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WFP/Harrison Mũema

## Market Assessment in Bhasan Char, Bangladesh

Assessing the functionality of emerging marketplaces  
serving Rohingya refugees in Bangladesh



World Food  
Programme

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## HIGHLIGHTS

- Overall market functionality for Bhasan Char was observed to be relatively weak (4.2 out of 10 as highest score), which was lower than the market functionality in Ukhia (5.2) in the same season last year, where Rohingya camps are located. The major strengths were assortment, availability, competition, and access & safety (the presence of barrier/challenge to marginalized groups or presence of physical threat for certain groups or security issues while reaching or in the market), while there needs to be an improvement in the dimensions of resilience of the supply chain and prices on the island.
- Currently, there is no market-based intervention for food assistance in place and the current in-kind food basket provided by the humanitarian agencies cannot meet the diverse nutritional needs of Rohingya population. However, refugees did not prefer to receive cash assistance for the food programme specifically, for fear that Bangladesh traders may increase prices of goods and services. Hence, at this stage a hybrid of cash and e-vouchers is preferred.
- A market-based intervention should be rolled out in incremental phases so that the traders' responses can be monitored properly before scaling up to 100 percent. Regular price, market functionality index (MFI), and supply chain monitoring will be critical in measuring the full capacity of the markets and helping to guide the gradual introduction and scale up of cash-based programmes.
- A rapid injection of cash into the markets (including through large-scale casual labour payments) will likely result in sudden price hikes, widespread commodity shortages, and fierce competition amongst refugees for limited products. However, *gradual* scale-up of the existing cash for work interventions among refugees is recommended to broaden income generation opportunities for refugees.
- When introducing market-based interventions, there are a number of constraints organizations must consider. In terms of the lead time, when scaling up to meet a theoretical increase of demand to 100 percent from current 10 percent of refugees (1,800 individuals) purchasing rice from the market, the big traders present were optimistic about shorter lead times (approximately 2 weeks) compared to the small traders, plausibly due to their strength of comparatively larger businesses and access to large markets in Noakhali and other mainland areas. However, the vast majority of traders claimed they would need at least 2 months to scale up their operations.
- Prices of most of the commodities are generally higher than markets in mainland and Cox's Bazar, particularly for eggs, chicken, and vegetables by 10-20 percent, due to the transportation cost from the mainland. Prices of the commodities were decided by the traders of the market committees, and there is no functional price control mechanism in place. Seasonal effects, especially the monsoon season, play a role in price hikes.
- Other major constraints were potential for natural disasters and limited storage. In particular, the traders' capacity to preposition goods on the island prior to, and during, the rainy season or before/during disasters is hampered by a critical lack of storage space.
- Organizations should place mitigation measures to possible bottlenecks when introducing market-based interventions (see the risk matrix on page 15). Strong coordination within the humanitarian community for all cash injections (regardless of whether they are programmatic or operational) will be critical to managing the growth of the fragile Bhasan Char market.

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## Acknowledgements

The Market Assessment in Bhasan Char was conducted by WFP and UNHCR in November 2021. The assessment was led by VAM (Vulnerability Assessment Mapping), Retail, and CBT (Cash-Based Transfers) teams from WFP and CBI (Cash-Based Interventions) team from UNHCR, with enumerator support from Islamic Relief Bangladesh (IRB).

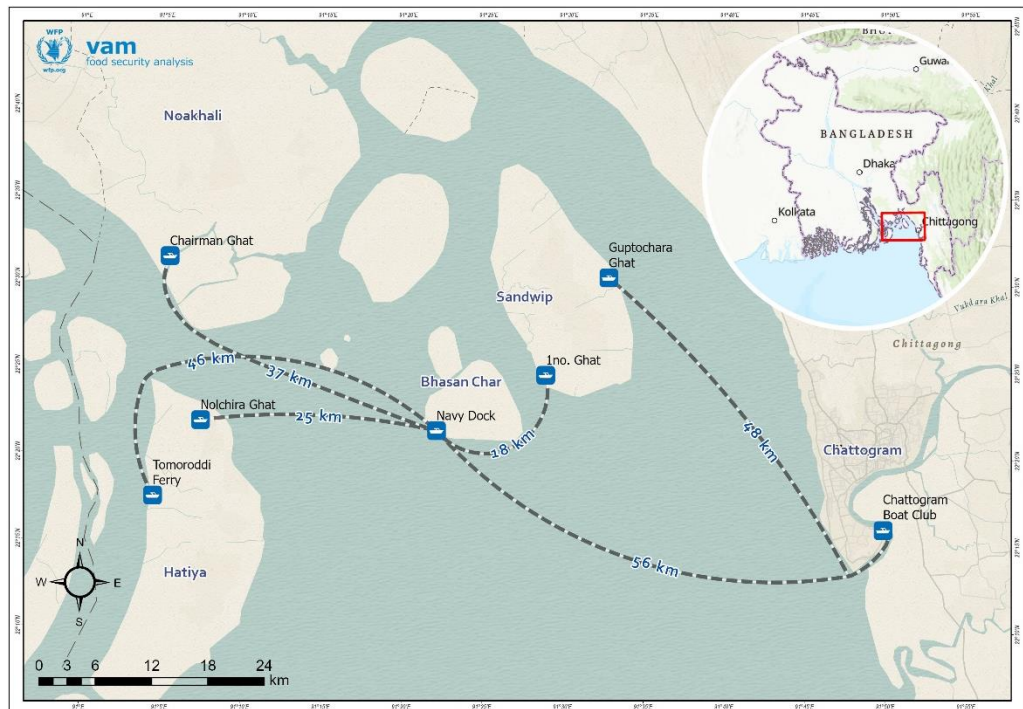
### 1. Introduction

This market assessment was conducted between 14<sup>th</sup> to 17<sup>th</sup> November 2021 as a part of an inter-agency multi-sectorial assessment mission to Bhasan Char. The objectives of the market assessment are as per below:

- In-depth understanding of the market functionality in each specific context
  - Detailed understanding of the retail supply chain structure
  - Understanding of the cost to serve refugees on the island
- Evaluation of market competitiveness
  - Number of players, price levels, margins relevance, service quality
- Assessment of the Value Equation for refugees: Price, Assortment, Quality, Service, etc.
- Retail engagement strategy
  - Identification of opportunities to achieve a better business retail strategy
- Assessment of Market-Driven humanitarian interventions in Bhasan Char
  - Identify existing cash-based humanitarian interventions
  - Determine possibility for starting/scale-up of market-driven humanitarian interventions

### 2. Background of Market Establishment in Bhasan Char

Since the inauguration of the resettlement project by the Bangladeshi government in 2017, traders from the mainland established marketplaces on the island to cater to labourers during the island infrastructure construction phase. They primarily played the role of supplying raw materials for construction and a few food commodities for the labourers and stakeholders associated with construction. With the construction works scaling down after the final major clusters, they have switched to selling food and non-food commodities, mostly to other Bangladeshi traders, Armed Police Battalion, Bangladesh Navy, Police, and Rohingya market.



### 3. Market structure



There were three major functioning markets in Bhasan Char. The markets grew according to the strategic location and proximity to offload construction materials, food commodities, and non-food items (NFIs) for the labourers. Due to the ongoing activities at the time, Market 2 was the first concentrated market formed, followed by Market 1 and Market 3, consecutively (market names/numbering do not align with the chronological order of establishment, as the markets were named after markets emerged). Except for Market 3, Markets 1 and 2 are located close to the offloading sites making it easy for the traders to offload and load commodities into their shops. The footfall of





refugees was not prevalent in Markets 1 and 2, except Rohingya traders from Market 3, who would resell the commodities inside the other markets or clusters. In Markets 1 and 2, Rohingya refugees were not allowed to set up shop as these markets are outside of the embankment, which surrounds the Rohingya settlement area. The shops in all markets generally open at 7 AM and close around 8-9 PM.

Market 3, which has a concrete structure for fresh food, is located inside the refugee settlement area (near Cluster 5). The concrete structure is allocated only for Bangladeshi fresh food traders, while another section (not concrete) is allocated for the Rohingya traders, with shop dimensions of 6 by 7 feet, selling mostly non-food items (clothes, shoes, cosmetics, etc.), minimal numbers of food commodities, and snacks. The traders interviewed claimed that the land allocated to them to set up shops was through the verbal authorisation from the Project Director (PD). However, despite the name of the market being "Rohingya Market," the presence of both Rohingya and Bangladeshi was significantly observed.

The only fresh food sources for everyone in Bhasan Char were the Market 3 fresh food stalls, with very few (3-6) fish-only wholesalers in Markets 1 and 2.

- Local chairman known as Chairman Ghazi owns a shop called 'Bhasan Char Hera Super Shop' in the vicinity of Market 3, which sells food and NFIs. Some NFIs on the island are exclusively found in this shop and no fresh food was available.
- In total, 5-6 Rohingya shops were observed beside the road separated from other shops in Market 3 area. They were mostly snack and betel nut/tobacco shops accompanied by 1-2 shops selling spices, lentils, and rice in small quantities of 1-2 packets of each product in unstructured bamboo/polythene roof.
- There were two pharmacies close to the government hospital. However, the team noticed sanitary napkins were only sold at large shops where NFIs are sold. Markets 1 and 2 have small restaurants owned by Bangladeshis and Market 3 has one owned by refugees.
- In Market 3, the refugees who relocated in the first phase received permission to set up shops. However, the refugees who followed after the first phase were not allocated land due to lack of space. This led to the establishment of unstructured corner shops in the form of a chair and table or cart as a mobile shop within the clusters. This is due to the location of the corner shops being closer to the Rohingya households and lack of transport, which created a burden to



Figure 1: Market 3 (Bangladeshi Fresh food pavilion)



Figure 2: Market 3 (Rohingya Market), Informal Rohingya (extremely low capacity) shops adjacent to market 3



Figure 3: Bhasan Char Hera Super Shop by Chairman Gazi

households to travel to Market 3. This has enabled the Rohingyas to buy more goods from the corner shops inside the Clusters. However, the government has indicated that shops within the Clusters are not permitted and there have been instances of these informal shops being closed by the government.

- The Rohingya traders, interviewed in Market 3, shared their dissatisfaction on the reduction in the number of customers due to the competition with the corner shops. The assessment team saw this as a risk that might in the future cause conflict amongst the Rohingya traders if not mitigated in time.

### ➤ Market Characteristics

In Market 1 (outside the embankment), there were a few big shops (dimension estimation: 3 or more 4WD cars fit inside) and the rest are medium-sized shops (dimension estimation: 2 4WD cars fit inside), with a few small-sized shops (dimension estimation: 1 4WD car fits inside).

Market 2 (outside the embankment) exhibited a similar pattern with Market 1, except for the presence of 4-5 fish wholesale traders with small-sized shops with temporary ice-based storage, which they claim to have enabled them to store fish at least for 2-3 days. The icebox was brought from Noakhali with the fresh fish products purchased from Noakhali.

In Market 3 (inside the embankment), 90 percent of the market is dominated by small-sized businesses, with less than 10 percent constituting assorted fresh foods. Approximately 20 fresh food Bangladeshi vendors were allocated stalls in a permanent structured concrete building (fresh food pavilion). All the traders operating in the Market 3 fresh food pavilion received around 6 by 6 feet area divided by 4 feet high square borders.



Figure 4 Fish wholesale (Market 2)



Figure 5 Fish retailer (Market 3)

The assessment team noticed that some Bangladeshi traders owned at least one shop in both Markets 1 and 3 or Markets 2 and 3, to expand their supply chain to ensure better coverage within the embankment. There were fewer cereal sellers in Market 2, compared to Market 1.

## 4. Stakeholder mapping and market dynamics

**Traders' Market Committees:** All three markets had a traders' committee. At least in Market 3, the traders' committee had 3 Rohingya committee members out of 20. There was no written list of the committee members in any markets, but the committee represents all the traders in each market under one president.

The supply of products was mainly sourced from Noakhali and interviews with Bangladeshi retailers

indicated that most of the traders sourced from their *own* shops in Noakhali. They were relocating commodities from their mainland shops in Noakhali.

Except for some traders in Markets 1 and 2, many set up their business as “mixed traders” as both wholesalers and retailers. Their businesses are characterised as retail shops, but they claimed to be able to switch into wholesalers when demand rises. However, at the time of the assessment, the population in the area was small with low demand, which did not require them to operate wholesale. Unlike Market 2, Market 1 had more capacity with non-food items, such as construction materials, likely because they are the small vendors for the engineering works throughout the island.

## 5. Market Functionality Index

### 5.1. Market functionality dimensions

The market assessment applied the Market Functionality Index methodology<sup>1</sup>. This is a novel approach to market assessment proposed by WFP, which aims to quantify market functionality by returning a comparable score across marketplaces using a standard trader survey. These questions were organized under nine dimensions deemed crucial to make a judgement statement around market functionality. Figure 6 summarized the results by dimension.

Overall market functionality index (MFI) score for Bhasan Char was 4.2 out of 10, which was lower than MFI score (5.2) in Ukhia in the same season last year.<sup>2</sup> The major strengths of the markets in Bhasan Char were observed for the following 4 pillars: assortment (10); availability (10); competition (10); and access & safety (10) (safety part identifies the presence of barriers/challenges to marginalized groups or presence of physical threat for certain groups or security issues while reaching or in the market). Weaknesses were identified in resilience (7.5) and prices (5).<sup>3</sup> This indicates there is room for improvement in the resilience dimension and the prices on the island are unstable. Food quality followed by infrastructure and service is among the poorest performing pillars.

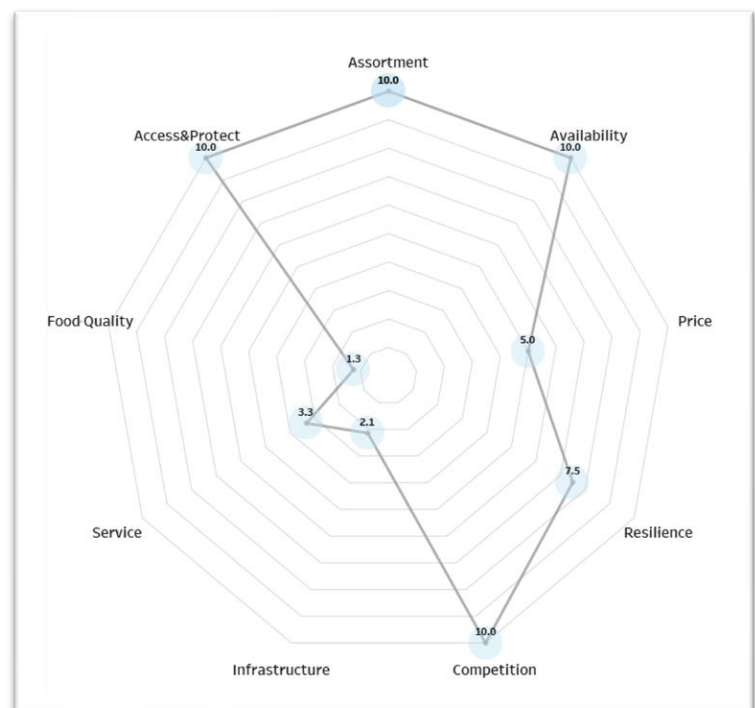


Figure 6: Market Functionality index of Bhasan Char market as a whole

### 5.2. Assortment

Rice, flour, wheat (mostly in flour form), and barley were the most common cereal food items available in all 3 markets, but the abundance of cereal commodities was comparatively higher in Market 1,

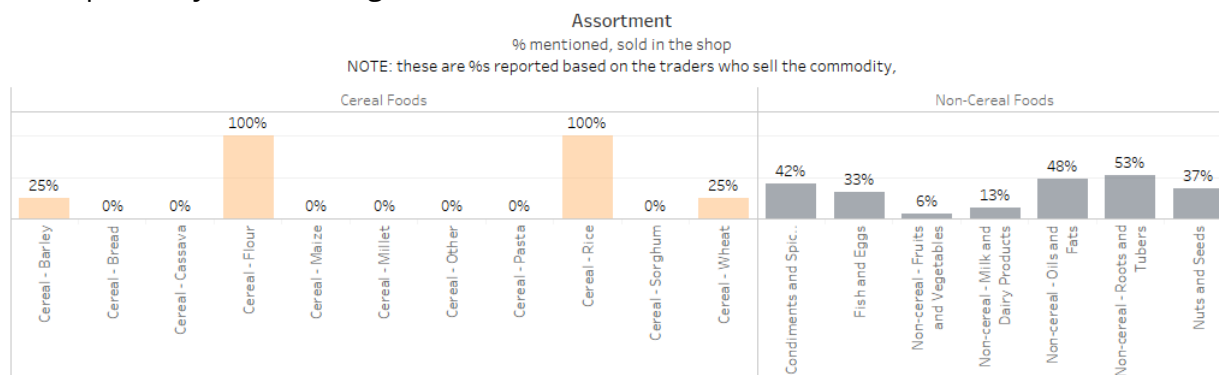
<sup>1</sup> WFP's Market Functionality Index (also available at <https://www.wfp.org/publications/market-functionality-index-mfi>).

<sup>2</sup> WFP 2020, Assessing the functionality of market places serving Rohingya refugees in Bangladesh (also accessible at <https://www.wfp.org/publications/bangladesh-assessing-functionality-marketplaces-serving-rohingya-refugees-july-2020>)

<sup>3</sup> This is preliminary analysis and more detailed/comprehensive assessments still need to take place at later stage.



followed by some in Market 2, and one or two very small-scale cereal retailers in Market 3 (which is the market that primarily serves refugees).



A wide range of non-cereal food commodities was observed in the shops of Market 1 and Market 2, including potatoes, pulses, seeds and nuts (e.g. beans, peas), eggs, vegetable oils (e.g. soybean oil, mustard oil), spices and herbs (e.g. tea, salt, spices), sugar, sweets (e.g. sugar, cookies, sugar drinks, etc.), powdered milk (small packets).

In Market 3, where the fresh food pavilion is situated, a variety of fresh food including vegetables, poultry, eggs, meat, and fish were found. While poultry sellers were observed in Markets 1 and 2, none of them had beef sellers, which was only operating in Market 3.

The major non-food items that are available in Market 3 are clothes, shoes, cosmetics, etc., which are not available in Market 1 and 2. Market 3 has a relatively high concentration of Rohingya traders, whose access to wholesale markets and larger supply chains in Noakhali are significantly limited. Therefore, Market 3 has less supply of NFIs (e.g., clothes, shoes, cosmetics, etc.) than Markets 1 and 2, where many of the traders there are Bangladeshi.

Commonly found NFIs in Markets 1 and 2 were: drinking water; latrine construction materials; hygiene products (toothbrush, toothpaste, laundry detergent, liquid dish detergent, individual soap); shelter construction materials (bricks, etc.); shelter items (tents, plastic sheeting, metal sheet, tarpaulin, etc.); cooking and eating utensils; LPG; school materials (notebooks, stationary); mobile phones/SIM cards/services and internet; electronics and electric appliances; and other stoves, fuel and lighting (e.g. gas). Market 3 did not exhibit such commodity assortment.

With 500-1000 choices of food and NFIs, big traders in Markets 1 and 2 offered a moderate number of choice of commodities to the customers in terms of brand, colour, weight, shape, size, while other relatively small traders did not provide choices ranging from 50-500 choices. In Market 3, customers (mostly refugees) had at most 5-200 choices of products to choose from. The number of choices was low as the traders claimed that they were waiting for more Rohingyas to come to Bhasan Char to scale up.

### 5.3. Availability

Most of the traders in Markets 1 and 2 did not report critical scarcity for any food commodities. Some traders reported rice, flour, eggs, dairy products, spices, sugar, and laundry soap to be somewhat scarce at the moment of the survey, due to the current in-kind food assistance provided by NGOs. Traders also added that pulses/nuts/seeds, soybean oil, household items, and WASH items were running out within

the next 2 weeks, at the time of data collection. However, they claimed to get the products within a day or two from mainland suppliers.

Among the NFIs, clothing (including winter clothes), bedding, mosquito nets, and hygiene items, such as soap, were scarce in Markets 1 and 2 during the assessment. The two pharmacies on the island were able to maintain stocks of commonly required medicines.

In Market 3, fish, eggs, organ meat, potatoes, and fruits were reported to be scarce, and very few traders were found selling fruits.

### 5.4. Price and price-setting mechanism

Prices of the commodities were decided by the traders of the market committees, considering the transportation cost from the mainland, and price behaviour on the mainland. Seasonal effects, particularly the monsoon season, play an important role in price hikes.

No strict guideline was available for price setting for the traders. The Noakhali magistrate, who has legal purview to take corrective official actions for trader impropriety or collusive practices, comes irregularly to Bhasan Char, as this same magistrate is also in charge of the entire Noakhali district. Retailers in Market 1 claimed during the interviews to consult Navy authorities to ask for permission when they decide to increase the prices.

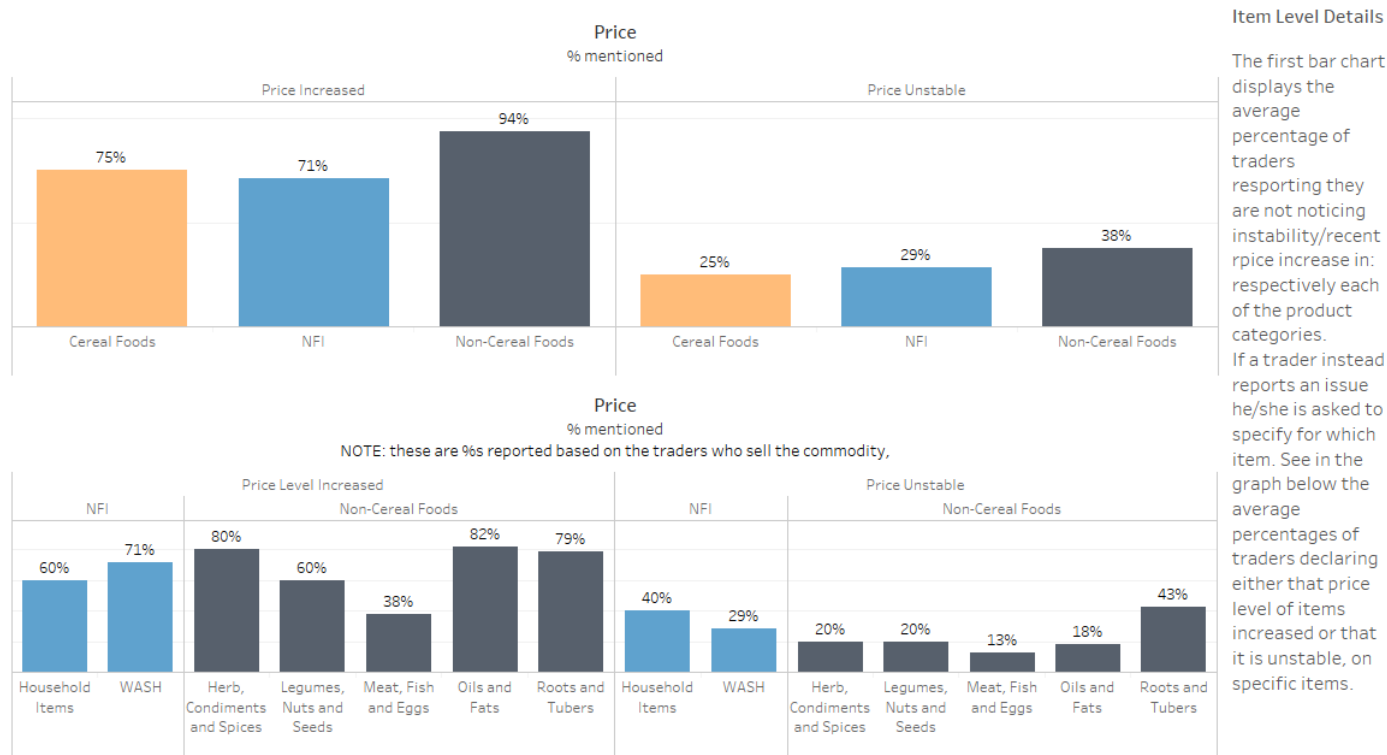


Figure 7: Price dynamic in Bhasan Char markets



Similar to trends on the mainland, prices of fish, meat, spices, vegetables, household and WASH items were reported to fluctuate. In the last 30 days before the survey, traders reported that prices of rice, flour, soybean oil, eggs, and fresh vegetables significantly hiked. Rohingya households reported that there was no negotiation they could make for purchasing fresh food.

Interestingly, prices of household, hygiene, and WASH items increased on the island, despite minimal increase on the mainland. This is attributed to the higher margin added to NFIs on the island. For example, in Kutupalong, refugees said they could purchase a pair of sandals for 100-150 BDT, whereas in Bhasan Char, they had to pay 250-350 BDT. The major driver for the higher margin is that these items are not available through assistance. The same applies for food items that are not part of the food assistance.

In general, prices were 10-20 percent higher for all food commodities than those in Ukhia and Teknaf markets due to the transportation cost. For NFIs, the prices are estimated to be double to as high as 3-4 times than that of inland prices.

The table below shows a cost comparison of WFP's standard food basket in Bhasan Char versus Ukhia, where the cost of the basket in Bhasan Char is 1,173 BDT, and 1,071 BDT in Ukhia (10 percent more expensive in Bhasan Char).

The prices of eggs were 11-12 BDT per piece in Bhasan Char – 37 percent higher than the average cost on the mainland (8-9 BDT), due to the limited supply, demand, and difficulties of transport and storage.

No	Item	Quantity person	Unit	Price per kg (Ukhia)	Price per kg (Bhasan Char)	Total BDT (Ukhia)	Total BDT (Bhasan Char)
1	Rice BR29	13	kg	45	53	585	683
2	Lentil red	1	kg	90	90	90	90
3	Oil-Soybean	1	bottle	150	150	150	150
4	Onion	0.5	kg	50	45	25	23
5	Sugar-Refined	0.5	kg	80	83	40	41
6	Egg	5	pcs	9	11	44	54
7	Turmeric	0.05	kg	140	210	7	11
8	Garlic	0.1	kg	120	113	12	11
9	Chilli-Dry red chilli	0.1	kg	200	130	20	13
10	Flexible Item	1	BDT	98	98	98	98
Total Cost of Food Basket Per Person						1071	1174
Difference							10%

Although the prices for the assistance items were found to be relatively close to the prices in the major markets, there could be a plausible risk in the future if the assistance modality is market-based where traders may hike prices.

### ➤ Reselling of humanitarian assistance by beneficiaries

According to interviews with Rohingya households, Rohingyas sold at least 5 kg of rice per month (20-25 BDT per kg), while the retail price of the rice was 45-50 BDT. For soybean oil, the resale price that refugees were able to recoup was 120-130 BDT per litre, while retail price was 155-160 BDT in Cox's Bazar sub-district. Refugees claimed to resell their food assistance due to lack of fresh foods in the standard basket and limited NFIs provided to Rohingyas.

Rice in the food basket was procured by humanitarian assistance providers from their suppliers on the mainland. Any entity that buys the sold rice were able to bulk purchase at 40-50 percent reduced prices from the original price in the mainland.

With the limited income sources and limited diversity of food assistance commodities, in-kind food provided by aid agencies could be sold to meet their unmet essential needs or food diversity. Therefore, gradual shift to the market-based intervention and a scale-up of cash for work activities would be key to limit the reselling of food assistance.

## 5.5. Resilience of the supply chain

Adm1Name	MarketName	Node Complexity			Node Criticality			Node Density			Responsiv..	Responsiv..
		Cereals	Other Food	NFI	Cereals	Other Food	NFI	Cereals	Other Food	NFI	Current stock	Lead time
Chittagong	Bhasan Char	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes

#### Resilience of Supply Chains

Node Density: refers to the geographical spacing of nodes within a supply chain network; Node Complexity: refers to having more than one supplier; Node criticality: refers to the presence of a single supplier upon which most traders rely upon.

Figure 8: Resilience of supply chains

Traders claimed high responsiveness to acute shocks (i.e., being able to replace lost stocks quickly) and lower lead time for stock replenishment from the mainland, which theoretically indicates high resilience. However, low or poor node density indicates that the geographical spacing between supply chains is poor. The node complexity is fair indicating the presence of more than one supplier for major commodities to the Bhasan Char market, but the node criticality indicates that most traders are dependent on a single supplier, which means a high risk of market failure. The optimism of particularly large traders will need to be tested through gradual cash injections to truly test the resilience of the market.

### ➤ Commodity sources

Food and NFIs were sourced from Chattogram and Noakhali, but most of the commodities were sourced from Noakhali. In Market 2, some traders source chicken, electronics, and medicine from Hatiya, as it is situated between Noakhali and Bhasan Char, and wooden boats can frequent between Hatiya and Bhasan Char at low cost.

The distance from Chattogram to Bhasan Char is longer (approximately 60 km) compared to Noakhali (37 km) or Hatiya (25 km). As a result, if small quantities were sourced from Chattogram driven by the low demand resulting from the low population in Bhasan Char, the transportation cost would be less beneficial for the traders or result in loss. Purchasing from Chattogram requires a large bulk purchase via large ship to ensure profit margin.



Market 1, 2, 3 Bangladeshi traders can receive the items from whichever sources they wish, as they have access to areas outside the embankment. However, Rohingya traders in Market 3 cannot source anything without the Bangladeshi traders in Markets 1, 2, and 3. The Rohingya traders are entirely dependent on the island's Bangladeshi traders' supplies from the mainland.

The traders claims that the replenishment lead time is a maximum of 2 days during the dry season. Transportation is dependent on the weather. Between June to August (rainy season), it takes 3 to 7 days. Three ships were currently available for mass transportation from Noakhali and Chattogram: a 60 MT ship; a 100 MT ship; and a 200 MT sea truck.

For medicine, the pharmacy staff indicated that the transportation cost from Hatiya to Bhasan Char was 400 BDT per carton (50 BDT for loading from Hatiya, 250 BDT for sea transportation, and 100 BDT for unloading per box), in addition to the actual medicine price from Hatiya.

The offloading cost was lower for traders who own tractors. There is a tractor committee, which oversees all tractors operations in Bhasan Char. The traders can rent the tractors from the committee.

### ➤ Handling services

Loading and unloading in Bhasan Char were heavily dependent on Bangladeshi labourers from Noakhali, Hatiya, and Chattogram. The labour force was found to be from both Bangladeshi and Rohingya communities, although there were more Bangladeshi labourers. The cost incurred to hire labourers was not clear and the actors were not willing to disclose the amount to the assessment team, although the unloading and loading cost was claimed to be higher than the mainland. According to the WFP Supply Chain Assessment conducted in November 2021, the approximate costs were 300 BDT/mt for loading charge, 300 BDT/mt for unloading charge, and 500 BDT for renting a tractor for transporting commodities (4-5 mt of bagged food and 2-3 mt of carton food) from any jetty to warehouses in Bhasan Char. However, the claimed rate of unloading ranged between 100-200 BDT per sac/box/container.

The cost of labour is likely to be different for these two communities in Bhasan Char, with the Bangladeshi labourers receiving higher payments. Surprisingly, even with the low wage rate, Rohingyas were recruited less in numbers compared to Bangladeshi labourers. The reason was unclear at the time of the assessment and should be explored further.

## 5.6. Competition

This dimension depicts if the business environment is conducive to fair competition, which is typically not the case when there are insufficient traders in the marketplace and one or some of them has a dominant position. Competition among the traders was not visible on the island, including between the host community and Rohingyas. If humanitarian actors establish partnerships with traders, those partnerships should be distributed equitably to prevent tensions amongst the trader community.

## 5.7. Infrastructure

Adm1Name	MarketName	Conditions			Features						
		Good	Medium	Poor	Closed sewage sys..	Walkaways	Waste Collection ..	Water	Network	Shelter	Toilet
Chittagong	Bhasan Char	No	No	Yes	No	No	No	No	Yes	Yes	Yes

Figure 9: Infrastructure conditions and features

Markets shops in Bhasan Char are temporary structures, made of iron sheets and wood, except for the fresh food pavillion in Market 3, which is concrete. Since the location of Markets 1 and 2 are near the shore and outside of the embankment, the shops are elevated, but not high enough for sudden surges in water levels. All the Rohingya market shops are poorly structured and small (6x7 feet), with almost no storage facilities. Most of the trader shops in Markets 1 and 2 had a shelter facility for themselves. However, in all the marketplaces, there was the absence of closed sewage systems, walkways, dedicated waste collection areas, and dedicated water points.

In terms of the utility supply, according to focus group discussions, marketplaces received 5 to 6 hours of electricity per day, only provided after dusk until 9 PM. Fair mobile network coverage was observed across Bhasan Char (Robi, Grameenphone, Banglalink).

## 5.8. Services

### ➤ Customer service

In Bhasan Char, payment options are limited for Rohingyas. Traders strictly accept cash from Rohingyas, while they accept cash, mobile money, and phone-based purchases from Bangladeshi customers. For business-to-business transactions between Bangladeshis, a cheque option was also available. There was no loyalty program for Rohingya customers. Some retailers provided discounts for bulk purchases by other traders irrespective of nationality. But none of the Rohingya customers or Rohingya traders have access to credit purchase. None of the shops had a point of sales (POS) machine.

### ➤ Medical services

Medical facilities were not adequate for the existing needs of the population on the island. Medicine supply to the government hospital was centrally controlled by the government, which occasionally led to delays of up to 2 weeks, leading to low supply and shortage of medicines to the hospital. Between the high number of patients and limited medicine supply, the hospital could not provide adequate medicines to refugees. Except for common medications such as painkillers or paracetamol, which the hospital can provide, Rohingyas have to purchase from nearby pharmacies themselves to complete their prescribed course of medicines. Two pharmacies were available near the hospital, but their prices are higher than the mainland.

## 5.9. Food Quality

### ➤ Dry food quality

Generally, traders bring fewer commodities due to low demand from Rohingya communities. Non-packaged food, such as cereal and pulses, are vulnerable to infestation, while pre-packed food is intact and stored in the shops. Expiry dates were not always visible and hard to read for the Rohingyas with no or minimal education. Non-branded pre-packed food was in poor condition and expiry dates were missing.

### ➤ Fresh food quality

The quality of fresh food deteriorates during transportation and slow turnover due to low demand or sales and lack of cold-chain systems to, and on, the island.

Beef, goat, sheep, and poultry were only produced by the government in medium-sized quantities for their own consumption needs, with the surplus supplied to the market. Hence, other additional supplies



of fresh food, including chicken, eggs, and vegetables were from Noakhali and Hatiya, but were exposed to damage during transportation.

## 5.10. Access

### ➤ Physical access

According to interviews with the traders and the government authorities, it is claimed that Rohingyas can access any market. However, the presence of Rohingyas was mostly seen in Market 3, while Markets 1 and 2 are outside the embankment. Due to limited transportation available within the island, with only some tricycle vans as transport, small street vendors established themselves within the Clusters (near their homes), although it is not clear that the government will allow these informal shops to remain. Rohingya women claimed concerns of harassment when accessing the larger markets. Therefore, this was resolved at the household level for most men to go shopping. For the same reason, it seemed that women preferred frequenting the street vendors closer to their homes.

### ➤ Monetary access

Rohingya populations relocated to Bhasan Char have limited opportunities for income generation. The main sources of income are small-scale cash-for-work activities, reselling of humanitarian assistance, and micro-scale own production. The common means of transportation for refugees is a tricycle van, which costs 40-50 BDT per one way, and it is not affordable for most Rohingyas.

## 6. Bringing all the dimensions together

### 6.1. Resilience and risk mapping

There were several risks identified affecting market functionalities. The critical ones were natural disasters and limited storage in the marketplaces, which limits the traders' capacity for prepositioning. For those traders that had storage, the spaces were not well maintained and vulnerable to infestation due to limited knowledge of storage maintenance, limited ventilation, and lack of pallets. The below matrix table summarises the risk for each aspect by type of food.

Medium risk = Markets can continue to function but at lower scale without mitigating measures

High risk = Market cannot function or cannot expand without mitigating measures

Aspect	Medium Risk	High Risk	Mitigation measure
Price		Prices are set by the market committees, and no functional control mechanism in place. No negotiation of prices is accepted for the Rohingyas. Prices of NFIs could be raised by traders due to less competition and supply. Reselling of in-kind food assistance to refugees makes their prices lower than the market price.	Advocate for establishment of an overarching trader committee with representation of refugee and host community market committee to follow on Market activities. Strengthen Government capacity for oversight of collusive or exploitative practices. Advocate for Price Board display per shop to enable price visibility and market competition.
Access		<p>Rohingyas do not seem to have access to shops outside of the embankment (lack of acceptancy for refugees in the market).</p> <p>Due to the distance to the market, safety concerns for women may increase.</p> <p>Men tend to buy other non-essential commodities when receiving cash.</p> <p>Food is not affordable for those with no income or with limited assistance.</p>	<p>Facilitate the supply of scarce commodities, including fresh foods, to Market 3, where Rohingyas can access.</p> <p>Introduce mobile market during the distribution cycle close to the settlements.</p> <p>E-voucher outlets/mobile market can be set up at/near cyclone shelters in the refugee residential areas to reduce the commuting distance.</p>

		Restriction of food commodities reselling by the local communities may increase the reselling of NFIs.	(Economic access) Cash for work activities to be expanded for increasing the purchasing power for refugees to meet essential needs.
Financial services	Although cash handling seems relatively safe, advocating for refugee access to digital financial services would improve refugee safety, particularly as service delivery and income-generating opportunities increase  Refugees lack KYC documents, and therefore, do not have access to digital financial services  Limited Financial Service Providers are present on the island		Scale-up cash for work interventions to increase refugees' income  Continue the use of cash-in-hand distribution for all refugee payments  Advocate for the establishment of financial services such as agent banking and mobile money transfers  Integrate humanitarian digital platforms with commercial FSP platforms  Advocate for humanitarian documents to be acknowledged as meeting Central Bank KYC requirements
Competition-driven conflict		Likely to emerge if any trader is left out from any future intervention. Tensions may rise between host and refugees over business opportunities.	Introduce an inclusive business model for both Bangladeshi and Rohingya traders, with rotational basis to increase the chances for Rohingyas to participate.
Quality control	Low storage capacity and low storage knowledge	Fresh food can be easily spoiled due to the sea transportation and lack of cold chain	Facilitate establishing storage facilities and developing traders' capacity on food safety and quality.  Improve transportation using plastic vegetable containers to protect from sea water.
Infrastructure		Trader shops, particularly Rohingya shops, are poorly built, with low-quality materials, no drainage system, loose rocks as walkways, and no top-level cover. These shops likely deteriorate significantly during rains.	Humanitarians should work closely with the government and traders to have a plan for market expansion, rather than leaving it for organic and chaotic growth. All stakeholders should contribute to improving all market areas with adequate drainages, sanitary food disposal and segregation, disability-friendly walkways, monsoon-resilient structures, etc.
Supply chain		(Cereal and non-cereal) Limited amount of cereal is currently available in the market, due to In-kind distribution.  Low demand of lentils and manufactured commodities leading to infestation and expiry dates.  Long lead times for vegetables from the mainland to the inland.  Lack of proper storage to enable inventory control.  High transportation costs from Chattogram for small traders.  Limited availability of large boats as small wooden boats from Noakhali and Hatiya, which increases high wastage of fresh vegetable foods due to transport space and handling.	Hybrid scale-up of market-based intervention is required to enable market forces to naturally grow (Supply/Demand)  Increase diversified suppliers through market-based intervention activities.  Enable availability of humanitarian contingency stocks.  Introduce cold chain storage/shelves through cash intervention activities.  Build capacity of small retailers to enable aggregate demand to improve information sharing and reduced costs of supplies.  (Protein-rich food) Establish livestock-based livelihoods to enhance local supply on the island to strengthen the supply chain for beef and chicken.
Storage		No permanent storage available for food commodities.  No availability of cold chain.  The available storage facilities are small, temporary structures and easily infested and damaged by water.	(Fresh food and NFIs) Facilitate storage construction/ strengthen the capacity of small traders on storage management and Food Safety and Quality Procedures.  Advocate for self or business storage facilities supported by government to enable business continuity.

## 7. Overall challenges

The traders' committees in all three markets were entirely constituted by the traders themselves without any other entity or personnel being involved, which may lead to collusive price setting. However, there was no guideline available to regulate the price setting in a standard manner. There is one district marketing officer and one magistrate assigned for price monitoring and legal actions, respectively, for the entire Noakhali district. As they are dedicated to all sub-districts for Noakhali, it is challenging to visit Bhasan Char in higher frequencies with lower intervals. With limited access to cash, the Rohingya population had weak price negotiation power.

## 8. Considerations for market-based assistance

### 8.1. Theoretical monthly demand vs. supply

Traders were asked about the lead time they would require to scale-up to meet a theoretical increase of demand to 100 percent from the current 10 percent of refugees purchasing rice from the market. The big traders present in the focus group discussion were optimistic about shorter lead times (approximately 2 weeks) compared to the small traders, plausibly due to their strength of comparatively larger businesses and access to large markets in Noakhali and other mainland areas. However, as evidenced in Figure 10, the vast majority of traders (88 percent) claimed they would need at least 2 months to scale-up their operations.

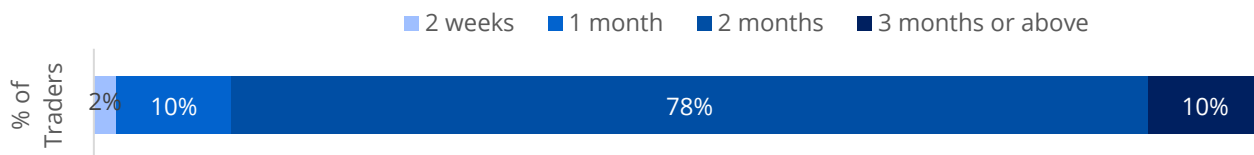


Figure 10: Time required to scale up 100%

The current supply and demand conditions in Bhasan Char are depicted in Figure 11. The approximate theoretical demand for rice for 18,000 refugees in Bhasan Char is 257 MT, and it rises to 302 MT when the Bangladeshi population living in the same area are also factored. The quantity is 1,445 MT of rice per month when 100,000 Refugees are considered. The large gap between these supply and demand estimates will theoretically help determine strategies for rolling out market-based interventions. The actual supply was suppressed by the actual market demand for rice, since humanitarian in-kind assistance provides almost all the rice refugees need in a month; only 10 percent or 1,800 refugees were dependent on additional rice purchases from markets. Logically, the traders were reportedly bringing less supply of the commodities which were provided as humanitarian assistance. This indicates that the current demand and supply dynamics for commodities provided as humanitarian assistance do not accurately depict the actual operational strength of the market (i.e., the market could theoretically be stronger than it appears to be).

Given the circumstances, a market-based approach should be rolled out in well-coordinated, incremental phases so that traders' responses can be monitored properly before scaling up to 100 percent. Regular price, market functionality index (MFI), and supply monitoring will be critical in measuring the impacts and helping to guide the gradual introduction of cash-based programmes. A



rapid injection of cash into the markets (including through large scale casual labour payments) will likely result in sudden price hikes, widespread commodity shortages, and fierce competition amongst refugees for limited products. Coordination within the humanitarian community for *all* cash injections (regardless of whether they are programmatic or operational) will be critical to managing the growth of the fragile Bhasan Char market.

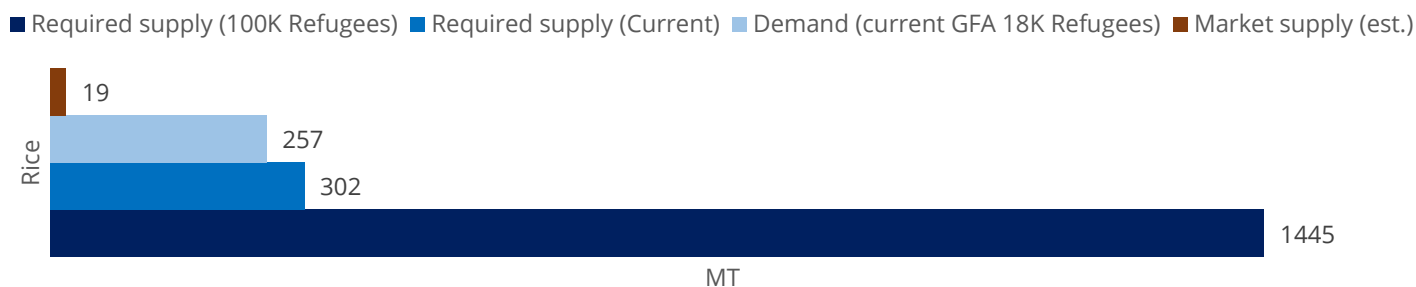


Figure 11: Theoretical monthly demand vs. supply (est.)

## 8.2. Customer Behaviour

The assessment team observed customer behaviours and preferences on market-based interventions. According to focus group discussions, the Rohingya population preferred a mix of cash and vouchers for both NFI and food. Importantly, Rohingya women expressed a strong desire for e-vouchers over cash for blanket food assistance; they had concerns that cash tends to be managed by the men in the household, who spent more liberally on non-essentials such as cigarettes, betel leaf, etc. Due to the limited NFI assistance provided to Rohingyas, they tend not to sell NFIs received as in-kind assistance.

## 8.3. Existing food basket and food assistance

Currently, the food basket provided by humanitarian organizations consists of rice, lentils, soybean oil, onion, sugar, salt, and spices. Given the limited variation of food commodities in the assistance currently provided, Rohingyas have expressed that establishment of Fresh Food Corners (part of WFP's programme in Cox's Bazar) is critical for diversifying their food assistance to meet a healthy diet. Rice quality in the basket varies due to the mixed rice with different qualities. This is mainly due to the lack of guidelines on variety selection.

## 8.4. Financial services availability

No bank was present on the island at the time of the assessment. Humanitarian organizations currently carry cash from the mainland for cash for work (CFW) payments or other needs. Mobile Money Transfer exists on the island through three service providers (bKash, Rocket Money, and Nagad). The main users of these services were the Bangladeshi traders and customers and humanitarian workers on the island, as Rohingya refugees do not have the required Know Your Customer (KYC) documents to open Mobile Money Accounts.

Bringing money through bKash is an option for payment of cash for work programmes, albeit with a limited amount as there is a cash-out limit per day and per month as per central bank regulation. According to interviews with traders, banks including Mercantile Bank, Pubali Bank, and Mutual Trust have conducted feasibility studies on the island for starting agent banking.

## 8.5. Existing market-based interventions

There are currently limited humanitarian market-based interventions on the island. The purchasing power of Rohingyas was limited due to the limited availability of CFW opportunities, only targeting small populations. CFW participants received BDT 50 per hour and were allowed to work for 7 hours translating to BDT 350 per day. Due to limited CFW opportunities, participating Rohingyas could only work for limited days (mostly 3 days) per week to give opportunities for others to also participate in CFW. Therefore, these limited CFW interventions were not a stable source of income most households. Rohingya families received a one-off cash grant of BDT 5,000 as a resettlement grant from the government when they first arrived, but the cash has been since exhausted as there were limited opportunities for earning income. However, Rohingyas did not prefer to receive only cash-in-hand assistance, for fear of Bangladeshi traders increasing prices of goods and services; hence, a hybrid of cash and vouchers was preferred.

### 8.6. Registration, licensing, VAT, and taxes

Traders in Bhasan Char reported that they did not have to possess any legal documentation/ registration/license, apart from informal verbal approval from the Ashrayan Project. The traders were not found to be paying any VAT or taxes for conducting business in Bhasan Char. However, many traders in Bhasan Char also have businesses in Noakhali, so licensed traders were likely paying some taxes on the mainland.

## 9. Maturity of Bhasan Char Market

High	Proceed with caution- Fixed the supply chain	Ideal Market scenario- Unrestricted cash	Retail Market Development
	High Risk to implement project- Consider GFD	Proceed with caution and develop retail business structure ▲ Bhasan Char	
Low	Efficient Supply Chain		

### Supply Chain.

The market growth development illustrated above, indicates that the Bhasan Char market, if enhanced, could support cash activities as the supply chain is somewhat efficient and accessible with adequate retailers/wholesalers. However, gradual increases of cash injections must occur simultaneously with interventions focused on improving systemic supply chain issues to meet the demand of the refugees.

## 10. Conclusion

- The Bhasan Char market has potential for absorbing market-based interventions for food assistance, with strong systemic/infrastructural supply chain support, as well as close monitoring. However, a market-based intervention should be rolled out in incremental phases so that the traders’ response can be monitored properly before scaling up to 100 percent. A rapid injection of cash into the markets

(including through large scale casual labour payments) will likely result in sudden price hikes, widespread commodity shortages, and fierce competition amongst refugees for limited products. Aid agencies should place mitigation measures to the possible bottlenecks when introducing market-based interventions. Coordination within the humanitarian community for all cash injections (regardless of whether they are programmatic or operational) will be critical to managing the growth of the fragile Bhasan Char market.

- As this assessment was conducted in one week, during the dry season, another follow-up MFI assessment should take place during the monsoon season.

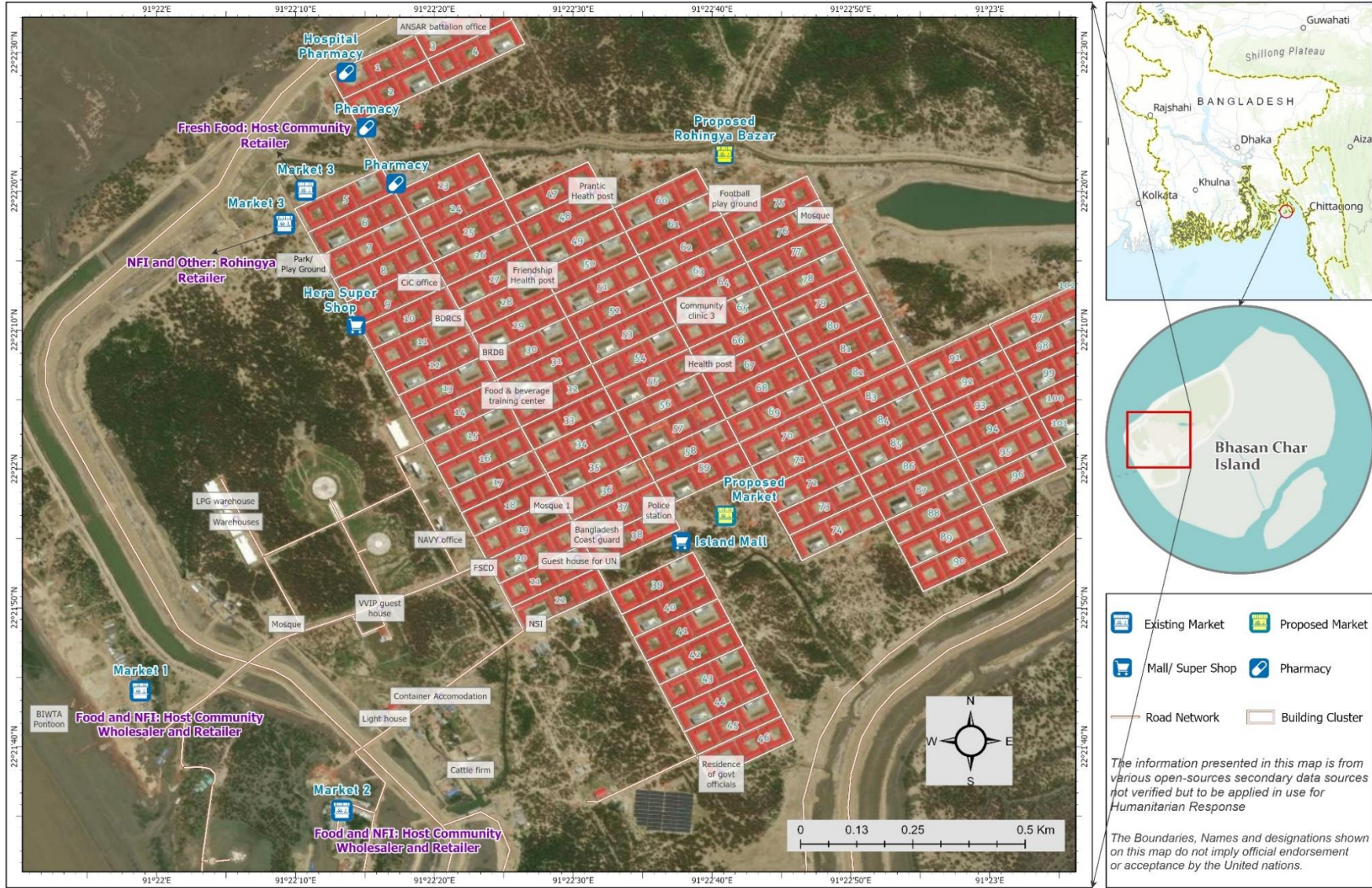


➤ ANNEX 1: Map of Bhasan Char



**vam**  
food security analysis

**Existing and Proposed Marketplaces in Bhasan Char  
Noakhali, Bangladesh**



➤ **ANNEX 2 : Price comparison between Bhasan Char and other sub-districts**

Commodity	Actual W/R prices in November (Median)				Difference in BDT with Bhasan Char Prices (+ve value means BC price is high)		
	Chattogram	Teknaf	Ukhia	Bhasan Char	Chattogram	Ukhia	Teknaf
Rice BR28 (Wholesale)	47	48	45	50	3	5	2
Rice BR28 (Retail)	50	50	48	50	1	2	0
Rice BR29 (Wholesale)	44	47	42	51	8	9	4
Rice BR29 (Retail)	46	50	45	53	7	8	3
Rice Gazi (Wholesale)				45			
Rice Gazi (Retail)	37	40	40	48	11	8	8
Flour (Wholesale)		35	36	35		-1	0
Flour (Retail)		40	38	38		0	-2
Lentil (Wholesale)	84	85	87	78	-7	-10	-8
Lentil (Retail)	80	90	90	90	10	0	0
Soyabean (Wholesale)		145	148	145		-3	0
Soyabean (Retail)		150	150	150		0	0
Egg (Wholesale)		8	8	10		2	2
Egg (Retail)		9	9	11		2	2
Salt (Wholesale)		29	28	21		-7	-8
Salt (Retail)		35	30	25		-5	-10
Sugar (Wholesale)		80	78	79		1	-1
Sugar (Retail)		85	80	83		3	-3
Chickpea (Wholesale)	40	68	64	74	34	10	6
Chickpea (Retail)	55	70	65	78	23	13	8
Ysp (Wholesale)	45	42	43	38	-7	-5	-4
Ysp (Retail)	42	45	45	40	-2	-5	-5
Lentil Khesari (Wholesale)	50	83	90	115	65	25	33
Lentil Khesari (Retail)	50	100	100	135	85	35	35

Commodity	Actual W/R prices in November (Median)				Difference in BDT with Bhasan Char Prices (+ve value means BC price is high)		
	Chattogram	Teknaf	Ukhia	Bhasan Char	Chattogram	Ukhia	Teknaf
Lentil Mung (Wholesale)	80	92	89	120	40	31	28
Lentil Mung (Retail)	75	110	95	128	53	33	18
Onion (Wholesale)	100	44	46	40	-60	-6	-4
Onion (Retail)		50	50	45		-5	-5
Garlic Im (Wholesale)	85	110	110	98	13	-13	-13
Garlic Im (Retail)		120	120	113		-8	-8
Chili Green (Wholesale)		90	80	100		20	10
Chili Green (Retail)		120	100	120		20	0
Chili Red (Wholesale)		190	185	120		-65	-70
Chili Red (Retail)	170	195	200	130	-40	-70	-65
Chicken (Wholesale)		160	160	178		18	18
Chicken (Retail)		180	170	180		10	0
Turmeric (Wholesale)		135	128	195		68	60
Turmeric (Retail)	105	140	140	210	105	70	70
Potato (Wholesale)	17	20	19	22	6	3	2
Potato (Retail)		25	24	25		2	0
Lemon (Wholesale)		4	4	5		1	1
Lemon (Retail)		5	5	6		1	1
Papaya (Wholesale)		25	20	25		5	0
Papaya (Retail)		30	28	25		-3	-5
Brinjal (Wholesale)		40	34	45		11	5
Brinjal (Retail)		50	40	50		10	0
Cucumber (Wholesale)		30	25	35		10	5
Cucumber (Retail)		40	30	40		10	0



Commodity	Actual W/R prices in November (Median)				Difference in BDT with Bhasan Char Prices (+ve value means BC price is high)		
	Chattogram	Teknaf	Ukhia	Bhasan Char	Chattogram	Ukhia	Teknaf
Swetgroud (Wholesale)		32	28	35		7	3
Swetgroud (Retail)		40	35	40		5	0
Okra (Wholesale)		40	40	50		10	10
Okra (Retail)		50	55	60		5	10
Bittgroud (Wholesale)		42	45	63		18	21
Bittgroud (Retail)		55	60	70		10	15
Cauliflower (Wholesale)		70	70	65		-5	-5
Cauliflower (Retail)		90	80	70		-10	-20
Bottlegroud (Wholesale)		15	20	30		10	15
Bottlegroud (Retail)		20	25	35		10	15
Tomato (Wholesale)		110	110	120		10	10
Tomato (Retail)		140	120	140		20	0
Snakegourd (Wholesale)		35	30	45		15	10
Snakegourd (Retail)		40	40	50		10	10
Radish (Wholesale)		25	25	35		10	10
Radish (Retail)		30	35	40		5	10
Carrot (Wholesale)		110	103	135		33	25
Carrot (Retail)		120	120	140		20	20
Cabbage (Wholesale)		50	40	45		5	-5
Cabbage (Retail)		60	50	50		0	-10
Yardlongbean (Wholesale)		30	30	60		30	30
Yardlongbean (Retail)		40	40	70		30	30
Milk (Wholesale)		81	80	105		25	25
Milk (Retail)		90	90	110		20	20

Commodity	Actual W/R prices in November (Median)				Difference in BDT with Bhasan Char Prices (+ve value means BC price is high)		
	Chattogram	Teknaf	Ukhia	Bhasan Char	Chattogram	Ukhia	Teknaf
Tilapia (Wholesale)		150	140	140		0	-10
Tilapia (Retail)		170	160	150		-10	-20
Rui (Wholesale)		220	240	200		-40	-20
Rui (Retail)		250	290	225		-65	-25
Catla (Wholesale)		250	280	230		-50	-20
Catla (Retail)		300	300	250		-50	-50
Bathing Soup (Retail)		35	35	38		3	3
Hand Wash (Retail)		90	90	90		0	0
Lpg (Retail)		1245	1225	1255		30	10
Kerosine (Retail)		70	70	85		15	15
Petrol (Retail)		96	90	100		10	4

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