.

Center for Community-Based Resource Management (CBRM)

Natural Resources Institute, University of Manitoba

CBRM Database

Date:	**12/12/2011**	**Entry Number:**	**1143**
Case Study Name:		Economic Feasibility Of Community-Based Fish Culture In Seasonally Flooded Rice Fields In Bangladesh And Vietnam	
Author:		Madan M. Dey, Mark Prein, A. B. M. Mahfuzul Haque, Parvin Sultana, Nguyen Cong Dan & Nguyen Van Hao	
Document Type:		Paper in scientific journal	
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Region:		Asia	
Country:		Bangladesh And Vietnam	
Ecosystem Type:		Aquatic	
Social Characteristics:		Rural communities	
Scale of Study:		Regional	
Resource Type:		Fisheries and agriculture	

Type of Initiative:	Research driven project
Community Based Work:	Resource management
Keywords:	community-based management, floodplain agriculture, rice-fish culture, economic feasibility
Summary:	During the rainy season in extensive river floodplains and deltaic lowlands, floods lasting several months render the land unavailable for crop production for several months each year. These waters are considerably underutilized in terms of managed aquatic productivity. This raises the opportunity to enclose parts of these annually occurring floodwater areas to produce a crop of specifically stocked aquatic organisms aside from the naturally occurring 'wild' species that are traditionally fished and are not affected by the culture activity, overall resulting in more high-quality, nutrient-dense food production and enhanced farm income for all stakeholders, notably the poor. The WorldFish Center and its national partners recently tested two systems in a community based management approach in Bangladesh and Vietnam: (i) concurrent rice-fish culture in shallower flooded areas, and (ii) alternating rice and fish culture in the deep-flooded areas. Results indicate that community-based fish culture in rice fields is technically feasible, economically viable and socially acceptable. It can increase fish production to about 600 kg/ha/year in shallow flooded areas and up to 1.5 t/ha/year in deep-flooded areas, without reduction in rice yield and wild fish catch. For the overall system and in the trials conducted, an additional income of US$135 per ha in southern Vietnam, and up to US$437 per ha in Bangladesh were achieved, which is an increase of 20%to 85% over the previous profitability. The communities neighboring the trial sites have been adopting the technologies widely.