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For Small Farmers Future

CARITAS BANGLADESH
ক্যারিতাস বাংলাদেশ

Rajshahi
District Assessment Report

This publication contains the results of a village level assessment carried out by Caritas Bangladesh in 10 SAF-BIN project villages in Rajshahi district, Bangladesh.
The base for this report was literature review conducted by the Caritas Bangladesh team. Additionally interactions with the involved communities were used to conduct Participatory Rural Appraisal, household surveys, focus group discussions and in depth interviews.

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Co-Financed by:

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SAF-BIN project has been funded with support from the European Commission. This publication reflects the views only of Caritas Austria and its partners and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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Summary information of Rajshahi District

(Basic information of 10 hamlets from Paba upazila under Rajshahi district)

Upazila		**Paba**					District		**Rajshahi**
Altitude		15		AEZ-3		FAO-AEZ-11			
Geographical Area (ha)		484.74		Agriculture area(ha)		359.4	Irrigated Area(ha)		53.71
Single cropped area(ha)	47.85		Double cropped area(ha)		138.02		Triple cropped area(ha)		196.91
Area under horticulture/plantations		36.28		Area under pasture		None		Forest Area	None
Average Rainfall (mm)		1348.3 mm		Max Temp		31.02 C	Min Temp		20.76 C
Main Soil Type		Sandy , Loamy and Clay Soil				Main land type			High, Medium & low
Population	4571	No of HH		1000		No of SHF HH			421
No of Tribal HH	29	No of SC HH		None		Total Number of Other Vulnerable HH			--
% of School Going Girl	80.34%	Access to subsidized food supply				Average child (< 5 yrs) death per '000 birth per year			0.0036%
Road Connectivity	Yes	Electricity Connection		Yes		Mobile Network coverage			Yes
No of SHG	30	Grain bank		None		No of Farmers' Institute			None
No of Gardner/Nursery raiser	1	No of Resource/Lead Farmer		None		Number of Organic farmer / Farmer practicing sustainable agriculture			None
Rainfed Main Food Crop 1		Rice		Yield/ Ha		3.85	Area Coverage(ha)		187.74
Rainfed Main Food Crop 2		Potato		Yield/ Ha		20.73	Area Coverage(ha)		92.91
Rainfed Main Food Crop 3		Wheat		Yield/ Ha		2.83	Area Coverage(ha)		55.18
Irrigated Main Food Crop 1		Rice		Yield/ Ha		5.05	Area Coverage(ha)		123.73
Foodscape 1		Watered rice, Bread, Rice, Vegetables, tea		Foodscape 2		Rice, Vegetables,	Foodscape 3		Rice, Vegetables, fish, pulse and egg

	Biscuit		pulse, egg and Fish		
Main Cropping pattern-rainfed	Rice + Potato/mustered			Area (ha)	262.9
Food Availability	Rice, Oilseed, potato, Fish, Meat, Mango, Guava, Jackfruit, Onion, garlic, turmeric, sugar, vegetables etc.	Own Production	Rice, Wheat, Maize, potato, vegetable Mango, Onion, ginger, turmeric etc.	From Outside	Rice, wheat, Oil, Sugar, Zinger, turmeric, onion, Tea, salt, biscuit, Fish, Meat , vegetable etc.
Number of times crop (key food crops) failure or partially damaged in last 5 years	T- Aman in 2010 and 2011 because of drought and heavy rainfall respectively.	Any famine conditions in the past 5 years in the Village			No
% households with more than 2 months of food insecurity	28	% SHF households with more than 2 months of food insecurity			25
Key Storage Technology for food crops	Jute Bag, earthen pot. Use of Neem leaf inside storage or containers	Key Processing Technology for Food Crops			No Rice Mills in the Working Village

Main Food Crop Varieties	Indigenous/ HYV/ Hybrid **Indigenous:** **Rice:** *Changul, Jingashail, Dolkocho, Shailjata, Roghushail, , Swarna, KaloJira, Chiniatop* **Potato**- Local **HYV :** **Rice :** BINA-7,BR11, BRRI dhan-28,29, 30, 36, 39,50, **etc.** **Wheat:** Kanchon, Bijoy, Prodip, Akbor, Swarov **Potato:** Cardinal, Diamond, Raza, Granula **Hybrid**	**Seed of Main food Crop-** Rice, Wheat, Mustard	**Local/ External-** Farmer own house, BADC Dealer and Open Market

	Maize: *N-40, 984*										
Area under Integrated Farming	No		Area under IPM		107.97 ha		Area Under INM		No		
Cow, Bullock & Buffaloes	1,496		Goats, Sheep& Pigs		1417	Poultry	6400				
Milk Production (liter)	41.369		Meat Production (kg)		4922		Egg Production		62,007 (nos.)		
Trend in Temperature	Increase		Trend in Rainfall		Decrease		Trend in Extreme events		Extreme temperature in Summer erratic rainfall		

What are farmers' perceptions and indicators (visibility) on Climate Change?

Farmers' perceptions on Climate Change:

Rainfall:

- Earlier (15-20 years back) it used to rain during rainy season up-to August now it rains up to September.
- Earlier it used to rain in winter in November and December now it rains in February.
- Earlier it used to rain continuously 7-8 days at a time now it is not happening.
- Earlier it was consistency on precipitation pattern now there is no consistency

Temperature:

- Earlier the winter season used to start from first week of October now the winter season starts from last week of November.
- Earlier length of winter season was 3-4 months now duration of winter season 1-2 months.

Misty weather:

- Earlier the misty weather used to observe only in December and January now there is no consistency.

Farmers' Indicators (visibility) of climate change:

- The transplanting time of T-Aman is changed (earlier framers used to transplant T-Aman seedling in June-July now transplanting July-August).

- Earlier farmers used to prepare wet seed bead now farmers also preparing dry seed bead.
- Earlier water used to remain in ponds, cannels and open water up to April now these becomes dry even in December.
- Earlier Farmers used to collect drinking water from hand tube-well year round now they don't get in summer.
- Earlier farmers used to get sufficient water for rotten jute nearby homestead ditches but now they don't get enough water for rotten of jute.
- Earlier local fish was available now many species are about to extinct.

What are the vulnerabilities on agriculture (including livestock, fisheries etc.) ?

Crops:

- Increased diseases and insect pests and rodents.
- Decreasing yield due to irregular distribution of rain (because of drought and not raining timely, over aged seedling use)
- Crop variety is changed that require high input and management.
- Short winter and prolong fog threaten wheat, pulses and oil seed crops those planted late
- Production cost has increased.
- Increasing food insecurity.
- Increasing sterility or unfertile grain.

Livestock:

- Increased frequency of viral and bacterial diseases of poultry birds and livestock.
- Decreasing open grazing opportunity, livestock suffering from green fodder resulting ill health.
- Production and reproductive ability of the livestock are decreasing.
- Livestock rearing by Poor and marginal farmers is decreasing

Fisheries:

- Because of dried-up of ponds, cannels and open water bodies the local species are about to extinct.
- Natural reproduction has decreased.
- Fish diseases have increased due to high water temperature.
- Profession of the fisherman has changed.
- Floodplain land is decreased.

Strengthening Adaptive Farming in Bangladesh, India and Nepal (SAF-BIN) is an action research programme under the European Union Global programme on Agriculture Research for Development (ARD). It is a multi-dimensional research that address the agricultural development challenges of developing and emerging countries. It is an initiative to promote local food and nutritional security through adaptive small scale farming in four rainfed Agro Ecosystems (AES) in South Asia. The programme is implemented by the Caritas Organisations in Bangladesh, India & Nepal in partnership with University of Natural Resources and Applied Life Sciences (BOKU), Austria and in association with Action for Food Production (AFPRO), India; Sam Higginbotom Institute of Agriculture, Technology & Sciences (SHIATS), India; Bangladesh Rice Research Institute (BRRI), Bangladesh and Local Initiatives for Biodiversity, Research and Development (LI-BIRD) to address the Food Security and Climate Change Challenges of the Smallholder Farmers living in rainfed areas in South Asia.