Farmers' strategies for dealing with flood risks in Bangladesh

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Introduction

- Flood is an unavoidable phenomenon in Bangladesh due to geographical locations, coastal morphology, many sizable rivers, and monsoon climate
- Farmers in a flood-affected locality adopt different farm management measures to minimise the consequences
- Some studies on farmers' flood coping and adaptation



Fig. 1.1: Left side map showing study area, and right side map showing three vilely villages

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Methodology

The study used technographic approach to closely observe and analytically describe the way farmers use tools, farm inputs, skill and knowledge as an integrated part of social interactions within a community of practice to grow crops.

> 1. Site selection based on documentary analysis and informal interviews with

- strategies have highlighted the diversity in adaptation, using survey methods covering a large number of farm households.
- However, little is known about more detailed farming methods of farmers in response to floods.
- In-depth information of farming strategies practiced by different group of farmers in different localities is crucial to ensure effective design and implementation of forecast information

Research Questions

- What are the existing management practices to deal with flood risk?
- What differences (if any) can be detected between groups of farmers for dealing with floods in each of the villages?
- What are the main factors that influence seasonal choices and overall adaption strategies among farmers?



Fig. 1.2 : Participatory mapping exercise

Highlights

Crops and crop varieties to plant are largely informed by three criteria: growth duration, flood resistance and

relevant organizations

2. Transect walks and informal interviews were conducted to acquire basic information of the villages and to find people for mapping exercise

3. Participatory mapping exercise and conducting FGD to discuss farm management practices in relation to field locations and crop growing seasons

4. Sampling frame preparation by using snow ball sampling strategy

5. Data collection from sample farmers through in-depth interviews, focus group discussions and observations of different stages of farming activities

Strategically use of elevated farmland

Results

Judicious use of crops & crop varieties in flood-prone fields



Table 1.1. Overview of flood management strategies in the three villages

the value of the crop

Farmers' decisions in one growing

season have implications for the next

growing season.



Adaptation to flood risk		Village		
		Kulkandi	Pathorshi	Pirijpur
Strategies before flood				
Growing seedlings on raised land	Not poss	sible	Home yards and fallow land.	Home yards.
Renting elevated land for growing seedlings	From far (for Path	mers owning higher land in th orshi) or nearby villages (for	he same village Kulkandi)	Not required
Planting early variety of T. Aman rice	Not prac of mediu vulnerab	ticable due to limited access im to high land and oility.	Able to tolerate sh planting early varie	ort term flooding by ty of HYV rice.
Growing late-planted rice variety through double transplanting (medium to high land)	Not pose to limited	sible due d availability of high land.	Allows farmers to water recession wit	plant rice after flood thout reducing yield.

Strategies during flood period Growing flood tolerant crop (low to medium land)				
Timing of transplanting.	Delay transplanting Aman seedlings.	Delay transplanting eggplant seedlings.		
Fallowing	Low land farmers keep land fallow during flooding time.	Not required	Fig. 1.3 : Different flood management strategies	
Recovery strategies after flood (Kharif-ii and F	Rabi season)			
Growing late-planted local rice variety Ganja dhan	Acknowledgement: The study was funded by NUFFIC, the Netherlands un			
Growing late planted Aus rice or vegetables	Farmers delay planting rice or vegetables	Not popular.	NICHE-BGD-156 project, a collaboration between Wageningen University & Research (WUR) and the Interdisciplinary Institute for Food Security (IIFS) of the Bangladesh Agricultural University (BAU).	
Growing different combinations of crops and vegetables	Allows farmers to grow crops based			