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ASSESSING THE FUNCTIONALITY OF MARKETPLACES SERVING ROHINGYA REFUGEES IN BANGLADESH

A market assessment in Cox's Bazar



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Assessing the functionality of marketplaces serving Rohingya refugees in Bangladesh

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All the errors and omissions remain with the authors.

1. Introduction

In August 2017, targeted violence against the Rohingya people living in Myanmar triggered a massive refugee influx in Bangladesh, with an estimated 745,000 Rohingya fleeing into Cox's Bazar. Almost three years on, approximately 1.3 million people living in Ukhyia and Teknaf sub-districts need assistance (ISCG, 2019), including 860,243 Rohingya refugees (187,534 families)¹ residing in 34 camps (WFP, 2020a).

The overwhelming number of arrivals exacerbated an already fragile situation and is believed to have presented new socio-economic challenges to the host communities. Relative price increase of goods and services, market distortions due to aid commodities being sold and decrease in the wage labour rate are but a few challenges that have been reported. On the other hand, the increasing number of contacts and transactions between the two communities (refugees and host population) have contributed to shaping the camp economy. In fact, multiple market actors have emerged, and supply channels of food and non-food products have also diversified.

All in all, the market situation in and around the camps, their interlinkages, functionality etc. have changed substantially since the influx, but updated information on the overall functioning of the market in Cox's Bazar was not available at the time of the inception of this study (November 2019). While quite a number of market assessments exist, these have been undertaken at a micro-level, focussing on specific camp-markets and without taking into account the market environment at large, not to mention the business relationships with the rest of the country. In addition to that, previous studies largely assessed the supply of food. However, given that Rohingya refugees cannot create livelihood opportunities, humanitarian assistance will remain critical. As WFP and other humanitarian partners are prioritising market-based interventions, a more comprehensive and updated market assessment was required in order to identify how markets can fulfil the demand for essential needs required on a regular, seasonal, or exceptional basis by households for ensuring survival and minimum living standards.

A multi-sector market assessment was therefore key to identifying new market relationships formed, gaps remaining unfilled and an effective plan for multi-sector interventions moving forward, aiming at investigating the market access to goods beyond food.

The rest of this paper is organized as follows. Section 2 describes the context, section 3 reviews previous markets assessments, section 4 assesses current market functionality, section 5 sheds some lights on the impact of refugee influx on markets, while section 6 provides concluding remarks.

¹ Rohingya refugee response/Bangladesh. Joint Government of Bangladesh - UNHCR Population Factsheet as of [31 May 2020](#).

2. Context

2.1. Cox's Bazar, the world's largest refugee resettlement

Cox's Bazar is the southernmost district in Bangladesh. It is a strip of land in the Chittagong Division jutting into the Bay of Bengal and bordering the Rakhine state of Myanmar where most Rohingya population have been residing. Due to its proximity and religious closeness, Cox's Bazar has been a host community to Rohingya migrants and refugees over decades. By 2016, approximately 35,000 Rohingyas² were residing in the registered camps in Ukhiya and Teknaf *upazilas*, while the number of the unregistered Rohingyas was estimated to be much higher, most of whom were living in two makeshift sites near Kutupalong and Leda.³

In August 2017, escalated sectarian violence against the Rohingya population in the Rakhine state triggered an unprecedented refugee influx, with thousands of Rohingyas fleeing to Cox's Bazar in just few weeks. By November 2017, nearly 622,000 refugees⁴ had arrived in addition to those previously residing in the area. This included an estimated 46,000 living in host communities.

Humanitarian actors responded and intervened promptly, covering a wide range of needs, including food, water, sanitation and hygiene (WASH) items, household items, and core services such as medical and educational facilities in the camps.

Yet, three years down the line, levels of vulnerability remain high, with 94 percent of all Rohingya refugees being highly and moderately vulnerable to food insecurity and in continued need of humanitarian assistance to meet their basic needs. In addition to that, 41 percent of the host community face the same levels of vulnerability (WFP, 2020a).

2.2. Three years on since the onset of Rohingya refugee crisis

As of May 2020, WFP assisted 144,387 beneficiaries through in-kind transfers (oil, rice and pulses), and 714,182 beneficiaries through the e-voucher transfer modality through 16 WFP retail outlets distributed across the camps.⁵ Additionally, fresh food corners (within the retail e-voucher outlets) and farmers' markets were introduced to provide fresh food items to the refugees. In total, USD 6.5 million were transferred to the e-voucher outlets, with a plan to scale up and reach 100 percent of the refugee population with this transfer modality.⁶ WFP also provides multi-wallet⁷ support to other organizations for the distribution of Liquefied Petrol Gas (LPG) and hygiene kits.⁸

Ukhiya and Teknaf *upazilas* are considered among the poorest areas of the country. Considering the local population in the host communities was less than half a million in the last population

² *Ibidem*.

³ *Upazila* is an administrative area in Bangladesh which functions as a sub-unit of district (Joud, Rossi and Wise, 2017).

⁴ ACAPS, Rohingya Crisis Situation Analysis [November 2017](#)

⁵ WFP Bangladesh, Rohingya Refugee Response, Situation Report #38, [May 2020](#).

⁶ WFP is rapidly decommissioning the in-kind assistance; in fact, in January 2020 roughly 370,000 individuals were assisted with this transfer modality. WFP Bangladesh, Rohingya Refugee Response, Situation Report #34, [January 2020](#).

⁷ The multi wallet strategy is a centralized inter-agency service that is used for distributing not only food by WFP but also other non-food items by other agencies.

⁸ WFP Bangladesh, Rohingya Refugee Response, Situation Report #36, [March 2020](#).

census,⁹ it is indisputable that the magnitude of the influx has overwhelmed the local population. Although there is a restriction of movements across camp sites and the interaction between the refugee and the host communities is officially limited, it is believed that there is enough mobility between these two communities and that the humanitarian responses have spilled over into the market environments outside the camps.

The principal mode of the humanitarian assistance used to be largely in-kind distributions as it was a modality that better matched the rapidly growing needs of refugees. With the employment opportunities being limited for refugees, it has been reported that the Rohingyas had been selling in-kind assistance in informal markets in and around the camps to generate cash flow and meet other needs such as more diversified diets and other non-food needs including medicine, clothing, toiletries among others (WFP, 2019).

As these assistance items flow back into the market, there has been a concern about market price distortions (downward pressure) which may hamper the competitiveness of local vendors. This is contrary to the worry in the initial stage of resettlement, where the additional demand generated by the newcomers might have driven up the prices of goods and services in the local markets, in turn potentially increasing the cost of living and deteriorating the living conditions of low-income households in the host communities.

Over the past three years, the market environment has evolved substantially in response to these varying forces, with significant economic interaction between the enterprises and individuals inside and outside the Rohingya refugee camps (Rosenbach *et al.*, 2018). There have been multiple market assessments conducted in the past by different agencies in response. Building on the rich information provided by previous studies, this assessment attempted to diagnose the market situation and functionality and provide the most up-to-date information as the humanitarian actors consider moving towards market-based approaches in the future.¹⁰

Recently, with high rates of COVID-19 cases, the Cox's Bazar municipality declared a "Red Zone" in the camps, with the area under a strict lockdown and markets only open on Sundays and Thursdays.¹¹ This report does not attempt to portray the evolving market situation as a result of increasing COVID-19 cases and consequent social distancing and lockdown measures. However, since the data was collected only few weeks before the pandemic declaration, we believe that it can be used as a baseline to understand how the novel coronavirus is impacting markets in Cox's Bazar.

3. Review of previous market assessments

Because of Cox's Bazar's geographical location, some 20 markets remain along the Ukhiya-Teknaf road. Several assessments looked at these markets since the arrival of the Rohingya refugees (AAH/ACF, 2017; CWG, 2018; Joud, Rossi and Wise, 2017; Rahmar *et al.*, 2019). The common trait of

⁹ Source: Population and Housing Census 2011, Bangladesh Bureau of Statistics. Census figures for Ukhiya and Teknaf were respectively 205,614 and 262,353.

¹⁰ In this respect, WFP aims to cover 100 percent of the refugee population to the e-voucher support by September 2020. WFP Bangladesh, Rohingya Refugee Response, Situation Report #38, [May 2020](#).

¹¹ *Ibidem*.

such assessments is the agreement that markets in Cox's Bazar were functioning well enough to bear such an increase in demand.

These markets supply fresh produce, medical supplies and other essential items (CWG, 2018). The most important ones are Court Bazar, Ukhiya City Bazar, Nhilla Bazar, and Teknaf Bazar, which are long established markets with a relatively large number of wholesalers that deal with rice, lentils, wheat flour, soybean oil and some manufactured non-food items like hand soap. These four markets play the role of trading nodes between Chittagong and the smaller markets in the district (AAH/ACF, 2017; Joud, Rossi and Wise, 2017). However, given the people's movement restrictions imposed by the Government of Bangladesh, the distance, and the cost of transport, these major markets were hardly accessible for Rohingya customers, whose purchases were mostly concentrated in the markets nearest to the settlements and the camps (e.g. Kutupalong, Balukhali, Thaingkhali, Palongkhali, Leda, and Nayapara) (Joud, Rossi and Wise, 2017). These local markets quickly adapted to the increased demand by attracting new traders. The Rohingya community itself established temporary structures in satellite markets (CWG, 2018) and operated part of this (informal) business, with possible setbacks in terms of social cohesion between refugee and host communities the more they step-in the business (Rahmar *et al.*, 2019).

The proximity with a major commercial hub like Chittagong enhances the responsiveness of the supply chains, allowing smooth supplies inflow and the flexibility of keeping relatively low stocks. Stock lead time was found to be between one to four days, with traders keeping in their outlets just enough goods worth between one to three days of sales (AAH/ACF, 2017; Rahmar *et al.*, 2019). As a matter of fact, traffic congestion and some delays was found to be the major supply chain-related bottleneck (AAH/ACF, 2017; Joud, Rossi and Wise, 2017). Most of the goods – particularly those supplied from Chittagong - have been largely available, with the exception of firewood that was mostly procured locally from small-scale entrepreneurs, middlemen and intermediaries. Overall, small and medium traders in the region were found to have the capacity to scaleup their supply to meet the potential increase in demand from the refugees (Joud, Rossi and Wise, 2017).

Over time, as long as the settlements grew in size and the crisis protracted, a number of market-related issues emerged. At the onset of the emergency, local traders benefitted from an increase of the customer base (AAH/ACF, 2017; Joud, Rossi and Wise, 2017), but at the same time prices increased (AAH/ACF, 2017; Rahmar *et al.*, 2019), both implying that supply had some challenges to quickly adapt to the new demand, and that profit margins may have boosted for some traders in the short run. Overall, the margins calculated as the difference between the wholesale price paid by the trader and the retail price charged to the customer were found to be approximately 10 percent for goods usually sold in kilograms multiples such as rice, wheat flour, and sugar, whereas the same margins for goods normally sold by the gram could even double, for example in the case of red lentils (Joud, Rossi and Wise, 2017).

However, for many traders this new situation did not bring major commercial advantages. In fact, the prospects of enhanced business opportunities coming along with the additional demand did not necessarily materialize for many of them (Joud, Rossi and Wise, 2017), because the setup of the humanitarian intervention in support to the Rohingyas brought market disruptions too. In fact, most of the assistance to the Rohingyas has been initially channelled by the Government and

humanitarian actors through in-kind donations - especially rice, pulses, oil and shelter materials - thus making not profitable for traders 'competing' on the same goods.

The massive inflow of few commodities free of charge in a context where livelihood opportunities are limited,¹² brought many Rohingyas refugees to sell part of the humanitarian aid to have cash for other essential needs, despite 72 percent of their expenditures still being on food (WFP, 2020a). Notably, the frequency and levels of resale of food was significantly lower among e-vouchers beneficiaries compared to in-kind (WFP, 2019). While this practice contributed to the development of markets, it is rather inefficient. In fact, since the Rohingyas do not have much bargaining power, they must accept very low prices when selling the in-kind assistance, hence reducing its 'value'. Also, by selling food to meet other needs, they may further reduce their calories intake, albeit part of this cash was used to buy more nutritious food such as fresh vegetables, dry fish and eggs. However, these food was consumed in minimal quantities, resulting in insignificant difference in the prevalence of poor and borderline food consumption between e-voucher and in-kind beneficiaries (WFP, 2019). Finally, the same food often ended back in informal markets at cheaper prices, further disrupting the market systems in Cox's Bazar district (CWG, 2018).

4. Market Functionality Index

4.1. Trader & Market survey

A scoping mission set the ground for the market assessment in November 2019, while the data collection was conducted in the first week of January 2020, with 286 traders interviewed across 22 marketplaces in Cox's Bazar district.

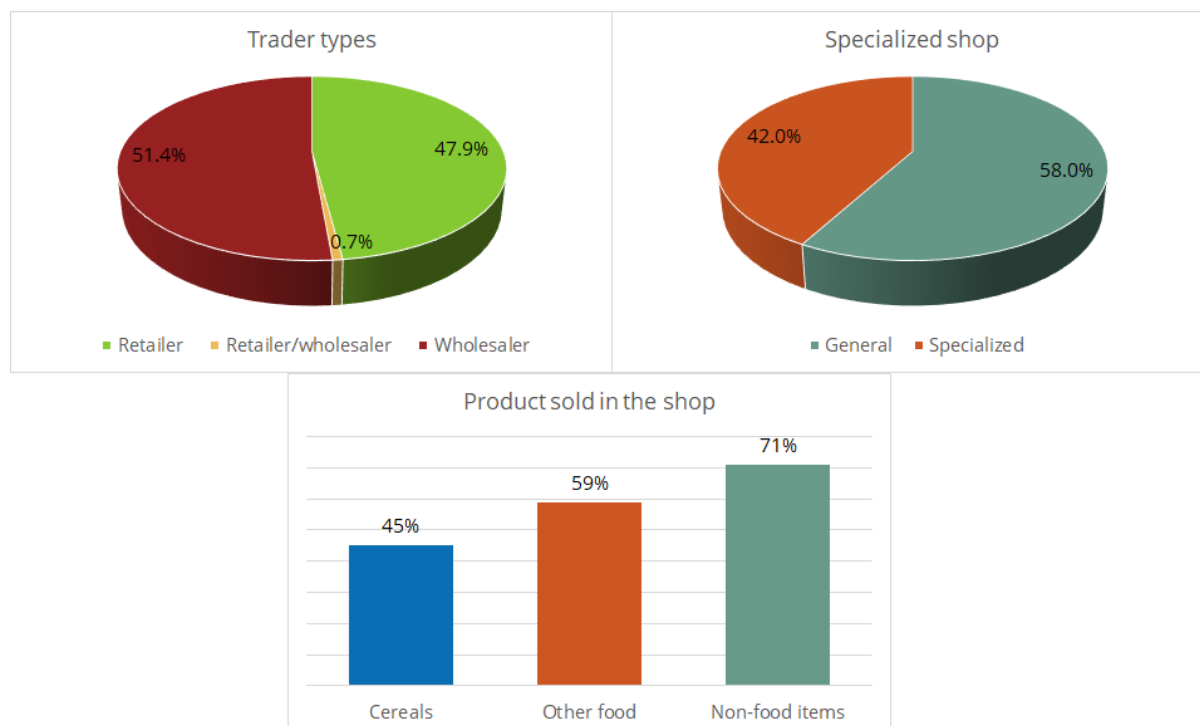
These marketplaces can be classified in three major groups: formal markets, informal markets and e-voucher shops (i.e. WFP retail outlets). Formal markets are regulated by a local market authority and operated by licensed traders whereas informal markets are not regulated. Another major difference between the former two groups is their pre-existence to the Rohingya influx. Formal markets (or *bazar*) originally served the host community and rest outside the camps, whereas informal markets bourgeoned together with the camps and they remain either inside the camps or in their close proximity. In informal markets, traders are mostly Rohingyas, whereas in formal markets they are from the host community. There are about three major informal markets, each consisting of mostly Rohingya petty vendors, selling not only assistance but also other items that are preferred but not part of the general food distribution such as fish and spices. Reportedly, some relief items, the majority of which was rice that accounted for up to 66 percent of the assistance received by Rohingyas, were being resold in formal markets that are located near the camps as well. The distinction between formal and informal markets becomes more blurred the closer the marketplaces are to the camps. One example is Balukhali, where to an untrained eye the formal and informal markets may seem more like two sections of the very same marketplace rather than distinct entities. The third category is very different, as it includes the shops that have

¹² Average monthly household income of Rohingya households is 3,535 taka, with new refugees that manage to work only few days, receive lower daily rates and face restricted work opportunities as opposed to older refugees (WFP, 2020a).

been established by WFP within its e-voucher program. These e-voucher ‘marketplaces’ normally consist of two independent shops (“competitors”) operating in the same premise.

Out of 286 traders that participated in the survey, 25 were rice wholesalers and 261 were other types of traders (Figure 1). About half of the traders are purely retailers, while the other half engage also in wholesaling activities. Approximately, 60 percent of the traders specialized in a single product group, meaning that the rest sold a combination of different products.

Figure 1 - Trader types and specialization



Source: WFP MFI trader survey, January 2020.

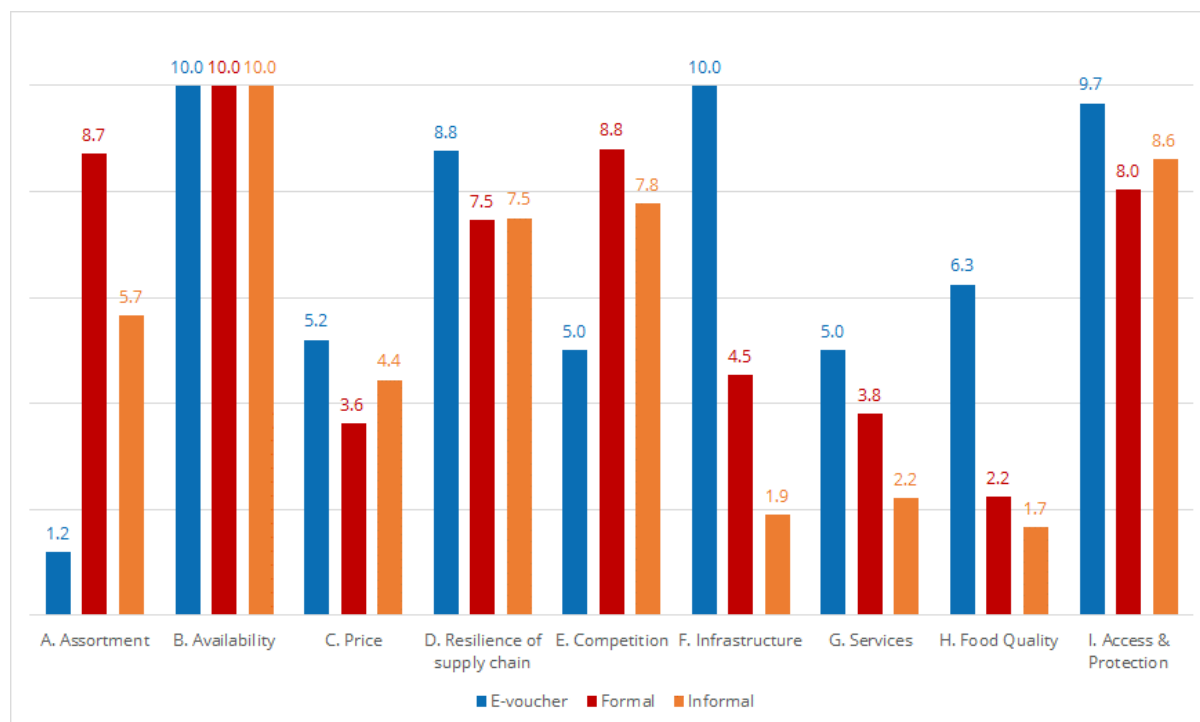
As the assessment team aimed to include a wide range of vendors that sell non-food items, the traders interviewed were most likely to sell non-food items, at 70 percent, by design. For example, out of the 286 interviewed traders, 128 sell cereals, 168 other food, 121 WASH items, and 184 household items, while the sample only marginally tackled traders selling other non-food goods. However, it is important to note that this may not reflect the overall trader composition in the markets as these traders were not randomly selected. Finally, the number of Stock Keeping Units (SKUs) sold by the interviewed traders highlights that a single shop in both the e-voucher program and informal markets tended to sell between 1 and 50 SKUs, while the range of choices was much wider in the formal bazars (in particular in Court Bazar formal market, where almost half of the traders sold between 201-1,000 SKUs). Table 5 in the Annex A provides a breakdown by marketplace of the following features: trader type, specialization, products on sale and SKUs.

4.2. Market functionality dimensions

We analysed data using the Market Functionality Index methodology (WFP, 2020b). This is a novel approach to market assessment proposed by WFP that aims to quantify market functionality by returning a comparable score across marketplaces using the questions from a standard trader

survey. These questions are organized under nine dimensions deemed crucial to make a judgement statement around market functionality. Figure 2 summarizes the results by dimension and typology of marketplace (formal, informal and e-voucher shops).

Figure 2 - MFI dimensions by market type



Source: WFP MFI trader survey, January 2020.

We assessed the market’s assortment based on the capacity of supplying goods that can satisfy essential needs to ensure minimum living standards. These needs include food, shelter, basic household items, safe drinking water, sanitation and hygiene or healthcare. In addition to that, we also assessed the breadth of the assortment¹³ measured by stock-keeping units (SKUs). **Assortment** in formal markets was adequate, as it was possible to buy not only food, but also other essential goods, including water and sanitation items (e.g. soap), some medicines, construction materials, household items, goods for school and for communications. In six out of fourteen of these bazars, there was at least one shop with more than 200 SKUs on sale, and in a couple of cases there were shops selling more than 1,000 SKUs. In the three informal markets, the assortment was much lower (maximum 51-200 SKUs). The program setup was such that customers could buy only food in e-voucher shops, with the only exception of Balukhali, where also water and sanitation items had been introduced as a pilot as of January 2020.

Availability was never found to be an issue, and on a scale ranging from 0 to 10, it always scores with maximum (except for rice in Thaingkhali bazar). This implies that at the time of the assessment traders believed to have enough stocks to meet the concurrent demand, and thus were not afraid of running out of stocks. This is irrespective of product groups such as cereals, other food or essential non-food items. The reason for this is the marketplaces’ proximity to a

¹³ Defined as the choice within individual merchandise groups that includes different product categories and, within each category, the number of product lines and the number of variants for each of these product lines.

major market hub like Chittagong, and a decent road infrastructure in place, which ensures a smooth flow of goods into Cox's Bazar markets.

When it comes to **prices**, roughly half of the 166 interviewed traders selling food other than cereals reported significant¹⁴ increases during the last month (Table 1) - mostly on account of low supply - for the following food groups: oil, fats and spreads; sugar; and other vegetables (e.g. onions). At the time of the scoping mission, Bangladesh was in fact dealing with the export ban imposed by the Government of India as of September 2019 on onions.¹⁵ Since the domestic onion consumption is mostly met by imports from India, the ban triggered an extreme market turmoil and price volatility as traders were exploring alternative commercial routes to purchase onions, including Myanmar, China, Turkey, Pakistan, and Egypt. Yet, at the end of November 2019, onion price stood up at 260 taka per kilogram¹⁶, whereas normally they remain between 30 – 50 taka per kilogram depending on the variety. In addition to that, 20 traders out of the 128 selling cereals reported price increases for rice, while 33 out of 184 selling household items reported a significant increase for liquefied petroleum gas (LPG). In general, weekly price changes can occur because of temporary issues in the supply chain (see for example the price of rice BR29 in Figure 16 in the Annex A).

Table 1 - Number of traders reporting a significant price increase in the last month

Cereals		Other food	Non-food items		
Rice	20	Pulses, seeds and nuts	5	WASH - Drinking Water	0
Maize	0	Orange fruits	11	WASH - Latrine construction materials	0
Cassava	0	Tubers	4	WASH - Hygiene NFIs (toilet paper, toothbrush, toothpaste, laundry detergent)	3
Wheat	1	Eggs	3	Health - Medicine (over-the-counter pharmaceuticals)	1
Flour	1	Dairy	40	Shelter - Shelter items (Tents, plastic sheeting, metal sheet, tarpaulin, etc.)	1
Pasta	1	Flesh meat	1	Shelter - Constructing materials (Bricks, bamboo, etc.)	1
Bread	1	Organ meat	1	Home - Clothing including shoes	1
Other	0	Fresh fish / Shellfish	1	Home - Bedding (Bed nets, blanket, floor mat/mattress, ground insulation, mosquito nets)	1
		Dried fish	2	Home - Cooking and eating utensils	1
		Orange vegetables	5	Home - LPG	33
		Dark green leafy vegetables	2	Home - Other stoves, fuel and lighting (e.g. gas, charcoal, firewood, solar panels)	1
		Other vegetables	75	Education - School material (Schoolbooks, stationary, uniforms)	1
		Oil, fats, and spreads	94	Communication - Mobile phones/SIM cards/services and internet	0
		Sugars	95	Other	1
		Condiments	28		
		Other	0		

Source: WFP MFI trader survey, January 2020.

We triangulated the information from the trader survey with WFP's price monitoring data that reports average prices for the markets in Ukhiya and Teknaf *upazilas*.¹⁷ Figure 3 shows the cost of the food component of a simplified version of the Minimum Expenditure Basket (fMEB)¹⁸ that covers ten commodities (i.e. rice BR29, red lentil, yellow split peas, mung dal, onion, apple, chicken,

¹⁴ In the MFI, we ask about 'significant price increase', where significant is a 'subjective' statement that the trader makes by implicitly comparing current and previous month prices. Alternatively, traders can be asked if a price has increased by a certain share (e.g. 10 or 50 percent); yet, while this approach may be perceived as more solid, it implies asking a trader the current price, recalling the reference price, and calculating on the fly if the increase is above or below the threshold. All in all, in practical terms it is unlikely that traders will be accurate in doing so, while instead they normally return a ballpark figure not far from being a subjective statement. In conclusion, price changes can be calculated in an 'objective' way only through price monitoring systems, while trader surveys are not the ideal tool to do so, hence the MFI results should be triangulated with price monitoring systems.

¹⁵ The export was lifted in January 2020, with the arrival of the new-season crops, the Kharif variety, in wholesale markets (Source: <https://www.tridge.com/stories/recovery-of-the-indian-onion-shortage-with-the-arrival-of-new-harvest-season>)

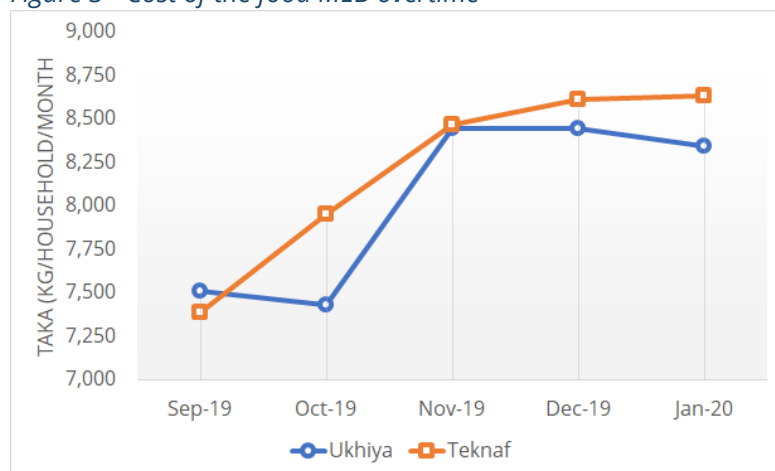
¹⁶ <https://allresultbd.com/bangladesh-onion-prices/>

¹⁷ [WFP market price monitor in Cox's Bazar.](#)

¹⁸ For further details on the fMEB, please refer to (WFP, 2019).

soybean oil, sugar and chili powder), whose prices had been monitored from September 2019 to January 2020.

Figure 3 - Cost of the food MEB overtime



Source: WFP Price Monitoring, Cox's Bazar. Authors' calculations.

Overall, the fMEB was cheaper in Teknaf markets, but its cost constantly increased as of September 2019, with a jump in November by 7.7 percent, largely driven by onion (24%), yellow split peas (5%), and rice (3%). In Ukhiya markets, an even larger price increase (13.7%) was again driven by onions (54%). Interestingly, despite the price trends for many commodities were stable if not declining, between November 2019 and January 2020 the overall cost

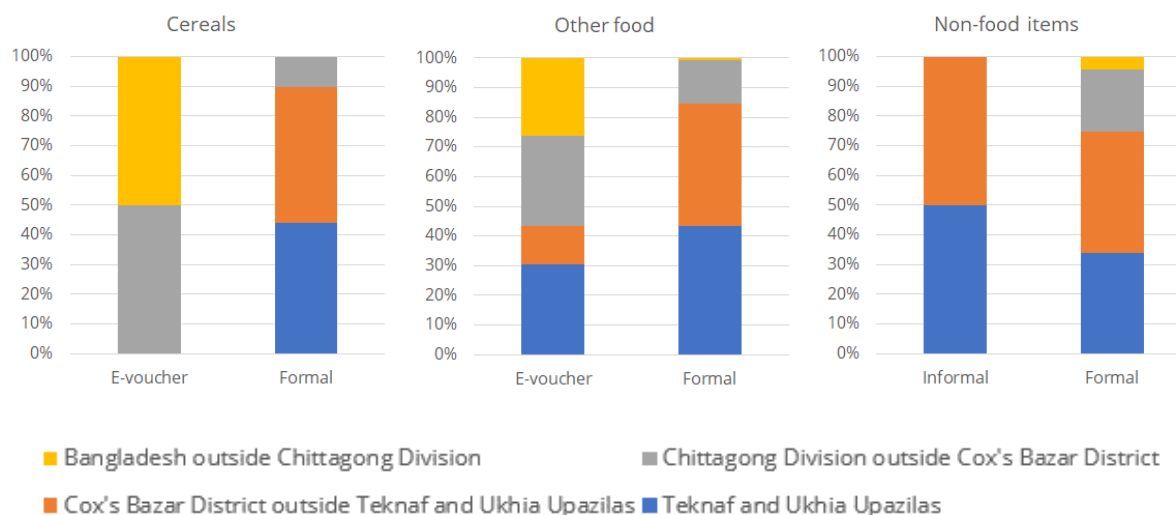
of the fMEB remained well above the level recorded in September 2019, thus probably explaining the traders' perception that prices were on the rise at the time of the data collection, with little predictability of their evolution.

The **resilience of the supply chain** is similar across Cox's Bazar markets (respectively scoring 7.5 for both formal and informal markets and 8.8 for e-voucher shops out of 10). This dimension is broken down into two sub-dimensions: responsiveness of the supply chain and its vulnerability to disruptions. **Responsiveness** is characterised by stock level and lead time to get new goods in the outlet. A shorter lead time enables the trader to adjust to changing demand more rapidly and be aware of upstream supply chain disruptions earlier; in each market it was reported to be below one week. Despite a shorter lead time is typically associated with lower stocks, overall outlets store goods at least worth for one week of sales, except in Balukhali markets (both formal and informal). We rely on a network perspective to further analyse the supply chain's **exposure to disruptions**. Except the e-voucher shops which had upstream connections in different areas of the country, most of the interviewed traders sourced their supplies within a relatively small geographic area, hence being more vulnerable to (natural) disaster-related disruptions. More specifically, almost all the interviewed traders who sold cereals or other food in formal markets got their supplies from Cox's Bazar district (respectively 90% and 85%). In comparison, in e-voucher shops cereal supply came entirely from outside the district, whereas the sourcing of other food was more balanced (43% inside Cox's Bazar district and 57% outside it) (Figure 4). These findings are largely driven by the different volumes that these traders can handle, with e-voucher traders that are normally branches of a larger company based elsewhere in Bangladesh, thus with more economic resources and stronger upstream connections than the local traders operating in formal markets in Cox's Bazar.

We assessed the vulnerability of the supply chain by its complexity too – a network of many suppliers is more likely to offer excess pathways which can be used if one supplier fails – and the

criticality of its nodes. In this regard, the majority of traders reported to deal with more than one supplier and have organized their business in such a way that they did not rely on one key supplier, hence reducing the risk of supply chain interruptions.

Figure 4 - Supply sources



Source: WFP MFI trader survey, January 2020.

Competition among market participants characterizes an efficiently functioning market. This dimension investigates if the business environment is conducive to fair competition, which is typically the case when there are enough traders in the marketplace and no dominant position exist. These two conditions should lower the risk of a few traders building an oligopolistic cartel, thus setting prices and making profit disproportionately. Several traders operated both in formal and informal markets (respectively scoring 8.8 and 7.8 out of 10), with apparently none dominating the marketplace alone. Differently, competition between e-voucher shops was limited by their low number by WFP's programmatic decision although the contracted shops in each WFP's premise could equally compete between them (hence a score of 5 out of 10).

The standard of e-voucher shops is clearly not comparable with the other markets in terms of **infrastructure**. The premises of WFP's contracted shops were all built in concrete and in good state as required by WFP standards. Differently, informal markets were filled with open-air stands with severe maintenance issues. Formal markets presented mixed structures in very different conditions as per Table 7 in the annex A. While in e-voucher shops all the key physical features deemed important in a well-functioning marketplace were there, in formal markets the most common issues reported were lack of a closed sewage and waste collection system, absence of proper walkways and unreliable electricity. Jamtoli informal market remained the one with least features available.

Everywhere in the world, buyers evaluate sellers' offerings based on the customer's value that they think a product has, which is the combination of price, service and quality (Weinstein *et al.*, 2020). Good **service** is associated with competition as retailers have a higher incentive to provide the

best value to customers otherwise they might shop somewhere else. Service can be key to drive customer's choices all things being equal in terms of price and quality. We evaluate service with the transparency of the shopping experience, namely if products are displayed in a clear way and if price tags do exist. We also rate positively if online shopping is possible; admittedly, this service is normally available in more advanced markets, however this is becoming more and more important after the outbreak of the coronavirus disease and the need of social distancing. In addition to that, we assess the checkout experience at shops in terms of waiting time (less than 10 minutes), possibility of paying with different forms of payment, and issuance of automated itemized receipts. Not surprisingly, in Cox's Bazar markets, the service dimension was not prominent. On a scale of 0 to 10, informal markets on average scored 2.2 and formal markets 3.8, whereas e-voucher shops scored 5. In e-voucher shops, the main issue was the waiting time given the high number of customers, the limitation on clients allowed at one time, and the limited amount of checkout points. However, they were the only marketplaces where price tags were displayed and automated receipts were handed out to customers. Normally, cash was the only accepted form of payment in both formal and informal markets, even though given the financial strains characterizing many Rohingya households, purchase on credit was possible in 80 shops of the sample. More advanced forms of payment like credit and debit cards or mobile money were not accepted at all. Together with the lack of issuance of itemized receipts, this was a clear indication of the very low level of services in these markets.

The **quality** of the food sold in the markets was below standard when assessed in terms of hygiene and cleanliness, material separation, temperature control and stock management. These features are crucial to ensure that food is safe and suitable for consumption. We assessed eight indispensable measures that must be in place for food safety¹⁹ (Table 8 in the annex), and none seemed to be present in Balukhali informal market, and in the formal markets of Palongkhali and Ukhiya. Except for e-voucher shops and Balukhali and Whykong formal markets, food was not protected from weather events (water, heat, direct sunlight) or chemical contaminants. Lack of uninterrupted refrigeration and goods sold after the expiry date were the most common issues with a very few exceptions. Only in half of the assessed marketplaces we found that a) fresh fruits and vegetables were well-separated; b) raw meat, poultry, fish or seafood and dairy products were stored and displayed in refrigerated units that were on and working; and c) processed pre-packaged foods were intact and in properly labelled containers. The quality assessment results in formal and informal markets were substandard.

Finally, we assessed **access and protection** issues. Physical access was not reported as a concern, except during the monsoon season in a few marketplaces (Balukhali informal, Court Bazar, Leda Bazar, and Ukhiya Bazar). However, social barriers for women existed in eight markets, along with physical threats for children. The markets where both of these two issues were reported are Court Bazar, Morichya, Nayapara, Nhilla, Palongkhali and Teknaf City bazars. This is in line with the findings of a recent market assessment, as "in the camp environment, women do not feel safe

¹⁹ Admittedly, assessing the quality of food can be challenging for enumerators not trained with food safety standards, and the results in Table 8 can be double-checked in e-voucher shops, where 6.7 out of 10 seems a surprising and - relatively low - outcome.

accessing local markets as they have to break purdah, be visible to men and therefore perceive a greater risk of sexual harassment and assault" (Rahmar *et al.*, 2019).

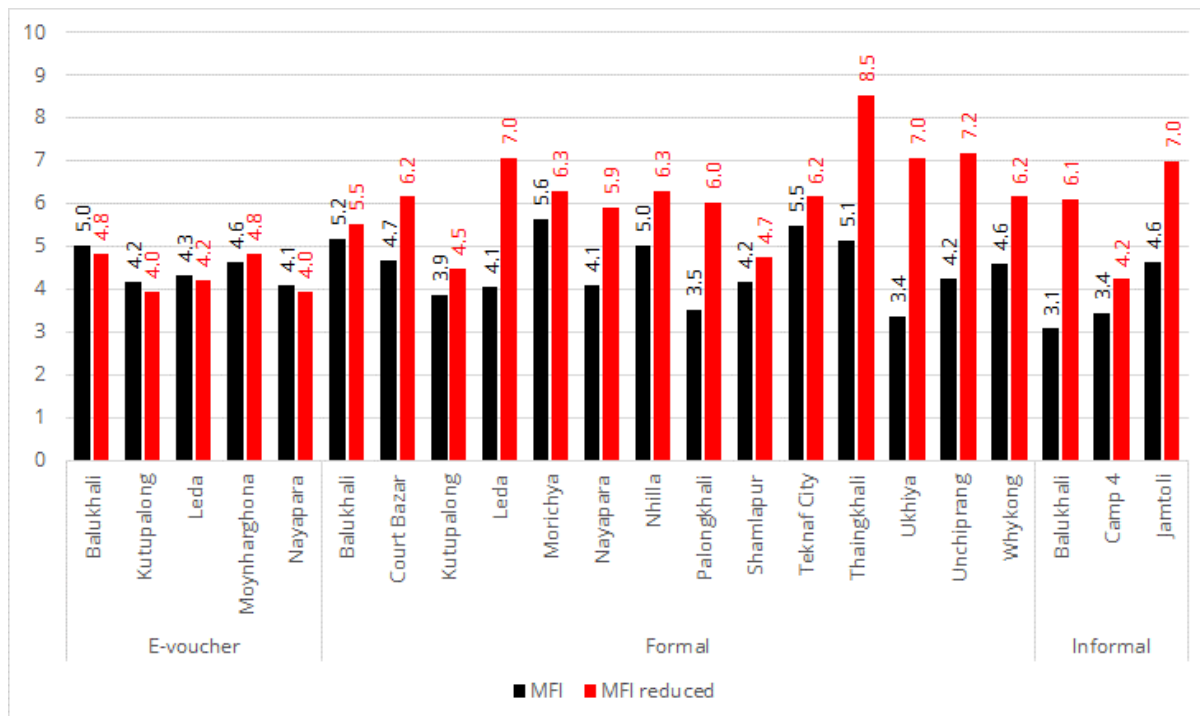
4.3. Bringing all the dimensions together

The market dimensions presented above can be aggregated into two composite indices: the MFI and the reduced MFI. While the former takes into account all the nine dimensions, the latter tackles only assortment, availability, prices and responsiveness of the supply chain due to the limitation of mobile data collection. The MFI is therefore the comprehensive indicator for measuring market functionality, as it aggregates the information collected both at the trader- and market-level. However, the market-level dimensions are not likely to evolve as rapidly as the trader-level dimensions do with time. For example, it may take a while for the marketplace infrastructure to transform or for the overall quality of food being sold to be improved. These changes are likely to happen, either organically or deliberately, over an extended period of time. In that regard, the reduced MFI, which aggregates the information collected at the trader-level only, better captures constantly evolving market situations and the adjustments required to remain in the business as new challenges emerge. All in all, the full MFI sets a baseline for market functionality, whereas the reduced MFI finds its best use in monitoring exercises with more frequent data collections, for example in trying to understand the impact of the COVID-19 pandemic to market functionality.

Figure 5 presents the MFI and the reduced MFI for Cox's Bazar markets. While in several markets there is little difference between the two indicators, in certain ones the difference is quite significant (e.g. Ukhiya and Thaingkhali formal markets and Balukhali informal market). This implies an unbalance in the level of performance between market- and trader-level dimensions. Not surprisingly, e-voucher shops overall have very aligned MFI and reduced MFI scores. When the score of reduced MFI contrasts with the MFI, it signals that the level of market functionality measured at the market level, such as infrastructure or food quality, is not on a par with the most basic functionalities gauged at the trader level. For example, Balukhali informal market scores 6.1 with the reduced MFI but only 3.1 with the MFI, with poor infrastructure, food quality and services driving the disparity in the results. This demonstrates that there is substantial room for market development activities in the marketplace although the market may be functioning reasonably well in terms of assortment, availability, price or resilience.

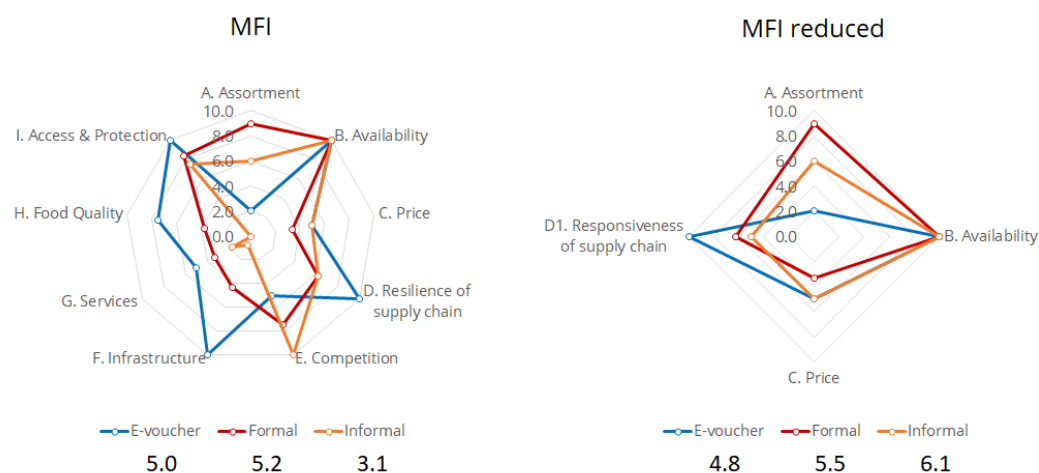
Figure 6 returns at a glance how the three types of marketplaces perform in Balukhali. On the assortment side, it is possible to find almost all the essential goods in the formal market, while the e-voucher setup is fundamentally limited to foods. Availability is the same for all, and the price dimension shows that both reported price trends and volatility are very similar across the three marketplaces. E-voucher shops rely on a stronger supply chain as it has linkages with the rest of the country as opposed to the supply chains of shops in both formal and informal markets, distinguished by more local ties. When it comes to competition, the informal market has a higher number of similar-in-size traders, with no one exerting a dominant position, while e-voucher shops have very weak competition by design. In all the dimensions from infrastructure to services and food quality, the e-voucher shops have a set-up that is not comparable with local markets, while for access and protection the difference is more nuanced.

Figure 5 - MFI (full and reduced)



Source: WFP MFI trader survey, January 2020.

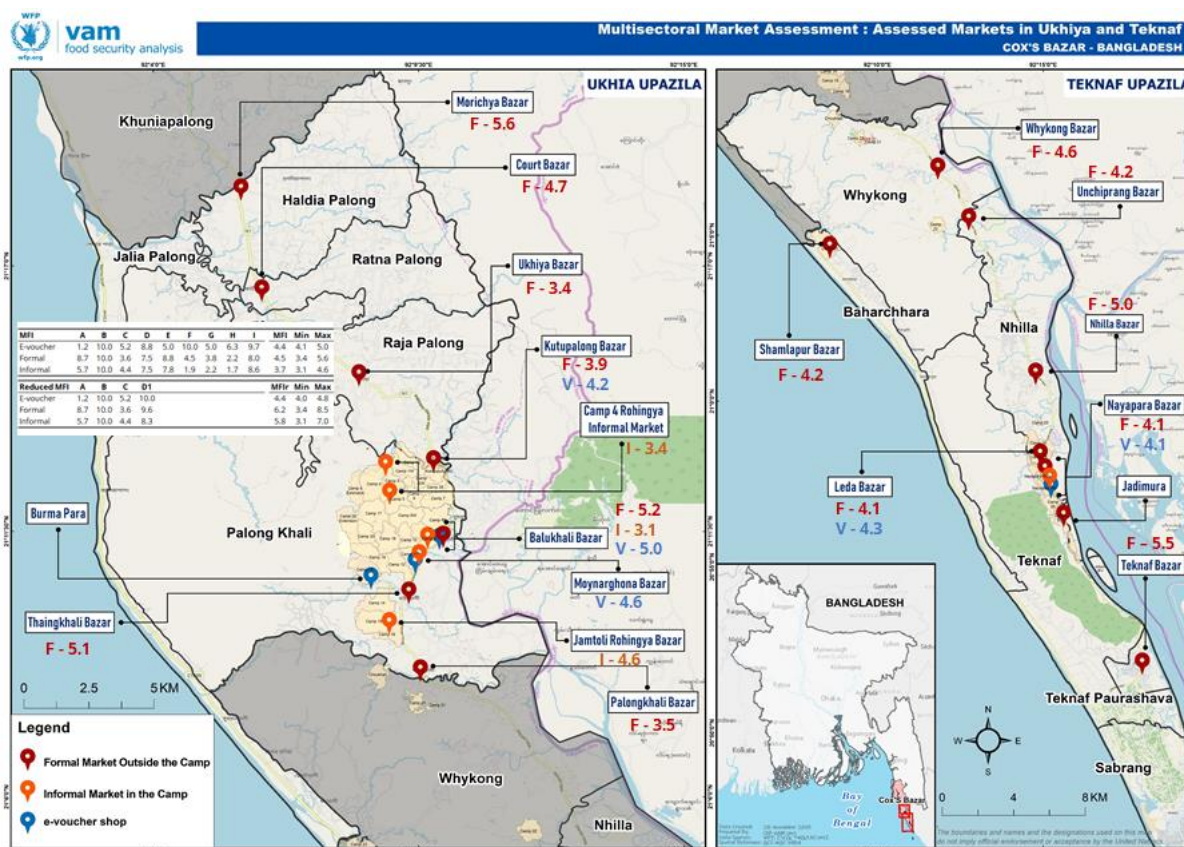
Figure 6 - Balukhali markets



Source: WFP MFI trader survey, January 2020.

Figure 7 shows the MFI²⁰ in a map, while Table 9 in the annex A summarizes all the MFI dimension scores by marketplace. On average, formal markets score 4.5 (ranging between 3.4-5.6), informal markets 3.7 (ranging between 3.1-4.6) and e-voucher shops 4.4 (ranging between 4.1-5.0). The findings in Balukhali markets largely hold for the other marketplaces in Cox's Bazar. WFP has established shops within its e-voucher program that overcome many of the limitations that exist in local markets. The food safety practices and infrastructure standards that WFP has set in place are unlikely to be replicated largely by local traders in the short run as this setup is unfamiliar to or sometimes even not favoured by many local customers (host community). Such changes will follow when long-term market development activities as well as a shift in local sanitary standards take place first. On the other hand, despite introducing a broader range of choices in the e-voucher shops, the beneficiaries continue to have other needs (e.g. medicine, treatments) that could only be met by monetizing the assistance that they receive. There is a programmatic conundrum between a) setting up shops that sell food and adhere to all WFP's standards, knowing that many households will have to sell part of the assistance, vis-à-vis b) relying on formal and informal markets that can offer most of the goods needed for the Rohingyas but most likely at subpar qualities and in poor market conditions that do not meet WFP's standards.

Figure 7 - MFI map



Source: WFP MFI trader survey, January 2020. Note: The numbers in the map indicate the MFI by marketplace. 'F' stands for formal market, 'I' for informal market, and 'V' for evoucher shops.

²⁰ But not the reduced MFI.

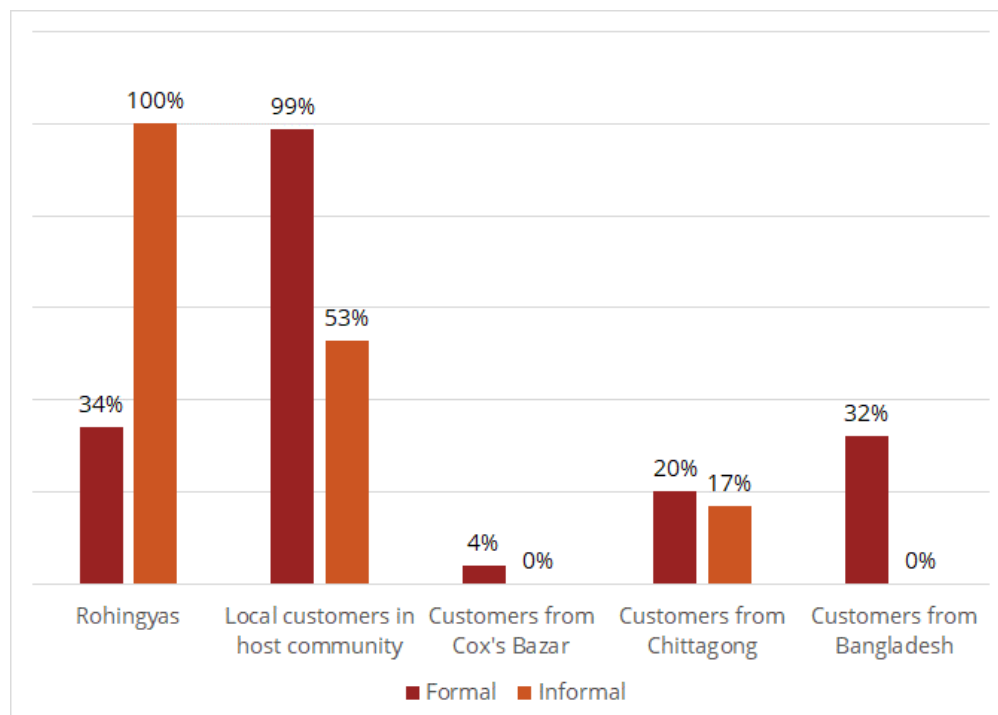
5. Impact on the market since the refugee's influx

The previous section returns a snapshot on market functionality in Cox's Bazar as of January 2020. This has been the result of two major driving forces: a) the massive refugee influx in a relatively small area of the country have completely altered the scene, bringing more business opportunities for some traders along with the additional demand for a large array of goods and services; b) the crisis situation have brought an unprecedented influx of external resources from both the Government and humanitarian actors, bringing a lot of opportunities but also tension between host and refugee communities. While it is beyond the scope of this work to parse out the confounding factors and measure the causality of these two factors, we included a set of questions that probe the perceptions of traders who have been market actors since before the influx, specifically examining whether there have been changes in their business and in the market environments in which they operate. The complete list of questions is shown in Annex B.

5.1. Business opportunities

There are many ways in which the interaction with Rohingyas and the humanitarian community is shaping the market environment. Although the refugees are not allowed to enter the formal markets that are outside of the camps' perimeter, they move around freely between camps in the absence of strict regulation. At the same time, host community members are reported to shop at the informal markets inside the camps and transact business with Rohingya traders. This is clearly shown in Figure 8 where 34 percent of traders in the formal markets reported that they have the Rohingyas as customers and 53 percent of traders in the informal markets reported to have local Bangladeshi customers.

Figure 8 - Reported Customers by Market Type



Source: WFP MFI trader survey, January 2020.

Overall, 206 of the interviewed traders (72 percent) said that the markets in general had improved since 2017, while 72 (25 percent) did not perceive any significant change, whereas only one trader declared that the market conditions have deteriorated during the last three years. In fact, 151 traders stated that their business got a boost by the increased demand and the enhanced business opportunities, while 41 declared that the improvement consisted in an enhancement of the market infrastructures. When asked to specify which infrastructures have in fact improved, traders reported some progresses in shelter (53%), water availability (48%), toilets (38%), reliability of the communication network (26%), and walkaways (23%).

5.2. Humanitarian assistance reselling and price dumping

There is a relatively high resale of humanitarian assistance. Food and other non-food items are widely resold in the informal markets across the camps because it is the only source of income for many to purchase other essential needs for their family (e.g. medicine, treatments, fresh fish, chicken for having nutritious balance food etc.).

While the business around humanitarian assistance reselling is widely acknowledged, there is a conspiracy of silence behind it and very few people in the marketplaces openly talk about it.²¹ Rice is currently sold under the table most likely because in the past significant volumes of rice were resold raising the attention of humanitarian organizations on this business that ultimately led to the introduction of a cap on rice purchases at e-voucher shops²², as measures to minimize resell of assistance. In addition to that, the transition of many beneficiaries from in-kind to e-voucher modality has reduced the profitability of selling rice. Differently, other food like complementary food to breastmilk (e.g. super cereals) and non-food goods provided by humanitarian organizations are still openly sold in the markets.

Rice wholesalers in Chittagong admitted that some rice sourced from Cox's Bazar traders eventually reached them, despite the volumes being negligible compared to the entire volumes being traded in the Division capital.

To provide a benchmark for estimating the potential impact of WFP activities in Bangladesh at large, it should be noted that the country is one of the fastest growing economies with 8.2 percent GDP growth rate in 2019²³ and a stable market environment. The Chittagong port has been constantly expanding its handling volumes in the last nine years, up to some 100 million metric tons in 2019-2020 year and 3,764 vessels²⁴ (even though the growth rate in 2019/2020 has been the lowest since 2012, see Table 3 in the Annex A). Bulk cargo food grains was 5.05 million metric tons in 2016-2017 being approximately 6.9 percent of total imports²⁵. In terms of trade value,

²¹ Anecdotally, there are so-called community committees across all the camps that control the selling and buying of Rohingyas relief goods. Selected Rohingyas per block/sub-block are given advance before any in-kind distribution date, so that they can buy on behalf of the committee (or Syndicate). Some traders seem to be involved to provide the logistics for this business.

²² WFP introduced a cap of BDT 450 on the value of electronic voucher entitlements that refugees can spend on rice. WFP Bangladesh, Rohingya Refugee Response, Situation Report #28, [July 2019](#).

²³ Economist Intelligence Unit, Country Report June 2020.

²⁴ Source: Chittagong Port Authority, Cargo, Containers & Vessels Handling Statistics (Monthly), downloaded from <http://www.cpa.gov.bd/site/page/d93a9285-5d38-4c84-8b4a-643c76cf47c2/> on July 28th 2020. The reported statistics cover the period from July 2019 to June 2020.

²⁵ Source: Chittagong Port Authority, Over View 2017-2018.

imported cereals made 3.2 percent out of total merchandise in Bangladesh in 2018, while food-related products made in total 12.9 percent (Figure 14 and Table 4 in the Annex A).

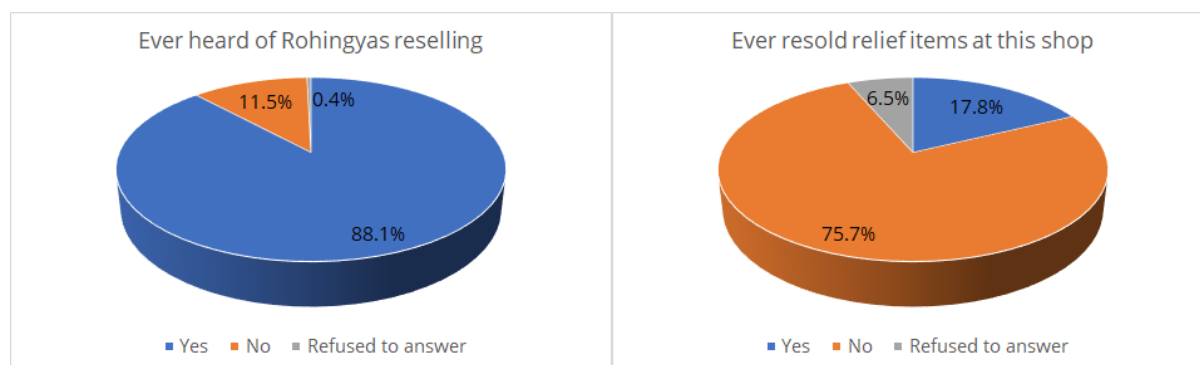
When it comes to rice, local demand is estimated to be 37 million metric tons, and the vast majority of it is met by local production, with some 500 automated millers operating in the country.²⁶ Reportedly, only 4/5 players control 70 percent of rice imports, and approximately 30/40 smaller importers move the rest. In Chittagong city only, there are more than 100 rice wholesalers, each one with large supplies.

Against this backdrop, between January and November 2019, ‘only’ 1,057 metric tons of rice arrived in WFP Chittagong warehouse out of a total of roughly 13,590 metric tons including other foods.²⁷ Even if there is a missing month in this data, when compared with any commercial year between 2011-2012 to 2019-2020, WFP’s contribution to Chittagong Port activity is marginal, remaining between 0.013 and 0.028 percent only, hence the market distortion at the Chittagong Division level are minimal if not nil.

At the Cox’s Bazar level, the impact may be different though. Anecdotal evidence suggests that host community members (including traders) often visit informal markets to purchase assistance items sold by Rohingya traders at a cheaper price than the market price in the formal markets. This happens at the cost of some shops in formal markets that lose competitiveness and hence customers. Another source of market distortion comes from the Vulnerable Group Development (VGD) Government safety-net programme that targets 22,924 households in Ukhiya and 23,461 households in Teknaf with 30 kg of rice per month: this makes approximately 15.3 million metric tons between January and November 2019.

Figure 9 summarizes the reports regarding the resale of assistance made by the Bangladeshi traders in the formal markets. About 88 percent of the traders interviewed replied that they had heard about it. However, when asked about their own experience, only 18 percent of them reported to have had Rohingyas attempting to resell at their shops.

Figure 9 - Resale of relief items

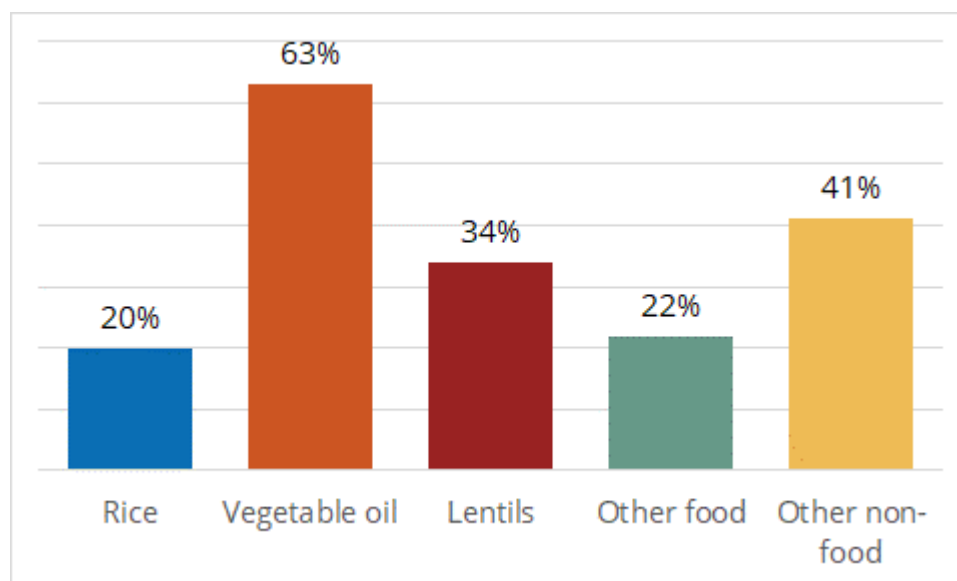


Source: WFP MFI trader survey, January 2020.

²⁶ Source: Interview with the International Research Rice Institute. 26 November 2019.

²⁷ Including High energy biscuits, lentils, vegetable oil, yellow split peas, and other specialized nutritious food.

Figure 10 - Items that Rohingyas usually resell



Source: WFP MFI trader survey, January 2020.

More specifically, the items Rohingyas tried to resell at the shops in the formal markets are displayed in Figure 10. The results suggest that cooking oil is most likely to be resold (63%), followed by non-food items (41%) and lentils (34%). The non-food items that were reported to have been resold is shown in the word cloud in Figure 11, with Balukhali informal market being the 'hub' in the resale business.

Figure 11 - Non-food Items Resold



Source: WFP MFI trader survey, January 2020.

Despite at the time of the assessment rice was least likely to be resold due to the cap introduced by WFP earlier on, we investigated the rice business more in detail because it used to be the deal breaker in the past. Out of 286 traders that participated in the survey, 25 were rice wholesalers and 261 were other types of vendors. Almost all rice traders sell non-parboiled rice (locally known as *atap* rice) and about 30 percent sell parboiled rice. The most commonly sold varieties are BR28 and BR29 (each sold by 88 percent of the traders), which are the top two most popular varieties grown in Bangladesh and account for 49 percent of the area planted in the dry season (Tiongco and Hossain, 2015). These are also the rice varieties provided by WFP in the refugee camps.

In each market, there are less than or equal to 15 rice wholesalers with an exception of Teknaf City Bazar where there are over 50 rice wholesalers. Most of these rice wholesalers stock less than 500 bags of rice - each bag weighing 50kg - while only six reported a stock of more than 1,000 bags. On average, this makes roughly 30 metric tons of rice per wholesaler (Table 2 and Figure 15 in Annex A).

At the time of the data collection, the wholesalers purchased on average a bag of rice at 1,524 taka and sold it at 1,595 taka, with a mark-up of almost 5 percent, spanning between 3.6 and 6.9 percent depending on the marketplace. These figures are overall consistent with an assessment conducted in October 2018 (WFP, 2018), where the total mark-up in the rice value chain - from the miller until it reached the hand of the customer - was calculated to be around 21 percent, but only 7 percent for local wholesalers/retailers (Figure 12).

Table 2 - Rice price

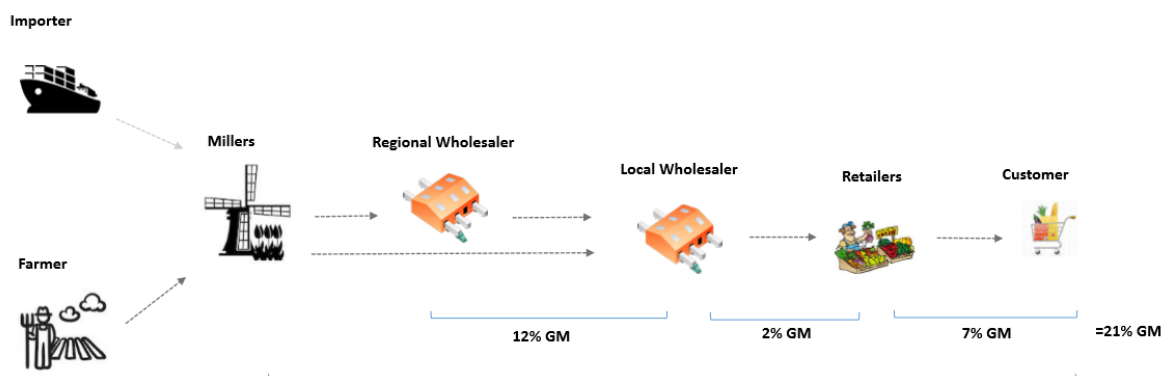
Type	Market	Whole salers	Tons	Price BGD/50 Kg		Mark-up (%)
				Purchase	Sell	
Formal	Court Bazar	9	40	1,257	1,333	6.1
Formal	Kutupalong	1	.	1,400	1,460	4.3
Formal	Leda	3	18	1,327	1,383	4.3
Formal	Morichya	15	36	1,683	1,750	4.0
Formal	Nhilla	7	38	1,783	1,833	2.8
Formal	Palongkhali	12	3	1,450	1,533	5.7
Formal	Shamlapur	12	24	1,450	1,550	6.9
Formal	Teknaf City	55	26	1,633	1,710	4.7
Formal	Ukhiya	5	58	1,737	1,800	3.6
Average		13	30	1,524	1,595	4.6

Source: WFP MFI trader survey, January 2020. Authors' calculations.

Among the 25 rice wholesalers interviewed, only three in Leda bazar answered that Rohingya had sold rice at their shop at a price of 22.7 taka per kilogram, when the market price was 27.3 in comparison. This indicates that the profit generated by purchasing from Rohingyas and reselling in the formal market was much higher compared to the regular profit margin, i.e. 20.6 vs. 4.3 percent, implying that Rohingyas would discount the

rice received by 14 percent (i.e. 22.7 vs. 26.5 taka per kilogram) at the time of the data collection.

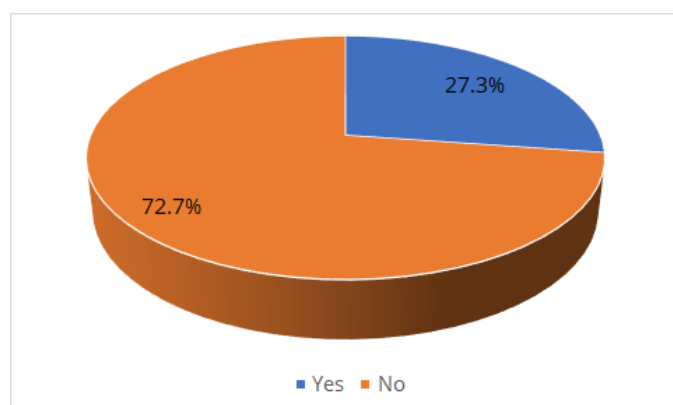
Figure 12 - Rice value chain



Source: WFP computations

A recent study on the impacts of in-kind transfers under different re-selling scenarios attempted to quantify the real income in the economy generated from 1 US dollar of in-kind assistance (Filipski *et al.*, 2020). The study finds that the multipliers generated gradually drop as the quantities sold and the price discounts increase, up to the point that in a scenario that assumes a discount of 50 percent and 50 percent of assistance sold by Rohingyas, the multiplier would be largely below one (i.e. 0.67), implying negative spill-overs to the Cox's Bazar economy.

Figure 13 - Perceived Pressure to Reduce Selling Price on Host Community Traders



Source: WFP MFI trader survey, January 2020.

felt pressure to reduce the selling price to maintain their competitiveness to remain in the business, quite oddly about 73 percent replied that they have not.

The discount figures reported above²⁸ and the lack of rice among the commodity mostly sold by Rohingyas suggest instead that the multiplier can currently be between 1.12 and 1.21, as per two most-likely scenarios presented in the study, while in the past when bulk quantities of rice where sold it is not unlikely that it resided somewhere below one.

While the impact of resale on the host community traders' welfare is not a straightforward question to answer, when asked whether they have ever

6. Concluding remarks

This study provides insights into the functionality of marketplaces in Cox's Bazar. It brings two novel elements in the existing body of literature on the rapidly evolving market situations and prevailing challenges in the context of Rohingyas refugees. First, it investigates markets not only in terms of their capacity of supplying food, but also the essential goods that are indispensable for the wellbeing of the refugees. As such, it builds towards the recent WFP's initiative²⁹ of bringing the analyses for this emergency together into the 'Essential Needs' framework.³⁰ Second, it introduces a new approach to market analysis based on the nine dimensions³¹ deemed crucial for assessing the functionality of marketplaces, with a scoring system that is comparable across markets and over time. The MFI can be used to both draw a baseline and for monitoring activities.

This assessment confirms that the functionality of marketplaces in Cox's Bazar is adequate, with the caveat that a great deal of the demand, for the refugee population, is met by goods donated either with in-kind assistance or through e-voucher shops, therefore formal and informal markets have not proved yet they can completely supply the camps. We found that the host community traders are highly agile in adapting their businesses, and there was no major issue reported in terms of availability of goods in the markets in either formal or informal markets. Yet, differently from traders that run e-voucher shops, they rely on a supply chain network that is very localized, thus introducing short-lived price instability in the system. In terms of assortment, while the range of goods is limited in e-voucher shops, the Rohingyas have access to informal and formal markets that are better equipped to respond to the needs not currently met by assistance programmes.

²⁸ These figures need to be taken with a grain of salt because the whole resale business is (wrongly so) perceived as not legal, hence traders do not want to openly talk about it.

²⁹ For example, the recently released emergency vulnerability assessment (WFP, 2020a).

³⁰ <https://www.wfp.org/publications/essential-needs-guidelines-july-2018>

³¹ The Market Functionality Index assesses the following dimensions: assortment, availability, price, resilience of supply chain, competition, infrastructure, services, food quality, and access & protection. For more information, <https://www.wfp.org/publications/market-functionality-index-mfi>.

This information is captured by the reduced MFI and can be used for monitoring the changes driven by external shocks in future, for example the current COVID-19 situation. Since data collection for this study was conducted in January 2020 just before the outbreak of the pandemic, the findings of this assessment provide a good baseline scenario on markets functionality before the disruption.

Beyond the elementary functionality of marketplaces of simply bringing goods to customers at roughly reasonable and stable prices, however, other critical dimensions should not be understated. When we delved into the other dimensions such as infrastructure or food quality, both formal and informal markets performed very poorly. We found staggering issues around the state of market infrastructures, the overall level of services, and the quality of food when assessed against key principles of hygiene and cleanliness, material separation, temperature control and stock management. Both informal and formal markets lacked some of the minimum requirements that are largely in place and enforced by Government authorities in most developed markets, and there is a dramatic contrast with e-voucher shops that must adhere to WFP's standards. In the meantime, there is minimal competition between e-voucher shops and the limited assortment of goods sold require that the beneficiaries' resort to formal and informal markets to complement the needs left unmet.

The MFI returns a more balanced view of these marketplaces. On average, formal markets score 4.5 (ranging between 3.4 and 5.6), informal markets 3.7 (ranging between 3.1-4.6) and e-voucher shops 4.4 (ranging between 4.1-5.0) on a scale of 0 to 10. The comparison between the MFI and the reduced MFI scores is also interesting, revealing the weaknesses of formal and informal markets in terms of food quality, physical infrastructures and services, and hence where market development initiatives can be implemented.

Several interconnections between the host and refugee communities do exist, and in each marketplace traders engaged with both types of customers. Most of the interviewed traders (72 percent) reported that the market situation has improved since the summer of 2017 which is the time the refugee influx happened in Cox's Bazar. The traders listed various factors that they believed to have contributed to progress the market situation such as increased demand and newly emerging business opportunities with the arrival of the Rohingyas, as well as the improvement of the marketplace infrastructures.

While quantitatively measuring the impact of the assistance is beyond the scope of this report, cash-based interventions would bring positive externalities to the host community with limited side effects on the availability or prices, albeit monitoring price changes would remain critical. The refugee and host community economies proved to be closely interlinked and the local traders were found to be highly resilient and adaptable. E-voucher shops clearly have the advantage of providing some basic foods for the beneficiaries in a regulated environment. However, these contracted traders also have weaker ties to the local economy³², potentially limiting the spill-over effects from the programmes to outspread into the host community.

Over the past three years, large amounts of tradable goods (mostly rice) distributed by aid programmes shaped an emergency economy, serving as a *de facto* currency in the hands of the Rohingya beneficiaries. These goods were largely traded by refugees in exchange for local

³² Most of their commodities being sourced from outside markets.

currency, which became a source of income as their savings depleted over time with little opportunities to find a new source of earnings. Moreover, such a large scale of in-kind distributions enabled refugees to establish business activities and turn themselves into active players in Cox's Bazar economy, as widely documented by the number of refugee traders and their increasing relevance (Rosenbach *et al.*, 2018).

Despite the positive role the in-kind donations have played, such modality is far from the most efficient way of supporting the beneficiaries and the host communities. The illegality perception around the business of selling and reselling humanitarian goods further contributes to diminishing the 'value' of the assistance, resulting in these goods being sold at significantly discounted prices (14 percent discount rate for rice as of January 2020). The whole business is organized in a hazy way to the benefit of few people, including those traders getting profit margins up to 21 percent, as compared to 4 percent using the normal supply chain routes.

WFP is therefore transitioning the entire caseload of beneficiaries from in-kind to e-voucher transfer modality, while the introduction of cash is not an operable mode of transfer yet. Despite the COVID-19 pandemic which slowed down the transition, by May 2020 the share of individuals assisted with in-kind donations has reduced to only 17 percent of the beneficiaries that stand at 858,569 in total. Though not a perfect market ecosystem, e-voucher provides an array of food items, as opposed to in-kind. Potentially, the supply in these shops could be further complemented with other essential goods that are being distributed by WFP's partners, expanding refugees' choice options.

The complete transition will contribute to further shaping the market environment, with implications that are not straightforward, as there are advantages and disadvantages associated to both in-kind and e-voucher modalities when implemented in such a large scale. Given the cap in the sales of certain commodities introduced in e-voucher shops, the entire transition to e-voucher modality implies that the Rohingyas may have less leverage to engage in resale activities with the host community. Though not ideal, resale activities made Rohingya perceive themselves as active subjects in the economy. In fact, already in 2017 "unemployment, having no independent work or workplace, lack of activity, inability to support family" were found to be the major stressors for Rohingyas men (Tay *et al.*, 2018). In this regard, the full transition to the e-voucher transfer modality could be complemented by slow injection of cash into the camp economy through livelihood and self-reliance activities aimed at reducing their vulnerability.

On the other hand, decommissioning in-kind transfer modality has the advantage of introducing a more effective assistance more tailored towards meeting programmatic objectives, and the multi-wallet strategy that is being laid down may be a good way to better satisfy all the Rohingyas consumption needs. Furthermore, it should be acknowledged that the transfer modality is often selected not based only on its own economic merits but on other contextual factors as well.

The learnings of this assessment highlight that the modality choice does not only impact the economic ecosystem in the marketplaces but also deeply affects the social dynamics that are formed between the refugee and host communities. With this in mind, we recommend that the market situations as well as the social dynamics following a major shift in transfer modality are closely monitored and evaluated on an ongoing basis.

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Annex

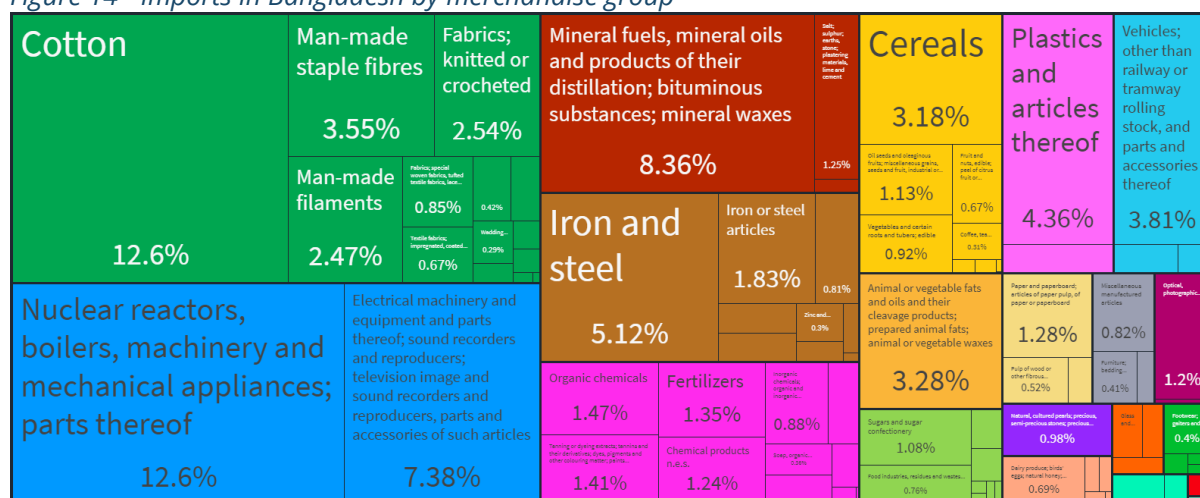
A. Additional tables and figures

Table 3 - Cargo and vessels handled by Chittagong Port

Year	Cargo (Bulk and Containers) in MT (million)			Cargo growth (y/y)	Vessels	Vessels growth (y/y)
	Import	Export	Total			
2011-2012	43.049	4.840	47.889		2,079	
2012-2013	44.723	5.194	49.917	4.2%	2,136	2.7%
2013-2014	48.109	5.468	53.578	7.3%	2,294	7.4%
2014-2015	55.759	5.967	61.726	15.2%	2,566	11.9%
2015-2016	65.053	6.104	71.156	15.3%	2,875	12.0%
2016-2017	73.119	6.864	79.983	12.4%	3,092	7.5%
2017-2018	85.776	7.148	92.923	16.2%	3,664	18.5%
2018-2019	91.236	7.005	98.241	5.7%	3,699	1.0%
2019-2020	94.767	6.798	101.565	3.4%	3,764	1.8%

Source: Chittagong Port Authority. Each year-couple refers to the period from July to June.

Figure 14 - Imports in Bangladesh by merchandise group



Source: Observatory for Economic Complexity, Imports in Bangladesh in 2018 (traded value), Harmonized Commodity Description and Coding Systems HS2

Table 4 - Import value for selected merchandise groups

HS2 merchandise category	USD (billion)	Percent
A. Vegetable products	3.413	6.321
Cereals	1.717	3.180
Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit, industrial or medicinal plants; straw and fod	0.610	1.130
Vegetables and certain roots and tubers; edible	0.497	0.920
Fruit and nuts, edible; peel of citrus fruit or melons	0.362	0.670
Coffee, tea, mate and spices	0.167	0.310
Products of the milling industry; malt, starches, inulin, wheat gluten	0.028	0.051
Lac; gums, resins and other vegetable saps and extracts	0.026	0.048
Vegetable plaiting materials; vegetable products not elsewhere specified or included	0.006	0.012
B. Animal and vegetable fats and oil and their cleavage products; prepared animal fats; animal and vegetal	1.771	3.280
C. Foodstuffs	1.266	2.345
Sugars and sugar confectioner	0.583	1.080
Food industries, residues and wastes thereof; prepared animal fodder	0.410	0.760
Preparations of cereals, flour, starch or milk; pastrycooks' products	0.113	0.210
Miscellaneous edible preparations	0.092	0.170
Preparations of vegetables, fruit, nuts or other parts of plants	0.017	0.032
Beverages, spirits and vinegar	0.017	0.032
Cocoa and cocoa preparations	0.015	0.028
Tobacco and manufactured tobacco substitutes	0.012	0.023
Meat, fish or crustaceans, molluscs or other aquatic invertebrates; preparations thereof	0.005	0.010
D. Animal products	0.471	0.872
Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	0.351	0.650
Fish and crustaceans, molluscs and other aquatic invertebrates	0.046	0.085
Animal originated products; not elsewhere specified or included	0.041	0.075
Animals; live	0.025	0.047
Meat and edible meat offal	0.008	0.015
Subtotal (A+B+C+D)	6.922	12.818
Total imports in 2018	54.000	100.000

Source: Observatory for Economic Complexity, Imports in Bangladesh in 2018 (traded value), Harmonized Commodity Description and Coding Systems HS2

Table 5 - Interviewed traders

Type	Market	Trader type			Specialization			Products on sale							SKUs						
		Retailer	Wholesaler/retailer	Total	Non-specialized	Specialized	Total	Cereals	Other food	WASH	Health	Shelter	Household items	Education	Communication	Between 1-50	Between 51-200	Between 201-1,000	More than 1,000	N/A	Total
E-voucher	Balukhali	2	0	2	2	0	2	2	2	2	0	0	0	0	0	2	0	0	0	0	2
E-voucher	Kutupalong	1	0	1	1	0	1	1	1	0	0	0	1	0	0	1	0	0	0	0	1
E-voucher	Leda	2	0	2	2	0	2	2	2	0	0	2	0	0	2	0	0	0	0	0	2
E-voucher	Moynharhghona	2	0	2	2	0	2	2	2	0	0	2	0	0	2	0	0	0	0	0	2
E-voucher	Nayapara	3	0	3	3	0	3	3	3	0	0	3	0	0	3	0	0	0	0	0	3
Formal	Balukhali	11	7	18	12	6	18	11	14	12	0	4	8	4	1	4	8	2	0	4	18
Formal	Court Bazar	9	13	22	7	15	22	8	12	11	1	0	14	3	0	5	6	10	0	1	22
Formal	Kutupalong	4	10	14	6	8	14	6	7	6	0	0	8	1	0	4	10	0	0	0	14
Formal	Leda	7	6	13	4	9	13	7	7	5	0	1	8	1	0	8	5	0	0	0	13
Formal	Morichya	5	14	19	7	12	19	10	7	9	0	1	9	3	1	3	11	0	1	4	19
Formal	Nayapara	9	9	18	9	9	18	8	15	9	0	1	13	2	0	6	9	0	0	3	18
Formal	Nhilla	9	15	24	8	16	24	11	11	9	0	2	14	3	2	4	16	0	1	3	24
Formal	Palongkhali	7	10	17	7	10	17	9	9	5	0	6	10	2	2	2	14	0	0	1	17
Formal	Shamlapur	5	11	16	6	10	16	9	7	6	0	1	10	1	0	4	8	3	1	0	16
Formal	Teknaf City	7	11	18	7	11	18	10	9	7	0	1	14	3	0	1	13	2	0	2	18
Formal	Thaingkhali	15	1	16	7	9	16	5	10	6	0	1	9	0	0	7	9	0	0	0	16
Formal	Ukhiya	6	12	18	4	14	18	5	8	5	0	0	13	1	0	13	4	0	0	1	18
Formal	Unchiprang	5	4	9	4	5	9	4	6	7	0	0	7	2	0	3	5	1	0	0	9
Formal	Whykong	12	6	18	7	11	18	6	11	9	0	0	12	0	1	9	7	2	0	0	18
Informal	Balukhali	10	1	11	6	5	11	3	8	4	0	2	11	1	0	9	1	0	0	1	11
Informal	Camp 4	6	6	12	5	7	12	2	9	5	0	3	7	3	0	12	0	0	0	0	12
Informal	Jamtoli	10	3	13	4	9	13	4	8	4	0	0	9	0	0	9	3	0	0	1	13
Total		147	139	286	120	166	286	128	168	121	1	23	184	30	7	113	129	20	3	21	286
Percent of total interviews (#286)		51.4	48.6		42.0	58.0		44.8	58.7	42.3	0.3	8.0	64.3	10.5	2.4	39.5	45.1	7.0	1.0	7.3	

Source: WFP MFI trader survey, January 2020.

Table 6 - Cost of the fMEB

		Ukhiya markets												
		fMEB		Average price per kg					Value (kg/household of 5 people/month)					
Item Group	MEB Item	Item available in the price monitoring system	Calories (per capita/day)	Quantity (grams/person /day)	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Starches	Rice	Rice BR29	1527	424	31.50	31.75	31.75	33.50	33.75	2,003.40	2,019.30	2,019.30	2,130.60	2,146.50
Pulses	Lentil	Red lentil	48	14	56.50	55.50	57.25	52.25	55.00	118.65	116.55	120.23	109.73	115.50
Pulses	Chickpea	Yellow split peas	27	7	34.00	33.50	32.00	38.76	38.25	35.70	35.18	33.60	40.70	40.16
Pulses	Anchordaal		8	2										
Pulses	Mung	Mung Dal	4	1	106.26	108.50	105.00	125.00	126.50	15.94	16.28	15.75	18.75	18.98
Vegetables			78	182	80.00	84.00	129.59	122.59	117.00	2,184.00	2,293.20	3,537.81	3,346.71	3,194.10
Fruit		Apple	5	6	165.43	142.08	123.76	123.76	123.00	148.89	127.87	111.38	111.38	110.70
Meat		Chicken	85	81	146.25	128.75	116.25	122.93	122.50	1,776.94	1,564.31	1,412.44	1,493.60	1,488.38
Dairy			1	1										
Fats	Soybean Oil	Soybean Oil	294	33	100.00	100.00	98.59	98.60	106.00	495.00	495.00	488.02	488.07	524.70
Sugar	Sugar	Sugar	24	6	58.67	58.25	58.75	60.00	61.50	52.80	52.43	52.88	54.00	55.35
Condiments		Chili Powder	0	28	155.00	161.25	147.50	146.25	146.25	651.00	677.25	619.50	614.25	614.25
Total			2101	785						7,482.32	7,397.36	8,410.90	8,407.78	8,308.61
Total (rescaled for the actual data available)			2092							7,514.51	7,429.18	8,447.08	8,443.95	8,344.36
fMEB cost increase (m/m)											-1.1%	13.7%	0.0%	-1.2%

		Teknaf markets												
		fMEB		Average price per kg					Value (kg/household of 5 people/month)					
Item Group	MEB Item	Item available in the price monitoring system	Calories (per capita/day)	Quantity (grams/person /day)	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Starches	Rice	Rice BR29	1527	424	29.33	30.25	31.08	32.50	33.33	1,865.39	1,923.90	1,976.69	2,067.00	2,119.79
Pulses	Lentil	Red lentil	48	14	54.83	55.00	55.33	55.83	55.00	115.14	115.50	116.19	117.24	115.50
Pulses	Chickpea	Yellow split peas	27	7	31.00	31.83	33.50	35.17	40.00	32.55	33.42	35.18	36.93	42.00
Pulses	Anchordaal		8	2										
Pulses	Mung	Mung Dal	4	1	110.00	117.24	119.17	120.00	108.33	16.50	17.59	17.88	18.00	16.25
Vegetables		Onion	78	182	71.00	96.67	120.00	120.00	120.00	1,938.30	2,639.09	3,276.00	3,276.00	3,276.00
Fruit		Apple	5	6	163.64	146.67	140.00	140.00	150.00	147.28	132.00	126.00	126.00	135.00
Meat		Chicken	85	81	153.33	139.17	131.67	135.00	128.33	1,862.96	1,690.92	1,599.79	1,640.25	1,559.21
Dairy			1	1										
Fats	Soybean Oil	Soybean Oil	294	33	100.00	100.00	98.59	98.60	106.00	495.00	495.00	488.02	488.07	524.70
Sugar	Sugar	Sugar	24	6	60.00	60.00	60.00	60.00	60.00	54.00	54.00	54.00	54.00	54.00
Condiments		Chili Powder	0	28	197.00	195.00	176.67	180.00	180.00	827.40	819.00	742.01	756.00	756.00
Total			2101	785						7,354.52	7,920.42	8,431.76	8,579.49	8,598.45
Total (rescaled for the actual data available)			2092							7,386.16	7,954.49	8,468.03	8,616.40	8,635.44
fMEB cost increase (m/m)											7.7%	6.5%	1.8%	0.2%

Source: WFP Price Monitoring, Cox's Bazar.

Table 7 - Infrastructures

Type	Market	Structures			Condition			Marketplace features						
		Open-air/ Portable unit (stand, vehicle, carriage etc.)	Semi-permanent structure (corrugated iron, wooden, rub hall, etc.)	Permanent / Concrete building	Poor state, severe maintenance issues	Some structure damages, minor maintenance issues	Good state, intact, no maintenance issues	Closed sewage system	Dedicated waste collection area	Walkways and emergency exit(s)	Shelter	Uninterrupted electricity	Reliable communication network	Water availability
E-voucher	Balukhali	0	0	1	0	0	1	1	1	1	1	1	1	1
E-voucher	Kutupalong	0	0	1	0	0	1	1	1	1	1	1	1	1
E-voucher	Leda	0	0	1	0	0	1	1	1	1	1	1	1	1
E-voucher	Moynharghona	0	0	1	0	0	1	1	1	1	1	1	1	1
E-voucher	Nayapara	0	0	1	0	0	1	1	1	1	1	1	1	1
Formal	Balukhali	1	1	1	1	1	0	0	1	1	0	1	1	1
Formal	Court Bazar	1	1	1	1	1	1	0	0	0	1	1	0	0
Formal	Kutupalong	0	1	0	0	1	0	1	0	1	0	0	1	1
Formal	Leda	1	1	1	1	1	0	0	0	0	1	0	1	0
Formal	Morichya	0	0	1	0	1	1	0	0	0	1	0	1	1
Formal	Nayapara	1	1	0	1	1	0	0	0	0	1	0	0	1
Formal	Nhilla	0	1	0	0	1	0	0	0	0	1	0	1	1
Formal	Palongkhali	0	1	0	0	1	0	0	0	0	1	0	1	1
Formal	Shamlapur	0	0	1	0	0	1	0	0	0	1	0	0	1
Formal	Teknaf City	0	1	1	0	1	1	0	0	0	1	1	1	1
Formal	Thaingkhali	0	1	0	0	1	0	1	0	0	1	0	0	1
Formal	Ukhiya	1	1	1	1	1	0	0	0	0	1	0	1	0
Formal	Unchirang	0	1	0	0	1	0	1	0	1	1	0	1	0
Formal	Whykong	1	1	1	1	1	0	1	0	1	1	0	1	1
Informal	Balukhali	1	0	0	1	0	0	0	0	0	0	0	1	0
Informal	Camp 4	1	0	0	1	0	0	1	1	0	0	0	1	1
Informal	Jamtoli	1	0	0	1	0	0	1	0	0	0	0	1	1

Source: WFP MFI trader survey, January 2020.

Table 8 - Food quality

Type	Market name	Food is protected from weather exposure or contaminants	Fresh fruits and vegetables are well-separated from raw meat, poultry, fish or seafood	Raw meat, poultry, fish or seafood and dairy products are stored and displayed in refrigerated units that are or	Refrigeration in the shops always work	All goods in labelled containers do not exceed their "best-use-before"/"use-by" date	Processed pre-packaged foods are intact and in properly labelled containers	Food is free of visible signs of spoilage and bad smells	Are food packages intact and free from signs of decay or damage?	Percentage of essential food quality features
E-voucher	Balukhali	1	1	1	0	0	1	1	1	75.0
E-voucher	Kutupalong	0	1	1	0	0	1	0	0	37.5
E-voucher	Leda	1	1	1	0	0	1	1	1	75.0
E-voucher	Moynharghona	1	1	1	0	0	1	1	1	75.0
E-voucher	Nayapara	0	1	1	0	0	1	0	1	50.0
Formal	Balukhali	1	1	0	0	0	1	0	0	37.5
Formal	Court Bazar	0	0	0	0	1	0	0	1	25.0
Formal	Kutupalong	0	0	1	0	0	1	0	0	25.0
Formal	Leda	0	0	0	0	0	0	0	1	12.5
Formal	Morichya	0	0	0	1	0	1	0	1	37.5
Formal	Nayapara	0	0	0	1	0	0	0	0	12.5
Formal	Nhilla	0	0	0	0	0	0	1	1	25.0
Formal	Palongkhali	0	0	0	0	0	0	0	0	0.0
Formal	Shamlapur	0	0	0	0	0	1	0	0	12.5
Formal	Teknaf City	0	0	0	1	1	0	0	1	37.5
Formal	Thaingkhali	0	1	1	0	0	0	0	0	25.0
Formal	Ukhiya	0	0	0	0	0	0	0	0	0.0
Formal	Unchirang	0	0	1	0	0	0	0	0	12.5
Formal	Whykong	1	1	1	0	0	1	0	0	50.0
Informal	Balukhali	0	0	0	0	0	0	0	0	0.0
Informal	Camp 4	0	1	1	0	0	0	0	0	25.0
Informal	Jamtoli	0	1	1	0	0	0	0	0	25.0
Total		5	10	11	3	2	10	4	9	

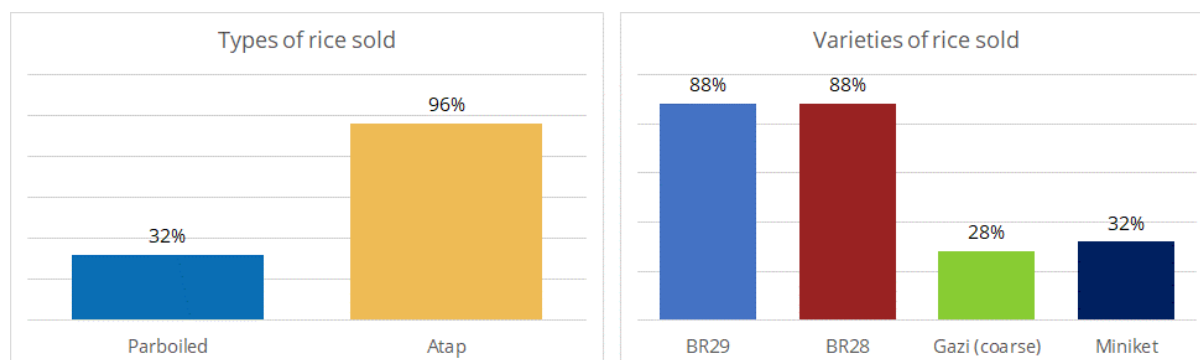
Source: WFP MFI trader survey, January 2020.

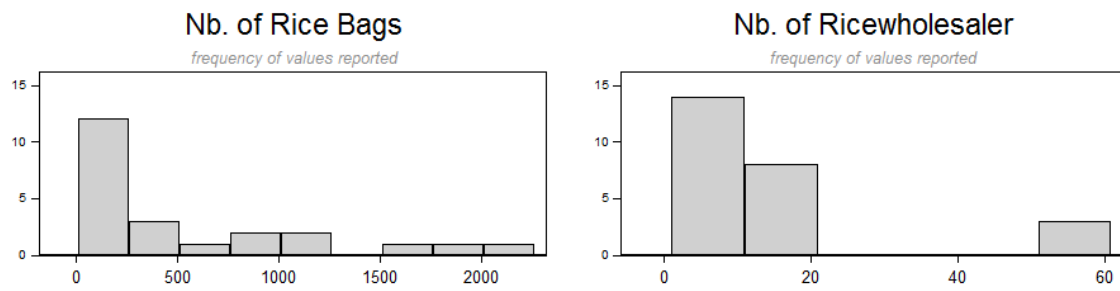
Table 9 - Dimension scores, MFI and reduced MFI by marketplace

Type	Market	A. Assortment	B. Availability	C. Price	D. Resilience of supply chain	E. Competition	F. Infrastructure	G. Services	H. Food Quality	I. Access & Protection	MFI	Type	Market	A. Assortment	B. Availability	C. Price	D1_SupplyChainResponsiveness	MFI reduced
E-voucher	Balukhali	2.0	10.0	5.0	10.0	5.0	10.0	5.0	7.5	10.0	5.0	E-voucher	Balukhali	2.0	10.0	5.0	10.0	4.8
E-voucher	Kutupalong	1.0	10.0	3.0	10.0	5.0	10.0	5.0	3.8	10.0	4.2	E-voucher	Kutupalong	1.0	10.0	3.0	10.0	4.0
E-voucher	Leda	1.0	10.0	5.0	8.6	5.0	10.0	5.0	7.5	8.3	4.3	E-voucher	Leda	1.0	10.0	5.0	10.0	4.2
E-voucher	Moynharghona	1.0	10.0	10.0	7.6	5.0	10.0	5.0	7.5	10.0	4.6	E-voucher	Moynharghona	1.0	10.0	10.0	10.0	4.8
E-voucher	Nayapara	1.0	10.0	3.0	7.6	5.0	10.0	5.0	5.0	10.0	4.1	E-voucher	Nayapara	1.0	10.0	3.0	10.0	4.0
Formal	Balukhali	9.0	10.0	3.3	6.3	7.5	4.3	3.3	3.8	8.3	5.2	Formal	Balukhali	9.0	10.0	3.3	5.0	5.5
Formal	Court Bazar	9.0	10.0	3.3	7.1	7.5	5.0	3.3	2.5	5.8	4.7	Formal	Court Bazar	9.0	10.0	3.3	10.0	6.2
Formal	Kutupalong	8.0	10.0	0.8	7.5	7.5	4.3	3.3	2.5	10.0	3.9	Formal	Kutupalong	8.0	10.0	0.8	10.0	4.5
Formal	Leda	8.0	10.0	5.0	7.5	9.2	2.1	3.3	1.3	7.5	4.1	Formal	Leda	8.0	10.0	5.0	10.0	7.0
Formal	Morichya	10.0	10.0	3.3	7.5	10.0	6.4	5.0	3.8	7.5	5.6	Formal	Morichya	10.0	10.0	3.3	10.0	6.3
Formal	Nayapara	7.0	10.0	3.3	7.5	10.0	2.9	5.0	1.3	7.5	4.1	Formal	Nayapara	7.0	10.0	3.3	10.0	5.9
Formal	Nhilla	10.0	10.0	3.3	7.5	10.0	4.3	5.0	2.5	7.5	5.0	Formal	Nhilla	10.0	10.0	3.3	10.0	6.3
Formal	Palongkhali	8.0	10.0	3.3	7.5	10.0	3.6	5.0	0.0	7.5	3.5	Formal	Palongkhali	8.0	10.0	3.3	10.0	6.0
Formal	Shamlapur	10.0	10.0	0.8	7.5	10.0	6.4	5.0	1.3	8.3	4.2	Formal	Shamlapur	10.0	10.0	0.8	10.0	4.7
Formal	Teknaf City	9.0	10.0	3.3	7.5	7.5	7.1	5.0	3.8	7.5	5.5	Formal	Teknaf City	9.0	10.0	3.3	10.0	6.2
Formal	Thaingkhali	8.0	10.0	7.5	8.8	7.5	4.3	3.3	2.5	10.0	5.1	Formal	Thaingkhali	8.0	10.0	7.5	10.0	8.5
Formal	Ukhiya	8.0	10.0	5.0	6.7	10.0	2.9	3.3	0.0	6.7	3.4	Formal	Ukhiya	8.0	10.0	5.0	10.0	7.0
Formal	Unchiprang	9.0	10.0	5.0	8.3	6.7	5.0	1.7	1.3	10.0	4.2	Formal	Unchiprang	9.0	10.0	5.0	10.0	7.2
Formal	Whykong	9.0	10.0	3.3	7.5	10.0	5.0	1.7	5.0	8.3	4.6	Formal	Whykong	9.0	10.0	3.3	10.0	6.2
Informal	Balukhali	6.0	10.0	5.0	6.3	10.0	0.7	1.7	0.0	7.5	3.1	Informal	Balukhali	6.0	10.0	5.0	5.0	6.1
Informal	Camp 4	6.0	10.0	0.8	7.5	6.7	2.9	1.7	2.5	8.3	3.4	Informal	Camp 4	6.0	10.0	0.8	10.0	4.2
Informal	Jamtoli	5.0	10.0	7.5	8.8	6.7	2.1	3.3	2.5	10.0	4.6	Informal	Jamtoli	5.0	10.0	7.5	10.0	7.0

Source: WFP MFI trader survey, January 2020.

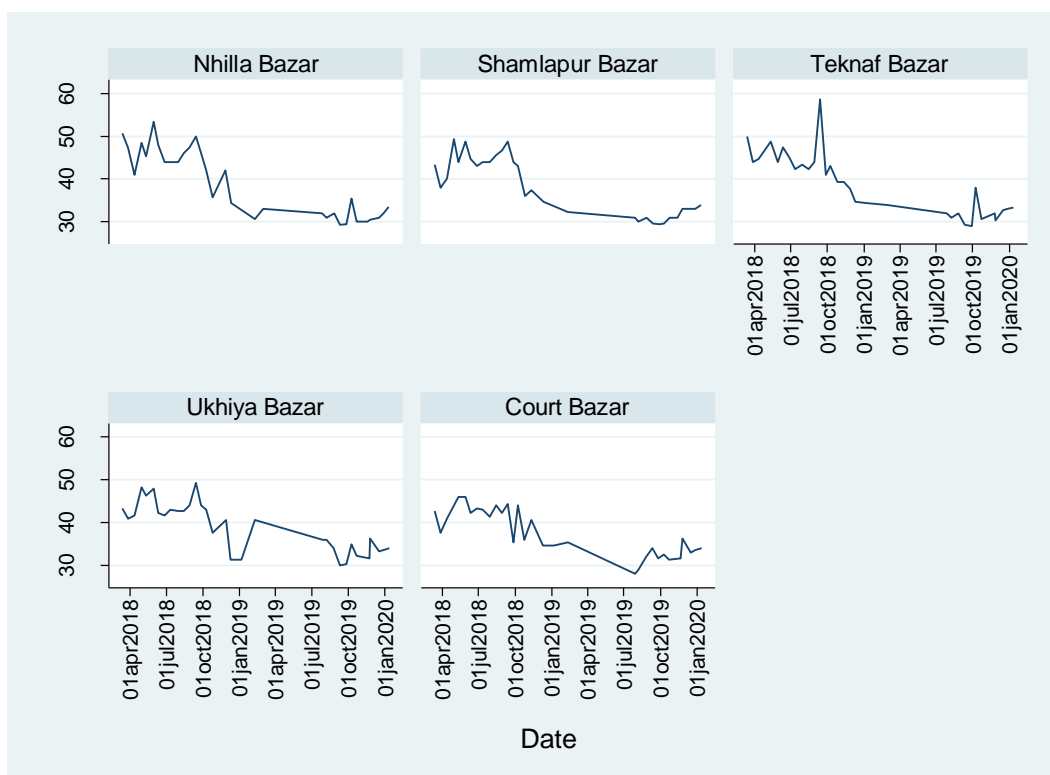
Figure 15 - Characteristics of Rice Wholesalers





Source: WFP MFI trader survey, January 2020.

Figure 16 - Rice BR29



Source: WFP Price Monitoring, Cox's Bazar.

B. Market Functionality Index Beta Version – Full Questionnaire

1. Market questionnaire

Question	Answer
<p>ENUMERATOR: Please select the type of this market.</p>	<p>1 Formal, outside of camp 2 Informal, inside the camp 3 E-Voucher shop</p>
	<p>11 Balukhali Bazar 12 Balukhali Informal Market 13 Balukhali E-Voucher Shop 21 Boro Bazar 32 Camp 4 Informal Market 41 Court Bazar 52 Jamtoli Informal Market 53 Jamtoli E-Voucher Shop 61 Kutupalong Bazar 63 Kutupalong E-Voucher Shop 71 Leda Bazar 73 Leda E-Voucher Shop 81 Moricha Bazar 91 Nayapara RC Bazar 93 Nayapara RC E-Voucher Shop 101 Nhila Bazar 111 Palongkhali Bazar 112 Palongkhali Informal Market 121 Shamlapur Bazar 131 Teknaf City Bazar 141 Thaingkhali Bazar 151 Unchiprang Bazar 161 Ukhia Bazar 171 Whykong Bazar</p>
<p>ENUMERATOR: Please select this market.</p>	
<p>ENUMERATOR: Please select the questionnaire type:</p>	<p>1 Trader 2 Market</p>
<p>Section A. Multisector</p>	
<p>ENUMERATOR: A1. Which are the types of products that are normally sold in this market?</p>	<p>1 Food items - Staples 2 Food items - Other food except staple food 3 Non-food items</p>
<p><i>Do not ask. Choose all that apply.</i></p>	
<p>Select all STAPLE FOOD types that are</p>	<p>1 Rice 2 Maize 3 Cassava 4 Wheat 5 Flour 6 Pasta</p>

Question	Answer
normally sold.	7 Bread -66 Other (Please specify.)
<i>Do not ask. Choose all that apply.</i>	
Select all OTHER FOOD types that are normally sold.	1 Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts) 2 Orange Fruits (e.g. mango, papaya, apricot) 3 Tubers (e.g. potatoes) 4 Eggs 5 Dairy (e.g. milk, yogurt, etc.) 6 Flesh Meat (e.g. beef, chicken, other birds, insects) 7 Organ Meat (e.g. Liver, kidney, heart) 8 Fresh fish / Shellfish 9 Dried fish 10 Orange vegetables (e.g. carrot, red pepper, pumpkin) 11 Dark green leafy vegetables (e.g. spinach, broccoli) 12 Other vegetables (e.g. onions, eggplants) 13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils) 14 Sugars (e.g. sugar, honey, jam) 15 Condiments (e.g. tea, salt, spices) -66 Other (Please specify.)
<i>Do not ask. Choose all that apply.</i>	
Select all NON-FOOD items that are normally sold.	1 WASH - Drinking water 2 WASH - Latrine construction materials 3 WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap) 4 Health - Medicine (Over-the-counter Pharmaceuticals) 5 Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.) 6 Shelter - Constructing materials (Bricks, Bamboo, etc.) 7 Home - Clothing including shoes 8 Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets) 9 Home - Cooking and eating utensils 10 Home - LPG 11 Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar) 12 Education - School material (Schoolbooks, Stationary, Uniforms) 13 Communication - Mobile phones/SIM cards/services and internet -66 Other (Please specify.)
<i>Do not ask. Choose all that apply.</i>	
Section B. Availability	
B1. Are there any products that are currently scarce in this market?	1 Food items - Staples 2 Food items - Other food except staple food 3 Non-food items -88 N/A - None of the above
<i>Choose all that apply.</i>	
Which 'Food items - Staples'?	1 Rice 2 Maize 3 Cassava 4 Wheat 5 Flour
<i>Choose all that apply.</i>	

Question	Answer
	6 Pasta
	7 Bread
	-66 Other (Please specify.)
Which 'Food items - Other food'?	1 Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts)
	2 Orange Fruits (e.g. mango, papaya, apricot)
	3 Tubers (e.g. potatoes)
	4 Eggs
	5 Dairy (e.g. milk, yogurt, etc.)
	6 Flesh Meat (e.g. beef, chicken, other birds, insects)
	7 Organ Meat (e.g. Liver, kidney, heart)
	8 Fresh fish / Shellfish
	9 Dried fish
<i>Choose all that apply.</i>	10 Orange vegetables (e.g. carrot, red pepper, pumpkin)
	11 Dark green leafy vegetables (e.g. spinach, broccoli)
	12 Other vegetables (e.g. onions, eggplants)
	13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils)
	14 Sugars (e.g. sugar, honey, jam)
	15 Condiments (e.g. tea, salt, spices)
	-66 Other (Please specify.)
Which 'Non-food items'?	1 WASH - Drinking water
	2 WASH - Latrine construction materials
	3 WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap)
	4 Health - Medicine (Over-the-counter Pharmaceuticals)
	5 Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.)
	6 Shelter - Constructing materials (Bricks, Bamboo, etc.)
	7 Home - Clothing including shoes
<i>Choose all that apply.</i>	8 Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets)
	9 Home - Cooking and eating utensils
	10 Home - LPG
	11 Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar)
	12 Education - School material (Schoolbooks, Stationary, Uniforms)
	13 Communication - Mobile phones/SIM cards/services and internet
	-66 Other (Please specify.)
B2. Are traders in this market afraid of running out of stocks in the coming weeks for:	
Staple food	1 Rice
	2 Maize
	3 Cassava
	4 Wheat
<i>Choose all that apply.</i>	5 Flour
	6 Pasta
	7 Bread
	-66 Other
	-88 N/A (Not Applicable) - None
Other food except staple food	1 Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts)
	2 Orange Fruits (e.g. mango, papaya, apricot)
	3 Tubers (e.g. potatoes)
<i>Choose all that apply.</i>	4 Eggs
	5 Dairy (e.g. milk, yogurt, etc.)

Question	Answer
	6 Flesh Meat (e.g. beef, chicken, other birds, insects)
	7 Organ Meat (e.g. Liver, kidney, heart)
	8 Fresh fish / Shellfish
	9 Dried fish
	10 Orange vegetables (e.g. carrot, red pepper, pumpkin)
	11 Dark green leafy vegetables (e.g. spinach, broccoli)
	12 Other vegetables (e.g. onions, eggplants)
	13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils)
	14 Sugars (e.g. sugar, honey, jam)
	15 Condiments (e.g. tea, salt, spices)
	-66 Other
	-88 N/A (Not Applicable) - None

Non-food Items	1	WASH - Drinking water
	2	WASH - Latrine construction materials
	3	WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap)
	4	Health - Medicine (Over-the-counter Pharmaceuticals)
	5	Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.)
	6	Shelter - Constructing materials (Bricks, Bamboo, etc.)
	7	Home - Clothing including shoes
	8	Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets)
	9	Home - Cooking and eating utensils
	10	Home - LPG
	11	Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar)
	12	Education - School material (Schoolbooks, Stationary, Uniforms)
	13	Communication - Mobile phones/SIM cards/services and internet
	-66 Other	
	-88 N/A (Not Applicable) - None	

Choose all that apply.

Section C. Price

C1. Are there products whose prices greatly increased in the last 1 month?	1	Food items - Staples
	2	Food items - Other food except staple food
	3	Non-food items
	-88	N/A - None of the above

More specifically, has the price greatly increased for:

Staple food	1	Rice
	2	Maize
	3	Cassava
	4	Wheat
	5	Flour
	6	Pasta
	7	Bread
	-66	Other (Please specify.)

Choose all that apply.

Other food except staple food	1	Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts)
	2	Orange Fruits (e.g. mango, papaya, apricot)
	3	Tubers (e.g. potatoes)
	4	Eggs
	5	Dairy (e.g. milk, yogurt, etc.)
	6	Flesh Meat (e.g. beef, chicken, other birds, insects)
	7	Organ Meat (e.g. Liver, kidney, heart)

Choose all that apply.

Question	Answer
	8 Fresh fish / Shellfish
	9 Dried fish
	10 Orange vegetables (e.g. carrot, red pepper, pumpkin)
	11 Dark green leafy vegetables (e.g. spinach, broccoli)
	12 Other vegetables (e.g. onions, eggplants)
	13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils)
	14 Sugars (e.g. sugar, honey, jam)
	15 Condiments (e.g. tea, salt, spices)
	-66 Other (Please specify.)

Non-food Items	1	WASH - Drinking water
	2	WASH - Latrine construction materials
	3	WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap)
	4	Health - Medicine (Over-the-counter Pharmaceuticals)
	5	Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.)
	6	Shelter - Constructing materials (Bricks, Bamboo, etc.)
	7	Home - Clothing including shoes
	8	Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets)
	9	Home - Cooking and eating utensils
	10	Home - LPG
	11	Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar)
	12	Education - School material (Schoolbooks, Stationary, Uniforms)
	13	Communication - Mobile phones/SIM cards/services and internet
	-66 Other (Please specify.)	

Choose all that apply.

ENUMERATOR: Please provide further explanation here if any.

This field is not mandatory.

Section I. Infrastructure

11. Which are the structures that better describe this market?	1	Open-air/ Portable unit (stand, vehicle, carriage etc.)
	2	Semi-permanent structure (corrugated iron, wooden, rubhall/ wikhall etc.)
	3	Permanent/ Concrete building structure

Choose all that apply.

12. Which of the following better describe this market?	1	Poor state, severe maintenance issues
	2	Some structure damages, minor maintenance issues
	3	Good state, intact, no maintenance issues

Choose all that apply.

13. Which of these features apply in/nearby this market?	1	No open sewage
	2	Clean (no piles of garbage)
	3	Presence of walkways and emergency exit(s)
	4	Shelter
	5	Uninterrupted electricity
	6	Reliable communication network (mobile phone coverage and/or internet)
	7	Water availability (manual pump or tap in close proximity of each vendor, i.e. Max 5 min walking)
	8	Toilets
	-88	N/A - None of the above exists

Choose all that apply.

Section J. Competition

J1. Select the product group that has LESS THAN FIVE (5) traders in this market:	1	Food items - Staples
	2	Food items - Other food except staple food

Question	Answer
	3 Non-food items
<i>Choose all that apply.</i>	-88 N/A - None of the above
J2. Select the product group that has ONE TRADER that controls this market:	1 Food items - Staples 2 Food items - Other food except staple food 3 Non-food items
<i>Choose all that apply.</i>	-88 N/A - None of the above
J3. How many traders operate in this market?	0 1 1 2-5 2 6-15 3 16-50 4 51-100 5 101-500 6 500+
<i>By trader, we mean all types of petty vendors, retailers, and wholesalers.</i>	
<i>Please give your best estimate.</i>	

Section L. Quality

L. Please observe the premise areas and all surfaces in and around this market.

Is food in this market well-separated from water, heat, direct sunlight, pests, chemicals, or other contaminants?	1 Yes 0 No
Do fresh fruits and vegetables in this market have NO visible signs of spoilage and bad smells?	1 Yes 0 No
Are fresh fruits and vegetables in this market separated from fresh produce of animal origin?	1 Yes 0 No
Are all fresh/raw animal and dairy products in this market stored and displayed in refrigerated units that are on and working?	1 Yes 0 No
Is refrigeration in this market always working?	1 Yes 0 No
<i>If electricity is not stable in this area, are there batteries/generators for uninterrupted refrigeration?</i>	
Are processed pre-packaged foods in this market intact and in properly labelled containers?	1 Yes 0 No
Are (food and/or non-food) containers such as plastic bottles and cans intact and without signs of heat exposure (bubbles and deformity, loose labels)?	1 Yes 0 No -88 N/A - Not Applicable; there are no products sold in containers/bottles
Are all goods in labelled containers NOT exceeding their "best-use-before"/ "use-by" date?	1 Yes 0 No -88 N/A - Not Applicable; expiry dates are not visibly indicated

Section M. Access & Protection

Please observe the areas near and in this market.

M1. Which of the following access issues are observed in this market?	1 Access is normally difficult because the marketplace is away from major road network 2 Access is limited in certain times of the year (e.g. monsoon, seasonal floods) 3 Access is limited as a consequence of a natural disaster (e.g. earthquakes, hurricanes) -88 N/A - None of the above is an issue
---	--

Question	Answer
----------	--------

Choose all that apply.

M2. Which of the following protection issues are observed in this market?

- 1 There are social barriers to marginalized groups based on sociodemographic status
- 2 Physical threats exist in the market for vulnerable groups such as women, children and others
- 3 Security to reach and/or in the marketplace is an issue for everyone
- 88 N/A - None of the above is an issue

Choose all that apply.

M1.1 If there are social barriers, what are they based on?

- 1 Gender
- 2 Age
- 3 Ethnicity
- 4 Religion
- 5 Physical disability
- 66 Other (Please specify.)

Choose all that apply.

M2.1 If there are physical threats, who are under these threats?

- 1 Women
- 2 Children
- 3 Certain ethnic group
- 4 Certain religious group
- 5 Physically disabled population
- 66 Other (Please specify.)

Choose all that apply.

End of Observation Survey

Please take a picture of this market.

If you're taking a picture of a shop (not market), please ask for permission of the shop owner/manager.

Finally, please collect the GPS coordinates of this market.

GPS coordinates can only be collected when outside.

2a. Trader questionnaire – Generic trader

Question	Answer
ENUMERATOR: Please select your name.	
ENUMERATOR: Please select the type of this shop.	1 Formal, outside of camp 2 Informal, inside the camp 3 E-Voucher shop
ENUMERATOR: Please select this shop.	11 Balukhali Bazar 12 Balukhali Informal Market 13 Balukhali E-Voucher Shop 21 Boro Bazar 32 Camp 4 Informal Market 41 Court Bazar 52 Jamtoli Informal Market 53 Jamtoli E-Voucher Shop 61 Kutupalong Bazar 63 Kutupalong E-Voucher Shop 71 Leda Bazar 73 Leda E-Voucher Shop 81 Moricha Bazar 91 Nayapara RC Bazar 93 Nayapara RC E-Voucher Shop 101 Nhila Bazar 111 Palongkhali Bazar 112 Palongkhali Informal Market 121 Shamlapur Bazar 131 Teknaf City Bazar 141 Thaingkhali Bazar 151 Unchiprang Bazar 161 Ukhia Bazar 171 Whykong Bazar
ENUMERATOR: Please select the questionnaire type:	1 Trader 2 Market
ENUMERATOR: Please select the trader questionnaire type:	0 Generic Trader 1 Rice Wholesaler
Section A. Multisector	
ENUMERATOR: A1. Which are the types of products that are normally sold in this shop?	1 Food items - Staples 2 Food items - Other food except staple food 3 Non-food items
<i>Do not ask. Choose all that apply.</i>	
Select all STAPLE FOOD types that are normally sold.	1 Rice 2 Maize 3 Cassava 4 Wheat
<i>Do not ask. Choose all that apply.</i>	
	5 Flour 6 Pasta



Question	Answer
	7 Bread
	-66 Other (Please specify.)
<p>Select all OTHER FOOD types that are normally sold.</p> <p><i>Do not ask. Choose all that apply.</i></p>	1 Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts)
	2 Orange Fruits (e.g. mango, papaya, apricot)
	3 Tubers (e.g. potatoes)
	4 Eggs
	5 Dairy (e.g. milk, yogurt, etc.)
	6 Flesh Meat (e.g. beef, chicken, other birds, insects)
	7 Organ Meat (e.g. Liver, kidney, heart)
	8 Fresh fish / Shellfish
	9 Dried fish
	10 Orange vegetables (e.g. carrot, red pepper, pumpkin)
	11 Dark green leafy vegetables (e.g. spinach, broccoli)
	12 Other vegetables (e.g. onions, eggplants)
	13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils)
	14 Sugars (e.g. sugar, honey, jam)
	15 Condiments (e.g. tea, salt, spices)
-66 Other (Please specify.)	
<p>Select all NON-FOOD items that are normally sold.</p> <p><i>Do not ask. Choose all that apply.</i></p>	1 WASH - Drinking water
	2 WASH - Latrine construction materials
	3 WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap)
	4 Health - Medicine (Over-the-counter Pharmaceuticals)
	5 Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.)
	6 Shelter - Constructing materials (Bricks, Bamboo, etc.)
	7 Home - Clothing including shoes
	8 Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets)
	9 Home - Cooking and eating utensils
	10 Home - LPG
	11 Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar)
	12 Education - School material (Schoolbooks, Stationary, Uniforms)
	13 Communication - Mobile phones/SIM cards/services and internet
	-66 Other (Please specify.)

Consent Form

Training Guide: This is Consent 1.

ATTENTION!

Now you will ask a series of questions to the shop manager/owner. Please introduce yourself and read the following:

"Hi, my name is _____. I am part of the market assessment team from World Food Programme. I would like to ask you a few questions about the commodities and their prices to understand the market conditions.

This will take about 10 to 15 minutes.

Do you agree to participate?"

Yes
[Skip
1
Consent
2]
No
[Proceed
0
to
Consent
2]

Training Guide: This is Consent version 2 if the answer to the previous consent was 'No'.

ATTENTION!

Please read the following:

1 Yes [Proceed to Section
0 No [End of survey]

Question	Answer
----------	--------

"I understand that you are unavailable to participate. I will not ask any questions.

However, is it OK if I observe the shop to see and record the items that are available in your shop?"

In which year and month did you open this shop at this upazila?

Section B. Availability

B1.
Are
there
any
produ
cts
that
are
curren
tly
scarc
e in
this
shop?

- 1 Food items - Staples
- 2 Food items - Other food except staple food
- 3 Non-food items
- 88 N/A - None of the above

Choose all that apply.

Which
Food
items -
Staples
'?

- 1 Rice
- 2 Maize
- 3 Cassava
- 4 Wheat
- 5 Flour
- 6 Pasta
- 7 Bread
- 66 Other (Please specify.)

Choose all that apply.

Which
Food
items -
Other
food
'd'?

- 1 Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts)
- 2 Orange Fruits (e.g. mango, papaya, apricot)
- 3 Tubers (e.g. potatoes)
- 4 Eggs
- 5 Dairy (e.g. milk, yogurt, etc.)
- 6 Flesh Meat (e.g. beef, chicken, other birds, insects)
- 7 Organ Meat (e.g. Liver, kidney, heart)
- 8 Fresh fish / Shellfish
- 9 Dried fish
- 10 Orange vegetables (e.g. carrot, red pepper, pumpkin)
- 11 Dark green leafy vegetables (e.g. spinach, broccoli)
- 12 Other vegetables (e.g. onions, eggplants)
- 13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils)
- 14 Sugars (e.g. sugar, honey, jam)
- 15 Condiments (e.g. tea, salt, spices)

Choose all that apply.

Question	Answer
	-66 Other (Please specify.)
Which 'Non-food items'?	1 WASH - Drinking water 2 WASH - Latrine construction materials 3 WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap) 4 Health - Medicine (Over-the-counter Pharmaceuticals) 5 Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.) 6 Shelter - Constructing materials (Bricks, Bamboo, etc.) 7 Home - Clothing including shoes 8 Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets)
Choose all that apply.	9 Home - Cooking and eating utensils 10 Home - LPG 11 Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar) 12 Education - School material (Schoolbooks, Stationary, Uniforms) 13 Communication - Mobile phones/SIM cards/services and internet -66 Other (Please specify.)
B2. Are you afraid of running out of stocks in the coming weeks for:	
Staple food	1 Rice 2 Maize 3 Cassava
Choose all that apply.	4 Wheat 5 Flour 6 Pasta 7 Bread -66 Other -88 N/A (Not Applicable) - None
Other food except staple food	1 Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts) 2 Orange Fruits (e.g. mango, papaya, apricot) 3 Tubers (e.g. potatoes) 4 Eggs 5 Dairy (e.g. milk, yogurt, etc.) 6 Flesh Meat (e.g. beef, chicken, other birds, insects) 7 Organ Meat (e.g. Liver, kidney, heart) 8 Fresh fish / Shellfish 9 Dried fish 10 Orange vegetables (e.g. carrot, red pepper, pumpkin)
Choose all that apply.	11 Dark green leafy vegetables (e.g. spinach, broccoli) 12 Other vegetables (e.g. onions, eggplants) 13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils) 14 Sugars (e.g. sugar, honey, jam) 15 Condiments (e.g. tea, salt, spices) -66 Other -88 N/A (Not Applicable) - None
Non-food items	1 WASH - Drinking water 2 WASH - Latrine construction materials 3 WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap) 4 Health - Medicine (Over-the-counter Pharmaceuticals)

Question	Answer
<i>Choose all that apply.</i>	5 Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.)
	6 Shelter - Constructing materials (Bricks, Bamboo, etc.)
	7 Home - Clothing including shoes
	8 Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets)
	9 Home - Cooking and eating utensils
	10 Home - LPG
	11 Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar)
	12 Education - School material (Schoolbooks, Stationary, Uniforms)
	13 Communication - Mobile phones/SIM cards/services and internet
	-66 Other
	-88 N/A (Not Applicable) - None

Section C. Price

C1. Are there products whose prices greatly increased in the last 1 month?	1 Food items - Staples
	2 Food items - Other food except staple food
	3 Non-food items
	-88 N/A - None of the above

More specifically, has the price greatly increased for:

Staple food	1 Rice
	2 Maize
	3 Cassava
	4 Wheat
<i>Choose all that apply.</i>	5 Flour
	6 Pasta
	7 Bread
-66 Other (Please specify.)	

Other food except staple food	1 Pulses, seeds and nuts (e.g. beans, lentils, soya or peanuts)
	2 Orange Fruits (e.g. mango, papaya, apricot)
	3 Tubers (e.g. potatoes)
	4 Eggs
	5 Dairy (e.g. milk, yogurt, etc.)
	6 Flesh Meat (e.g. beef, chicken, other birds, insects)
	7 Organ Meat (e.g. Liver, kidney, heart)
	8 Fresh fish / Shellfish
	9 Dried fish
	10 Orange vegetables (e.g. carrot, red pepper, pumpkin)
	11 Dark green leafy vegetables (e.g. spinach, broccoli)
	12 Other vegetables (e.g. onions, eggplants)
	13 Oils, fats, and spreads (e.g. butter, margarine, lard or vegetable oils)
	14 Sugars (e.g. sugar, honey, jam)
	15 Condiments (e.g. tea, salt, spices)
-66 Other (Please specify.)	

Non-food Items	1 WASH - Drinking water
	2 WASH - Latrine construction materials
	3 WASH - Hygiene NFIs (Toilet paper, Toothbrush, Toothpaste, Laundry detergent, Liquid dish detergent, Sanitary napkins, Individual soap)
	4 Health - Medicine (Over-the-counter Pharmaceuticals)
	5 Shelter - Shelter items (Tents, Plastic sheeting, Metal sheet, Tarpaulin, Temporary shelters, etc.)
	6 Shelter - Constructing materials (Bricks, Bamboo, etc.)
	7 Home - Clothing including shoes
	8 Home - Bedding (Bed nets, Blanket, Floor mat/mattress, Ground insulation, Mosquito nets)

Question	Answer
	9 Home - Cooking and eating utensils
	10 Home - LPG
	11 Home - Other stoves, fuel and lighting (e.g. Gas, Firewood, Charcoal, Solar)
	12 Education - School material (Schoolbooks, Stationary, Uniforms)
	13 Communication - Mobile phones/SIM cards/services and internet
	-66 Other (Please specify.)

ENUMERATOR: Please provide further explanation here if any.

This field is not mandatory.

C2. If we ask you what the price will be in a week from now, would you normally get it right for:	1 Food items - Staples
	2 Food items - Other food except staple food
	3 Non-food items
	-88 N/A - None of the above

Choose all that apply.

Section D. Resilience

D1.1 Considering your normal customers' demand, would your current stocks last at least one week?

1 Yes
0 No

D1.2 If you place an order today, do you expect to receive your products within a week?

1 Yes
0 No

D1.3 Do you have alternative suppliers for:

1 Food items - Staples
2 Food items - Other food except staple
3 Non-food items
-88 N/A - None of the above

D1.4 Is there a single supplier from whom most of your business relies upon?

1 Yes
0 No

D1.5a Where are your suppliers geographically located for:

Staple food?
Choose all that apply.

- 1 Teknaf and Ukhia Upazilas
- 2 Cox's Bazar District, outside of Teknaf or Ukhia Upazilas
- 3 Chittagong Division, outside of Cox's Bazar District
- 4 Bangladesh, outside of Chittagong Division
- 5 Foreign countries, outside of Bangladesh

Other food except staple food?
Choose all that apply.

- 1 Teknaf and Ukhia Upazilas
- 2 Cox's Bazar District, outside of Teknaf or Ukhia Upazilas
- 3 Chittagong Division, outside of Cox's Bazar District
- 4 Bangladesh, outside of Chittagong Division
- 5 Foreign countries, outside of Bangladesh

Non-food Items?
Choose all that apply.

- 1 Teknaf and Ukhia Upazilas
- 2 Cox's Bazar District, outside of Teknaf or Ukhia Upazilas
- 3 Chittagong Division, outside of Cox's Bazar District
- 4 Bangladesh, outside of Chittagong Division
- 5 Foreign countries, outside of Bangladesh

D1.5b If your STAPLE FOOD supply was total 10, how much of your supply comes from the following places:

Remember, the total sum of the following numbers must be 10.

Question	Answer
Teknaf and Ukhia Upazilas	[] The value must be between 0 and 10.
Cox's Bazar District, outside of Teknaf or Ukhia Upazilas	[] The value must be between 0 and 10.
Chittagong Division, outside of Cox's Bazar District	[] The value must be between 0 and 10.
Bangladesh, outside of Chittagong Division	[] The value must be between 0 and 10.
Foreign countries, outside of Bangladesh	[] The value must be between 0 and 10.

Training Guide: If the sum does not equal 10, the following message appears.

WARNING! GO BACK! The total sum is 0, NOT 10. Please go back and correct it.

D1.5b If your OTHER FOOD supply was total 10, how much of your supply comes from the following places:

Remember, the total sum of the following numbers must be 10.

Teknaf and Ukhia Upazilas	[] The value must be between 0 and 10.
Cox's Bazar District, outside of Teknaf or Ukhia Upazilas	[] The value must be between 0 and 10.
Chittagong Division, outside of Cox's Bazar District	[] The value must be between 0 and 10.
Bangladesh, outside of Chittagong Division	[] The value must be between 0 and 10.
Foreign countries, outside of Bangladesh	[] The value must be between 0 and 10.

Training Guide: If the sum does not equal 10, the following message appears.

WARNING! GO BACK! The total sum is 0, NOT 10. Please go back and correct it.

D1.5b If your NON-FOOD ITEMS supply was total 10, how much of your supply comes from the following places:

Remember, the total sum of the following numbers must be 10.

Teknaf and Ukhia Upazilas	[] The value must be between 0 and 10.
Cox's Bazar District, outside of Teknaf or Ukhia Upazilas	[] The value must be between 0 and 10.
Chittagong Division, outside of Cox's Bazar District	[] The value must be between 0 and 10.
Bangladesh, outside of Chittagong Division	[] The value must be between 0 and 10.
Foreign countries, outside of Bangladesh	[] The value must be between 0 and 10.

Training Guide: If the sum does not equal 10, the following message appears.

WARNING! GO BACK! The total sum is 0, NOT 10. Please go back and correct it.

Section E. Customers

E1. Do you have following types of customers:

- 1 Households
- 2 Retailers
- 3 Wholesalers

Choose all that apply.

Question	Answer
E2.1 Who are the customers you have? <i>Choose all that apply.</i>	1 Rohingya 2 Local customers in host community (e.g. Teknaf, Ukhia) 3 Customers from Cox's Bazar District, outside of Teknaf or Ukhia Upazilas 4 Customers from Chittagong Division, outside of Cox's Bazar District 5 Customers from Bangladesh, outside of Chittagong Division 6 Exporters, outside of Bangladesh

E2.2 If you had 10 customers, how many of them are in the following groups:

Remember, the total sum of the following numbers must be 10.

Rohingyas	[_____] <i>The value must be between 0 and 10.</i>
Local customers in host community (e.g. Teknaf, Ukhia)	[_____] <i>The value must be between 0 and 10.</i>
Customers from Cox's Bazar District, outside of Teknaf or Ukhia Upazilas	[_____] <i>The value must be between 0 and 10.</i>
Customers from Chittagong Division, outside of Cox's Bazar District	[_____] <i>The value must be between 0 and 10.</i>
Customers from Bangladesh, outside of Chittagong Division	[_____] <i>The value must be between 0 and 10.</i>
Exporters, outside of Bangladesh	[_____] <i>The value must be between 0 and 10.</i>

Training Guide: *If the sum does not equal 10, the following message appears.*

WARNING! GO BACK! The total sum is 0, NOT 10. Please go back and correct it.

Section F. Services

F1. How many full-time employees work at your shop?	1 One (1) 2 Between 2 and 4 3 Between 5 and 10 4 More than ten (>10)
F2. Usually, how many full-time employees are present in one shift?	
F3. Do you offer your customers a loyalty program that gives them either a discount or points that they can use now or later at your shop?	1 Yes 0 No
<i>Loyalty program is often in a form of a paper or plastic card that entitles the holder to rewards.</i>	
ENUMERATOR: Does this shop have a POS (Point of Sale) system?	1 Yes 0 No
<i>Do not ask.</i>	
F4. Do you analyse your POS (Point of Sale) data such as inventory data, catalogue data?	1 Yes 0 No

Section G. Local Context

G1. In your opinion, compared to the summer of 2017, has the SIZE of this shop (a) grown BIGGER or (b) SMALLER or (c) SAME?	1 Bigger 2 Same Size
---	-------------------------

Question	Answer
	3 Smaller -99 IDK - I don't know
G1.2 What about your shop? Compared to the summer of 2017, has YOUR SHOP (a) grown BIGGER or (b) SMALLER or (c) SAME, in terms of sales?	1 Bigger 2 Same Size 3 Smaller -99 IDK - I don't know
G2. In your opinion, compared to the summer of 2017, has the INFRASTRUCTURE of this shop (a) IMPROVED or (b) WORSENER or (c) SAME?	1 Improved 2 Same [Skip G2.2a] 3 Worsened -99 IDK - I don't know
G2.2a Which infrastructure do you think has [Improved/Worsened]?	1 Sewage 2 General cleanliness 3 Walkways and emergency exit(s) 4 Shelter 5 Electricity 6 Communication network (mobile phone coverage and/or internet) 7 Water availability (manual pump or tap) 8 Toilets -66 Other (Please specify.)
G2.2b What do you think is the reason that the infrastructure has [Improved/Worsened]?	
G2.2c Please specify 'Other' infrastructure that has [Improved/Worsened]?	
G3. Have you ever felt forced to reduce your selling price to remain in the business?	1 Yes 0 No -77 Refused to answer
G4.1 Please remember, we are only here to observe the situation and all your answers will remain anonymous. Have you ever heard of Rohingyas reselling assistance items?	1 Yes 0 No -77 Refused to answer
G4.2a Again, please remember, all your answers will remain anonymous and your answer will not cause any harm against you. Have Rohingyas attempted to resell assistance items at your shop?	1 Yes 0 No -77 Refused to answer
<i>If the respondent is hesitant to give an answer, please mark "Refused to answer".</i>	
G4.2b Which items have they resold? <i>Choose all that apply.</i>	1 Rice 2 Oil 3 Lentils -66 Other food (Please specify.) -67 Other non-food (Please specify.)
Which 'Other food' items? Please specify.	
Which 'Other non-food items'? Please specify.	

ATTENTION!

Please read the following: *"The survey has ended. Thank you very much for your participation. Is it OK if I observe the products sold in this shop and the premise areas before leaving?"*

Question	Answer
----------	--------

Instructions: There are a few more observation questions for you (enumerator) to fill out. You must fill out the rest of the survey before leaving this shop area.

Section I. Infrastructure

I1. Which is the structure that best describes this shop?

- 1 Open-air/ Portable unit (stand, vehicle, carriage etc.)
- 2 Semi-permanent structure (corrugated iron, wooden, rubhall/ wikhall etc.)
- 3 Permanent/ Concrete building structure

Choose one.

I2. Which of the following best describes this shop?

- 1 Poor state, severe maintenance issues
- 2 Some structure damages, minor maintenance issues
- 3 Good state, intact, no maintenance issues

Choose one.

I3. Which of these features apply in/nearby this shop?

- 1 No open sewage
- 2 Clean (no piles of garbage)
- 3 Presence of walkways and emergency exit(s)
- 4 Shelter
- 5 Uninterrupted electricity
- 6 Reliable communication network (mobile phone coverage and/or internet)
- 7 Water availability (manual pump or tap in close proximity of each vendor, i.e. Max 5 min walking)
- 8 Toilets
- 88 N/A - None of the above exists

Choose all that apply.

Section K. Services - Others

K1. Shopping Experience: Which of the following applies to this shop?

- 1 Products are displayed such that it is easy to identify and select
- 2 Price tags are visibly displayed (printed or handwritten)
- 3 It is possible to purchase from this shop remotely (e.g. online shopping)
- 88 N/A - None of the above applies

Choose all that apply.

K2. Check-out Experience: Which of the following applies to this shop?

- 1 The shop accepts more than one form of payment [*Proceed to K2.2 if selected*]
- 2 The waiting time at checkout is normally shorter than 10 minutes
- 3 Itemized receipts are automatically issued (not handwritten)
- 88 N/A - None of the above applies

Choose all that apply.

K2.2 Which forms of payment are accepted?

- 1 Cash
- 2 Mobile Money
- 3 Debit card
- 4 Credit card
- 5 Informal credit / Purchase on credit
- 66 Other (Please specify.)

Choose all that apply.

Please specify 'Other'.

K3. How many distinct items are on sale in this shop?

- 1 Between 1-50
- 2 Between 51-200
- 3 Between 201-1,000
- 4 More than 1,000

By distinct item (or stock keeping unit), we mean distinct type of item for sale in terms of manufacturer, material, size, etc.

For instance, a gas stove from the same manufacturer but in two different colors (one in GREEN, another in WHITE) would be two distinct items.

Question	Answer
K4. How many check-out points/ cashiers operate in this shop?	1 One (1) 2 Between 2 and 4 3 Between 5 and 10 4 More than ten (>10)
<i>Please include any type of cash register, either manual or automated, that are in a working condition.</i>	

Section L. Quality

L. Please observe the premise areas and all surfaces in and around this shop.

Is food in this shop well-separated from water, heat, direct sunlight, pests, chemicals, or other contaminants?	1 Yes 0 No
Do fresh fruits and vegetables in this shop have NO visible signs of spoilage and bad smells?	1 Yes 0 No
Are fresh fruits and vegetables in this shop separated from fresh produce of animal origin?	1 Yes 0 No
Are all fresh/raw animal and dairy products in this shop stored and displayed in refrigerated units that are on and working?	1 Yes 0 No
Is refrigeration in this shop always working?	1 Yes 0 No
<i>If electricity is not stable in this area, are there batteries/generators for uninterrupted refrigeration?</i>	
Are processed pre-packaged foods in this shop intact and in properly labelled containers?	1 Yes 0 No
Are (food and/or non-food) containers such as plastic bottles and cans intact and without signs of heat exposure (bubbles and deformity, loose labels)?	1 Yes 0 No -88 N/A - Not Applicable; there are no products sold in containers/bottles
Are all goods in labelled containers NOT exceeding their "best-use-before"/ "use-by" date?	1 Yes 0 No -88 N/A - Not Applicable; expiry dates are not visibly indicated

End of Observation Survey

Please take a picture of this shop.

If you're taking a picture of a shop (not market), please ask for permission of the shop owner/manager.

Finally, please collect the GPS coordinates of this shop.

GPS coordinates can only be collected when outside.

2b. Trader questionnaire - Rice wholesaler

Question	Answer
ENUMERATOR: Please select your name.	1 Arpan Barua 2 Md. Abdullah Ibne Abu Bakar 3 Mohammad Kamal Hossain 4 Intius Mamun 5 Subrata Barua
ENUMERATOR: Please select the type of this shop.	1 Formal, outside of camp 2 Informal, inside the camp 3 E-Voucher shop
ENUMERATOR: Please select this shop.	11 Balukhali Bazar 12 Balukhali Informal Market 13 Balukhali E-Voucher Shop 21 Boro Bazar 32 Camp 4 Informal Market 41 Court Bazar 52 Jamtoli Informal Market 53 Jamtoli E-Voucher Shop 61 Kutupalong Bazar 63 Kutupalong E-Voucher Shop 71 Leda Bazar 73 Leda E-Voucher Shop 81 Moricha Bazar 91 Nayapara RC Bazar 93 Nayapara RC E-Voucher Shop 101 Nhila Bazar 111 Palongkhali Bazar 112 Palongkhali Informal Market 121 Shamlapur Bazar 131 Teknaf City Bazar 141 Thaingkhali Bazar 151 Unchiprang Bazar 161 Ukhia Bazar 171 Whykong Bazar
ENUMERATOR: Please select the questionnaire type:	<input checked="" type="radio"/> 1 Trader <input type="radio"/> 2 Market
ENUMERATOR: Please select the trader questionnaire type:	<input type="radio"/> 0 Generic Trader <input checked="" type="radio"/> 1 Rice Wholesaler

Consent Form

Training Guide: This is Consent 1.

ATTENTION!

Now you will ask a series of questions to the shop manager/owner.
Please introduce yourself and read the following:

- 1 Yes [Skip Consent 2]
0 No [Proceed to Consent 2]

Question	Answer
"Hi, my name is _____. I am part of the market assessment team from World Food Programme. I would like to ask you a few questions about the commodities and their prices to understand the market conditions.	
This will take about 10 to 15 minutes.	
Do you agree to participate?"	

Training Guide: This is Consent version 2 if the answer to the previous consent was 'No'.

ATTENTION!

Please read the following:

- 1 Yes [Proceed to Section I]
0 No [End of survey]

"I understand that you are unavailable to participate. I will not ask any questions.

However, is it OK if I observe the shop to see and record the items that are available in your shop?"

In which year and month did you open this shop at this upazila?

Section B. Availability

B1. Is rice currently scarce in this shop? 1 Yes [Proceed to B2]
0 No [Skip B2]

B2. Are you afraid of running out of rice stocks in the coming weeks? 1 Yes
0 No

Section C. Price

C1. Has the rice price greatly increased in the last 1 month? 1 Yes
0 No

C2. If we ask you what the rice price will be in a week from now, would you normally get it right? 1 Yes
0 No

Section D. Resilience

D1.1 Considering your normal customers' demand, would your current stocks last at least one week? 1 Yes
0 No

D1.2 If you place an order today, do you expect to receive your products within a week? 1 Yes
0 No

D1.3 Do you have alternative suppliers for rice? 1 Yes
0 No

D1.4 Is there a single supplier from whom most of your business relies upon? 1 Yes
0 No

D1.5a Where are your suppliers geographically located?

Choose all that apply.

1 Teknaf and Ukhia Upazilas
2 Cox's Bazar District, outside of Teknaf or Ukhia Upazilas
3 Chittagong Division, outside of Cox's Bazar District
4 Bangladesh, outside of Chittagong Division
5 Foreign countries, outside of Bangladesh

Question	Answer
D1.5b If your rice supply was total 10, how much of your supply comes from the following places:	
<i>Remember, the total sum of the following numbers must be 10.</i>	
Teknaf and Ukhia Upazilas	[_____] <i>The value must be between 0 and 10.</i>
Cox's Bazar District, outside of Teknaf or Ukhia Upazilas	[_____] <i>The value must be between 0 and 10.</i>
Chittagong Division, outside of Cox's Bazar District	[_____] <i>The value must be between 0 and 10.</i>
Bangladesh, outside of Chittagong Division	[_____] <i>The value must be between 0 and 10.</i>
Foreign countries, outside of Bangladesh	[_____] <i>The value must be between 0 and 10.</i>

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Section E. Customers

E1. Do you have following types of customers:

- 1 Households
- 2 Retailers
- 3 Wholesalers

Choose all that apply.

E2.1 Who are the customers you have?

- 1 Rohingyas
- 2 Local customers in host community (e.g. Teknaf, Ukhia)
- 3 Customers from Cox's Bazar District, outside of Teknaf or Ukhia Upazilas
- 4 Customers from Chittagong Division, outside of Cox's Bazar District
- 5 Customers from Bangladesh, outside of Chittagong Division
- 6 Exporters, outside of Bangladesh

Choose all that apply.

E2.2 If you had 10 customers, how many of them are in the following groups:

Remember, the total sum of the following numbers must be 10.

Rohingyas	[_____] <i>The value must be between 0 and 10.</i>
Local customers in host community (e.g. Teknaf, Ukhia)	[_____] <i>The value must be between 0 and 10.</i>
Customers from Cox's Bazar District, outside of Teknaf or Ukhia Upazilas	[_____] <i>The value must be between 0 and 10.</i>
Customers from Chittagong Division, outside of Cox's Bazar District	[_____] <i>The value must be between 0 and 10.</i>
Customers from Bangladesh, outside of Chittagong Division	[_____] <i>The value must be between 0 and 10.</i>
Exporters, outside of Bangladesh	[_____] <i>The value must be between 0 and 10.</i>

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Section F. Services

F1. How many full-time employees work at your shop?

- 1 One (1)
- 2 Between 2 and 4
- 3 Between 5 and 10
- 4 More than ten (>10)



Question	Answer
F2. Usually, how many full-time employees are present in one shift?	
F3. Do you offer your customers a loyalty program that gives them either a discount or points that they can use now or later at your shop?	1 Yes 0 No
<i>Loyalty program is often in a form of a paper or plastic card that entitles the holder to rewards.</i>	
ENUMERATOR: Does this shop have a POS (Point of Sale) system?	1 Yes 0 No
<i>Do not ask.</i>	