

**Effect of Rural Livelihoods Project on  
Adaptation Decision and Farmers' Wellbeing  
in Western Odisha, India:  
Application of Endogenous Switching Regression**

**Unmesh Patnaik  
Prasun Kumar Das  
Chandra Sekhar Bahinipati**



**Gujarat  
Institute of  
Development  
Research**

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## Abstract

Evidences suggest that developing countries, challenged as they are due to problems such as poverty, food insecurity, malnutrition and inequality are also highly vulnerable to current and future climatic shocks. While several projects have been undertaken in these countries over the years to address their development challenges, efforts to integrate climate change adaptation within development initiatives have virtually been absent. Also, empirical analyses that examine the causal relationship between such activities and agricultural adaptation decision by farmers or their overall wellbeing are scarce, particularly in the case of India. This paper seeks to address this gap by examining the effect of a rural livelihood project implemented in the drought prone western region of the state of Odisha in the last decade. The empirical analysis is based on a survey of 549 rural households. Employing the endogenous switching regression approach, the paper finds that the intervention did enhance the likelihood of undertaking farm-level adaptation measures. The other drivers are found to be access to technical education, formal and informal institutions, and agricultural extension services. It is also found that adaptations lead to significant gain in crop income of farmers. From a broader policy perspective, the paper emphasizes the significance of integrating climate change in development planning to reduce the possibility of mal-adaptation.

**Keywords** : Rural Livelihoods Project, Farm-level Adaptation, Crop Income, Endogenous Switching Regression, Western Odisha, India

**JEL Classification** : O13, Q12, Q54, C24

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The full paper can be requested from the author: [chandrasedkharbahinipati@gmail.com](mailto:chandrasedkharbahinipati@gmail.com)

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