variety of studies including literature reviews, statistical studies, stakeholder/policy studies and interviews with farmers. The method used is an analytical descriptive approach and maps related to the study. This study includes three sub-components needed in each climate change vulnerability, namely exposure, sensitivity and adaptive capacity. The exposure study is based on climate data from BMKG, such as annual rainfall, temperature and humidity. Data on the location of paddy is used as an element of sensitivity. Assessment of adaptation capacity uses a normative approach to determine paddy production, which is a combination of qualitative and quantitative techniques. The results of this study show how adaptation efforts should be applied to deal with paddy production with climate change. Farmers in Bali should be supported with appropriate adaptation measures based on well-focused vulnerability assessments.

Keywords: Climate Change, Vulnerability Assessment, Rice Production, Descriptive Approach
Analytical