

## Organic Paddy Production as a Coping Strategy to the Adverse Impact of Climate Change

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**Abstract :** Nepal is extremely vulnerable to the impact of climate change. To mitigate the climate change effects on agricultural production and productivity a range of adaptive strategies needs to be considered. The study was conducted to assess organic paddy production as a coping strategy to the adverse impact of climate change in Phulbari, VDC of Chitwan district. Altogether, 120 respondents (60 adopters of organic farming and 60 from non adopter) were selected using snowball technique of sampling. Pre- tested interview schedule, direct observation, focus group discussion, key informant interview as well as secondary data were used to collect the required information. Factors determining the adoption of organic farming were found to be age, year of schooling, training, frequency of extension contact, perception about climate change, economically active members and poor. A unit increase in these factors except poor would increase the probability of adoption by 4.1%, 7.5%, 7.8%, 43.1%, 41.8% and 7% respectively. However, for poor, it would decrease the probability of adoption of organic farming by 5.1%. Average organic matter content in the adopters' field was higher (2.7%) than the non-adopters' field (2.5%). The regression result showed that type of farmer, price and area under rice cultivation had positive and significant relationship with income; however dependency ratio had negative relationship. As the year of adoption of organic farming increases, the production of rice decline in the first two years then after goes on increasing but the cost of production goes on decreasing with the year of adoption. The respondents adapted to the changing climate through diversification of crops, use of resistance varieties and following good cropping pattern. Gradually growing consumers' awareness about health, preference towards quality food products are the strong points behind organic farming, whereas lacks of bio-fertilizers, lack of effective extension services, no price differentiation between organic and inorganic products were the weak points. There is need for more training and education to change the attitude of farmers and enhance their confidence about the role of organic farming to cope with climate change impact.

**Keywords :** Organic farming, climate change, sustainable development

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