

TAFSSA – Farmer Focus Group Discussion Report

Rajshahi and Rangpur
Divisions, Bangladesh

Research Note 1, Work Package 2
December 2022

ABOUT THIS NOTE

This brief describes the first farmer household consultations that were carried out in the process of determining which diversified cropping patterns should be implemented in the TAFSSA on-station and on-farm trials in Northern Bangladesh.

KEY STUDY FINDINGS

1. Markets are crucial for a diverse diet of farmer households: while cereals, dairy and eggs are mostly from own production, pulses, vegetables, fruits and meat are at least partly from local markets.
2. There is a strong interest from farmer households for fruit production / orchards in Northern Bangladesh.
3. There is lack of quality fodder for livestock as well as access to livestock health and nutrition advisories and trainings

BACKGROUND

The Research Platform Trial at BWMRI Dinajpur as well as TAFSSA's On-Farm Research Trials in the North of Bangladesh are part of TAFSSA's Work Package 2 (WP2) activities. WP2 emphasizes farm- and landscape-level interdisciplinary research to identify strategies to increase farmers' profits and nutritional yields, conserve resources, and maintain or enhance ecological services, while also mitigating greenhouse gas (GHG) emissions from farms and agricultural landscapes. Going beyond typical agriculture-nutrition programs in South Asia field- and landscape-scale crop and animal farm diversification options supporting multiple benefits, including potential nutritional yield, across environmental and socio-economic gradients of rice-based farming systems are explored. Rangpur and Rajshahi Divisions in the North of Bangladesh have been selected as a learning sites based on key information on food and nutrition security gaps, environmental stresses and climate challenges as well as the prevalence of commodities and farming systems that offer greatest potential to significantly impact the livelihoods of farmers, value chain actors, and consumers while operating within the environmental boundaries.

OBJECTIVES

Test, adapt, target and position agronomic technologies and practices supporting crop (and animal) diversification across the region's farming systems.

In particular, compare and study diverse cropping systems in terms of:

- i. agronomic performance
- ii. yields and nutritional yields
- ii. labor requirements
- iii. profitability
- iv. environmental impact

To determine which diverse cropping systems should be implemented in on-station and on-farm agronomic trials, as part of a study-learning tour, Focus Group Discussions (FGD) were carried out with the aim to collect concrete input from the grassroot level.

DATA AND METHODS

A diverse group of participants from CGIAR (CIMMYT, IRRI, IWMI, ICARDA), government of Bangladesh research institutions (BWMRI, BRRI, BARI, BMDA, DAE) and local NGOs (RDRS) with expertise relevant to cover the continuum from agricultural production to consumption visited twelve locations (Table 1) in Northern Bangladesh to interact with farmer households.

Focus group discussions were carried out with 16-30 farmer participants and 4-8 visitors in each village. A series of questions, covering five major topics guided the discussions.

1. Main farming system components: field crops, homestead garden, livestock, poultry, aquaculture, fodder production.
 - No. of participants that engage in any of these farming system components.
 - No. of participants for which the component is the main source of income

Table 1: FGD locations and no. of participating farmers (gendered).

District	Village	# of farmer		
		Sum	M	F
Rajshahi	1. Kundine	20	17	4
	2. Digram	16	11	5
Chapai-nawabganj	3. Noyanogor	26	17	9
	4. Nachole	30	22	8
Rangpur	5. Ichli	17	12	5
	6. Dakhin Mominpur	22	18	4
Nilphamari	7. Arzihati Polashbari	16	11	5
	8. Hajipara	24	19	5
Dinajpur	9. Kantonagar	17	11	6
	10. Bel Bari	17	11	6
	11. East Kalapukur	16	11	5
Thakurgaon	12. Thakurgaon Sadar	25	21	4

M = male; F = female

2. Main crops/food produced.
 - What are the main crops or animal products produced (by season)?
 - Is the produce mainly sold or used for household food consumption?
3. Diets and food purchase:
 - What do you normally eat?
 - Do you / your family ever experience food shortage? If yes, in what period of the year?

- Does your diet include all different food groups?
 - Can you satisfy all your dietary needs with your own production?
 - Which products/food groups do you normally buy? (Seasonality?)
 - Are there any food groups that are not available or not affordable?
4. Interest in alternative crops, livestock and/or aquaculture:
- What other crops would you be interested in growing and/or what other animal products would you want to produce?
 - What are the reasons you are not doing it already (constraints)?
 - What incentives would you need to venture into production of these alternatives?
5. Concerns about the future:
- What do you think the biggest

challenge is to agriculture in your area? Do you think these problems will increase in the future?

- What do you think farming systems (what kinds of crops and livestock) will be like in 10 years from now?
- Do you want your children or young family members to be farmers in the future (yes or no). Please explain your answer.

STUDY FINDINGS

As expected, cropping patterns across the region are predominantly cereal-based (Table 2). Concomitantly farmers are self-sufficient for rice and to a major extent for potato as well (Table 3). Vegetables are grown a little everywhere but often in smaller fields or even exclusively in homestead gardens.



Above: Focus Group Discussion at Gangachara, Rangpur, 23rd July 2022. Photo Credit: Abdul Momin

Almost in all villages participants indicate being self-sufficient for milk and in most cases also for eggs, reflecting the fact that almost all farming households own animals; at least one cow, a few goats, chicken and/or ducks. Pulses, although an integral part of the local diet (dahl), are mostly purchased in this part of the country; except for Chapainawabganj villages. More variability was recorded for vegetables: while in some sites a limited amount is

grown for own consumption, in others production is targeted for sale in the local markets. Participants indicated daily vegetable consumption.

A detailed assessment of quantities of the different food groups consumed to evaluate if balanced diets are achieved was not possible. From participants perspective the only two categories lacking in their diet are fruits and meat.

Table 2: Main crops grown as per farmer feedback during FGDs.

Village	Rabi	Kharif-1	Kharif-2
1.	Potato, Mustard, Garlic, Onion, Lentil	Rice, Maize, Vegetables	Rice
2.	(early) Potato, Lentil, Mustard, Chickpea, Red amaranth	various Gourds, Dhaincha (green manure), fallow	Rice
3.	Rice, Lentil, Chickpea, Mustard, Wheat, Vegetables	Fallow, (Mungbean), (Rice)	Rice, Vegetables
4.	Rice, Wheat, Lentil, Potato, Tomato, Onion, Brinjal, Garlic	Rice, various Gourds, Okra, Beans, Leafy vegetables	Rice, Leafy vegetables
5.	Potato, Maize, Groundnut, Vegetables	Vegetables, Jute	Rice
6.	Rice, Potato, Maize, Mustard, Cauliflower, Cabbage, Brinjal, Tomato, Bitter Gourd, Groundnut	Rice, Jute, Maize, Okra, Spinach, Kalmi shak, Red amaranth, Chilli	Rice, fodder, Red Amaranth, various Gourds
7.	Rice, potato, Maize, Tobacco, Mustard, Wheat	Jute, Maize, Chilli	Rice, Brinjal
8.	Rice, Wheat, Maize, Potato, Cabbage, Beans, Brinjal, Okra	Maize, Jute, Gourds	Rice, Black gram, Leafy vegetables
9.	Potato, Maize, Garlic, Onion, Ginger	Maize, Jute, Vegetables	Rice
10.	Maize, wheat, Rice, Potato, Tomato, Cabbage, Beans, Cauliflower, Brinjal	Rice, Jute, Brinjal, Radish, Red amaranth	Rice, Brinjal, various Gourds
11.	Maize, Rice, potato, Mustard	Maize, (Jute)	Rice
12.	Rice, Maize, (early) Potato, fodder	Maize, Pumpkin, Vegetables	Rice

Table 3: The source of farmers' diet: own production (✓) vs. purchasing (♣)

Village	Rice	Potatoes	Pulses	Vegetables	Fruits*	Dairy	Meat	Eggs
1.	✓	✓	♣	✓	✓,♣	✓	♣,✓	✓
2.	✓	✓,♣	✓,♣	✓,♣	✓,♣	✓	✓,♣	✓
3.	✓	♣	✓	♣	✓	✓	♣	✓,♣
4.	✓	♣	✓	✓	✓,♣	✓	✓	✓
5.	✓	✓	♣	✓	✓,♣	✓	♣,✓	✓
6.	✓	✓,♣	✓,♣	✓,♣	✓,♣	✓	✓,♣	✓
7.	✓	✓	♣	✓,♣	✓,♣	✓	♣	♣
8.	✓	✓	♣	♣	♣	✓	✓,♣	♣
9.	✓	✓	♣	✓	✓,♣	✓	♣,✓	✓
10.	✓	✓,♣	✓,♣	✓,♣	✓,♣	✓	✓,♣	✓
11.	✓	✓,♣	♣	♣	✓,♣	✓,♣	♣	♣
12.	✓	✓	♣	✓,♣	✓,♣	✓	✓,♣	✓

* In all villages farmer reported eating seasonal fruit from their own production (either from a few trees in the homestead garden or from an orchard), whereas they would buy exotic fruits (e.g. apples, grapes) occasionally, esp. when no local fruits are available.

For fruits there is a strong seasonality of local fruit availability (e.g. mango, litchi, jackfruit, etc.). During a few months of the year these are plentiful, but the rest of the year only exotic fruits can be bought in the market, and they are expensive. Meat is partly available on farm but not consumed more than 1-2 times per week. Fish is eaten more often but mostly purchased. Maize was the only food crop mentioned that is grown exclusively for sale (feed industry); further maize production is displacing wheat as profitability is much higher.

Challenges and opportunities most often mentioned during FGDs were:

Challenges

- Agricultural labor shortage, and high labor cost, especially for rice trans-planting and harvest.
- Water scarcity -> high cost of irrigation water, and in some places lack of water availability for irrigation (*rabi* season mainly)
- Access to credit / loans: lack of government loan facilities and difficulties to get agricultural-loans
- Climate variability: e.g. drought in winter; hailstorms in Mar-Apr; uneven rainfall (water logging vs. 'drought') during rainy seasons.
- Pest and diseases: high infestation rates (e.g rice blast).
- High prices for livestock feed; scarcity of fodder.
- Lack of livestock advisory services.
- Problems in agricultural product marketing.

Opportunities

- Good quality seed / improved varieties
- Increase production area of maize, mustard (lower water requirement than *boro* rice)
- Fodder crops; incl. growing for example maize or wheat as alternative fodder crops
- Fruit trees / Orchards
- Mechanization
- Cross breed cattle and poultry

Interest in alternative crops

It was quite difficult to collect innovative ideas from farmers on potential alternative crops. Across the twelve sites the crops most frequently mentioned were: maize, fruit trees (e.g. dragon fruit, mango, citrus), wheat, fodder crops. On the of livestock cross breeds, artificial insemination as well as a request for livestock health and nutrition advisory and trainings were mentioned.

CONCLUSION

These FGD were part of a study tour embedded in a strategic research planning meeting with national partners held from July 21 to 25, 2022. The objectives of the event were:

- I. Develop a common understanding of the TAFSSA research objectives.
- II. Design strategic research for multi-criteria analysis of crop/farming systems research work on station and on-farm in Rajshahi and Rangpur divisions with an emphasis on nutritional yield.
- III. Develop a full schedule for research kick-off and data collection.
- IV. Assess interest of represented institutions and organizations in participation in Research question 2: How can agricultural landscapes be managed to increase crop diversification, nutritional yields and agrobiodiversity while maintaining or augmenting ecological services.

Based on the input collected from farmer HH during the FGD as well as their experience and expertise scientists from government institutions and CGIAR assessed the suitability of a range of different crops. Potential crops were listed by season and scored according to six criteria:

1. Biophysical feasibility
2. Nutritional value
3. Potential profitability
4. Negative environmental impact
5. Potential to “empower” women
6. Suitability for current and future climate

Thereafter the most suitable crops were combined into cropping patterns to be tested. These were further discussed by scientist and subjected to a participatory voting by farmer HH before finalizing the research protocols of the Research Platform Trial at BWMRI in Dinajpur (WP2, Research Protocol 1) and the On-farm Research Trials (WP2, Research Protocol 2)



Above: Women laborer uprooting rice seedlings for transplanting, Dinajpur. Photo Credit: Abdul Momin

AUTHORS

Stephanie Cheesman, Post-Doctoral Research Fellow and Cropping System Agronomist, CIMMYT

Timothy Krupnik, Country Representative for Research and Partnerships and Systems Agronomist, CIMMYT

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To learn more, please contact:

s.cheesman@cgiar.org

To learn more about TAFSSA, please contact:

t.krupnik@cgiar.org; p.menon@cgiar.org

ABOUT TAFSSA

TAFSSA is a CGIAR regional integrated initiative to support actions that improve equitable access to sustainable healthy diets, improve farmers' livelihoods and resilience, and conserve land, air, and water resources in South Asia.

ABOUT CGIAR

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