

Poverty and Inequality in Seasonal Floodplain Areas of Bangladesh: The Role of Fish Income from Community Based Aquaculture

Md. Akhtaruzzaman Khan*, A. B. M. Mahfuzul Haque

*Norwegian University of Life Sciences

Abstract

Over half of Bangladesh comprises of floodplains and most of the surrounding households depend on these floodplains for their livelihood. However, these floodplains remain unused during the monsoon season due to the lack of proper management systems. The WorldFish Center implemented an action research project through a Community Based Fish Culture (CBFC) system to assess the contribution of collective actions to aquaculture for sustainable use of floodplain resources and equitable distribution of benefits among the fisher communities. Using three years of panel data from the project as well as control sites, this study examines the impact of the Community Based Fish Culture system on income, employment, inequality and poverty. Both non-parametric (propensity score matching method) and parametric (random effect model) methods are used for impact assessment. Gini decomposition & FGT poverty method is used to estimate the effect of the CBFC system on fish income as well as total income inequality and poverty measurement respectively. Both (non-parametric and parametric) methods show that the CBFC system can significantly increase fish income without any negative impact on non-fish income and it also has a positive and significant impact on employment generation. Results reveal that fish income distributed equally after adopting this management system also has a positive impact on total household income distribution in the study area. Poverty analysis shows that the incidence (head count ratio) and depth (gap) of poverty are unambiguously lower for CBFC participant households rather than non-participants. Policy implications for sustainable management are discussed.