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Unpacking the adaptive capacity and adaptation strategies of rice farmers to flooding in bula, camarines sur, philippines

DAVID JOHN RODRIGUEZ

University of the Philippines Los Banos, Philippines

Abstract

Adaptive capacity is an important aspect of long-term climate change adaptation and is the focus of a rapidly growing body of research. The strategies and adaptive capacity of rice farmers to flooding in Camarines Sur, Philippines were assessed in this study. This study used both quantitative and qualitative methods. Structured survey questionnaires were facilitated to understand how these farmers dealt with the effects of flooding in one of Bicol Regions' rice granary municipalities. Most respondents reported using adaptation strategies such as early harvesting in anticipation of flooding (93%), modification of cropping calendar (61%), use of flood-tolerant (9%) and early maturing (36%) rice varieties and avoiding the monsoon months of November and December (26%). It was revealed that 65% of respondents had low adaptive capacity in the challenge of seasonal and unsustainable alternative income sources. The result explains the farmers sole dependency on agriculture and their limited source of livelihood. Despite the dependence on agricultural income sources, the risk and uncertainty due to flooding brought upon by typhoon or continuous strong rainfall impede the farmers' socio-economic development. The study also indicated that relatively younger farmers and those who attended more formal education tend to use flood-tolerant and early maturing rice varieties and cropping calendar modifications. It was showed that rice farmers in the study area were vulnerable to a variety of socioeconomic challenges, including insufficient institutional and government support that all barely targeted fifty percent such as input grants, food aid, and crop insurance that led them to borrow thru formal (89%) and informal channels (72%). These challenges have implications to their ability to adapt to more severe flooding impacts in the future.

Keywords: Adaptation strategies, adaptive capacity, flooding, Philippines, rice farming