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# Refugee influx Emergency Vulnerability Assessment (REVA)

Cox's Bazar, Bangladesh



Data collection supported by:



May 2019



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## **Acknowledgements**

The second iteration of the Refugee influx Emergency Vulnerability Assessment (REVA) was supported by numerous partners. The design and execution of the survey benefitted greatly from inputs by the Food Security and Nutrition Sectors in Cox’s Bazar, the Bangladesh Institute of Development Studies (BIDS) and the International Food Policy Research Institute (IFPRI). A special thanks to Action Against Hunger (ACF) who supported field data collection. Efforts by the VAM unit in Rome led by Sergio Regi that supported the analysis and drafting of this report is greatly appreciated. A special thanks to the various experts within WFP (Cox’s Bazar, Country Office and Headquarters) that spent countless hours reviewing and providing technical comments on this report. A lot of gratitude also goes to the refugee households who agreed to spend their time responding to survey questions. Finally, this exercise would not have been possible without the support of the Bangladeshi Government agencies: Office of the Refugee Relief and Repatriation Commissioner (RRRC) and the District Commissioner (DC) office.



## Refugee Influx Emergency Vulnerability Assessment – REVA 2018

### i. Introduction

On 25 August 2017, renewed conflict in the Northern Rakhine state of Myanmar resulted in an unprecedented influx of Rohingya refugees in the Cox's Bazar district, who were fleeing from a major military crackdown and the resulting atrocities. As of January 2019, 745,000 new arrivals– including more than 400,000 children – were estimated to have settled in the Ukhia and Teknaf sub-districts, bringing the total number of stateless Rohingya refugees in Cox's Bazar to 909,000<sup>1</sup>.

The overwhelming number of new arrivals exacerbated an already fragile situation and has presented additional socio-economic challenges for host communities. Compounding the situation further, the area inhabited by the Rohingya refugees is prone to natural disasters, further deteriorating the food security and nutrition situation of the affected population. The Refugee influx Emergency Vulnerability Assessment (REVA) conducted between November and December 2017 estimated that at least 80 percent of the overall refugee population were highly or entirely relying on life-saving assistance to meet their essential needs.

One year on, the situation has gradually stabilized due to the scaling-up of humanitarian assistance. However, poor diets, lack of education and livelihood opportunities as well as precarious health and WASH conditions pose severe challenges to Rohingya refugees' livelihoods and raise serious protection concerns.

To address these needs, humanitarian agencies are providing food and non-food life-saving assistance. The latest Joint Response Plan (JRP) was launched on 15 February 2019. It requested USD 920 million to maintain priority response efforts, particularly to 1) deliver protection to refugees; 2) provide life-saving assistance; and 3) foster social cohesion among refugees and host communities.

### ii. Assessment objectives and implementation

In November 2018, the World Food Programme (WFP), in collaboration with the Bangladesh Institute of Development Studies (BIDS), the International Food Policy Research Institute (IFPRI) and Action Against Hunger (ACF), conducted a joint data collection exercise to follow-up on the Refugee influx Emergency Vulnerability Assessment (REVA2). The main objectives of the assessment were to:

- i. assess the severity of food insecurity and socio-economic vulnerability from an essential needs' perspective among displaced populations and host communities;
- ii. highlight the most food insecure and vulnerable groups;
- iii. provide recommendations to address priority needs;
- iv. monitor food security and the nutrition situation, while providing an in-depth analysis of the linkages between the two;
- v. measure the economic vulnerability of refugees and host communities.

To inform the programmatic response for building self-reliance of the refugee population, IFPRI and BIDS also conducted a study designed to understand the dynamics of refugee welfare and the impact of the refugee influx on the local economy. This study will be released in the latter half of 2019. Consultations with various sectors and the collaboration of many partners, including ISCG, IOM, UNHCR, UNICEF, FAO, UNWOMEN and UNDP played a major role in the design and implementation of the assessment.

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<sup>1</sup> This includes refugees who had sought refuge prior to August 2017 (nearly 170,000)-JRP 2019

### iii. Methodology

#### Sampling strategy

The assessment covered various groups of Rohingya refugee populations as well as host community<sup>2</sup>. The sampling stratum was based on the Rohingya refugees' time of arrival in Bangladesh. This is explained by the fact that field visits and secondary information yielded evidence that refugees tend to move around within settlements, thus not allowing for geographical stratification.

As a result, the sampling stratum is composed of:

- i. New arrivals in refugee camps since 25 August 2017;
- ii. Older, unregistered refugees (before August 2017);
- iii. Older, registered refugees;
- iv. Host communities in Ukhia; and
- v. Host communities in Teknaf.

Table 1 outlines the sampling design.

*Table 1: Parameters used for sample size calculation and survey design*

	<b>New arrivals in settlements/camps</b>	<b>Old refugees – registered</b>	<b>All other groups</b>
Confidence interval	95%	95%	90%
Level of precision	+5%	+5%	+7%
Prevalence of key indicator	50%	50%	50%
Design effect	1.5	1.5	1.5
Sample size	1,000	620	220 per group (x3)

Starting from a planned sample of 2,280, a total of 2,593 households were interviewed, as illustrated in Table 2. Results reflect the three different refugee groups by time of arrival, as well as for host communities in Ukhia and Teknaf.

*Table 2: Sample size stratum*

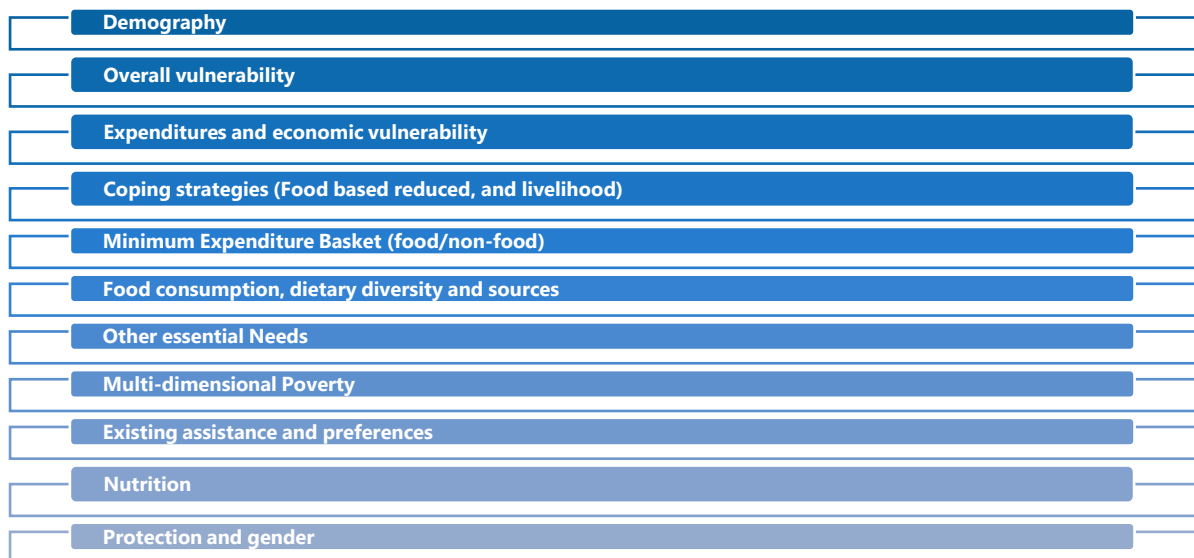
<b>SAMPLE</b>	
New arrivals since 25 August 2017 in settlements	1303
Old refugees – unregistered before August 2017	209
Old refugees – registered	577
Host communities in Ukhia	370
Host communities in Teknaf	134
<b>Total</b>	<b>2593</b>

<sup>2</sup> In this survey, host community considered were those residing adjacent to Ukhia and Teknaf upazilas

**Thematic areas covered by the REVA**

The survey was designed with the objective to provide a comprehensive source of information for all the relevant areas of analysis.

*Figure 1: REVA modules*



Partners from all relevant sectors contributed to the assessment design. The questionnaire was tested and validated by field visits.

**Method of data collection**

Thirty enumerators were hired to conduct the survey. Data collection started on 20 October 2018 and was completed on 4 December 2018. Enumerators went through a three-day training in October 2018, which covered survey questionnaire, indicators, and sampling methodology.

Anthropometric measurement of children 6 to 59 months of age and women in reproductive age were conducted by BIDS and ACF, adopting a SMART methodology and design. All children in household selected for the survey were systematically measured and are part of the nutrition survey.

**Limitations of the study**



Some security threats arose during data collection which limited accessibility to some camps in the Kutupalong area. While the main distribution of prevalence of the main outcome indicators is relatively homogeneous across the site, small distortions from reality may arise when presenting data not disaggregated by area.

Secondly, e-voucher programmes and distribution of specific NFIs have been scaled up significantly since early 2019. This could have positively affected vulnerability and food consumption compared to REVA results.

Finally, the nutrition data collection (i.e. children and mothers’ anthropometric measurements) took place in two waves: the first was conducted by ACF on behalf of the nutrition cluster and the second by BIDS colleagues. Although the sampling frames did not differ, results in terms of prevalence of malnutrition from the first report may slightly differ from those released by IFPRI and BIDS in the latter half of 2019.

#### iv. Profile of respondents

- SEX OF HEAD OF HOUSEHOLD:** whether the refugee population or host community, the majority of households interviewed were male-headed. Refugee populations show a relatively higher share of female-headed households, which is generally associated with higher levels of vulnerability.
- HOUSEHOLD SIZE:** for both the refugee population and host community, the majority of household were composed of 4-7 members. However, Rohingya refugees show a higher proportion of small families (1-3) affecting the overall average household size; and a slightly higher share of large families compared to host communities.
- VULNERABLE GROUPS:** no major differences were found in terms of presence of vulnerable categories. However, host communities show a higher share of pregnant/lactating women and elderly within the household, while an increased number of chronically ill members is found among the displaced groups. The latter also reported the presence of unaccompanied minors, which entails considerable protection concerns.

		
MALES	73%	82%
FEMALES	27%	18%
AVERAGE HH SIZE	5.16	5.48
1-3 MEMBERS	21%	11%
4-7 MEMBERS	63%	76%
8+ MEMBERS	16%	13%
PREGNANT/LACTATING WOMEN	23%	29%
UNACCOMPANIED MINORS	3%	-
DISABLED	11%	10%
CHRONICALLY ILL	11%	8%
ELDERLY (60+)	18%	23%

#### v. A changing socio-economic environment compared to the previous REVA analysis in November 2017

Since August 2017, the Kutupalong and Teknaf’s expansion sites have turned into better protected and better organised camps. Mushrooming retailers as well as humanitarian organisations and private companies offer a more diversified supply of food and non-food products, and a more articulated provision of key services. Contacts and transactions with the host community have increased. Retail prices of main commodities remain steadily high and are consistent with levels from the end of 2017 when inflation was underpinned by a sudden increase in demand. The purchasing power of the Rohingya population has since decreased due to savings drying-up and assets - such as jewelry - stripped over the past 12 months

Access to labour market remains erratic due to limited mobility, legal constraints and extremely low wages. While the surge in humanitarian response has met the refugees’ immediate needs, it does not strengthen their livelihoods.

The more sophisticated- households’ and community economy has altered the initial balance of priorities and expectations of access to their essential needs. Rohingyas refugees now play a more active role in defining the elements of their livelihoods and their preferred sources.



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The defining characteristic remains scarce economic resources levels, which is even more exacerbated than in 2017. The selling of assistance, especially food, is currently the main source of cash. Borrowing money to buy food and non-food items is also extremely common and exposes Rohingya populations to vicious circles of indebtedness.

These occurrences create a potential bias when executing a comparative analysis using vulnerability indicators which are profoundly related to the specific socio-economic context Rohingya refugees and host communities live momentarily. For this reason, the approach used in the present report expands more on essential needs – food being one of the most prominent – to avoid simplistic conclusions and to accurately identify the actual nature and causes of trends observed.

Mindful of these challenges, this report will attempt to perform a comparative analysis with the REVA 1, completed in 2017. However, REVA2 may well be seen as a second, 'real baseline' for the current, consolidated scenario to feed future trend analyses, rather than a simple decontextualized follow-up from last year's survey.





## RESULTS

### 1. How many are vulnerable?

VULNERABILITY CLASSIFICATION <sup>3</sup>	New arrivals (arrived since 25 August 2017)	Old unregistered refugees (arrived before 25 August 2017)	Old registered refugees (arrived before 25 August 2017)	Total Rohingya population	Bangladeshi host communities
Highly vulnerable	68%	79%	51%	69%	11%
Vulnerable	20%	15%	24%	19%	28%
Less vulnerable	12%	6%	24%	12%	61%

Over one year into the largest influx of the Rohingyas in Cox’s Bazar, their levels of vulnerability remain high. As of December 2018, the vast majority of new arrivals (those who arrived since August 2017) and older unregistered refugees are fully dependent on external assistance.

Overall, **88 percent** of the overall Rohingya refugee population remains highly to entirely relying on **life-saving assistance**. This equates to approximately 802,000 Rohingya individuals being vulnerable or highly vulnerable<sup>4</sup>. Older, unregistered refugees and new arrivals demonstrate the highest levels of vulnerability to food insecurity, with 94 percent and 88 percent of households, respectively. The situation is slightly better among the old registered refugees. The REVA1 report (December 2017) noted that the food security status of the new arrivals, including those considered “less vulnerable” at the time, could quickly deteriorate once their savings and assets are exhausted. REVA2 confirms that the coping patterns of the Rohingya refugees have changed: after having depleted their assets (jewelry, savings), an increased share of households sold part of the food assistance (at least 40 percent) and/or borrowed money to meet their food and other essential needs (70 percent).

**Vulnerability among local host communities remains high** at around 40 percent, as in 2017.

**Economic vulnerability** remains the main driver of food insecurity, with 78 percent of Rohingya refugee households unable to meet the monetary value needed to cover their essential needs. Approximately 60 percent have expenditures falling below the ‘survival’ value of the minimally acceptable food basket. Savings and resources generated from asset-sales that Rohingya refugee households mainly relied upon in the past 12 months in order to complement food assistance, are completely or partially depleted. The majority see the assistance provided as the main, if not only, resource to address their essential needs.

Despite significant humanitarian efforts, nearly **four in ten Rohingya households** have **unacceptable food consumption outcomes**, with highest rates among the old unregistered (50 percent) and new arrivals (44 percent). As found in 2017, **three in ten Bangladeshi did not have an adequate diet**.

**Among the Rohingya refugees, female-headed households, households with disabled, households with no income and with numerous children** are the most vulnerable. Among the host communities, small-sized households (one or two members) or households with three or more children under five years of age are more prone to be food insecure.

<sup>3</sup> Classification of REVA2 based on food consumption (FCS poor, borderline), actual expenditures against Minimum Expenditure Basket, adoption of high-risk coping mechanisms.

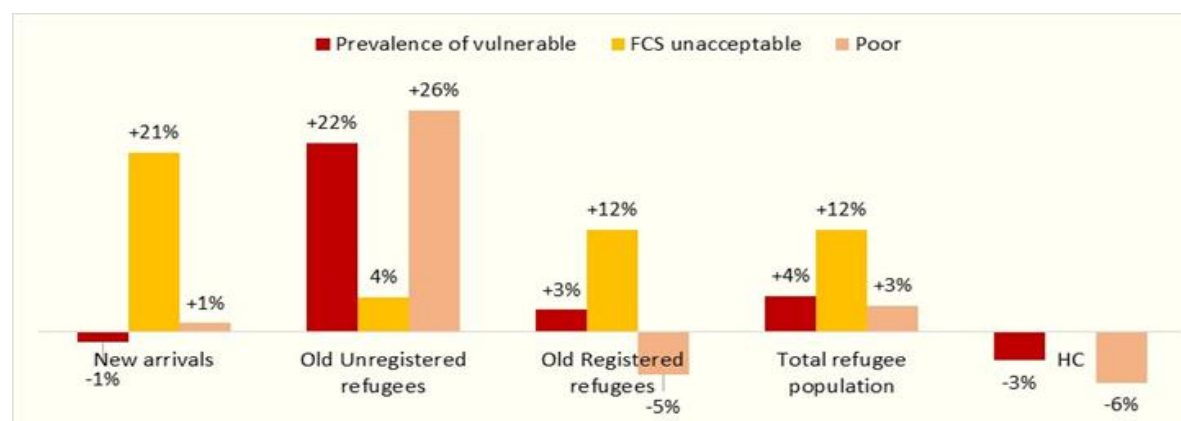
<sup>4</sup> Based on Rohingya refugee population from the ISCG Situation report, Jan 2019.

## 2. Vulnerability to food insecurity trends 2017/2018<sup>5</sup>

Compared to REVA1 in December 2017, **the level of vulnerability to food insecurity remains generally stable but at very high levels.** The said vulnerability would become more visible if humanitarian assistance were to cease or significantly decrease, as it is mainly linked to limited purchasing power and low access to economic resources.

A slight increase in the prevalence of vulnerable Rohingya refugees (+4 percent of households) and a slight decrease among the host communities (-3 percent) was observed.

Figure 2: Evolution of global vulnerability (red bars), prevalence of households with unacceptable diet (yellow) and of poor households (pink) compared to Nov 2017



The overall picture, however, hides some relevant differences among the groups of Rohingya refugees analysed. The sharp increase in the proportion of vulnerable, old unregistered refugees observed since 2017 is mainly underpinned by higher poverty rates. Food assistance programmes have scaled up in 2018 to cover this category of displaced households in the face of limited assets and the adoption of other coping strategies (i.e. borrowing money) to access food. Conversely, vulnerability levels of new arrivals and old registered refugees remained substantially unchanged since 2017. The deterioration in food consumption patterns observed for these two groups of Rohingya refugees was mitigated by an increase in actual expenditures on food and non-food items (NFIs). Anecdotal evidence suggests that deteriorating food consumption patterns could be partially justified by under-reporting of food consumed in 2018 compared to surveys conducted in the immediate aftermath of the displacement, especially by small-sized households that receive a lower entitlement compared to 2017.

An analysis of the relationship between the sale of assistance and food consumption is necessary to comprehensively understand the increasingly complex socio-economic context Rohingya refugees face in the camps. In December 2018, a higher proportion of refugees indicated they are selling part of their food assistance (mainly rice, lentils and oil) compared to 2017 (41 percent vs 14 percent). The monetized value of food assistance sold is reinjected into local markets or given to intermediaries to buy fish, vegetables, condiments, fuel, health services and medicines, as well as toiletries, clothes and transport. The decrease in the consumption of pulses, rice and oil – often sold at a fraction of the market price to informal traders and host communities was only partially mitigated by the marginally higher consumption of fish and fresh vegetables, whose unit price is much higher.

<sup>5</sup> The comparative analysis was conducted using the same methodology of REVA1, including household-level food consumption status and economic vulnerability using expenditures against the Survival Minimum Expenditure Basket (SMEB) and Minimum Expenditure Basket (MEB).



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As a result of the above, dietary diversity has remained comparable to 2017.

Underpinned by sales of food assistance, new arrivals and old registered refugees tend to spend a slightly higher amount of cash than last year. Yet these amounts are insufficient to access the minimum food basket: this explains why approximately 70 percent of Rohingya borrowed money in the three months prior to the interview. Alarming, around 80 percent of refugees who are indebted have yet to repay part or all of the loan in the coming months. This will expose them to even higher economic vulnerability given their fragile livelihoods and absence of stable and sustainable income opportunities.

### 3. Who are the most vulnerable?

The profiling exercise defines the social and demographic categories in need of support according to selected indicators of vulnerability: food consumption score, economic vulnerability, adoption of high-risk coping strategies<sup>6</sup>.

Among the Rohingya refugees, the presence of (a) **many children** within a household and (b) large families with **absent adults** potentially involved in income generation (i.e. high dependency ratio), are key determinants of vulnerability. **Single-parents and child-headed households** also struggle to cope with family members' needs, particularly in **presence of children, disabled, pregnant and lactating women**. Economic vulnerability is easily reversible by access to minimum levels of small cash injections. As a result, any demographic element associated to income generation (e.g. presence of adult male, male/non-single head of household, low dependency ratio, absence of disabled/chronically ill, access to remittances) automatically lifts Rohingya refugee households from vulnerability regardless of their time of arrival or registration category.

The profile of most vulnerable Rohingya refugees has not changed significantly since 2017. The revised food assistance modality – either in-kind or e-voucher – based on the actual household size<sup>7</sup> enables larger families to access a more diversified and adequate diet compared to 2017. Economic vulnerability, however, remains the main driver of food insecurity. The presence of “potentially active” adults among the Rohingya refugees is therefore the key element for families to ensure minimally acceptable purchasing power and prevent members from adopting high-risk coping mechanisms to access food and to meet other non-food related needs. Large-sized families with a single parent or a low number of adults are the most vulnerable.

Among the host community, similar demographic profiles are prone to vulnerability. Access to an income source is even more pertinent than for Rohingya refugees due to the absence of blanket external support. Therefore, it is extremely important to scale up public work programmes offering conditional access to income sustaining livelihoods among both Rohingya refugees and Bangladeshi in the near future.

Figure 3 illustrates the most important characteristics associated to vulnerable households.

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<sup>6</sup> Children (under 15 years old) are working; Children (15-17) are working long hours (>43 hours) or work in hazardous conditions; Begging; Accepting high-risk/illegal job

<sup>7</sup> General Food Distributions are calibrated around household size cohorts of 1-3, 4-7, 8-10, 11+ members, while the e-vouchers entitlement of each household is directly proportionate to the actual size.

*Figure 3: Summary of households' characteristics associated to vulnerability*

Core characteristics of vulnerable and highly vulnerable*	ROHINGYA	HOST COMMUNITIES
<b>Demography</b>		
Large households (5+ members)	✓	
Small HHs (1-3 members, especially 1-2)		✓
Female headed household	✓	
Presence of disabled/chronically ill person (especially if > 1 person)	✓	
Household headed by widow/separated/divorced	✓	
Household with 3 children or more between 5-14yrs	✓	
Household with 3 or more children under 5-year-old		✓
Household with 7 or more children		✓
Single parent	✓	
Single adult with 2 children	✓	
Child headed household	✓	
Presence of pregnant and lactating women	✓	✓
<b>Working capacity/livelihoods</b>		
Households with high dependency ratio (greater than 1.5)	✓	✓
No remittances	✓	
At least one IGA (including casual/temporary labour)	✓	✓
No adult male	✓	
<b>Assets</b>		
Axe	✓	✓
Saw	✓	✓
Hammer		✓
Solar power	✓	
Spade/showel		✓
Bycicle		✓
<i>* Results show the significant correlations between vulnerability and observable characteristics. The low sample size of households for which some of these characteristics apply (or not) may hide potential additional elements associated to vulnerability (false negative)</i>		

## 4. Expenditures and economic vulnerability

### 4.1. Expenditures

On average, Rohingya households spend approximately 3,920 BDT per month or just above USD 9 per capita per month. This includes actual cash disbursement and does not account for the estimated value of assistance or transactions made through credit. Bangladeshi households on average spend approximately three times more (about 12,100 BDT).

If we refer to the real expenditures – i.e. excluding the value of food and non-food assistance – the expenditure patterns between the Rohingya refugees and host community does not appear to differ significantly (see Figure 4). Both dedicate nearly two-thirds of the monthly budget to food. Equally, the allocation of money to specific NFI groups is very similar. That said, expenses on fuel were significantly higher among the Rohingya refugees (14 percent of the whole budget vs only 8 percent among the host communities). The list of food items

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purchased shows some staggering differences with displaced persons more prone to buying items not provided in the ration/entitlement such as fish, fresh vegetables and condiments.

Figure 4: Real expenditure patterns (Rohingya total vs host communities)

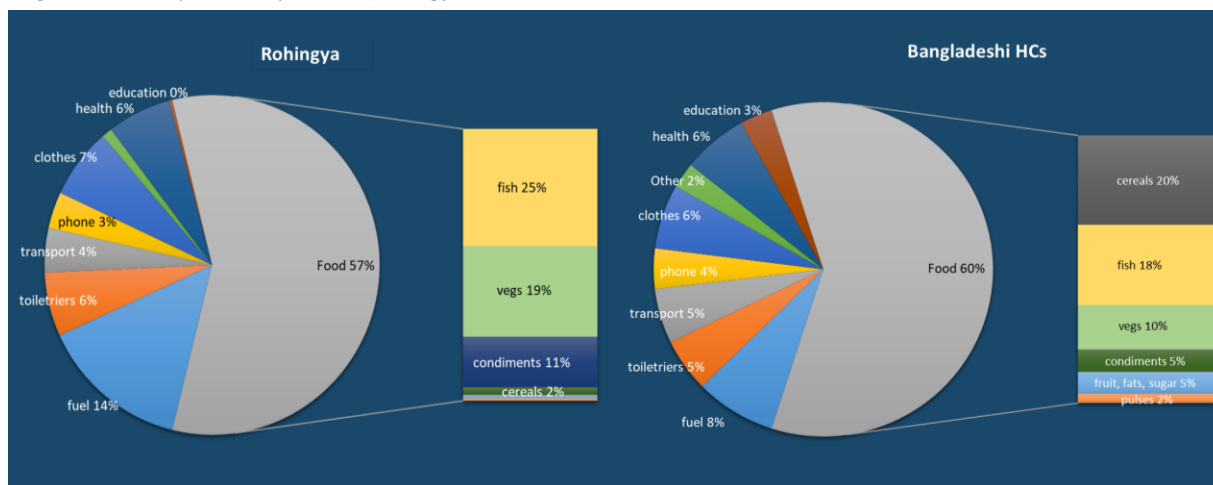
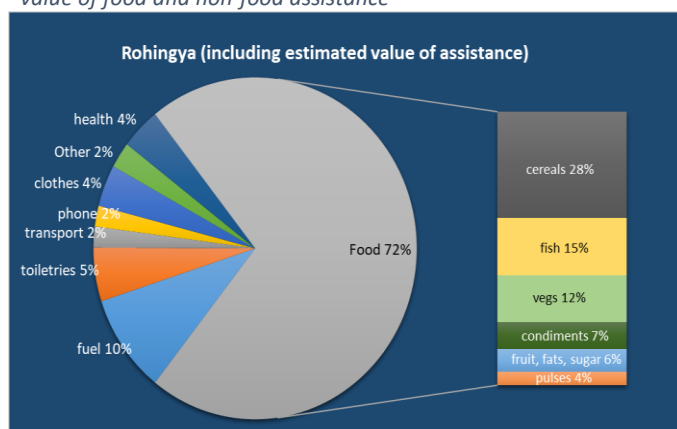


Figure 5: Rohingya, expenditure patterns including estimated value of food and non-food assistance

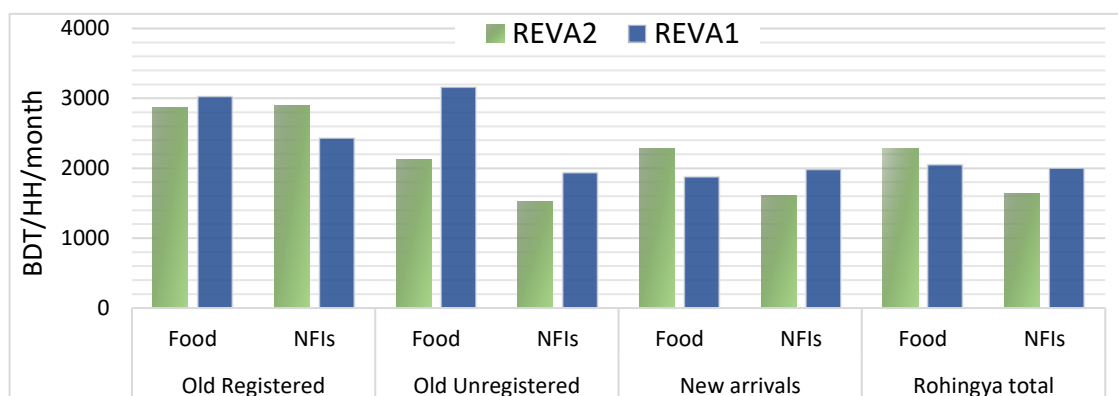


However, when the estimated value of assistance (food being the main component) is included as an indirect expenditure, the average household's allocation of resources to food increases from 57 to 72 percent. Only one-fourth of households' resources are dedicated to relevant non-food needs.

This share is close to the severe economic vulnerability threshold (75 percent) of indicators that use the food expenditure share as a proxy for vulnerability and food insecurity<sup>8</sup>.

The total average expenditure of host communities increased slightly by 1,300 BDT (8 percent) since November 2017. No major change was observed among the Rohingya refugees (see Figure 6), except that they dedicated

Figure 6: Average monthly expenditures on food and non-food items (NFIs) - Rohingya



<sup>8</sup> WFP Consolidated Approach for Reporting on Indicators of food insecurity (CARI)\_guidelines, 2016



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more resources to purchasing food items such as fish, meat, eggs, fresh vegetables and condiments compared to one year ago. This trend was even more evident among new arrivals.

The direct expenses on fish, meat and eggs – extremely low in absolute terms – only rarely translated into improved food consumption outcomes. This is due to the small quantities purchased on these items – resulting mainly from unfavorable terms of trade/exchange between the value of food rations sold and new food items purchased from the market. The limited nutritional power of the small quantities purchased obliged analysts to consider them as condiments instead of protein-rich foods when computing the food consumption score.

A significant reduction in the food and non-food expenditures of unregistered refugees is explained by the increased coverage by humanitarian assistance, which also contributed to mitigate coping mechanisms such as incurring debt to access food and other essential needs.

The observed reduction of non-food expenditures such as health and education are justified by the expanded coverage of these services by humanitarian partners in the past 12 months. Similarly, the ongoing distribution of cooking fuel (Liquified Petroleum Gas-LPG) should underpin a further decrease of non-food related expenses and divert households' resources on purchasing food items in the markets. A study on the impact of the LPG scale-up is being planned by the Energy and Environment Technical Working Group (EETWG) later in the year.

Beneficiaries under e-voucher assistance spend slightly less on vegetables and condiments (1,150 BDT per month on average against 1,020 of GFD beneficiaries) that are partially supplied in WFP retail shops. But, they generally spend more on dry and fresh fish (1,100 BDT vs. 900 BDT, respectively). It is also important to note that most of the registered refugees receive assistance through the E-Voucher modality and are more likely to have additional income sources and higher expenditure habits on key items such as fish. E-vouchers presently cover more equitable numbers of new arrivals and unregistered, older refugees.

**Hakim, head of a household of four members, Kutupalong camp 1W:** *'I sold the 4.5 Kg bag of peas -i.e. the full pulses ration - to a Bangladeshi outside of the distribution point. I gained 120 BDT and used that money to buy a small fish - i.e. showing dimensions of approx size 250-300 grams. We ate this fish in three meals, mixed with fresh vegetables in a sauce added to the rice. Prices inside the camps are low. If I were to sell the same peas outside the camps I would get not less than 400 BDT'.*

### 4.2. Economic vulnerability

Households' poverty was estimated based on the economic capacity of the household to meet minimum essential needs, measured in terms of the per capita Minimum Expenditure Basket (MEB). In this report, we apply the MEB that has been established at national level for the Bangladeshi population for the area of Cox's Bazar and Chittagong in 2018, which contains a food and non-food component<sup>9</sup>. As an additional measure of severe vulnerability, a Survival MEB (SMEB) or food-MEB was also established based on the monetary value of the WFP E-Voucher basket providing 2,100 kcal per capita, actualized using November 2018 food prices from WFP's market monitor<sup>10</sup>. Based on these assumptions, households were divided into three groups:

- i. Households with per capita expenditure below the SMEB;
- ii. Households with per capita expenditure between SMEB and MEB;
- iii. Households with per capita expenditure above MEB.

<sup>9</sup> 7,113 BDT for a family of five – i.e. 1,423 BDT per capita per month.

<sup>10</sup> 4,160 BDT for a family of five – i.e. 832 BDT per capita per month.

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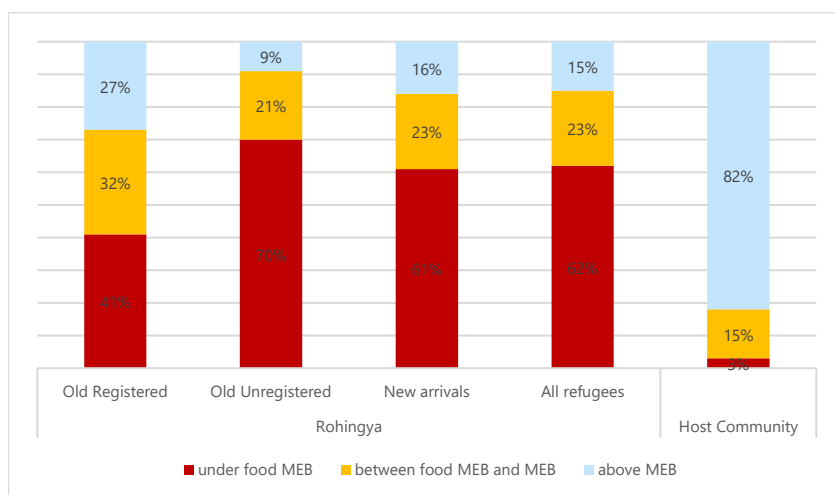
As in REVA1, the analysis conducted will offer two scenarios to assess economic vulnerability:

- 1) **Current economic vulnerability** based on expenditures which includes the monetary value of assistance;
- 2) **A simulated scenario excluding the monetary value of assistance**, which assesses economic vulnerability if assistance were removed. This second ‘conservative’ option was used as part of the indicators adopted to classify vulnerability to food insecurity.

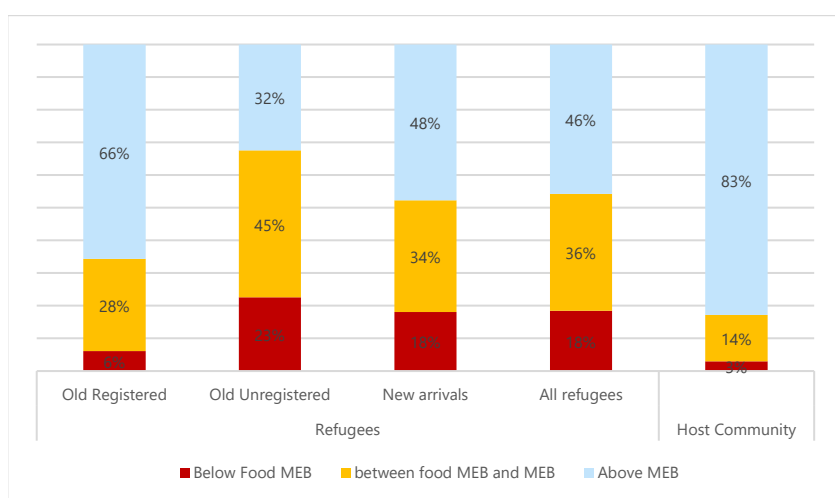
Neither option includes value of food and non-food items purchased on credit.

**Results:** Economic vulnerability is extremely high among Rohingya refugees, especially among old unregistered and new arrivals. Food assistance is mitigating its impact. If external assistance were not provided, economic vulnerability would increase from 54 to 85 percent<sup>11</sup>. New arrivals and old unregistered refugees would become

*Figure 7: Socio-economic vulnerability (excluding the estimated value of food assistance)*



*Figure 8: Socio-economic vulnerability (including the value of food assistance)*



households do not have access to any income.

the most economically vulnerable groups given their high dependence levels on life-saving assistance to meet their essential food and non-food needs. This highlights the crucial role that assistance plays in determining refugees’ economic vulnerability, which represents the major driver of food insecurity.

As in 2017, it is estimated that approximately 80 percent of the total refugee population would not meet their food requirements without external assistance. Significantly lower levels of poverty are found among the host communities.

Households with at least one member earning an income are far less exposed to poverty. Over 60 percent of the economically vulnerable

<sup>11</sup> CETERIS PARIBUS – i.e. assuming that other parameters remain unchanged



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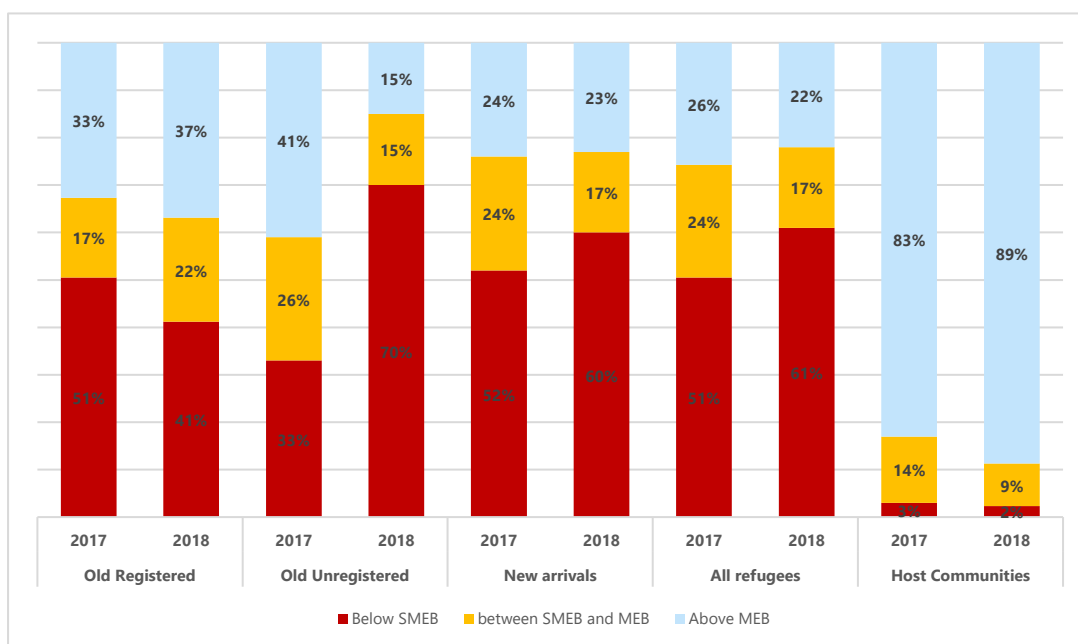
Limited mobility and restrictions to employment opportunities are likely viewed as the main constraints to accessing an income.

Owing to the higher freedom of movement and to the consolidated networks including with host communities, registered refugees’ households in Kutupalong and Nayapara RCs are better-off.

Income is also the main driver of wealth among the host communities. Although the low levels of unemployment limit data sensitivity and capacity to spot significant correlations with poverty, the absence of an income limits purchasing power and diversification of expenditures.

**Trends:** Economic vulnerability remained substantially unchanged since November 2017. However, this situation masks an indirect deterioration given the relevant increase in Rohingya refugee contracting loans to access food and health expenditures, which may lead to a decrease in their actual economic capacity in the mid-term. Substantial deterioration was observed among the non-registered refugees who arrived before August 2017. Economic vulnerability levels among host communities remains on the same levels as 2017, in part due to increased access to conditional transfers from public service works.

Figure 9: Poverty rates, excluding food assistance (same methodology of REVA1)



**Perception-based economic vulnerability:** Trends of poverty rates based on actual expenditure against the MEB corresponds with the perception-based indicators on poverty. Respondents were asked in which poverty category they felt they belonged to (poor, normal, better-off/rich) in November 2018, in November-December 2017, and five years ago. Both the Rohingya and host communities show a progressive increase in rates of households self-declaring as poor since 2012.

Such an increase is however steeper among refugees who migrated after October 2016, as they had to abandon their own livelihoods in Myanmar.

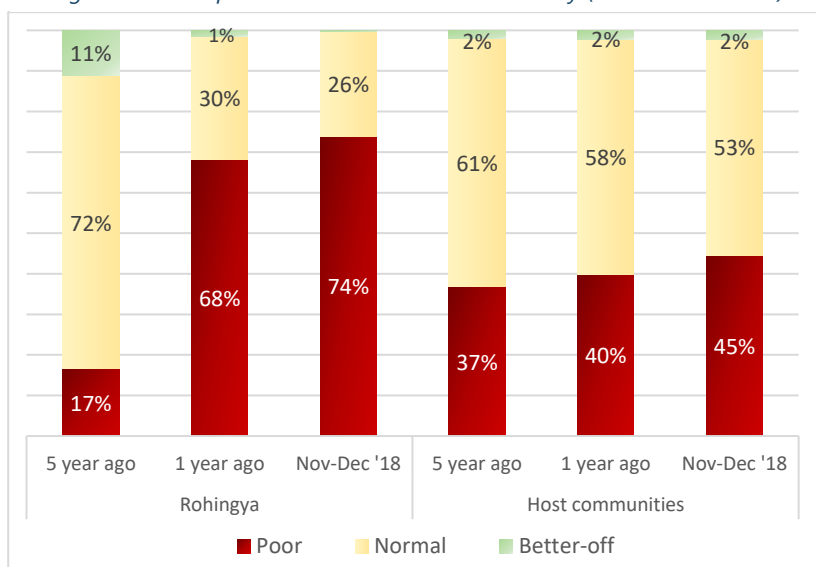
At the end of 2018, three-in-four new arrivals and older unregistered refugees – including the arrivals between October 2016 and August 2017 - considered themselves poor. Comparatively, approximately half of old registered refugees and host communities’ households shared this perspective.



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A major inconsistency to signal between expenditure-based and perception-based poverty rates is that of the host communities. Anecdotal evidence suggest that the mismatch could partially be explained by over-reporting of self-declared poverty linked to the increasing perception of insecurity and opportunity costs associated with the influx in the area. Consequently, this could affect the normal course of productive activities. However, such perceptions may reflect greater impact than the one derived from expenses-based vulnerability results.

Figure 10: Perception-based economic vulnerability (trends 2013-2018)



**Who are the poorest?** Among the **Rohingya households**, large families with children and no access to income are the most adversely affected. Economic vulnerability is the major driver of food insecurity. Therefore, the absence of income opportunities due to limited human resources (i.e. households with no able-bodied adults in addition to the main care-taker of children) and high dependency ratio underpin poverty and low access to food and other essential needs. Given the extremely low expenditures registered by Rohingya refugees, access to even minimal amounts of income is a great welfare enhancer, with potential to shift them from poverty into the better-off cohort with expenditures above the MEB. The vast majority of refugees have extremely fragile livelihoods and would easily move into poverty in absence of humanitarian assistance.

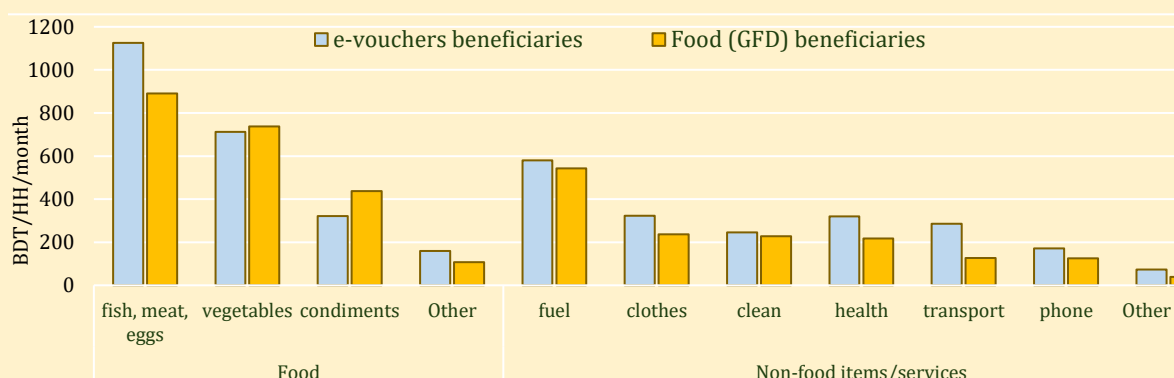
Among the **host community**, smaller households (1 to 3 members) with pregnant and lactating women and chronically ill, either as cumulative or standalone drivers, are systematically poorer, as these characteristics cumulatively constrain their active participation in the labour market.

### Minimum Expenditure Baskets and transfer values considerations

The food value of the e-voucher component amounts currently to 770 BDT per capita per month. This value is established through cost-effectiveness/cost-efficiency analyses of a minimum value granting access to 2,100 Kcal per person per day. A family of five will receive five times such amount. However much in line with humanitarian principles, this value does not seem to capture the actual preferences of Rohingya, who systematically buy larger quantities of rice and pulses and resell them to access fresh fish, dry fish and vegetables. While the first is not included in the e-voucher list of items that can be found in WFP retail shops, dry fish sold outside of the retail shops is slightly cheaper and available in small quantities, and more preferred to the one in the retail outlets which also has a preservative not liked by refugees. Also, beneficiaries tend to stock all items at once, hence limiting the number of visits for fresh vegetables that can easily be purchased from small informal retailers in the camps or just outside. Consequently, WFP retailers are not incentivised to stock large quantities of fresh vegetables - due to low demand.

On the one hand, the frequency and levels of resale of food is significantly lower among e-vouchers beneficiaries compared to in-kind (GFD). No significant differences in the spectrum of actual expenditures are seen between in-kind (GFD) and e-voucher beneficiaries. Dry fish, fresh fish and vegetables remain the main commodities purchased outside of the WFP shops for both categories. The only relevant difference noticed is the higher direct expenditure on spices and eggs among the GFD beneficiaries, using resources mainly derived from sale of food assistance and loans/credit.

Figure 11: Comparative analysis on average expenditures (actual cash purchase) by type of assistance



As the coverage of e-voucher by WFP is rapidly scaling-up, with new retail shops being installed in the camps, the question on the value of food vouchers gains even more relevance: **discussions around reconsidering the value of the transfer or complementary food assistance modalities, in attempts to (at least partially) reflect the actual expenditures patterns and dietary habits of the Rohingya is needed.**

The high value of resale of food assistance and widespread access to loans/credit to buy food and access other non-food essential needs suggest that this debate is extremely relevant for the actual humanitarian context. At the same time, one cannot overlook that resale of food, regardless of type of assistance, is also triggered by the need to meet other essential needs such as cooking fuel, clothes, health, transport.

Drawing on the detailed expenditures' modules of REVA2 and mindful of right-based standards in all sectors, the section that follows presents a proposed recalculation of the estimated value of minimally acceptable food and non-food baskets, which could guide discussions on potential review of the cash/e-vouchers entitlements applied to both Rohingya and host communities in Ukhia and Teknaf.



### 4.3. Revision of the Minimum Expenditure Basket based on a hybrid methodology

The analysis on expenditures and vulnerability levels has shown that, even with the current level of assistance, households are increasingly getting indebted to be able to meet their food and non-food needs. At the same time, households have been observed to sell part of their food rations (received through in-kind or E-Voucher) to buy food-items that are not available through assistance, but that refugees seem to consider essential.

This context has prompted a review of the current Minimum Expenditure Basket (MEB), which forms the basis of determining the cost of essential needs accessed through the market. The review is expected to provide evidential analysis that can inform future discussions around revisions on the current MEB.

The current MEB was established using a rights-based approach by the national Cash Working Group. The availability of detailed consumption and expenditure data on food and non-food items of Rohingyas and host communities from REVA2 presented an opportunity to review the current MEB thresholds based on actual consumption behavior. Our proposal considered a hybrid methodology to estimate essential needs, combining expenditure and consumption data with a rights-based perspective.

#### **Calculation of expenditure aggregates as a basis for the MEB**

As a basis for the analysis, an expenditure aggregate (also called consumption aggregate) is calculated, comprised of a food and a non-food component. The food component includes quantities of all food items consumed by the surveyed households, except alcohol and tobacco, which are then valued at median prices<sup>12</sup>. For the non-food component, consumed quantities were not available in the data, and so instead the calculations rely on directly reported expenditures on nine (9) essential non-food groups, excluding expenditures on non-essential items<sup>13</sup>. Rent is excluded, as it is not a typical expenditure in refugee camps nor in the host communities. Both food and non-food expenditures do not show large economies of scale or effects of household composition. As a result, a simple per-capita approach has been applied to the MEB, meaning that the average per capita monthly expenditure is multiplied by household size to arrive at the household size specific to MEB.

#### **Choice of the reference group**

When designing a MEB using expenditure data, the analysis looks at the typical food and non-food consumption behavior of a so-called reference cohort, meaning a group of households that are “just able to meet their essential needs”. Selecting the best possible reference cohort is a crucial step of any expenditure based MEB analysis. As much as possible, the reference cohort should give an accurate and unbiased depiction of how people just able to meet their essential needs are consuming, so that the MEB can mimic this pattern. There is no one rule for how to select the reference cohort. To identify the reference cohort for Cox’ Bazar, we apply select criteria in different combinations and test their respective influence in a sensitivity analysis.

1. Refugees and host communities: we include both refugees and host communities in the reference cohort, since the MEB is meant to be relevant for both groups.

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<sup>12</sup> Median prices are derived from the data using reported cash purchases only and have been checked for regional differences.

<sup>13</sup> ‘relevant’ (=essential) non-food groups, include fuel, cleaning/toiletries, transport, phone, clothes, home/housing related (like small repairs, mosquito nets), health, education, cooking equipment. Excluded are expenditures on gifts, social expenditures, leisure, jewellery and durables.

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2. No in-kind assistance: receiving in-kind assistance is likely to have an influence on consumption behavior. A limited amount of food items in the basket available skews consumption in a specific direction that might not reflect how people would have consumed given a free choice. Furthermore, even if households have acceptable food consumption through assistance, non-food consumption might be kept to a survival minimum due to limited access, also given a skewed picture of consumption. For this reason, we limit the reference group to households that do not receive GFD
3. Expenditure quintiles: we exclude the 1<sup>st</sup> (proxy for rich consumption) and 5<sup>th</sup> (proxy for poorest consumption) quintiles in order to limit the reference cohort to those households whose consumption patterns lie in the middle of the distribution. As a sensitivity analysis on this criterium we test excluding also the fourth quintile.
4. Food consumption score: we include only those households that have a Food Consumption Score around the acceptable score threshold of 42 (between 35-80). As sensitivity analysis on this criterium, we test using only households with an FCS equal to or above 42.

### Calculating the MEB

The MEB is established on basis of the costs of a food basket of 2100 kcal based on the average consumption pattern of the reference cohort, and their average non-food expenditures. Results are shown in Table 3<sup>14</sup>. Sensitivity analysis applying different variations of the selection criteria (see annex 2), shows that across different iterations of the reference cohort, non-food expenditures vary much more than food consumption and that these expectedly go up, including for richer households. This ultimately allows us to select the cohort who is just at the point where food consumption patterns are stable, and the share of food is not extremely high, as a very high share of food consumption is an indicator for vulnerability. This is then our selected reference cohort, and we use their consumption patterns as the basis for the MEB.

In conclusion, our proposed computations reveal a MEB of 8681 BDT (for a 5-person household per month), with a food component of 66 percent and a non-food component of 34 percent<sup>15</sup>. This result is higher than the current MEB, in particular in regard to food-needs. The behavior of refugees of incurring debt and selling assistance as found elsewhere in this report seems to support the finding that the current MEB may not be sufficient when considered as a reference for computing current transfer values. In addition, the sensitivity analysis on the cohort selection furthermore showed that food consumption is very robust and doesn't change significantly regardless of the cohort of analysis.

*Table 3: Calculated MEB based on the expenditure and right-based approaches*

Reference cohort	Sample size	Food MEB		Non-food MEB		Total MEB *
		Value	Percent	Value	Percent	
Displaced (excl. in-kind ben.) + host community, q234, FCS 35-80**	610	5691	0.66	2990	0.34	8681

\* BDT/month (household of 5 members), displaced exclude in-kind beneficiary (therefore includes cash recipients)

\*\* q234 = only the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> expenditures quintiles where included and extreme values excluded. Also, only HHs in the cohort with food consumption score above (or just below) the minimum acceptable threshold would be considered.

<sup>14</sup> Due to low economies of scale, and the need to keep the sample size large, we include households of all sizes (on a per capita basis). Robustness checks including only medium-sized households have been conducted.

<sup>15</sup> The reference basket for this MEB can be found in annex 3

## 5. Coping mechanisms

Coping patterns reflect the range of mechanisms adopted by refugees and host communities to withstand a situation of hardship. Therefore, indicators of coping are a direct and indirect proxy of food access (or limited access to food) as well as of economic vulnerability triggering the adoption of such mechanisms.

As in 2017, **at least 90 percent of refugees and host communities resorted to coping mechanisms to access their food or non-food needs.** This is symptomatic of the fragility of livelihoods and of the inadequate resources Rohingya and host community have to meet the essential needs and standards of living they aspire to.

**Adoption of food related coping strategies:** Compared to the baseline, a steep increase in Rohingya refugee households compromising on their diet was observed (+17 percent) in the proportion of families eating less preferred food. No significant difference was observed for other coping mechanisms. The more common adoption of such strategy, though, underpinned the increase in rCSI<sup>16</sup> shown for the refugees (read, Rohingya) in Figure 13. The increase in rCSI is particularly prominent among new arrivals and, surprisingly, among the old registered refugees, while host communities tend to compromise less with their own diets mainly because of the enhanced access to cheaper-than-real-markets food sold by Rohingya.

Figure 12: Most common food-related coping strategies

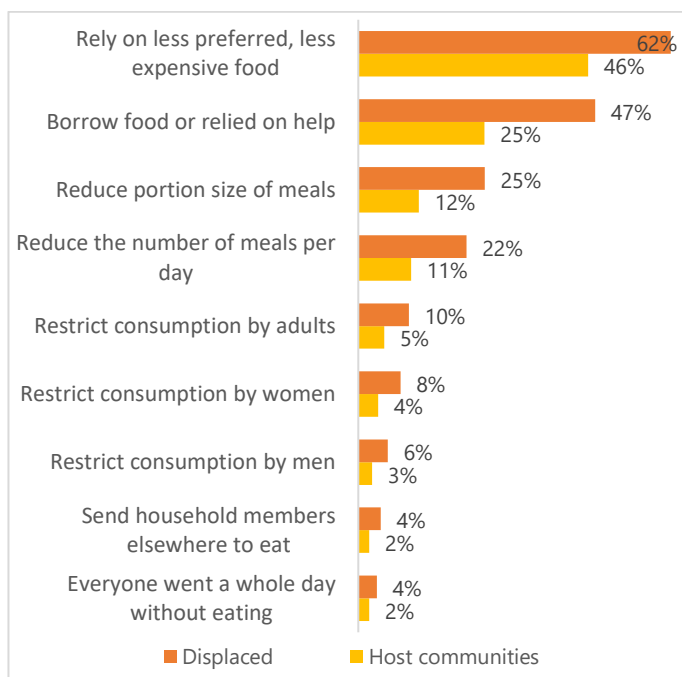
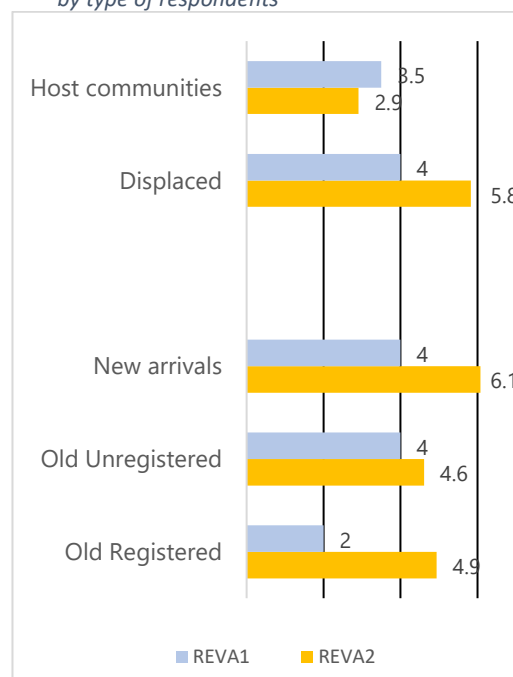


Figure 13: Average reduced coping strategy index by type of respondents



**Adoption of coping mechanisms affecting livelihoods:** Overall, 91 percent of Rohingya and 66 percent of host communities adopted at least one coping strategy affecting their livelihoods in the medium to long term. This marks an increase of respectively 10 and 14 percent of households compared to November 2017 mainly driven by more common resale of humanitarian assistance, borrowing money and food purchases through credit.

<sup>16</sup> An Index based on frequency of adoption and relative severity of food related strategies adopted.

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**High risk emergency coping strategies** such as child labour, begging, engaging in illegal risky activities are very uncommon.

Conversely, **stress-ranked strategies** (e.g. buying food on credit, selling of domestic goods and jewels) and **crisis-ranked strategies** (e.g. sale of food/non-food assistance, borrowing money, ask for support from relatives and friends) are the most widely adopted strategies.

Crisis-ranked coping mechanisms are more widely

adopted by the new arrivals, especially those with no income. As a matter of fact, Rohingya borrow money and monetize their humanitarian assistance (ration and to a lower extent e-voucher entitlement) to purchase fish and fresh vegetables, spices, cooking fuel, and healthcare related expenditures including transport.

Compared to 2017, these crisis-ranked strategies have significantly increased while stress-ranked ones such as sale of jewels and savings-spending plummeted. In conclusion, the rules of engagement to coping have changed towards more severe and potentially harmful strategies for Rohingya.



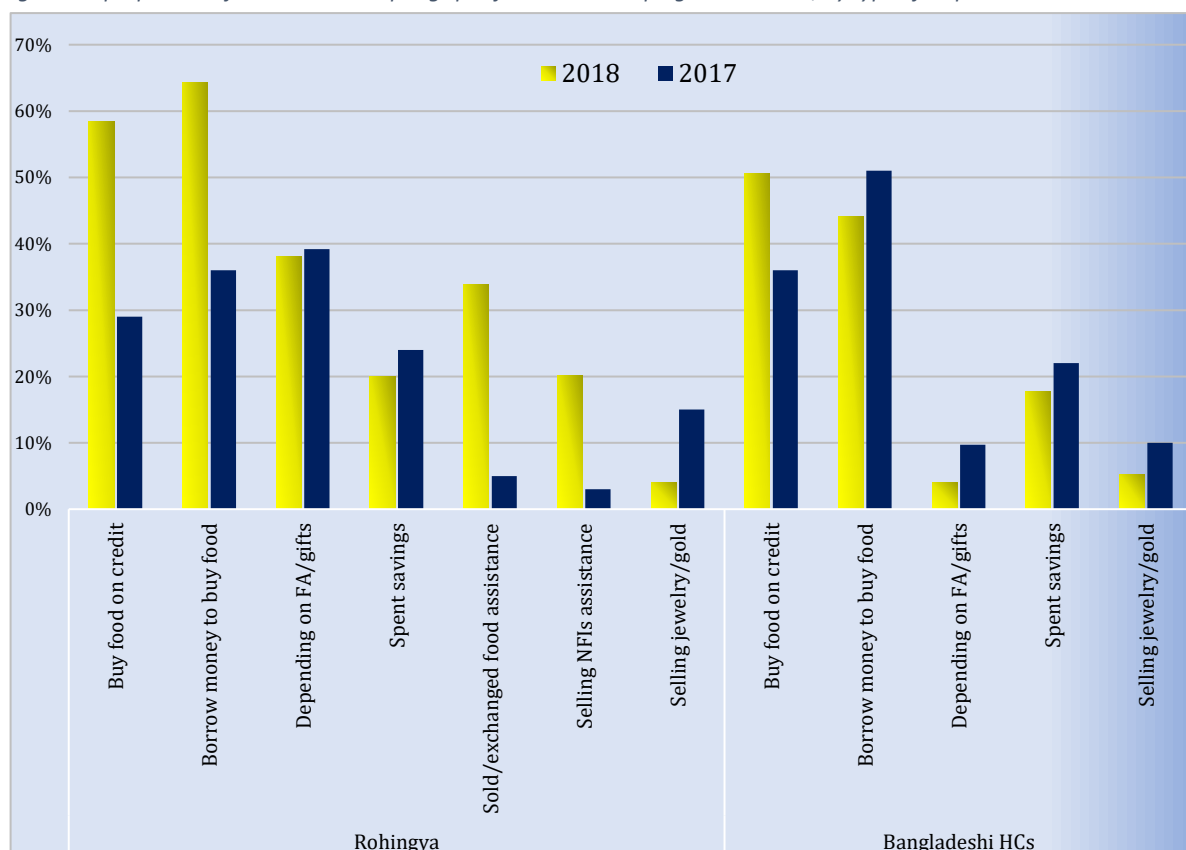
		
<b>EMERGENCY</b>	10%	3.5%
<b>CRISIS</b>	55%	20%
<b>STRESS</b>	26%	43%
<b>NO COPING</b>	9%	34%

Figure 14: proportion of households adopting specific livelihood coping mechanisms, by type of respondents



### SALE OF ASSISTANCE, A GENERAL OVERVIEW

**HOW MANY SELL THEIR ASSISTANCE?** 41 percent of Rohingya households declared to sell part of their food assistance.

**WHAT DO THEY SELL?** Rice is the main commodity sold by E-Voucher beneficiaries; in-kind beneficiaries sell rice, lentils/peas and oil.

Table 4: Households reporting sell of assistance

Type of assistance	Old Registered	Old Unregistered	New arrivals	Rohingya total
E- voucher	24%	35%	29%	29%
Food (GFD)	21%	58%	41%	43%
Both	14%	44%	52%	51%
<b>TOTAL</b>	<b>24%</b>	<b>51%</b>	<b>39%</b>	<b>41%</b>

**HOW MUCH DO THEY SELL?** From focus group discussions, displaced households sell around 20 - 30 percent of the ration or entitlement, with the lower end for voucher beneficiaries and the higher for GFD beneficiaries.

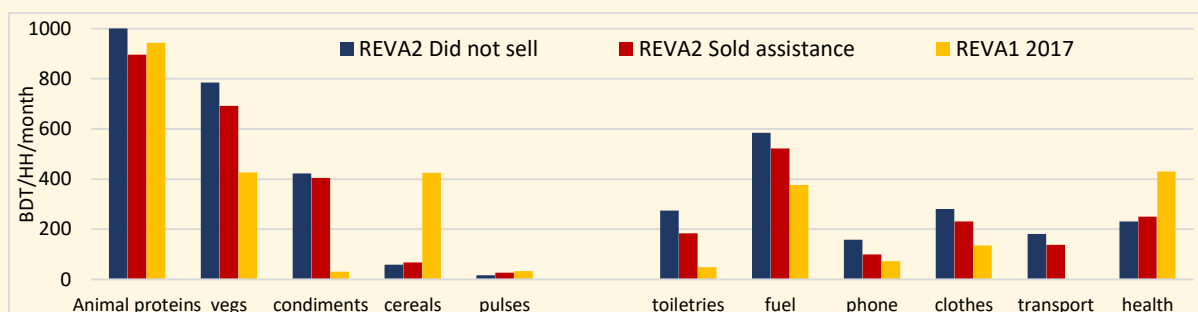
**WHO ARE THOSE WHO SELL?** New Arrivals and old unregistered refugees are more prone to sell their assistance. More GFD beneficiaries sell their food compared to E-Vouchers beneficiaries due to a higher choice of food items at WFP retail shops. As a result, the

duration of E-Vouchers entitlement is 28 days versus 23.5 days for GFD rations.

Accessing at least one source of income hinders sales of assistance. Conversely, **poor, single-headed households** and especially **small-sized ones** are those with highest rates of selling. Furthermore, Rohingya households who incurred debts in the three months prior to the interview have almost double chances to resell part of their assistance. Sale of food and debt repayment usually happen immediately after food distribution, especially for GFD beneficiaries.

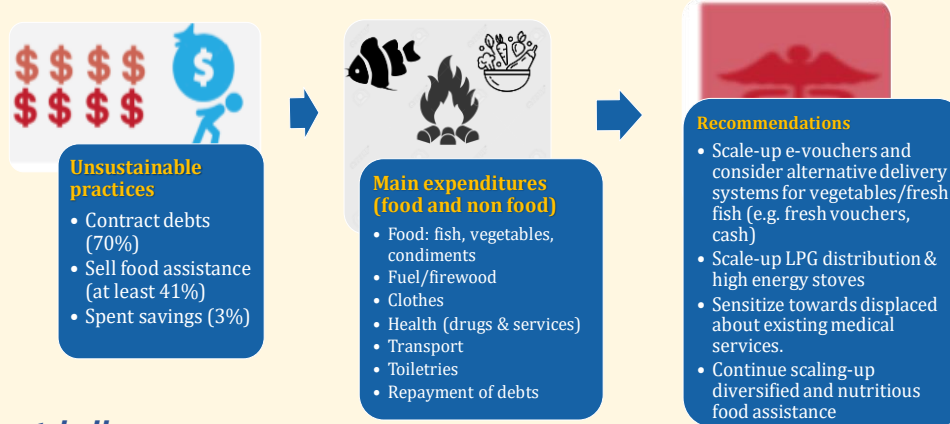
**WHY DO THEY SELL?** Rice is mainly sold to purchase dry and small fresh fish, vegetables, spices, fuel, clothes and health services. Transport, communication and cleaning items are also widespread among those who sold. Transport and fuel expenses were underpinned by high inflation of the latter in 2018.

Figure 15: Average expenditures by items for all refugees in REVA1, and refugee households selling and not selling assistance in REVA2



**TRENDS:** An increase in budget spent on to vegetables and spices was observed since 2017, as well as to fuel, clothes and transport. Rohingya mainly spend money to transport food after the distribution and family members to governmental health centres outside the camps. In absolute terms, the value of actual expenditures did not change much from last year.

However, protein intake has decreased as Rohingya face disadvantageous terms of trade. Lower purchasing power and reduced pulses intake hinder any improvement in dietary diversity and overall food consumption patterns compared to Nov 2017.



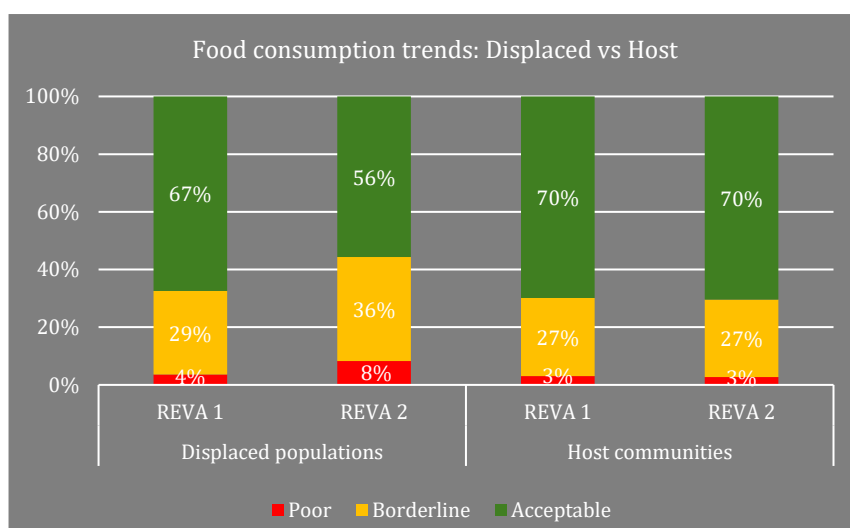
*In a nutshell...*



## 6. Food consumption



Figure 16: Food Consumption Score for refugees and host community



Around 56 percent of Rohingya refugees and 70 percent of host community households have an acceptable food consumption (Figure 16). Poor food consumption reflects a diet of poor quality and quantity which mainly consists of the consumption of rice, fats, and some greens. The proportion of host community families with poor or borderline food consumption remained unchanged since 2017

**Resale of assistance hinders consumption of nutritious food items:** Deteriorating food consumption patterns are a direct consequence of reduced dietary diversity mainly obtained from an intake of proteins such as lentils and yellow peas. These items are distributed both through e-vouchers and in-kind to ensure adequate protein intake. Unfortunately, in the absence of capped entitlement by item, the E-Voucher beneficiaries prefer buying higher quantities of rice in bulk which is more marketable than lentils in the resale market. In-kind beneficiaries tend to sell the whole 4.5 Kg bags of pulses to face their stringent needs such as repayment of debts, health, transport of the ration, clothes, fuel and, most importantly, small quantities of fish and vegetables.

Rohingya households have been compromising on their diets since their initial displacement inside Myanmar and are now used to low intake of nutritious food. However, to make rice more palatable, they need dry or



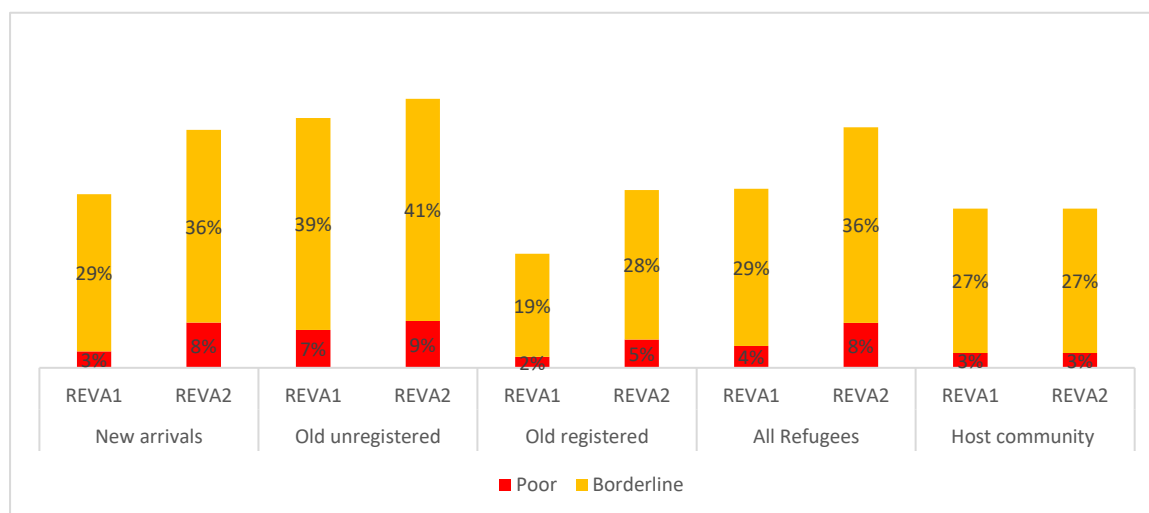
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small fresh fish added to vegetables and oil to flavor the sauce of the main dish. As mentioned in previous sections, the sale of bags of lentils or scooped volumes of rice after collection at the distribution point, exposes them to unfavorable terms of trade against the fish and vegetables they are going to buy through the little money gained from the resale. The small quantities of fish bought are considered as condiments and do not contribute much in imputation of the FCS.

**Potential under-reporting of food consumed:** Under-reporting of items such as sugar and oil can also justify the slight deterioration of food consumption. It is indeed quite unlikely that sugar is consumed only 1.5 days per week, as data show, considering that sugar consumption is traditionally high. Under-reporting among specific groups such as the small households (1 to 3 members) is also likely. These households have seen their ration being cut based on re-calibration from the unique 5-members entitlement regardless of the actual size. It may not be accidental that small households have a higher proportion of poor and borderline food consumption (50 percent) than the rest of households (44 percent) while they score the lowest levels of poverty – presumably the main driver of inadequate food consumption - and coping.

**A more efficient food assistance distribution system in 2018 compared to 2017:** At the time of REVA1, the emergency response was relatively uncoordinated. Multiple agencies and organizations ensured a high coverage of assistance with no tight coordination resulting in many households receiving double or more food/non-food assistance. Furthermore, food assistance modalities were not properly structured and coordinated as in the recent past. A more efficient assistance has partly limited access to additional food in a moment where resale of assistance is becoming the main source of cash to meet households’ essential needs.

Figure 17: Food consumption score trends 2017-2018, by group of Rohingyas and host community households



**Who have unacceptable food consumption?** Despite the massive scale-up in coverage of humanitarian assistance, old unregistered refugees continue showing the highest rates of poor and borderline food consumption, alongside new arrivals. The two groups also score the highest of households selling their assistance. The ongoing scaling-up of e-vouchers and a potential opening to unrestricted cash opportunities in the camps, if applicable, will certainly bear fruits in terms of improved access to an acceptable diet. Small size households, female headed ones and large households with a high dependency ratio (presence of elderly and/or with many children) are also very likely to have an unacceptable diet.

**Absence of income is the major limitation to an acceptable diet:** Highest rates of unacceptable food consumption are observed among Rohingya refugees living in Kutupalong catchments A, B, C (refer to annex 6

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on catchment map). Higher distance from host communities and lower mobility reduce their access to income generating opportunities. Absence of an income, even if erratic or non-lucrative, is a synonym of poverty, sale of assistance, low dietary diversity, poor or borderline food consumption, and borrowing of money to access essential needs.

**Food sources:** As expected, food assistance by humanitarian actors is the main source of food for the Rohingya refugees, notably for the main commodities distributed such as rice, pulses, and oil. Conversely, fresh foods are mainly sourced through purchase in cash in the local markets and from informal traders. Over 90 percent of interviewed households declared sourcing meat, fish and fresh vegetables through markets regardless of the type of assistance they receive. Significant differences are, however, observed on the main source for eggs, sugar, condiments and orange vegetables. Around two-thirds of E-Voucher beneficiaries access these commodities through their WFP entitlements/assistance, while the in-kind beneficiaries are forced to sell other commodities to source them. Vitamin A rich vegetables such as carrots and pumpkins are also the ones less perishable and therefore more commonly stocked at WFP retail shops. Please refer to Annex 5 for more information on main food sources by type of assistance. Host communities mainly source their food supplies from markets.

**Dietary diversity:** On average, the Rohingya refugees eat mainly cereals (every day), oil and vegetables (five days per week), pulses and fish (three days per week). Host communities eat more often fish, eggs, meat (5 days per week) but less pulses (2 days). Around 10 percent of Rohingya have unacceptable dietary diversity, against only 1 percent of host communities<sup>17</sup>.

**Trends:** Compared to November 2017, the refugees consume oil on average 5 days per week instead of every day and pulses for 3.5 instead of 4.5 days. Additionally, sugar consumption dropped from 3.5 to 1 day per week only. Consumption of fish, meat and eggs remained stable at 3 days per week. The frequency of vegetable consumption has increased significantly, especially among the old unregistered and the new arrivals -mainly benefitting from in-kind assistance at the time of data collection - who sell their pulses to access vegetables and fish. No significant changes compared to last year were observed among the host communities. Please refer to Annex 1 for more detail on trends of dietary diversity compared to 2017.

Table 5: Frequency of access to protein and micronutrient-rich foods by category of respondents

Nutrient-rich food groups consumption		Old Registered	Old Unregistered	New arrivals	ROHINGYA TOTAL	Host Communities
Iron-rich foods	Never consumed	11%	23%	25%	24%	3%
	1-6 times	82%	72%	72%	72%	78%
	7 times or more	7%	5%	3%	4%	19%
Protein-rich foods	Never consumed	3%	1%	3%	3%	0%
	1-6 times	40%	56%	47%	48%	39%
	7 times or more	58%	43%	50%	49%	61%
Vit-A rich foods	Never consumed	10%	7%	13%	12%	8%
	1-6 times	43%	36%	45%	43%	46%
	7 times or more	47%	58%	42%	45%	46%

A higher consumption of vegetables translated into enhanced access to Vitamin A-rich foods (44 percent ate these items daily versus 31 percent last year). Although to a lesser extent, slightly higher consumption of animal

<sup>17</sup> Unacceptable dietary diversity equates to eating less than four food groups in a week.



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protein foods resulted in enhanced access to Hem-iron, with 76 percent of Rohingya households consuming food items once every week that contained iron against 65 percent last year. Households not consuming iron rich foods are significantly more likely to have children under five years old affected by anemia ( $p=0.000$ ). The older registered refugees, who are receiving food vouchers (which they can redeem at contracted retailer shops) have the highest intake of micro- and macronutrients including Vitamin A and heme iron.

**Food assistance and food consumption:** Food assistance among refugees continue playing a key role to ensure access of refugees to an acceptable diet, both directly and through re-sale for buying items not included in the ration (dry fish, fresh fish, vegetables, condiments) or e-voucher entitlement (mainly fresh fish).

No significant difference in the prevalence of poor and borderline food consumption score can be seen between E-Voucher and in-kind beneficiaries, due to a series of confounding factors, listed hereafter:

- *Re-sale of assistance by in-kind beneficiaries to access same products like the ones available in the e-vouchers' list;*
- *Low purchase of pulses by E-Vouchers' beneficiaries due to comparative advantage in purchase of additional quotas of rice for future resale;*
- *Limited purchase of fresh vegetables due to limited supply on display; low quality due to slower turnover; and higher prices than from informal retailers outside of the official market;*
- *Limited number of retailers' shops and high average distance from retail shops ultimately affecting the frequency of visits and purchase of fresh products;*
- *Higher-than-optimal waiting times discourage frequent visits which undermines intuitive advantages of e-vouchers;*
- *Slightly higher cost of dry fish due to health considerations around the levels of preservatives used compared to the one purchased in the markets;*

Both E-Vouchers and in-kind beneficiaries are using some cash to supplement their diet over and above assistance. However, while on a pure consumption-based analysis the-voucher and in-kind groups are landing on similar proportion of unacceptable food consumption, the E-Voucher ensures a minimally acceptable diet in a more efficient fashion, with a much lower loss of buying power on the re-selling.

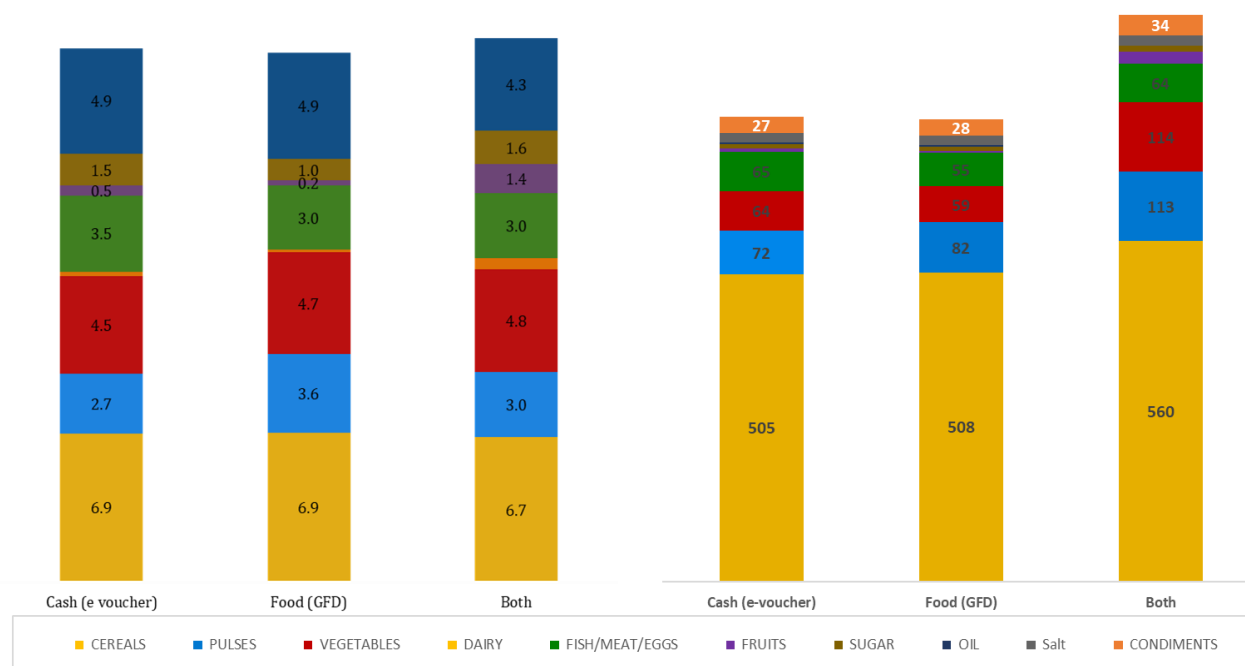
**The higher efficiency translates into higher access to key nutrient-rich foods.** For instance, E-voucher beneficiaries consume more frequently animal proteins - mainly dry-fish and eggs – compared to in-kind assistance, and in higher quantities (65 grams per day per capita vs 55 grams, respectively). Despite some bottle-necks in access to fresh vegetables, e-voucher beneficiaries consume higher daily intake of gourd, okra, cauliflower and cucumbers. No significant difference is observed in the purchase of eggplants, onions, and tomatoes which are widely available in the informal markets at cheap prices.

While beneficiaries under in-kind assistance sell part of their pulses ration, they still show a higher frequency of consumption and actual quantity intake than e-voucher beneficiaries.

Rohingya refugee households benefitting from additional transfers such as conditional cash for assets transfers have extremely higher consumption patterns. This corroborates the urge to either increase the assistance entitlement of beneficiaries or to ensure access to some formal or informal income generation.

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Figure 18 Frequency of consumption and actual quantities consumed of key food items by type of assistance



Households' weekly consumption of each food group (days/week)

Average grams food groups consumed per capita/per day

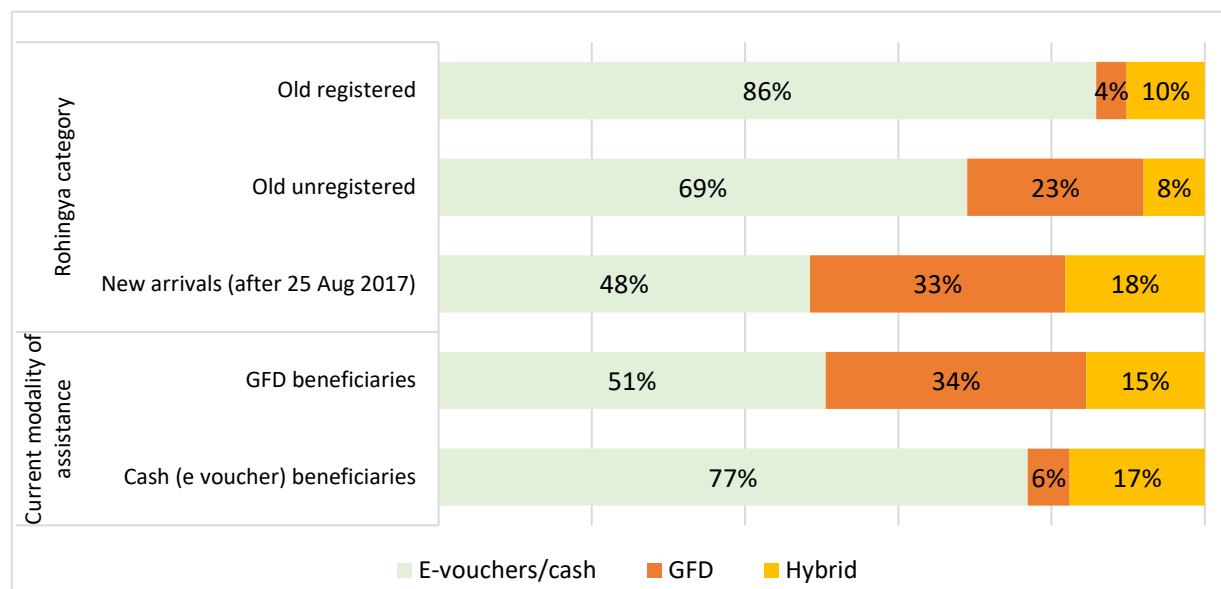
Once some of the logistical programmatic hick-ups are solved, most of them automatically settled through the scaling-up of e-vouchers and increase in retail shops construction in the makeshifts, a significant improvement in food consumption patterns is likely to arise.

**Preferred type of assistance:** As expected, Rohingya show a clear tendency to prefer e-vouchers to in-kind assistance. Very few e-voucher beneficiaries would like to swap to in-kind, while around 50 percent of new arrivals remain in favour of in-kind rations. The reason for such choice has a lot to do with the dignity associated to decisional power over the commodities chosen for purchase. However, part of the landslide in favour of e-vouchers has to do with the full knowledge of in-kind beneficiaries that they are losing purchasing power by selling their ration.

When asked about unrestricted cash, only around 10 percent of Rohingya would like to receive a full entitlement in cash, as the others fear potential collateral impacts on insecurity and are skeptical that the entitlement would not meet the value required to access an acceptable food basket. It is important to note that the question may have been formulated in a way that the actual difference between real cash and the e-voucher modality remained unclear to respondents.

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Figure 19: Preferred modality of assistance



As a matter of fact, a higher proportion of Rohingya were in favour of hybrid solutions e-voucher/GFD (in-kind), e-voucher/cash, GFD/cash. These would enable the Rohingya refugees to reduce sale of assistance to purchase fresh vegetables and fish in the markets. Equally, the refugees foresee using cash for non-food related needs (i.e. fuel, clothes, health, transport), pushing in favour of the scaling up of hybrid multi-wallet interventions.

## 7. Access to other essential needs

### 7.1. Multi-dimensional deprivations

The analysis of multi-dimensional poverty is based on the observations at household level on the level of deprivations faced in key indicators on key dimensions, namely food access, education, health, living standards and income. The classification therefore includes both monetary and non-monetary poverty which are relevant for both Rohingya and host community.

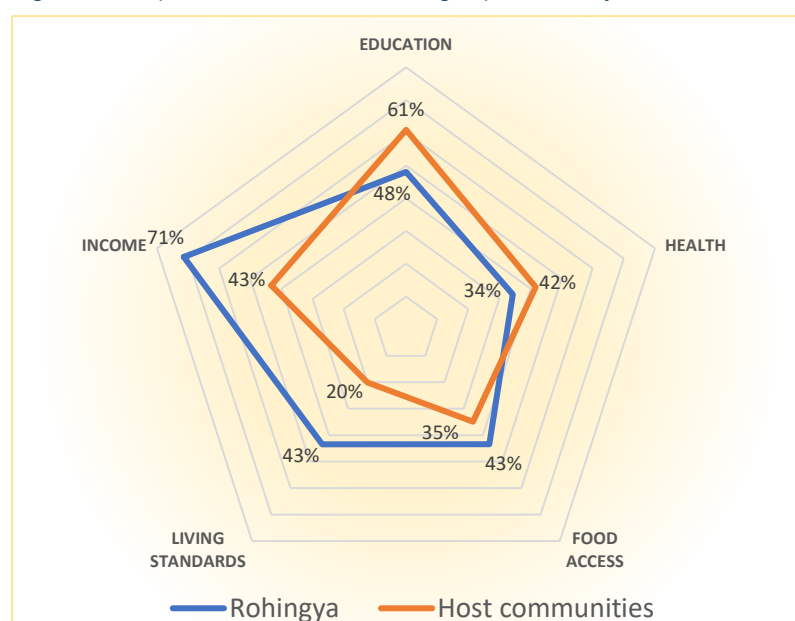
The analysis of multi-dimensional poverty produces two types of outcomes<sup>18</sup>:

- i. The prevalence of Rohingya and host communities facing deprivations in two or more dimensions;
- ii. The dimensions where the two populations face the highest gaps.

**Results: Around half of Rohingya populations (46 percent) and a third of host communities (37 percent) are multi-dimensionally poor.** As shown by the spider web in Figure 20, limited access to an **income** is the major driver of poverty for Rohingyas as over 70 percent of them face some levels of deprivations in this dimension. Income is also one of the main limiting factors for well-being of the host community. This is mainly due to the erratic and unsustainable nature of labour opportunities in the area. Together with income, **Education** and **health** are the main dimensional constraints for the host communities. The scaling up of service provision by humanitarian actors inside the camps enhances adequate accessibility to these services by the displaced and refugee population. **Food access** is problematic for approximately 4 out of 10 households (35 percent of HCs and 43 percent of refugees). **Living standards** (shelter conditions, access to water and sanitation) are more challenging for the Rohingyas than for host communities with damaged and overcrowded shelters (over 2.5 individuals per room) being the main constraints observed in the camps.

**Monetary poverty is correlated to all multi-dimensional deprivations, except education.** This is not surprising. Numerous learning centres inside the camps ensure high levels of school attendance of Rohingya refugee children. Conversely, host communities’ children of primary school age experience high levels of drop-outs and absenteeism. Anecdotal evidence suggests this is possibly related to security and protection-related issues by

Figure 20: Proportion of households facing deprivations by dimension



parents who fear for the many pupils who must cross the camps to reach the nearby schools, in the face of high human and automobile traffic.

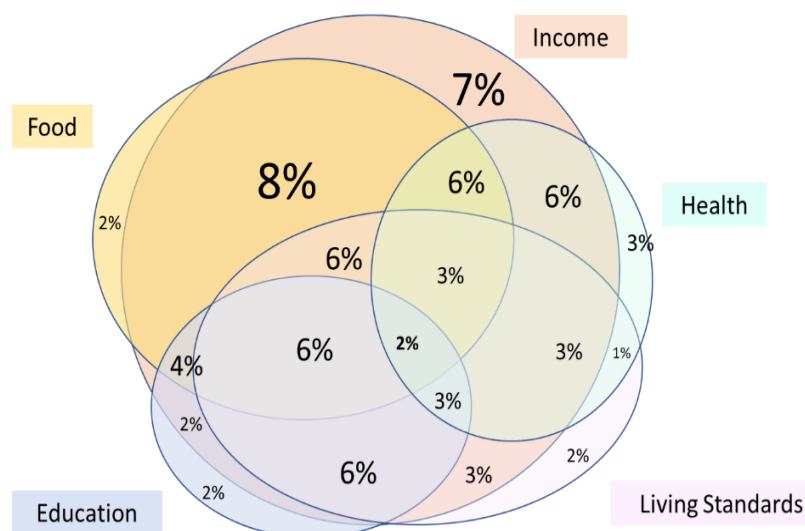
Health centres are also widely available. However, often refugees and displaced prefer to seek self-treatment (purchasing medicines with no preliminary check-ups) or to refer to hospitals outside of the camps. Rohingya households do not compromise on their health and often get indebted to access services available at a cost.

<sup>18</sup> Please refer to Annex 4 for the detailed methodology applied.

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<sup>19</sup>**Analysis of multiple deprivations:** The Venn diagrams below show both the sectors in which a higher proportion of households (Rohingya refugees and host community) face a minimum level of deprivations – signaled by each bubble’s dimension - and the most frequent overlapping sectors in which such constraints arise.

Figure 21: Overlapping dimensional deprivations (% Rohingya refugee households)



### Rohingya refugee households:

As mentioned in the previous sections, lack of income is the major driver of poverty. It fuels challenges in food access – around 40 percent of refugees have overlapping income and food access deprivations – while limiting access to other key sectors such as health.

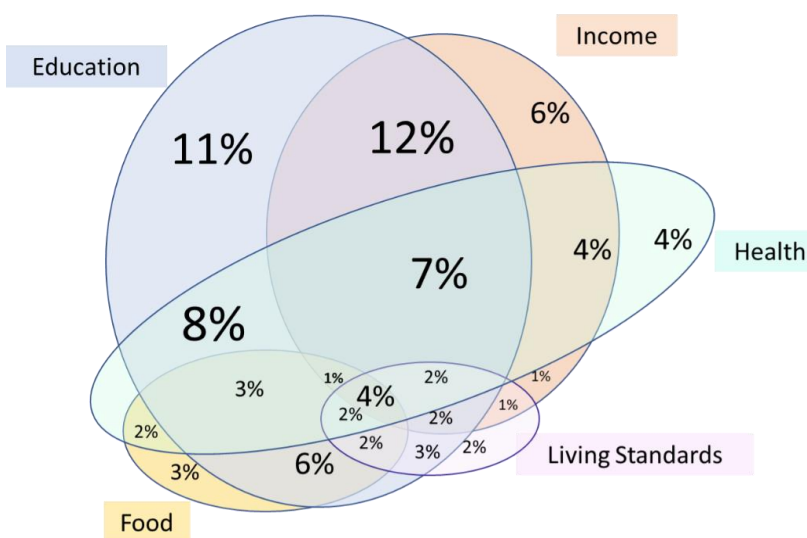
It is therefore not surprising that the vast majority of the refugee population (nearly 70 percent) contracted debts- mainly for food and health services access. As mentioned in the previous section, unsatisfactory living standards

correspond to a high crowding index and low access to improved cooking fuel sources, which is also linked to LPG prices increase through 2018.

**Bangladeshi households:** For the host communities, access to an income- including casual labour- is relatively common. Unfortunately, the vast majority of families gains a very low weekly or monthly income due to erratic casual labour opportunities: most families have members who work only a couple of days per month. Section 7.2. below confirms that very few families have access to stable income sources.

Figure 22 shows the most common overlapping dimensions in which households face deprivations. Figure 22: Overlapping dimensional deprivations (%Bangladeshi households)

Income deprivations is less prominent than for the Rohingya and do not necessarily translate into poor access to food. This can be only partially explained by enhanced physical access to food for agricultural-dependent families. More importantly, this suggests a clear prioritization of needs with the majority of economic resources devoted to food



<sup>19</sup> Please note that Venn diagrams may report prevalence slightly lower than actual due to formatting reasons.

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supply in markets for pressing food needs. Only around 5 to 10 percent of Bangladeshi families (mainly small size, single parent households) have overlapping deprivations in food access and income. However, **once spent the limited resources on food, very little remains for other needs such as education and health services**, which are, as a matter of fact, the main reasons host communities contract loans.

Income, however, is not the only driver limiting access to essential needs. A big portion of Bangladeshi families not showing signs of monetary poverty face high level of drop outs. As mentioned, anecdotal evidence suggests that security and protection issues could play a role in limiting attendance rates.

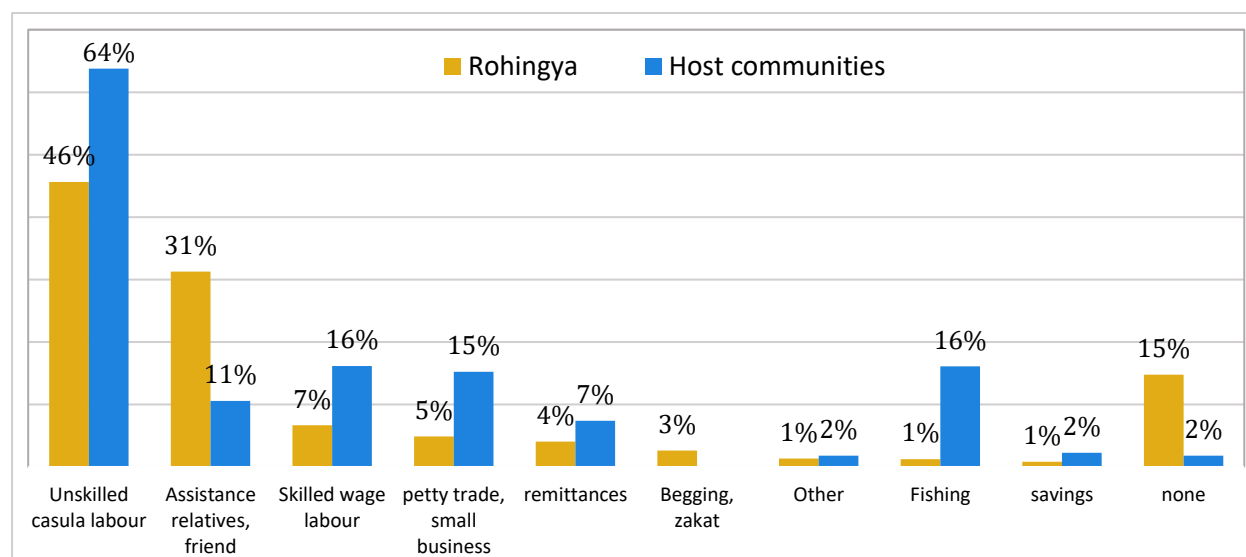
Also, free healthcare provided through the governmental channel does not automatically translate into satisfactory access to services and treatments, implicitly putting a need to relook at the health care service provision.

Host communities have relatively satisfactory access to water, sanitation facilities and shelter conditions.

**7.2. Income sources:** The Bangladeshi population living in Ukha and Teknaf have fragile livelihoods. Sustainable and/or stable wages are extremely rare. Over 90 percent of Bangladeshi had access to at least one source of income generating activity in the 30 days before the interview, more than double the proportion of Rohingya refugees (44 percent, 41 percent among the new arrivals). Figure 23 confirms that only a small fraction of Bangladeshi – and even less so for the Rohingya - rely on stable wages.

Unskilled casual labour is the most common income source for both groups, mainly driven by domestic work – on the rise among the Rohingya since 2017 – and non-agricultural, unskilled casual labour. Informal safety nets in the camps are very important with support by friends and relatives playing a big role for all the categories of Rohingya (including the old registered refugees) to ensure access to essential needs. Unskilled casual work is erratic. On average, Rohingya refugee households’ members work for three to five days per month.

Figure 23: Main income sources (% of observations)



With such small budget spent each month, remittances play a big role in shifting the vulnerability balance for the refugees. Comparatively, those receiving remittances are less poor (33 percent) and/or have lower unacceptable food consumption (16 percent) or adoption of high-risk coping mechanisms (1 percent). Unfortunately, only a small fraction of the Rohingya population (about 3 percent) reported receiving remittances.

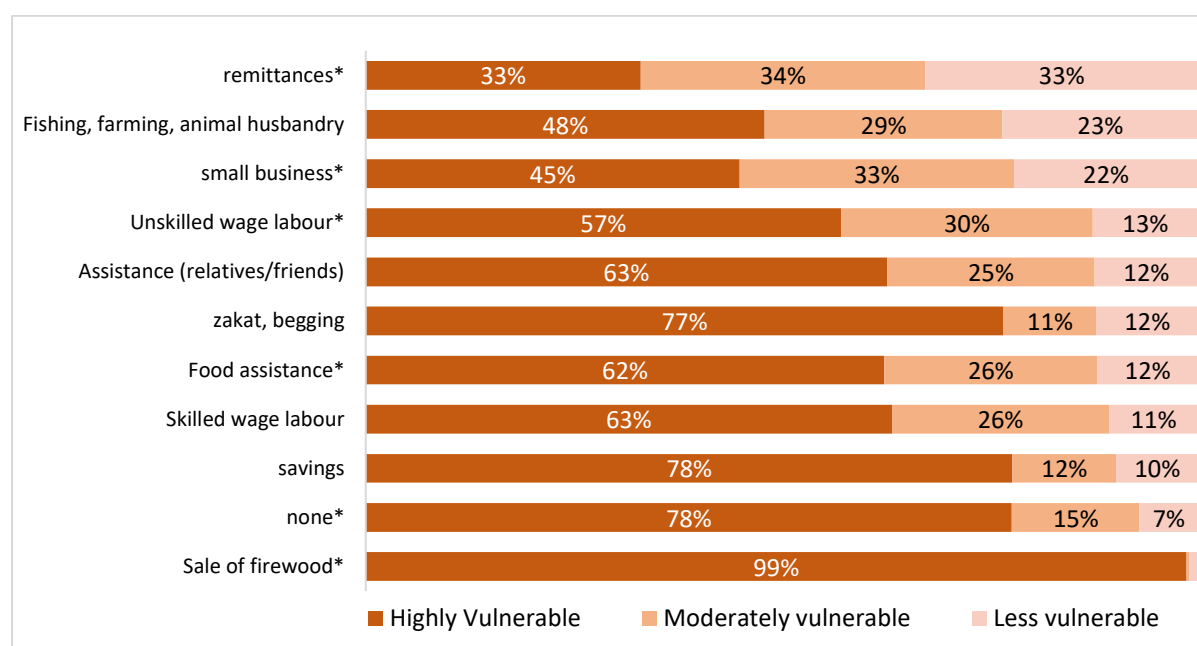


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In conclusion, the dependency on at least one source of income, however much erratic or non-profitable, protects the Rohingya refugee households from poverty, unacceptable food consumption, adoption of high-risk coping mechanism and ultimately from vulnerability to food insecurity. Likewise, income is key for the Bangladeshi host community. However, the stability of income is even more discriminant for their well-being as most of them have access to erratic, casual labour.

Figure 24 shows the relation between dependence of specific income sources – some more stable, others totally erratic and/or unsustainable – and the level of vulnerability of the household.

Figure 24: Vulnerability vs income sources<sup>20</sup>



**7.3. Economic vulnerability and livelihoods coping:** An analysis of coping mechanisms adopted by households facing deprivations in specific dimensions was conducted to define the most pressing needs unattained and the severity of mechanisms adopted to mitigate gaps and access them.

Table 6 below shows the most common strategies adopted by Rohingya refugee households classified as poor compared to those not showing deprivations. The analysis is conducted within each of the five dimensions of interest mentioned in the present section: education, health, food, living conditions, income. Only statistically significant associations are presented<sup>21</sup>. The relatively higher frequencies of coping among deprived households compared to those non-deprived are highlighted in orange. The comparative analysis in this case was preferred to the simple presentation of results according to most widely adopted strategies: the objective is to highlight potential differences in the behaviours of household facing gaps in various specific dimension.

**Most households adopt coping mechanism owing to a lack of access to health services and food. Lack of income systematically drives sale of assistance to meet such needs.**

<sup>20</sup> Correlations are considered significant for Pearson  $P < 0.05$  (\*)

<sup>21</sup> Ibid. Chi-square tests were conducted between the two binomial variables: coping indicator and the dimensional deprivation at the household level.

## Refugee Influx Emergency Vulnerability Assessment – REVA 2018

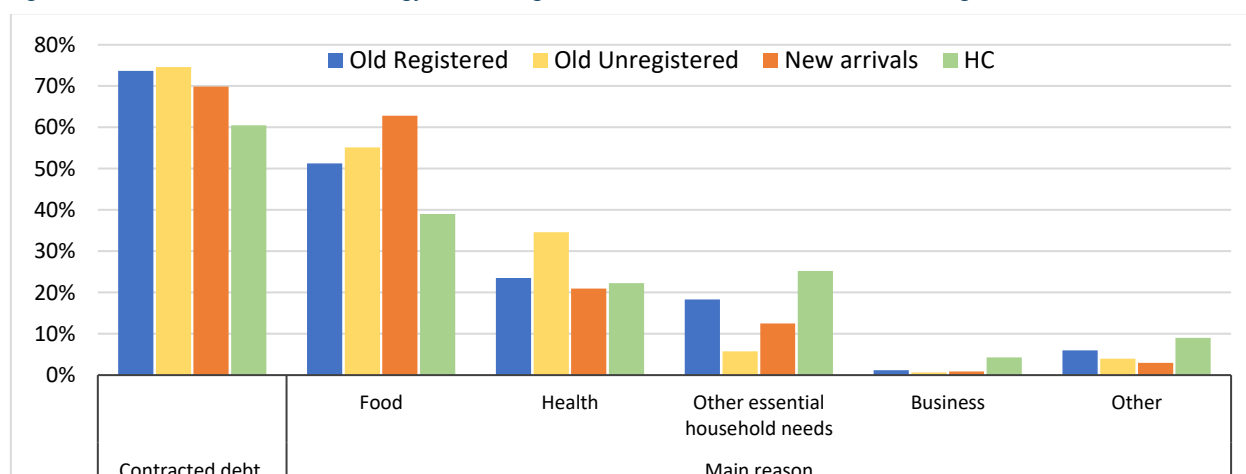
Table 6: correlations between coping strategies and dimensional deprivations (Rohingya)

		Dimensional deprivations									
		Education		Health		Food access		Living conditions		Income	
		non deprived	deprived	non deprived	deprived	non deprived	deprived	non deprived	deprived	non deprived	deprived
Livelihood coping strategies adopted	Depending on food rations and/or support from neighbors	33%	30%	33%	29%	27%	37%	31%	33%	24%	35%
	Selling, exchanging food assistance	27%	21%	21%	28%	22%	26%	23%	25%	17%	27%
	Selling NFIs provided as assistance	15%	13%	11%	18%	12%	16%	13%	15%	9%	16%
	Collection of firewood for selling (not usual income)	5%	6%	6%	6%	4%	8%	5%	7%	5%	6%
	Selling domestic goods	6%	7%	5%	9%	6%	6%	6%	7%	6%	6%
	Selling labor in advance	5%	4%	4%	5%	4%	5%	4%	5%	6%	4%
	Reduced expenses on productive inputs (agro-fishing-livestock)	3%	3%	3%	3%	2%	4%	3%	3%	4%	3%
	Adults working long-hours or in ha	3%	3%	3%	4%	3%	3%	3%	4%	0%	5%
	Begging	3%	1%	1%	3%	2%	2%	2%	2%	0%	3%
	Marriage of children under 18	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

**7.4. Loans and risks associated to vicious circle of indebtedness:** Approximately seven-in-ten Rohingya households contracted loans between September and December 2018, which were mainly used to purchase food and access health services. Approximately 10 percent of Rohingya contract debts to buy LPG or to meet other essential needs. The sale of assistance does not provide enough money to meet all their needs. In fact, a third of households who sold their assistance had contracted debts in the trimester before the interview.

Borrowing money is also common among host communities. Most of these resources are directed to ensure adequate access to food – hence raising questions over the sustainability of food security in the medium to long term – and to health, shelter and education.

Figure 25: Indebtedness rates of Rohingya and Bangladeshi, and main reasons for contracting loans



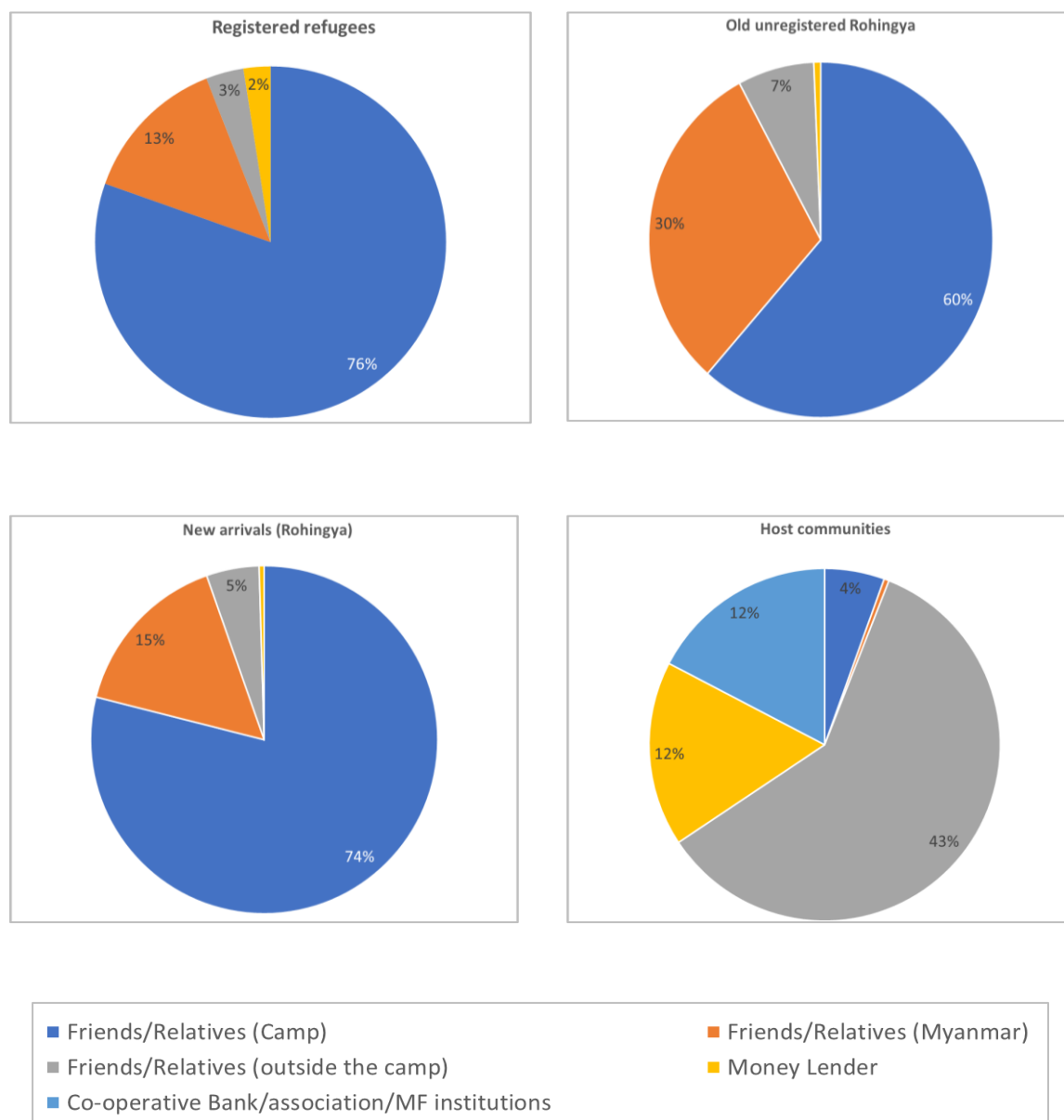
The average value of loans is very high (3,900 BDT for Rohingya, 16,000 BDT among host communities) which reflects the fragility of livelihoods. Around 80 percent of Rohingya refugee households and 85 percent of Bangladeshi host community households still had to repay part of their debt at the time of the interview. The risk of remaining in a vicious circle of indebtedness - a very common phenomenon in protracted refugee crises

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– is looming. It is imperative for the humanitarian and Government agencies alike to proactively explore actions that address the recurring cycles of dependency and poverty by exploring and infusing greater sources of income generation. Potential strategies include the revised multi-wallet entitlements, among others.

Rohingya households mainly borrowed money from other refugees inside the camps and from friends or relatives in Myanmar. Bangladeshi households mainly borrowed from friends and relatives, local financial institutions and other money lenders.

Figure 26: Main sources of credit



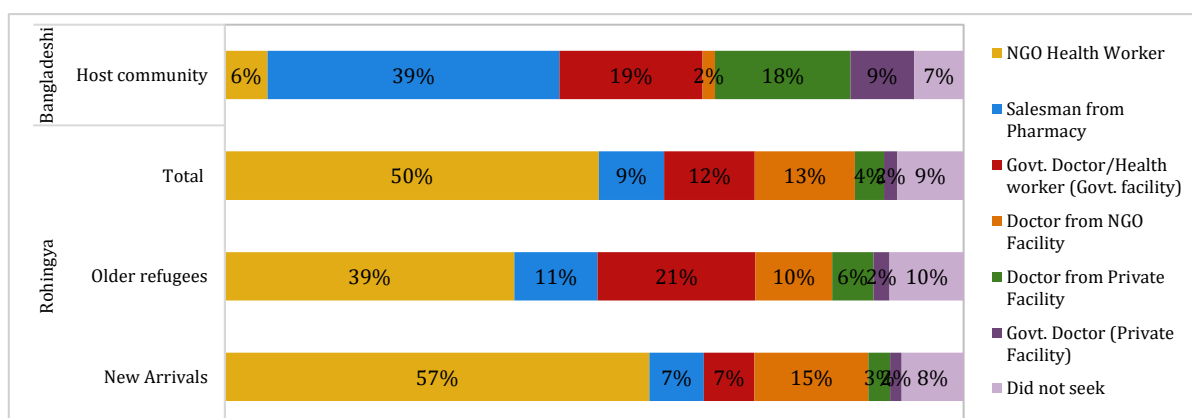
**7.5. Health:** The survey presents high rates of morbidity, especially among children. Around 34 percent of refugee households and 39 percent of host community households interviewed suffered from a disease in the 30 days prior to the interview. Around 60 percent of refugee households with children had at least one child reported to be sick, compared to 48 percent of Bangladeshi households.

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Most commonly, people suffer from seasonal light fevers or cold. However, around 12 percent of Rohingya refugee households reported diarrheal diseases and 10 percent respiratory infections. Similar rates are observed among the host communities.

As shown in the previous section, resources to access healthcare are likely to come from loans. Figure 27 show that 9 percent of refugees purchase directly medicines at pharmacies, and 6 percent reaches out to private facilities for diagnoses and treatment. Another 12 percent incurs in transport cost to reach governmental facilities outside of the camps.

Figure 27: Main treatment source sought by Rohingya and by host communities



**Why do Rohingyas pay for treatment and check-ups when they can access them free of charge in NGOs' health centers?** Some Rohingyas are skeptical about quality of services and of drugs distributed at some health centres. Around 30 percent of Rohingya refugees who suffered from a disease did not seek treatment or did not show up to a health center because they believed that they would not receive the right treatment.

Anecdotal evidence shows that there is a misconception about the drugs distributed in bulk by health centres after the check-up. Most refugees believe that pharmacies of health centres only distribute paracetamol regardless of the diagnosis. In actual fact, most health centres are supplied and distribute antibiotics although not packaged in a way to differentiate them immediately from paracetamol. Long queues at health centres and confidence on services from government hospitals also contributes to discourage visits to health centres within camps. Finally, serious diseases require a referral to hospitals and clinics outside of the camp.

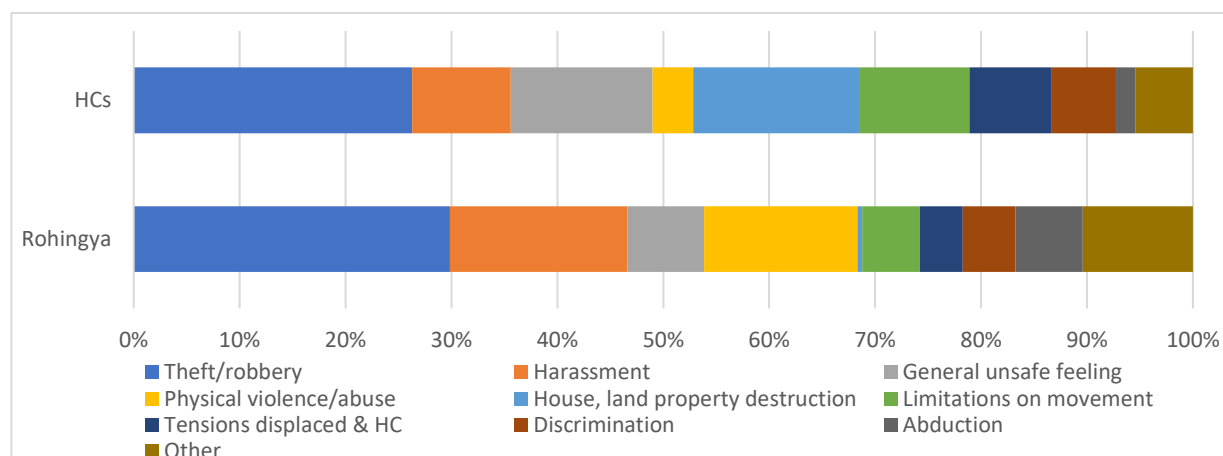
Sensitization campaigns are necessary. Humanitarian partners should also consider covering costs of transport and for check-ups and treatment from centers outside of camps, especially for those categories not likely to produce an income such as single-parent households and large households with numerous children.

**7.6. Protection:** Insecurity is on the rise among host communities. Around 36 percent of households declared having indirectly experienced episodes of insecurity against only 6 percent Rohingya households.

However, this value masks some big difference with registered camps having a peak of cases – over 15 percent of refugees reporting cases of robbery, theft or harassment. Physical violence is very high among the refugees, as well as sexual harassment (of women particularly worrying in makeshift and expansion sites).

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Figure 28: Main protection constraints observed



## 8. Nutrition

The following chapter intends to provide an overview of the main results on malnutrition from the REVA2 survey. Results presented in this section are drawn from the SMART survey conducted by Action Contre la Faim (ACF) on behalf of the Nutrition Sector<sup>22</sup>.

**Global acute malnutrition (GAM):** Among the Rohingya children aged 6-59 months, the prevalence of global acute malnutrition (GAM) measured through weight for height and/or Oedema is **11 percent (makeshift camps)** and **12.1 percent (Nayapara registered camp)**. Similar prevalence (GAM 12.5 percent) is observed among the Bangladeshi children living in host communities of Ukha and Teknaf<sup>23</sup>.

Higher GAM prevalence is observed among the families of older registered refugees compared to the other groups of Rohingya but Severe Acute Malnutrition (SAM) is more common among new arrivals. It is also important to notice that, despite the slightly lower prevalence, wasted children from new arrivals are extremely numerous in absolute terms given the higher presence of families from this group. Registered camps are slightly better-off while makeshifts and expansion sites experience both higher prevalence of GAM and SAM.

Table 7: Prevalence of malnutrition and mortality rates

	Makeshift	Nayapara RC	Emergency threshold
Global Acute Malnutrition (GAM)	11.0%	12.1%	15%
Severe Acute Malnutrition (SAM)	1.1%	0.9%	-
Moderate Acute Malnutrition (MAM)	9.9%	11.2%	-
Global Chronic Malnutrition (Stunting)	26.9%	38.3%	40%
Anaemia (6-23 months)	53.2%	59.4%	40% (6-59 months)
Crude Death Rate	0.13	0.21	1
Under Five Death Rate	0.42	0.56	-

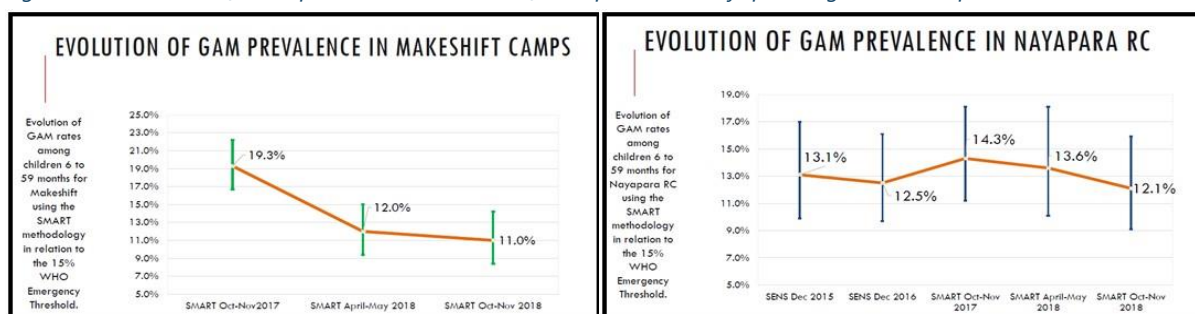
<sup>22</sup> A more detailed causal analyses of malnutrition drivers has been done by IFPRI/BIDS using the same dataset and is available in their report due for publication in June 2019.

<sup>23</sup> GAM rates of Bangladeshi host community children are drawn from the IFPRI/BIDS study and anthropometric measurement. Results from studies conducted by two different actors, although consistent in terms of methodology, timing and sampling frames, may be subject to potential bias.

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Compared to 2017, GAM prevalence decreased significantly by 2.2 percent in Nayapara RC and by 8.3 percent in the makeshifts.

Figure 29: Evolution of GAM prevalence in makeshift camps and in Nayapara registered camp:



Who are the families with wasted children<sup>24</sup>? Higher prevalence observed among large sized families (eight members or more); households with a high number of children; presence of pregnant and lactating women; absence of an income; highest peak of GAM registered in Kutupalong expansion sites.

**Stunting:** Chronic malnutrition remains extremely high – especially in Nayapara RC - as the impact from massive humanitarian investments on water, sanitation, food and health (main determinants of malnutrition) takes longer time to bear tangible outcomes. Among the local host communities, 32.9 percent of children aged 6-59 months are stunted<sup>25</sup>. The same prevalence is observed among Rohingya children, with a higher proportion among the older registered refugees in Nayapara registered camps. No data was available on children in Kutupalong RC at the time of writing.

Who are the families with stunted children<sup>26</sup>? Higher prevalence observed among medium-large sized families (four members or more); households experiencing higher morbidity rates; presence of pregnant and lactating women; absence of an income; new arrivals (Rohingya).

**Preliminary findings on association with potential underlying factors:** No significant correlation between malnourished children and household-level **food consumption** was observed. Likewise, **poverty** is not significantly associated to malnutrition. Access to an income for any of the household members seems, however, to systematically lower risks of having children chronically or acutely malnourished.

Direct elements associated to **water, sanitation and hygiene** were reportedly the main causes of malnutrition in November 2017 REVA1. Like in 2017, however, no major correlation was observed with the type of water source – most of them being improved hand or tube wells/pumps – or sanitation facilities – same uniform distribution of pit latrines in the camps. In 2017, the quality of water – with higher than normal concentration of coliforms in the vast majority of water points in the camps and makeshifts<sup>27</sup> – seemed to be the major driver of acute malnutrition. In actual fact, the majority of refugees anecdotally continues to complain about the taste and quality of water, and very minimal percentages of them treat the water.

**Morbidity to fever and diarrheal diseases is highly associated to malnutrition:** Over 60 percent of Rohingya refugee households with Children aged 6-59 months had at least one child suffering from a common disease

<sup>24</sup> Chi square, anova and t-tests ( $p < 0.05$ ) were used to identify significant correlations with key demographic variables.

<sup>25</sup> IFPRI/BIDS survey

<sup>26</sup> Chi square, anova and t-tests ( $p < 0.05$ ) were used to determine significant correlations with key demographic variables.

<sup>27</sup> A WHO/Bangladesh department of Public Health research in the Kutupalong and balukali extension sites between September and November 2017 showed that more than 86 percent of water samples tested positive to E.coli bacteria.



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(diarrhoea, fever, cough) compared to 49 percent of children among host community households. Systematically higher prevalence of wasting is associated to children suffering from such diseases, especially among the older refugees.

The correlation is not significant for children in host community.

### Clarification on sampling frames from the ACF, IFPRI waves of anthropometric data collection

Anthropometric measurement of children aged 6-59 months and other nutrition data were collected in two waves. The first one was conducted by Action Contre la Faim (ACF) for the nutrition sector and covered 787 children (505 in the makeshifts/settlements, 282 in Nayapara refugee camp). The second wave was conducted by IFPRI/BIDS and included an additional 989 observations in the makeshifts/settlements, as well as 101 in Nayapara RC, 3 in Kutupalong RC and 304 among the host communities. The two phases of measurement adopted the same sampling design and are therefore comparable. However, some slight difference in the prevalence of key outcome indicators of malnutrition are observed due to the different sampling frames. Notwithstanding the accuracy of results from the ACF-NUT sector first survey, the current report will present results from the broader sampling frame (2,182 children) which includes those results and expands with the additional cases measured by IFPRI/BIDS.

## 9. Recommendations

### 9.1. Food assistance

- ***Due to the high vulnerabilities prevailing, scale up coverage of e-vouchers*** among the Rohingya refugees:
  - o Consider increasing number and coverage of retail shops in Kutupalong expansion sites.
  - o Consider strengthening the management of retail shops including staff capacity, crowd management, respect of opening hours and timetable.
- ***Ensure that through a combination of general food assistance (e-vouchers and in-kind) and targeted complimentary food assistance (like cash-for-work activities), the MEB of the beneficiaries are met.***
- ***Explore different options of ensuring improved access to quality fresh vegetables and fish:*** through E-Voucher shops or other complimentary farmers' markets:
  - o Potentially increased number of shops would reduce the average distance and increase the frequency of visits.
  - o Stocking of retail shops with fresh vegetables on a more regular basis and are adequately displayed in the shops.
  - o Consider including fresh fish in the e-voucher entitlement and try to negotiate for better dry-fish prices, and smaller-quantity packaging, to sustain direct purchase and consumption, and discourage resale.
  - o Consider piloting hybrids entitlement/ration projects:
    - **Fresh-food vouchers:** linked to local producers, redeemed from pre-selected retailers or fresh voucher outlets.



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- **Fresh-food fairs:** regularly organized to promote distribution and consumption of high-quality fresh foods (mainly vegetables and fresh fish).
  - **Unrestricted cash:** estimate value of fresh foods such as fish, meat, eggs and vegetables which can be supplied through unrestricted cash to avoid risks of resale of other foods.
- Explore options of using capped e-vouchers' entitlement for key staples such as rice, oil and pulses based on the actual households' composition to reduce volumes of resale and encourage diet diversification. However, be mindful of the potential negative effects this could have on their purchasing behavior.
- **Targeting:**
  - Given that most Rohingya households remain in need of food assistance, continue blanket food distribution (in-kind/e-vouchers distributions) at least until the next assessment is done.
  - Apply targeting criteria of vulnerability mentioned in the report to select households' profiles eligible for complimentary food assistance programmes like cash for work activities and other cash-based projects inside the camps.
  - Consider expanding the dimensions of vulnerability profiling to include social and protection related aspects.
- **Malnutrition:**
  - In view of existing high prevalence of global acute malnutrition (GAM), blanket and targeted supplementary feeding programmes should continue.
  - Prevalence of high morbidity rates warrant scale up of vaccinations programmes for common children's diseases and encourage the preventive/curative treatments to reduce diarrheal diseases (care-taking practices, water disinfection, other hygiene measures, immediate treatment).
- **School feeding:** based on evidence from WFP's school feeding programme, continue providing school meals as they depict a positive correlation with enhanced attendance rates of pupils in learning centres.
- **Monitoring:**
  - Continue monitoring outcomes and process indicators linked to standard GFD/e-vouchers projects.
  - Ensure that when hybrid entitlement and assistance pilots are launched, the outcomes will be duly captured through an in-depth randomized control trial monitoring system.
  - Ensure continuous monitoring of food items in markets in the host communities and refugee camps. Market monitoring is key for spotting potential distortions from the scale-up of e-vouchers, the increased coverage of conditional cash transfers from complimentary food assistance projects, and the potential roll--out of multi-purpose cash projects.



## 9.2. Non-food assistance

### - *Cooking fuel:*

- Continue scaling up of LPG distributions to discourage adoption of negative coping strategies, such as reselling relief items, to fund fuel expenses.
- Consider conducting an assessment to determine the potential impact of the LPG scale-up on households' welfare, from a socio-economic, health and environmental perspective.
- Consider more efforts on raising awareness among the refugees and the host community regarding the benefits of LPG.

### - *Health:*

- Sensitization campaigns on effectiveness of free healthcare services and medicine availability within the NGOs' centres in the refugee camps/expansion sites.
- Consider the adoption of an integrated, multi-sectoral approach in provision of health care services.

### - *Other sectors:*

- **Shelter:** continue the distribution of rehabilitation kits to strengthen the structure of shelters ahead of the monsoon season.

## 9.3. Essential needs

### - *Enhance coordinated multi-sectoral/multi-wallet interventions:*

- Initiate discussions within the Cash Working Groups in Cox's Bazar and Dhaka over the **possible revision of the Minimum Expenditure Basket**, which is key for the calculation of restricted/unrestricted cash transfer values covering food and non-food needs.
- Considering the potential to use cash as a response modality, consider undertaking a **supply assessment**<sup>28</sup> (i.e. multi-sectoral market assessment) to understand the surge capacity of markets to sustain a potential increase in demand<sup>29</sup>.
- Avoid duplications by mapping out partner interventions by sector (4Ws) which will ensure a more **transparent management of multi-wallet programmes**, when they are launched.
- Consider **piloting multi-purpose cash** in areas where the key commodities (food, fuel, clothes, health services, transport) are well supplied by the local markets.

- *Enhance access to income:* consider scale-up of other complimentary food and non-food assistance programmes, like cash for work, to enhance access to income.

## 9.4. Host communities

- *Multi-sectoral support:* Consider launching multi-sectoral/multi-purpose cash projects in support of vulnerable households – i.e. small sized households, single parent/female-headed households,

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<sup>28</sup> The revised MEB and the supply assessment (point below) shall cover both Rohingya and host communities

<sup>29</sup> Especially with reference to the following sectors: food, health (services and drugs), clothes, transport, cooking fuel, education, telecommunications



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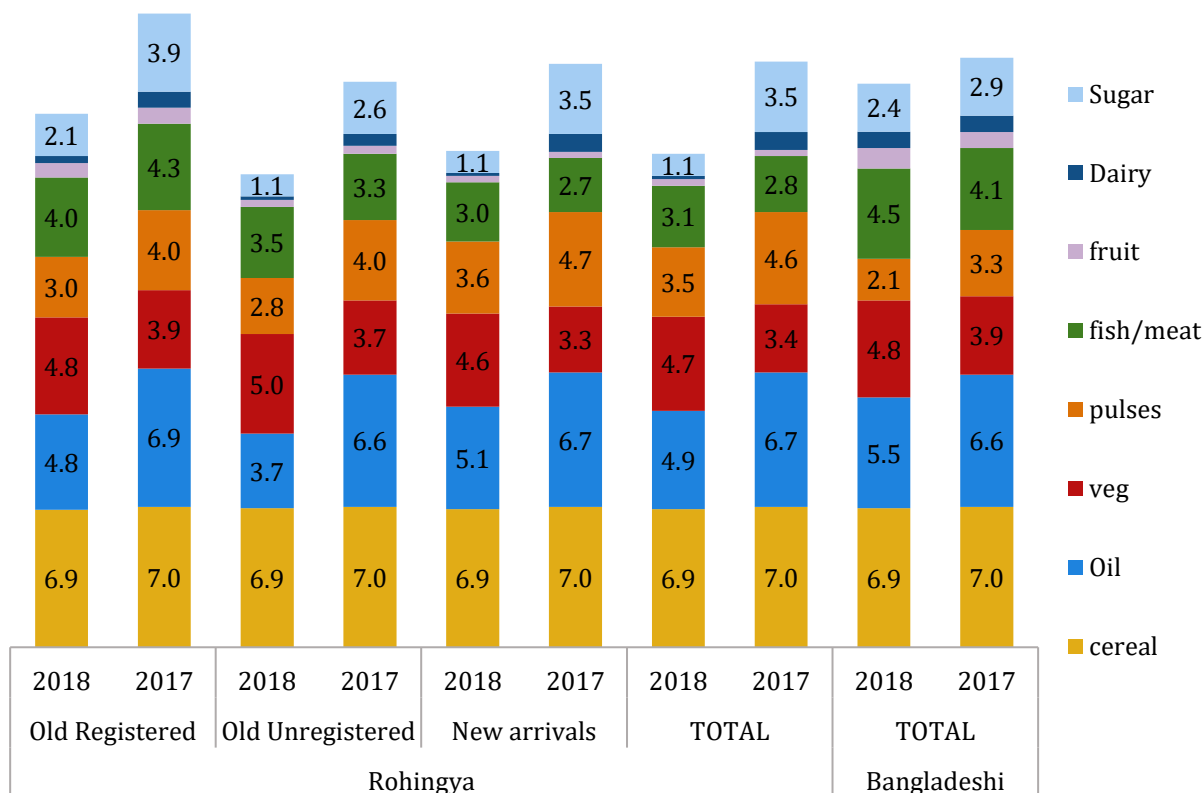
households with vulnerable persons (chronically ill, disabled, elderly, pregnant and lactating women-PLWs).

- Explore the opportunity to launch joint community assets rehabilitation projects involving both Rohingya refugees (new arrivals and older unregistered refugees) and host communities.
  - While undertaking this, bear in mind the proposed Minimum Expenditure Basket (MEB) which informs the value and composition of the minimally acceptable food and non-food items included in the basket of host communities.
  - Consider a supply chain assessment (multi-sector market assessment) to determine the markets' capacity to absorb the anticipated surge in demand from cash injection by humanitarian partners.
- **Targeted support of the most vulnerable:** consider scale-up of the livelihoods (Enhanced Food Security and Nutrition-EFSN) programmes especially for households meeting the vulnerability criteria.
  - **Access to income:**
    - Consider launching multi-sectoral cash projects through conditional transfers against community-assets creation or rehabilitation schemes. This would reduce erratic casual income opportunities and boost capacity of the most vulnerable households to meet their essential needs.
    - If possible, scale up of public works projects targeting vulnerable host community households (with adult able-bodied members) ought to be explored. Other vulnerable categories (i.e. single care-takers, single mothers, households with disabled/chronically ill and no income, households with no able-bodied person) can be supported through either alternative conditionality schemes (Food for education, malnutrition prevention, etc.) or through unconditional multi-purpose transfers.
  - **School feeding:** consider expansion of support projects to schools around the refugee camps and ensure that minimum security and protection standards are in place to discourage drop-outs.

Annexes

Annex 1: Frequency of consumption (days/week) of main food groups by group of interest, trends

Weekly consumption of main food groups by category of respondents, trends



Annex 2: Sensitivity analysis on different MEB options

Options of calculation	Sample size	Food MEB		Non-food MEB		Total MEB *
		Value	%	Value	%	
Full sample	2593	5224	0.67	2584	0.33	7808
Displaced, FCS 42+, q234	282	5110	0.69	2276	0.31	7385
Host community FCS 42+, q234	200	6552	0.62	3991	0.38	10543
Displaced + Host community, q234, FCS 42+	474	5740	0.65	3082	0.35	8822
Displaced + Host community, q234, FCS 35-80	610	5691	0.66	2990	0.34	8681
Displaced + Host community, q23, FCS 42+	296	5324	0.70	2299	0.30	7623
Displaced + Host community, q23, FCS 35-80	403	5259	0.70	2304	0.30	7562

\* BDT/month (family of 5 members), displaced exclude in-kind beneficiary (therefore includes cash recipients)

Annex 3: Minimum expenditure basket, per household and month

Item Group	Item	Calories (per capita/day )	Value in MEB (per HH/month)	Quantity (kg, per HH and month)	Price per kg (median price)
Starches	Rice	1527	1909	424	30
Pulses	Lentil	48	168	14	80
Pulses	Chickpea	27	67	7	60
Pulses	Anchordaal	8	14	2	40
Pulses	Mung	4	13	1	80
vegetables		78	1065	182	30
Fruit		5	48	6	33
Meat		85	1600	81	500
Dairy		1	15	1	88
Fats	SoybeanOil	294	392	33	80
Sugar	Sugar	24	57	6	60
Condiments		0	345	28	200
<b>TOTAL FOOD</b>		<b>2100</b>	<b>5691</b>	<b>786</b>	
Toiletries and cleaning			461		
Clothes, shoes and towels			521		
Cooking equipment			25		
Education			134		
Fuel and electricity			775		
Medical treatment			447		
Household textiles and small repairs			57		
Communication			274		
Transport			295		
<b>TOTAL NON-FOOD</b>			<b>2990</b>		

Note: MEB for chosen reference cohort (Displaced + Host community, q234, FCS 35-80)<sup>30</sup>. Calculated for a 5 person household.

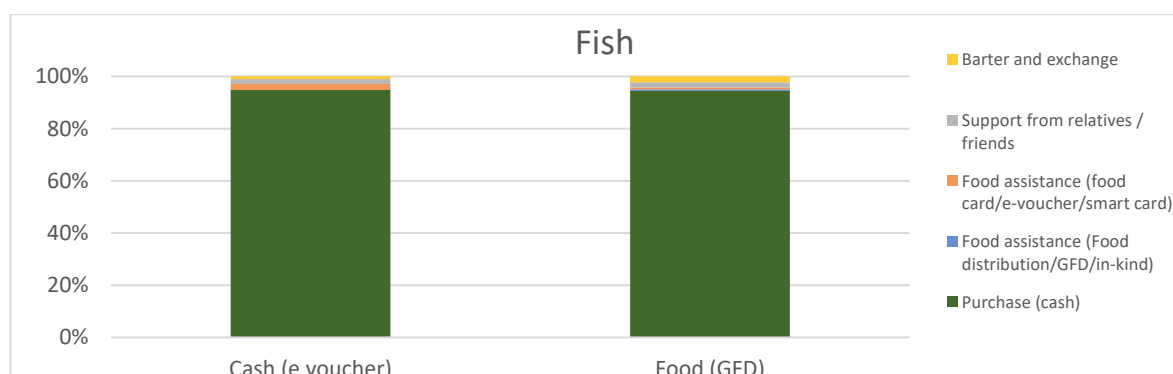
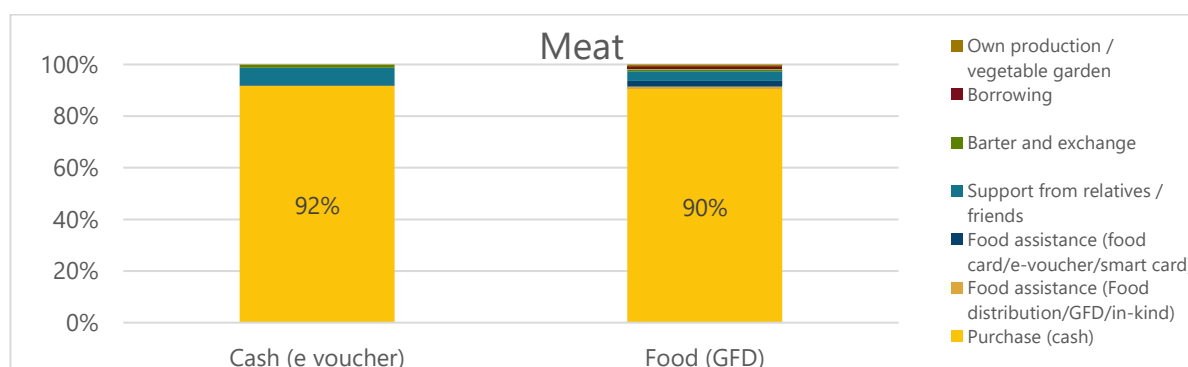
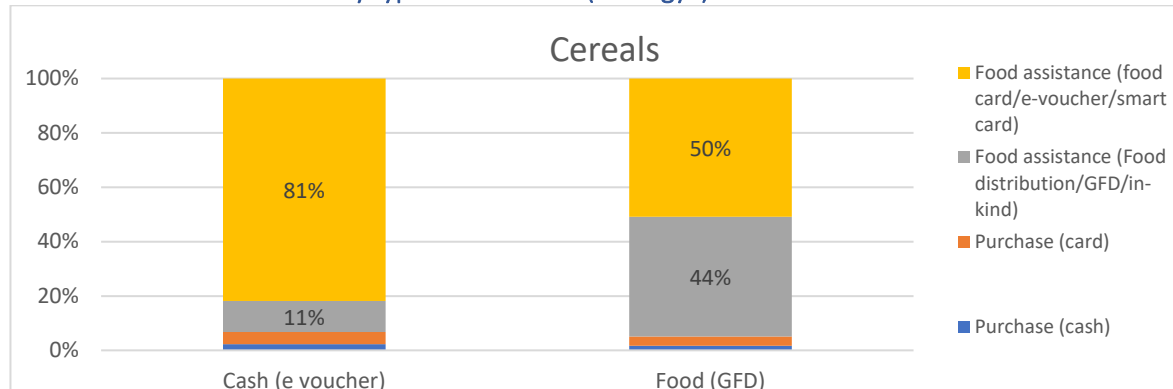
<sup>30</sup> Basket has been simplified: Where food groups were contained by one (or in case of pulses four) dominant item (more than 95percent of calories), calories and costs were rescaled to this item, to reduce complexity of the basket. Where not possible, average values for the food group are reported.

Annex 4: Analysis of multi-dimensional poverty and sector-specific deprivations - methodology

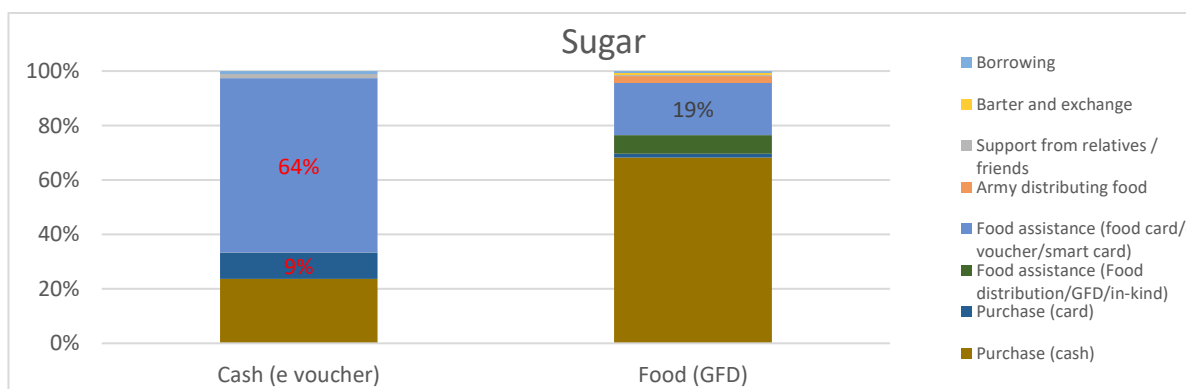
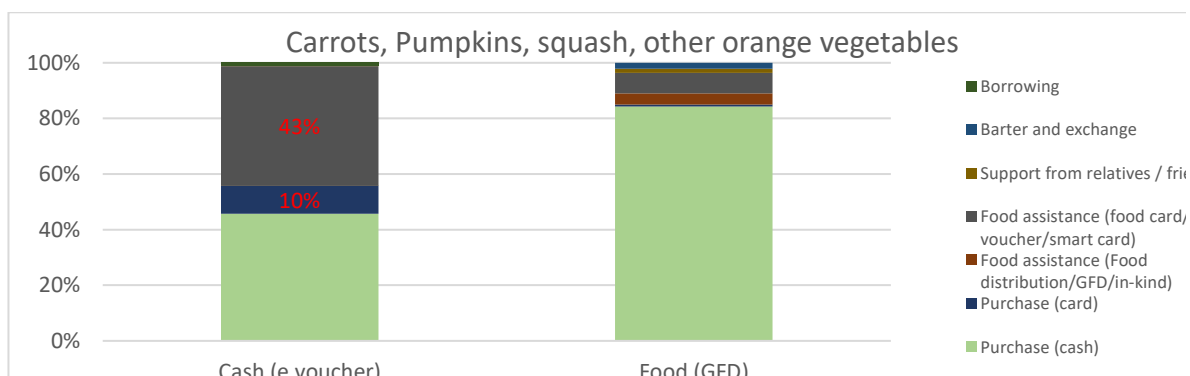
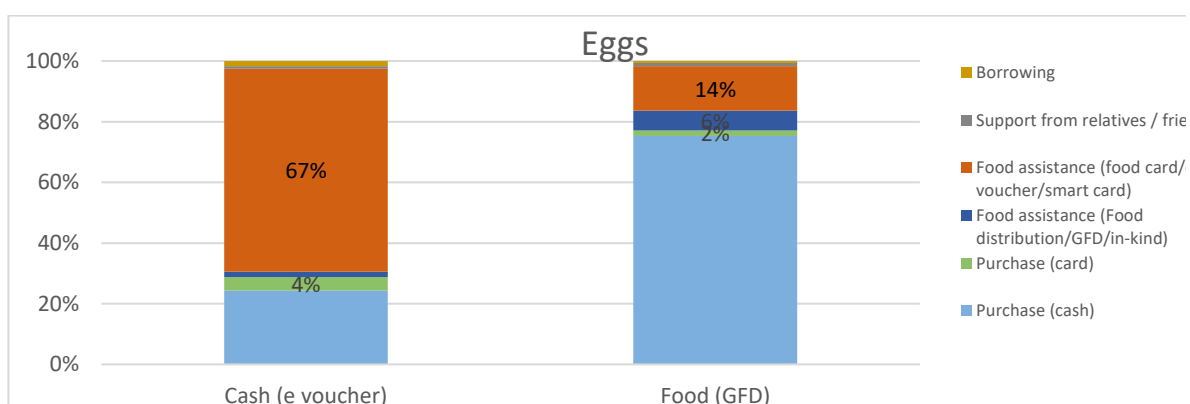
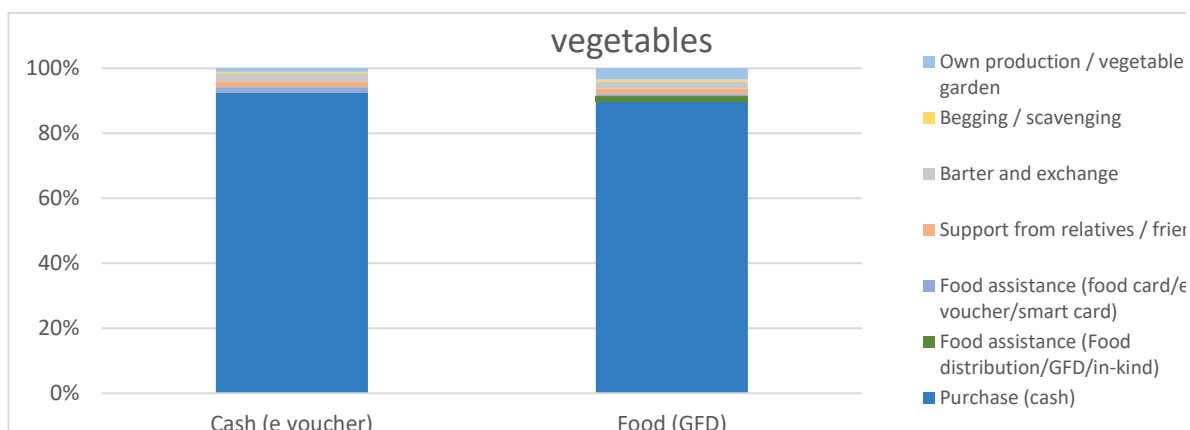
Dimension	Dimension weight	Indicator	Indicators' weight
Education	20%	At least one child not attending school for lack of necessary financial resources	10%
		Not all school age children (6-17) attending school ( <i>absence &gt; 1 year</i> )	10%
Health	20%	More than half of household reported sick in past month	6.7%
		At least one member affected by an acute disease not treated	6.7%
		At least one member affected by a chronic disease not treated	6.7%
Food Sec.	20%	Household with unacceptable (poor or borderline) food consumption	10%
		Reduced coping strategy index < 18	10%
Living conditions	20%	Crowding index above 2	5%
		Unimproved toilet facilities	5%
		Poor living standards (unimproved water source, unimproved cooking fuel source)	5%
		Damaged dwelling	5%
Income	20%	At least one HH member engaged in high-risk/illegal activities	6.7%
		No income (including transfers, remittances, etc)	6.7%
		No household member worked in past 30 days	6.7%

1. **Final selection of variables:** within each dimension, significance correlation tests (Chi-square tests) were conducted to identify variables to exclude in order to avoid double weighting
2. **Calculation of the prevalence of Multi-dimensional poor/deprived:**
  - a. A threshold of 40 percent (exclusive) was set
  - b. The cumulative weights of variables with positive answers was assessed against the set thresholds.
  - c. Households with a score (cumulative weight) of 40 percent or above are considered MDPoor.
3. **Calculation of sectorial gaps:**
  - a. Within each dimension a threshold of 10 percent is set (50 percent of the overall dimensional weight).
  - b. The cumulative weights of variable with positive answers within each dimension was assessed against the set threshold.  
Households with a score (cumulative intra-dimensional weight) of 10 percent or more are considered deprived as far as that sector/dimension is concerned.

Annex 5: Main food sources by type of assistance (Rohingya)



## Refugee Influx Emergency Vulnerability Assessment – REVA 2018





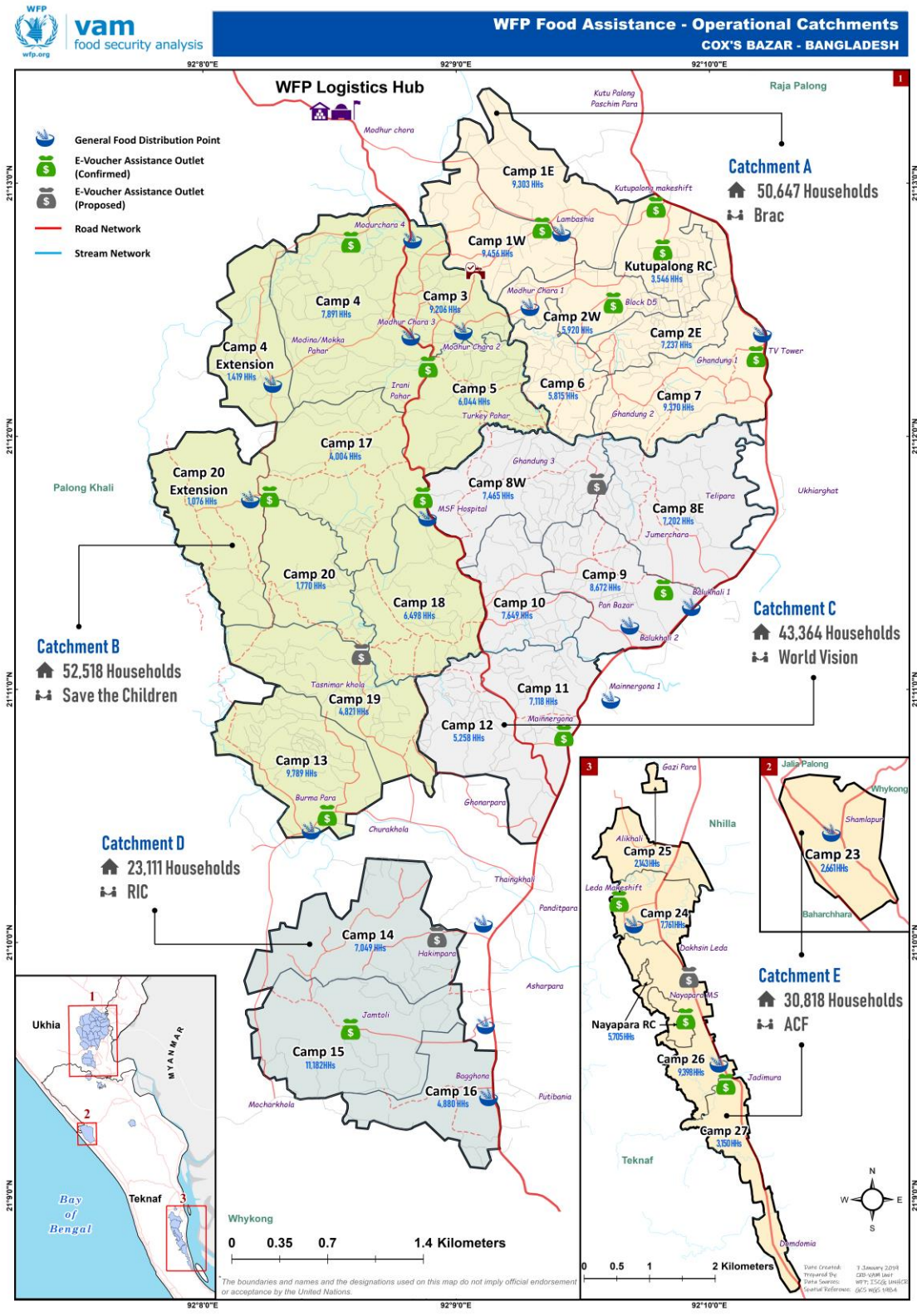
Refugee Influx Emergency Vulnerability Assessment – REVA 2018





# Refugee Influx Emergency Vulnerability Assessment – REVA 2018

## Annex 6: Catchment map of WFP operational areas





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