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### Increased Income from Seasonally Flooded Rice Fields through Community Based Fish Culture in Bangladesh and Vietnam

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1) The WorldFish Center

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**Abstract:** In extensive river floodplains and deltaic lowlands, floods lasting several months render the land unavailable for crop (often rice) production during the rainy season. Aside from crop production during the flood-free dry season, the land area can be utilized for fish production during the flood season. This can be done by enclosing parts of these floodwater areas to produce a crop of stocked fish aside from the naturally occurring 'wild' species. The WorldFish Center and its national partners recently tested (1) concurrent rice-fish culture in the shallower flooded areas and (2) alternating rice and fish culture in the deep-flooded areas of Bangladesh and Vietnam through a community-based management system. This paper presents the key results of this work, focusing on the economics of existing land use patterns and the impact of community based fish culture on rice yields and income. Rice production was maintained, or even enhanced. Fish production was increased beyond the wild catch by about 600 kg/ha/year in shallow-flooded areas and up to 1.5 t/ha/year in deep-flooded areas, without reduction in wild fish catch. For the overall system on an annual basis, an additional income ranging from US\$ 135 per hectare in southern Vietnam to US\$ 437 per hectare in Bangladesh was achieved, which is an increase of 20 to 85 percent over the profitability of the previous systems involving cropping and fish capture. The results indicate that community-based fish culture in rice fields is technically feasible, economically profitable, environmentally non-destructive, and socially acceptable.

**Keywords:** [Community-based management](#), [Floodplain agriculture](#), [Rice-fish culture](#)

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