

**VULNERABILITY AND ADAPTATION OF RAINFED-
RICE FARMERS TO IMPACT OF CLIMATE VARIABILITY
IN LAHAKHOK, SEBANGNUANE TAI, DONG KHAMPHOU, AND
KOUDDHI VILLAGES OF SONGKHONE DISTRICT,
SAVANNAKHET PROVINCE, LAO PDR**

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ABSTRACT

Climate variability is a current issue facing the global community. Climate has a significant influence on agriculture, especially rice cultivation in areas of no irrigation. The negative climate impact on rice production leads to a reduced farmer livelihood. Livelihood vulnerability and climate impact are connected by a complex system. However, there has been no systematic study on vulnerability and adaptation of farming communities to climate impact in Lao PDR. Therefore, this study was conducted with the following objectives: 1) to develop and test a method for the assessment of vulnerability of rainfed-rice farmers to climate impact, 2) to assess the vulnerability of rainfed-rice farmers to climate variability, 3) to identify characteristics of vulnerable groups of rainfed-rice farmers, and 4) to explore adaptation options of rainfed-rice farmers to climate variability.

This study applied 3 criteria and 9 indices, based on multiple farmer household living conditions as household economic conditions, rice production dependency and adaptive capacity. This study classified rainfed rice-farmers into low, moderate and high vulnerable groups. The study assessed risk vulnerability by proxy rice production lost at 30% and 50%.

The results showed that the majority of the surveyed households were ranged in the moderate vulnerable group followed by the low vulnerable group, and finally by high vulnerable group. The characteristics of them three vulnerable groups were different, in terms of household economic conditions, adaptive capacity and rice production dependency. Of the total interviewees, 69% were at a high risk of vulnerability at a rice production loss of 50% and 36% were at a rice production loss of 30%. Most farmers could adapt themselves by adjusting farming practices, and seeking alternative off-farm income to compensate for rice production loss. However, they still have limited collective adaptation.

The results showed that the method used for assessment of farmer's vulnerability under this study could lead to an understanding of vulnerability measurement and characteristics of vulnerable groups as well as adaptation. In addition, adaptation options were analysed and recommended in this study.

KEY WORDS: CLIMATE VARIABILITY / ASSESSMENT / VULNERABILITY
/ RAINFED-RICE FARMERS / ADAPTATION OPTIONS

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