

**Research Article**

## **Impacts of climate change on rice production and strategies for adaptation in Chitwan, Nepal**

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### **ABSTRACT**

This study was conducted to understand perception of farmers about climate change; how it affects rice production and what are the local adaptation strategies adopted by farmers to maintain rice yield in Chitwan district of Nepal. A total of 90 rainy season rice farming household were surveyed with semi-structured interview schedule. The data obtained were analyzed using SPSS and MS Excel. Majority of the respondents (91.20%) perceived deviation in weather parameters in last 10 years. Most of the farmers had perceived drought as the major impact of climate change and nursery stage of rice to be highly prone to climate impact. Higher proportion of farmers had experienced delay in transplanting and harvesting time of paddy in last 10 years. Many farmers had already replaced local varieties by either improved or hybrid rice variety resilient to climate change. Increased insects infestation and weed menace along with outbreak of new types were found to be major production problem perceived by farmers at study area. Most of the respondents (50%) were expecting technical supports followed by infrastructure development (20.6%) from different organizations. Climate resilient projects and programs designed in bottom up approach to enhance understanding of impacts of climate change will help farmers to cope climate risk on rice production.

**Keywords:** Climate Change, Perception, Adaptation, Rice, Yield

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