COX'S BAZAR, BANGLADESH

Joint Multi-Sector Needs Assessment (J-MSNA)

Rohingya Refugees

September 2019

ISCG | INTER SECTOR COORDINATION GROUP

COORDINATED BY:

ISCG | INTER SECTOR COORDINATION GROUP

FUNDED BY:

Funded by
European Union
Civil Protection and
Humanitarian Aid

UNHCR
The UN Refugee Agency

TECHNICAL CONTRIBUTIONS:

REACH Informing more effective humanitarian action

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ANALYSIS HUB
Cox's Bazar, Bangladesh

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TRANSLATORS WITHOUT BORDERS

UNHCR
The UN Refugee Agency

WFP

SUMMARY

In successive waves over four decades, Rohingya refugees have been fleeing to Bangladesh from Rakhine State, Myanmar. Since August 2017, an estimated 745,000 Rohingya refugees have arrived in Cox's Bazar, Bangladesh, increasing the total number of Rohingya refugees to roughly 855,000.[1] Most of the newly-arrived refugees have settled in hilly, formerly-forested areas that are vulnerable to landslides and flash-flooding in monsoon season, and rely heavily on humanitarian assistance to cover their basic needs. As the crisis moves beyond the initial emergency phase, comprehensive information on the needs and vulnerabilities of affected populations is needed in order to inform the design and implementation of effective inter-sectoral programming.

To this aim, a Joint Multi-Sector Needs Assessment (J-MSNA) was conducted across Rohingya refugee populations to support humanitarian planning and enhance the ability of operational partners, donors and coordinating bodies to meet the needs of affected populations. This in-depth assessment is a follow-on to the June 2019 "Light" MSNA[2], which was used to inform the mid-term review of the humanitarian 2019 Joint Response Plan (JRP)[3]. The current "in-depth" J-MSNA was conducted to inform the Inter Sector Coordination Group (ISCG)'s 2020 JRP, with the objectives of: (1) providing a comprehensive evidence base of household-level multi-sectoral needs for the humanitarian 2020 JRP; and (2) providing the basis for joint-multi-stakeholder analysis. The J-MSNA operates upon an analytical framework for multi-sector analysis based on the work undertaken by the Joint Inter-sector Analysis Group (JIAG)[4], tailored by ACAPS and other participants of ISCG's MSNA Technical Working Group (TWG) of the Information Management and Assessment Working Group (IMAWG) in order to meet the specific needs of the Rohingya Humanitarian Crisis. The J-MSNA serves to measure current humanitarian conditions, perceptions and preferences, and safety and security in affected communities.[5]

A total of 3,418 households were surveyed across 34 refugee sites, employing a simple random sampling methodology of shelter footprints within official site boundaries. Data collection occurred from 5 August through 15 September 2019. Each interview was conducted with an adult household representative responding on behalf of the household and its members. The assessment provides findings that are statistically representative at the camp level (with a 95% confidence level and 10% margin of error) and aggregated to the overall response level for all Rohingya refugee households living in camps (with a 95% confidence level and 3% margin of error).

This J-MSNA was funded by the United Nations High Commissioner for Refugees (UNHCR) and the Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO). The assessment was coordinated through ISCG's MSNA TWG, led by ISCG and comprised of: UNHCR, ACAPS, International Organization for Migration Needs and Population Monitoring (IOM NPM), Translators without Borders (TWB), World Food Programme Vulnerability Analysis and Mapping Unit (WFP VAM), and REACH.

The findings from this report complement other information products from the 2019 J-MSNA to provide a variety of analysis. In addition to the clean household-level dataset and data analysis tables for the Refugee J-MSNA, readers may access summaries of key messages derived from indicator-level findings for both Rohingya refugees and affected host communities living in Teknaf and Ukhiya Upazilas in the 2019 J-MSNA Preliminary Findings Presentation. Camp-level findings for indicators where notable geographic variation was observed are available at the 2019 J-MSNA Dashboard. Finally, the 2019 Refugee J-MSNA Factsheets present and visualize key indicators applicable to refugee communities as a whole, by sector.[6]

This report builds off of these aforementioned publications by exploring how variation in household social and demographic characteristics may lead to significantly different outcomes on a number of sectoral and cross-

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[1] Figures for the total population are derived from the Rohingya refugees/Forcibly Displaced Myanmar Nationals (FDMN) registered under the joint Government-UNHCR registration exercise as of 31 December 2019.

[2] ISCG, *Light Mid-Term Joint Multi-Sector Needs Assessment (MSNA) Outputs (June 2019)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).

[3] The mid-term review of the 2019 JRP: ISCG, *Joint Response Plan for Rohingya Humanitarian Crisis – Mid-term Review (January – June 2019)* (Cox's Bazar, 2019). Available here (accessed 7 December 2019).

[4] JIAG is developing an analytical framework for inter-sectoral analysis, assisting with the identification of inter-linkages between various drivers, underlying and contributing factors, sectors and humanitarian conditions.

[5] The J-MSNA is not intended to capture information on natural or man-made hazards, legal or rights-based issues, logistics or humanitarian access. It is also not intended to inform long-term development programming.

[6] Users may also reference publications for the Host Community 2019 J-MSNA, including the 2019 Host Community J-MSNA Factsheets and Final Report.

sectoral key indicators related to household wellbeing, including: access to food, income generation, education, market access, health care and general safety and security. In conducting this analysis of indicator-level findings through statistical relationship testing, this report seeks to contribute to the growing body of research aimed toward understanding the diversity of needs between different households, as well as the household profiles which may be more vulnerable to facing deprivations in key indicators.

Key J-MSNA findings both on indicators measured during the assessment, as well as from the relationship analysis on diversity characteristics conducted for the present report, include the following:

1. **J-MSNA findings suggest that coverage of basic services is extensive within the constraints of the current operating environment and are not indicative of widespread extreme gaps in basic household-level outcomes. This suggests that the response is in many respects successful in implementing provision of lifesaving assistance.**

    - At the overall response level, only 4% of refugee households were calculated to have a food consumption score (FCS) of "poor", and the proportion of households with a "poor" FCS was not found to exceed 9% in any camp.[7] Forty-one per cent (41%) of households were calculated to have a "borderline" FCS.
    - Almost all households (99%) reported accessing improved water sources[8] (mainly tube wells and piped water / tap stands) as their main source for drinking and cooking purposes at the time of data collection.
    - Most households (88%) reported exclusively using LPG (liquid propane gas) as their source of cooking fuel in the 30 days prior to data collection.

2. **However, there remain outstanding gaps in access and coverage of basic goods and services, with many of these concerns appearing to affect refugee communities as a whole, regardless of who or where they are located:**

    - Two-thirds of households that reported at least one member as having an illness serious enough to require medical treatment in the 30 days prior to data collection reported going into debt in order to cover medical expenses.[9]
    - Forty-one per cent (41%) of households are calculated to have a "borderline" FCS. Roughly three-quarters of households are estimated to consume three food groups or fewer in any given day and approximately one-third are estimated to consume just two food groups or fewer in any given day.[10]
    - Nearly one-third (32%) of households reported not making improvements to their shelter in the six months prior to data collection, despite reporting the need to do so.

3. **While findings point to generally high coverage of basic needs and services, refugees reported the need to seek out additional means beyond humanitarian assistance in order to cover their basic needs. Almost all households (95%) reported engaging in coping mechanisms due to a lack of income to meet basic needs in the 30 days prior to data collection. Levels of household-level coping extended beyond aid dependency and selling of items provided as assistance.**

    - Sixty-nine per cent (69%) of households reported incurring new debts (borrowing money or purchasing items on credit) in the 30 days prior to data collection.

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[7] The Food Consumption Score is a composite score based on: (1) dietary diversity; (2) food frequency; and (3) relative nutritional importance of nine weighted food groups. The FCS is recorded from a seven-day recall period. In Bangladesh, thresholds for FCS classifications set by WFP are as follows: ≥ 42 Acceptable; 28 - 41 Borderline; ≤ 27 Poor. For additional information on the FCS, what it shows and how it is calculated, please reference: World Food Programme (WFP), *Food Consumption Analysis: Technical Guidance Sheet* (Rome, 2008). Available here (accessed 20 December 2019).

[8] "Improved drinking water sources are those that have the potential to deliver safe water by nature of their design and construction" World Health Organization / UNICEF Joint Monitoring Programme (JMP). Available here (accessed 30 November 2019).

[9] This question was only asked of households that reported at least one member with an illness serious enough to require medical treatment in the 30 days prior to data collection (n = 2,724). Respondents could choose more than one option.

[10] This is an estimate of household dietary diversity based on the reported quantity of food groups consumed during the seven days prior to data collection. The standard module to calculate a Household Dietary Diversity Score (24-hour recall period) was not included in this questionnaire. These findings represent the proportion of households who reported consuming any food group at least six or seven times in the week prior to data collection.

- One in five households reported depending on community support as their only food or income source in the 30 days prior to data collection; 9% reported that they sold labour in advance; 7% reported that they reduced essential non-food expenditures (e.g. on education, health or clothing); between 1-2% of households reported accepting high risk or illegal temporary jobs, begging, or withdrawing children from school.

4. **In some cases, gaps in coverage or access to services seem to disproportionately affect specific areas or population groups:**

- Camp-level findings on FCS indicate wide variation in food consumption outcomes between different localities – ranging from as low as 27% of households found to have an acceptable FCS to as high as 78% of households with an acceptable FCS in some camps.
- In many instances, these gaps appear to be experienced in greater proportions by households living in southern Teknaf camps and / or in more mixed conditions with host communities:
  - Eleven per cent (11%) of refugee households reported needing to access surface water for drinking or cooking purposes either some days or almost every day during the last dry season. Most households reporting the need to do so were concentrated in six camps in southern Teknaf, ranging from 31% of households in Camp 22 to as high as 58% of households in Camp 24.
  - While 10% of refugee households reported paying money or goods (as a form of rent) to live in their current shelter in the six months prior to data collection, those reporting the need to do so were concentrated in certain Teknaf camps, ranging from 32% of households in Camp 26 to as high as 95% of households in Camp 25.
- While education attendance rates dropped significantly for both adolescent boys and girls from age 12 onward, attendance rates decreased more rapidly for girls than for boys. Fifty-four per cent (54%) of boys aged 12-14 were reported to be attending a TLC for at least four days per week during the 30 days prior to data collection compared with just 32% of girls.

5. **Certain household diversity characteristics had a significant relationship with varied outcomes on indicators related to well-being. However, of the characteristics that were tested, findings were varied across sectors and indicators. No single household characteristic stood out as consistently producing worse-off outcomes across the board. These observations would require additional targeted research and exploration before serving as the basis for informing programmatic and strategic decisions.**

- Female-headed households and households with no adult males aged 18-59 were less likely to be found to have an "acceptable" FCS, with slightly higher proportions of households with either of these characteristics found to have a borderline or poor FCS.[11]
- Households with certain social and demographic characteristics – including female-headed households, households with no males aged 18-59, and households in which no members had completed any formal education – were less likely to report any adult members (aged 18 and over) had accessed stipend-generating activities in the 30 days prior to data collection.[12]

The above J-MSNA findings are intended to inform a more holistic, evidence-based approach to inter-sectoral humanitarian planning and programming, particularly as actors begin shifting toward medium-term planning that focuses not only on the provision of basic humanitarian assistance, but also on the wellbeing, self-reliance and dignity of refugee populations and affected host communities. While this J-MSNA contributes to a stronger knowledge base of cross-sectoral needs and conditions, further research is necessary in order to better understand some of the gaps in coverage detailed above and in the body of this report, as well as household characteristics which may lead to aggravated vulnerability in key indicators related to well-being.

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[11] This finding is derived from additional statistical analysis conducted for this report.
[12] This finding is derived from additional statistical analysis conducted for this report.

CONTENTS

List of Acronyms

BDT	Bangladeshi Taka
CwC	Communications with Communities
ECHO	Directorate-General for European Civil Protection and Humanitarian Aid Operations
FCS	Food Consumption Score
GCCG	Global Cluster Coordinators Group
HoH	Head of household
IMAWG	Information Management and Assessment Working Group
ISCG	Inter Sector Coordination Group
IOM NPM	International Organization for Migration Needs and Population Monitoring
JIAF	Joint Intersectoral Analysis Framework
JIAG	Joint Intersectoral Analysis Group
J-MSNA	Joint Multi-Sector Needs Assessment
JRP	Joint Response Plan
LPG	Liquid Petroleum Gas
NFI	Non-Food Items
OCHA	Office for the Coordination of Humanitarian Affairs
NGO	Non-Governmental Organisation
REVA	Refugee Influx Emergency Vulnerability Assessment
SGBV	Sexual and gender-based violence
SPP	Settlement and Protection Profiling
TLC	Temporary Learning Centre
TWB	Translators Without Borders
TWG	Technical Working Group
UNHCR	United Nations High Commissioner for Refugees
WASH	Water, Sanitation and Hygiene
WFP VAM	World Food Programme Vulnerability Analysis and Mapping

Geographical Classifications

District	Third tier of administration in Bangladesh, forming sub-units of divisions
Upazila	Fourth tier of administration in Bangladesh, forming sub-units of districts

List of Figures, Tables and Maps

INTRODUCTION

For decades, Rohingya refugees have been fleeing to Bangladesh from Rakhine State, Myanmar. Periodic outbreaks in violence have led to large exoduses of refugees particularly in 1978, between 1991 and 1992, and in other short waves prior to 2017[13], when a large influx of roughly 750,000 Rohingya refugees fled to Bangladesh beginning in August of that year. An estimated 855,000 Rohingya refugees are now residing in 34 camps in Ukhiya and Teknaf Upazilas in Cox's Bazar District, Bangladesh, roughly two years after the most recent influx.[14]

Prior to displacement, Rohingya in Myanmar faced difficulties accessing livelihoods, food, education and health care. A 2011 World Food Programme (WFP) Food Security Assessment of Northern Rakhine found that 45% of residents were food insecure, and that the population as a whole was extremely asset poor, lacked job opportunities, earned low wages and faced high health expenditures and high debt burdens[15] Rohingya children often did not attend school past primary education, and a significant proportion of children aged 5 to 17 in Myanmar prior to displacement had never been enrolled in school.[16,17] Large proportions of Rohingya children were never immunized and many children suffered from wasting.[18] Rohingya also faced limitations in traveling or working outside of their villages.[19] The conditions under which Rohingya were living prior to their arrival to Bangladesh are recounted so that understanding of the humanitarian crisis in its current form is not interpreted within a vacuum. The aforementioned realities serve to provide a stark picture of the socio-economic conditions under which Rohingya first arrived in Bangladesh.

Even now, Rohingya residing in camps are almost entirely reliant on humanitarian assistance for food, shelter, education and healthcare, while large proportions are still vulnerable to food insecurity. One third of Rohingya children between the ages of one and five years are chronically undernourished, while 13% of children in this age range are acutely undernourished.[20] Findings from this Joint Multi-Sector Needs Assessment (J-MSNA), elaborated upon further in the section on "Key Messages", show that while widespread extreme outcomes have been avoided for refugee populations as a whole, refugees continue to face some of the same struggles with meeting basic needs related to food, health, education and access to livelihoods as they did prior to displacement, as well as continual protection concerns related to general safety and security. Rohingya refugees also face limitations on movement outside of the camps, engaging in employment or earning money, which may exacerbate dependence on humanitarian assistance.[21]

As the crisis moves beyond the initial emergency phase, and as the conditions for safe and voluntary return to Myanmar appear increasingly unlikely in the near term[22], comprehensive information on the needs and vulnerabilities of affected populations is needed in order to inform the design and implementation of effective inter-sectoral programming that focuses not only on basic survival assistance, but also on enhancing the overall wellbeing, dignity and self-reliance of refugee populations and affected host communities. At the same time, to ensure that no one is left behind, effective inter-sectoral programming will depend on having adequate knowledge of who is in particular need, and what these needs are, while recognizing that each household and each individual is affected differently by the present crisis. However, very little research currently exists on the specific drivers of vulnerability within refugee populations, as well as the specific social and demographic characteristics of particular households that may aggravate overall vulnerability to negative outcomes.

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[13] Zakaria, F. (2019), "Religion, mass violence, and illiberal regimes: Recent research on the Rohingya in Myanmar, *Journal of Current Southeast Asian Affairs,* 38(1), pp. 98 – 111.
[14] Figures for the total population are derived from the Rohingya refugees/Forcibly Displaced Myanmar Nationals (FDMN) registered under the joint Government-UNHCR registration exercise as of 31 December 2019.
[15] WFP, *Food Security Assessment in Northern Rakhine State, Myanmar* (Cox's Bazar, 2011). Available here (accessed 3 December 2019).
[16] Abdelkader, E. (2013), "The Rohingya Muslims in Myanmar: Past, Present, and Future", *Oregon Review of International Law,* 15, pp. 393 – 412.
[17] Zarni, M. and A. Cowley (2014), "The slow-burning genocide of Myanmar's Rohingya", *Pacific Rim Law & Policy Journal,* 23(3), pp. 681 – 752; PLAN International and REACH, *Joint Education Sector Needs Assessment, North Rakhine State, Myanmar* (Yangon, 2016). Available here (accessed 16 November 2019).
[18] Mahmood, S. et. al. (2017), "The Rohingya people of Myanmar: Health, human rights, and identity", *The Lancet,* 389(10081), pp. 1841 – 1850.
[19] Zarni and Cowley, 2014; Mahmood, S. et. al., 2017; Wallace, 2016; Preacher and Alam, 2018; Zakaria, 2019.
[20] Centre for Global Development (CGD) and International Rescue Committee (IRC), *Moving Beyond the Emergency: A Whole of Society Approach to the Refugee Response in Bangladesh* (Cox's Bazar, 2019). Available here (accessed 20 November 2019).
[21] Ibid.
[22] Ibid.

To this aim, a Joint Multi-Sector Needs Assessment (J-MSNA) was conducted across Rohingya refugee populations to support humanitarian planning and enhance the ability of operational partners, donors and coordinating bodies to meet the needs of affected populations. This in-depth assessment is a follow-on to the June 2019 "Light" MSNA[23], which was used to inform the mid-term review of the humanitarian 2019 Joint Response Plan (JRP)[24]. The current "In-depth" J-MSNA was conducted to inform the 2020 JRP, with the specific objectives of: (1) providing a comprehensive evidence base of household-level multi-sectoral needs for the humanitarian 2020 JRP; and (2) providing the basis for joint-multi-stakeholder analysis.

The J-MSNA operates upon an analytical framework for multi-sector analysis based on the work undertaken by the Joint Inter-sector Analysis Group (JIAG)[25], tailored by ACAPS and other participants of ISCG's MSNA Technical Working Group (TWG) of the Information Management and Assessment Working Group (IMAWG) in order to meet the specific needs of the Rohingya Humanitarian Crisis. The J-MSNA serves to measure current humanitarian conditions, perceptions and preferences, and safety and security in affected communities.[26]

This J-MSNA report aims to fill existing information gaps by exploring how variation in household social and demographic characteristics may lead to significantly different outcomes on a number of sectoral and cross-sectoral key indicators related to household wellbeing, measured during the present assessment.[27]

The report begins with an introduction to the crisis, including a brief summary of the drivers behind displacement, an overview of socio-cultural and economic characteristics of Rohingya communities, as well as current humanitarian needs and living conditions, and potential knowledge gaps in the current evidence base. This will be followed by an in-depth discussion of the specific coordination mechanisms and methodologies employed in the J-MSNA, covering information on J-MSNA governance structures, research design processes, sampling strategy and household selection, processes of data cleaning and analysis, as well as challenges and limitations of the current assessment. The third section of this report, "Key Messages", presents a narrative overview of J-MSNA findings on current humanitarian conditions, potential gaps in coverage, as well as community perceptions, priorities and preferences, derived from key indicators. The final section of this report will present key findings related to variation in indicator-level outcomes based on household social and demographic characteristics, focusing on: (1) the gender of head of household; (2) the highest level of education obtained in the household; (3) household dependency ratio[28]; (4) households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities[29]; and (5) households with no male *adults* of productive age (defined as 18 to 59).[30]

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[23] ISCG, *Light Mid-Term Joint Multi-Sector Needs Assessment (MSNA) Outputs (June 2019)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).

[24] The mid-term review of the 2019 JRP: ISCG, *Joint Response Plan for Rohingya Humanitarian Crisis – Mid-term Review (January – June 2019)* (Cox's Bazar, 2019). Available here (accessed 7 December 2019).

[25] JIAG is developing an analytical framework for inter-sectoral analysis, assisting with the identification of inter-linkages between various drivers, underlying and contributing factors, sectors and humanitarian conditions.

[26] The J-MSNA is not intended to capture information on natural or man-made hazards, legal or rights-based issues, logistics or humanitarian access. It is also not intended to inform long-term development programming.

[27] The present study does not present a multi-dimensional or multiple-regression analysis of household deprivations and is not intended to be used to make conclusions on which households are worse or better-off. While five household social and demographic variables are under analysis in this present study, there are a range of other individual, intra-household and household-level characteristics that can contribute to varied levels of vulnerability. Findings are not intended to inform service provision nor are they intended to assess current access to services.

[28] The dependency ratio is equal to the number of individuals not of productive age (0 – 14 or 65 and above) in the household divided by the number of individuals of productive age (15 – 64), expressed as a percentage.

[29] Questions on household disability prevalence were not asked according to Washington Group Short Set of Questions on Disability. Respondents in this assessment were asked to report on each individual who required another person to help him / her complete daily activities such as eating, dressing, bathing or going to the toilet.

[30] The rationale behind the selection of these characteristics is explained further in the body of the report.

Coordination

All components of the J-MSNA were coordinated through the MSNA TWG of the IMAWG, under the leadership of the ISCG, who led coordination with all sectors, including: Health; Nutrition; Water, Sanitation & Hygiene (WASH); Shelter & Non-Food Items (NFI); Education; Protection (including the Child Protection and Gender Based Violence sub-sectors); Food Security, Site Management and Site Development, and the Communication with Communities (CwC) Working Group. The Transfers Working Group and Gender in Humanitarian Action Working Group were also consulted for feedback. Sectors were engaged throughout the process in reviewing and validating the overall assessment approach, participating in joint analysis activities, validating assessment findings and providing feedback on J-MSNA outputs.

The MSNA TWG was responsible for designing and implementing the assessment as well as for the analysis of the findings, in consultation with sector and other technical experts. Membership of the TWG consisted of the United Nations High Commissioner for Refugees (UNHCR), ACAPS, International Organization for Migration Needs and Population Monitoring (IOM NPM), Translators without Borders (TWB), World Food Programme Vulnerability Analysis and Mapping Unit (WFP VAM), and REACH. Each member of the TWG served as a primary liaison for one or more sectors during research design and validation, as well as during dissemination of findings. REACH led implementation of the assessment, including the sampling approach, management of field teams, data processing, and initial analysis and inter-sectoral analysis of raw data.

Analytical Framework[31]

This assessment operates off of the Joint-Intersector Analysis Framework[32] currently under development by the Joint-Intersector Analysis Group (JIAG). Led by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and the Global Cluster Coordinators Group (GCCG), the JIAF aims to assist with identification of inter-linkages between various drivers, underlying and contributing factors, sectors and humanitarian conditions. The JIAF seeks to enable humanitarian actors to arrive at a common understanding of who, and how many people face humanitarian needs, and which needs are most critical.

This JIAF under development was tailored by ACAPS and other participants of the J-MSNA TWG to meet the specific needs of the Rohingya Humanitarian Crisis. It consists of the following three pillars (and a range of sub-pillars) that provide the framework for analysis, including: (1) **context**, which explores the socio-cultural and security context underpinning the current crisis, including aspects of social norms and beliefs which have the potential to influence access to services and enjoyment of rights; (2) **humanitarian conditions,** which explores the current living conditions of affected communities and potential shortages in service provision; and (3) **community perceptions, priorities and preferences,** which explores the opinions of refugee households, preferences regarding modalities of service provision, as well as the appropriateness of the response to date in meeting the needs of refugee populations (see Annex B for an in-depth visualisation of the analytical framework).

The aforementioned framework does not capture information on natural or man-made hazards, legal or rights-based issues, logistics or humanitarian access. It is also not intended to inform long-term development programming.

Indicators and tool design

Indicator identification and tool development were built off of an initial review of secondary data derived from the Assessment Registry[33] and Needs Assessment Indicator[34] list. The second phase of the design process involved close consultations with all sectors, information management staff, as well as various working groups and experts

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[31] The information in this sub-section builds off of the analytical framework as originally defined in the Terms of Reference of the J-MSNA: ISCG, *Assessment Concept Note, Rohingya Crisis Bangladesh, In-Depth MSNA, July 2019* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).
[32] Joint Intersectoral Analysis Group (JIAG), *Joint Intersectoral Needs Analysis for Efficient and Effective Joint Response Planning* (Geneva, 2017). Available here (accessed 11 December 2019).
[33] ISCG, *Assessment Registry Dashboard (as of July 2019)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).
[34] ISCG, *Assessment Indicator List, Rohingya refugee crisis Cox's Bazar, Bangladesh* (Cox's Bazar, n.d). Available here (Accessed 12 December 2019).

present in the response. The preliminary tool and list of indicators derived from these consultations were then refined and finalised by the MSNA TWG.

As part of the design process, MSNA TWG partners strove to harmonise the survey with other multi-sector needs assessments designed to support JRP 2020 planning, namely the Nutrition Sector SMART (*Standardized Monitoring and Assessment of Relief and Transitions*) surveys, the WFP *Refugee Influx Emergency Vulnerability Assessment* (REVA)[35], UNHCR *Camp Settlement and Protection Profiling* (SPP)[36], and NPM *Site Assessments*.[37] The final tool incorporated a standard set of questions and translations on household and individual characteristics that would enable analysis across assessments. The research tool was translated into Rohingya using Chittagonian script, with support from TWB.

Prior to questionnaire finalisation, REACH conducted a series of consultations with Rohingya community members with male and female adults, separately. The purpose of these consultations was to ensure that there were no outstanding information gaps that were not already covered by the sector-driven component of tool design, while verifying the understanding and interpretation of key terms and language nuances in Rohingya.

Sampling strategy and household selection[38]

The household – defined as "the group of people who regularly eat from the same pot and share the same shelter" is the main unit of measurement in this assessment. To ensure that each household had an equal chance of being selected for an interview, the assessment employed a stratified, simple random sampling approach of shelter footprints within official refugee site boundaries. Target sample sizes for each camp were based on the most recent population figures from UNHCR, with the objective of producing data generalisable at a 95% confidence level and 10% margin of error for each of the 34 assessed refugee camps (see Map 1 below). For a complete list of assessed camps, and household surveys completed per camp, please refer to Annex A. This means that if the assessment were to be replicated multiple times, the findings for each camp would be within +/- 10% of the true value, 19 times out of 20. The sampling strategy also provides findings aggregated to all Rohingya refugee households living in camps with a 95% confidence level and 3% margin of error.

In order to select households, ISCG camp boundaries were overlaid onto REACH/UNOSAT shelter footprint data. A random distribution of GPS points was generated, with each GPS point indicating a shelter to be approached for an interview. A non-response buffer was included in order to account for: (1) non-eligible geopoints, such as those falling on non-residential structures including latrines, mosques, schools, etc.; (2) non-eligible households, including Bangladeshi households residing in mixed communities falling within camp boundaries; (3) non-consenting households, such as those where respondents declined to participate or finish a full survey; and (4) households without an admissible respondent, including those without a consenting adult aged 18 and above. During data collection, enumerators were provided maps with the GPS points corresponding to households to interview. In the event that no eligible respondents were identified at any GPS point given, enumerators were instructed to make a note of non-response and continue on to the next target household.

In order to ensure that the experiences and perspectives of both males and females were equally represented in the assessment, enumerator teams were composed equally (50:50) of men and women. Each enumerator interviewed an adult respondent (aged 18 and above) of their own gender, who was most knowledgeable about the affairs of the household (as defined by the household). Overall, 51% of respondents in this assessment were female and 49% were male.

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[35] REVA III was ongoing at the time this report was drafted. Users may reference the REVA II (November – December 2018): WFP, *Refugee Influx Emergency Vulnerability Assessment (REVA II) 2018*, *Cox's Bazar, Bangladesh* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).
[36] Round 6 of UNHCR SPP was ongoing at the time this report was drafted. Users may reference UNHCR SPP Round 5 Report: UNHCR, *Camp Settlement and Protection Profiling – Round 5 Report (July 2019)* (Cox's Bazar, 2019). Available here (accessed 8 December 2019).
[37] IOM NPM, *Site Assessment Round 16 (August – October 2019)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).
[38] Please reference Annex A for a list of assessed camps by estimated household population and number of household surveys completed in each camp.

Map 1: Assessed camps in Teknaf and Ukhiya Upazilas, Cox's Bazar
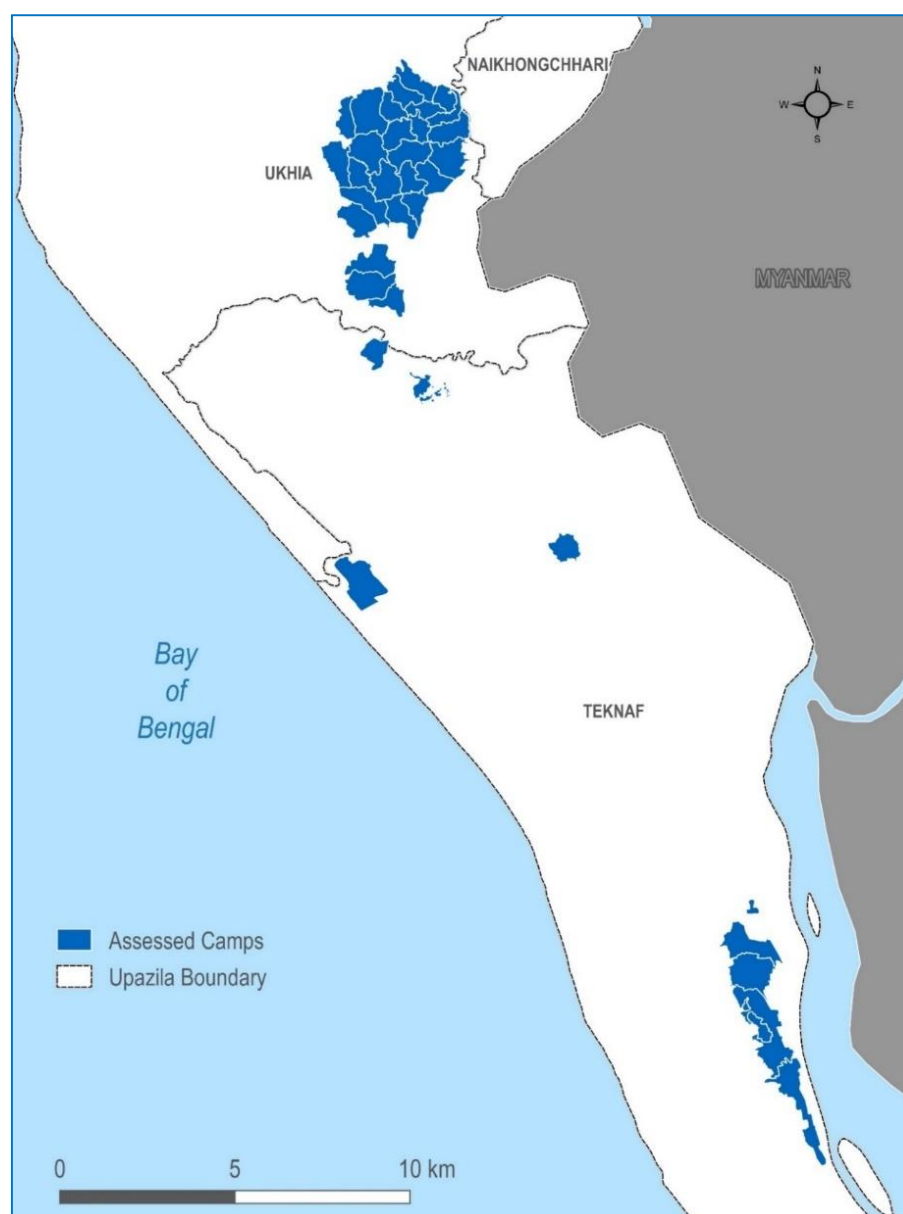
Data collection

Data collection occurred from 5 August through 15 September 2019. A total of 3,418 households, consisting of 17,162 individuals, were surveyed across the 34 refugee camps. Data collection was led and conducted by a total of seven REACH teams consisting of eight enumerators each (56 enumerators in total). Prior to data collection, enumerators underwent a three-day training and a two-day pilot in order to familiarise themselves with the tool, field protocols, as well as the code of conduct and basic protection principles. Technical experts from each sector facilitated training sessions for the enumerators about components of the questionnaire related to their respective sectors, including explanations on the reasons and intentions for the inclusion of certain questions, nuances of vocabulary and wording and referral pathways. TWB representatives were available during the training to ensure cultural comprehension and helped clarify any language issues.

Prior to conducting the survey, informed consent was sought, received and documented at the start of each interview. During interviews, data were entered directly using KoboCollect. At the end of each day, forms were uploaded to a secure central UNHCR server where raw data were accessible to only one individual within REACH.

Data cleaning and checking

Data checking occurred on a daily basis with checks including identification of outliers, correct categorisation of "other" responses, and the removal and / or replacement of incomplete or inaccurate records. All changes to the dataset were documented in a data cleaning log. Based on observations during the pilot, 25 minutes was established as the minimum length of interview required to ensure an acceptable level of data quality. Any interviews falling below this threshold were excluded from the final dataset. In total, 81 interviews (of 3,499) were deleted from the final dataset due to quality issues related to timing, the survey being conducted too far from the allotted GPS point, or data discrepancies that could not be corrected (the clean dataset for this assessment is available on the REACH Resource Centre).

Data analysis

A basic data analysis plan (DAP) was drafted, providing a roadmap outlining stratification, weightings, statistical functions required, intermediate composite indicators to be made and more. The DAP included the identification of household demographic characteristics that may be associated with varying responses or outcomes against selected key indicators. The relationships to be tested were guided by the overarching analytical J-MSNA analysis framework and based on formative qualitative research currently being conducted by ACAPS on key vulnerability characteristics of affected populations (including how the community defines "vulnerability" and what characteristics were associated with more severe needs), as well as existing secondary literature and past needs assessments in the response. Upon completion of data collection, preliminary analysis of raw data was performed using the software R.

ISCG held a Joint Analysis Workshop on 26 September 2019 attended by all Sector and Sub-sector coordinators, Sector Information Management Officers (IMOs) and a range of other Working Group heads and technical colleagues involved in the 2020 JRP process. Using the data analysis tables, attendees conducted an initial interpretation, analysis and validation of findings, while identifying areas for further exploration or explanation.

Relationships between household demographic/social characteristics and indicators of interest were analysed based on a chi-square independence tests, which compare two categorical variables to determine whether they are related for the same population. Relationships were determined to be statistically significant if the p-value[39] was low (typically ≤ 0.05).

Caveats and limitations

- **J-MSNA as a multi-sector snapshot:** The J-MSNA is intended to inform crisis-wide humanitarian planning, providing comparable data across all relevant sectors; however, it is not intended to be an in-depth assessment of one particular sector or thematic concern. In-depth sectoral assessments should be consulted in order to complement the findings from this survey.
- **Data by proxy:** individual-level data collected during the assessment (such as data related to education attendance, illness, age, gender, etc.) are collected by proxy from the respondent and not directly from household members themselves.
- **Potential for respondent bias:** certain indicators may be under-reported or over-reported due to the subjectivity and perceptions of respondents (in particular, "social desirability bias" – the tendency of people to provide what they perceive to be the "right" answers to certain questions). Certain findings related to sensitive subjects – including safety and security concerns, income sources, community dynamics and / or prohibited activities, are likely under-reported.
- **Interpreting findings from subset indicators:** findings that refer to a subset of the overall population may have a wider margin of error. For example, questions asked only to households with school-aged children, or to households with at least one individual reported as having an illness serious enough to require medical treatment, will yield results with lower precision. Any findings that refer to a subset are clearly communicated in this report.

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[39] The p-value reflects the probability that any correlation between two variables could be due to random chance.

- **Limitations of household surveys:** while household-level quantitative surveys seek to provide quantifiable information that can be generalised to the populations of interest, the methodology is not suited to provide in-depth explanations of complex issues. Thus, questions on "how" or "why" (such as reasons for feeling unsafe, reasons for incurring debt, or gender dynamics) are best suited to be explored through an accompanying qualitative component. Given that the unit of measurement is the household, this assessment does not focus on intra-household dynamics, including those related to intra-household gender norms, roles and dynamics, or related to intra-household variation in outcomes or perspectives based on disability, age, level of education, or other demographic characteristics. Users are reminded to supplement and triangulate findings from this survey with other data sources.
- **Caveats related to period of data collection:** when interpreting findings, users are informed that data collection occurred during the monsoon season, and that results for certain indicators may be linked to variations in living standards attributable to seasonal variation (particularly in regard to WASH or shelter). Data collection also occurred during the Eid al-Adha holiday, which may explain findings related to debts and expenditures on certain items like clothing and celebrations. Finally, data collection activities also occurred during a period in which a number of rallies and demonstrations were held in commemoration of the anniversary of the events of 2017, which generated the most recent influx of Rohingya refugees into Bangladesh.
- **Parameters of the analysis presented in this report:** The present study does not present a multi-dimensional or multiple-regression analysis of household deprivations and is not intended to be used to make conclusions on which households are worse or better-off. While five household social and demographic variables are under analysis in this report, there are a range of other individual, intra-household and household-level characteristics that can contribute to varied levels of vulnerability. Findings are not intended to inform service provision nor are they intended to assess current access to services.

KEY MESSAGES

This section presents key messages and indicator-level findings from the J-MSNA, summarising current humanitarian conditions, potential gaps in coverage that may be linked to service provision or structural constraints, notable geographic variation in findings, as well as the potential social dynamics underpinning findings on certain indicators. This section also summarizes any unsustainable or risky behaviours that refugee households reported employing in order to meet their basic needs.

1. **J-MSNA findings suggest that coverage of basic services is extensive within the constraints of the current operating environment, and are not indicative of widespread extreme gaps in basic household-level outcomes. This suggests that the response is in many respects successful in implementing provision of lifesaving assistance:**

   - Roughly half (54%) of refugee households had an "acceptable" calculated Food Consumption Score (FCS)[40] (reflecting diets of adequate quantity and quality).[41] **Only 4% of households were found to have a "poor" FCS, and the proportion of households with a "poor" FCS was not found to exceed 9% in any camp.**

   - **Almost all households (99%) reported accessing improved water sources**[42] (mainly tube wells and piped water / tap stands) as their main source of water for drinking and cooking purposes at the time of data collection. Most households (87%) reported having enough water for drinking purposes at the time of data collection.

   - Ninety-seven per cent (97%) of individuals that were reported to have an illness serious enough to require medical treatment in the 30 days prior to data collection were reported to have sought treatment for their illness.[43] **Of those individuals reported to have sought treatment for their illness, four out of five were reported to have accessed a clinic run by an NGO.[44]**

   - **The majority of refugee households (88%) reported exclusively using liquid propane gas (LPG) as their source of cooking fuel in the 30 days prior to data collection** (increasing from 75% of households in the June 2019 "Light" MSNA)[45], while only 2% of households reported using self-collected firewood in the 30 days prior to data collection. "No need to collect firewood" was the most frequently reported aspect that refugee households perceived has been going well with assistance and services received in the six months prior to data collection. Improvements in this area likely reflect programmatic efforts to reduce the pressure on natural fuel resources in the area and mitigate rapid depletion of forests - perceived as a significant risk to the environment and to the livelihoods and wellbeing of refugee and host community households during earlier stages of the response.[46]

   - **Seventy-six per cent (76%) of refugee households reported feeling that their opinion was always or sometimes taken into account when providing feedback on aid and services received.** Roughly the same proportion of households reported facing no barriers to interacting with humanitarian workers at the time of data collection.

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[40] The Food Consumption Score is a composite score based on: (1) dietary diversity; (2) food frequency; and (3) relative nutritional importance of nine weighted food groups. The FCS is recorded from a seven-day recall period. In Bangladesh, thresholds for FCS classifications set by WFP are as follows: ≥ 42 Acceptable; 28 - 41 Borderline; ≤ 27 Poor. For additional information on the FCS, what it shows and how it is calculated, please reference: World Food Programme (WFP), *Food Consumption Analysis: Technical Guidance Sheet* (Rome, 2008). Available here (accessed 20 December 2019).
[41] WFP, *Refugee Influx Emergency Vulnerability Assessment (REVA II) 2018, Cox's Bazar, Bangladesh* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).
[42] "Improved drinking water sources are those that have the potential to deliver safe water by nature of their design and construction" World Health Organization / UNICEF Joint Monitoring Programme (JMP). Available here (accessed 30 November 2019).
[43] This indicator is a proportion out of all individuals who were reported to have had an illness serious enough to require medical treatment in the 30 days prior to data collection (n = 5,967).
[44] Respondents could report more than one treatment location. This question was only asked for individuals who were reported to have had an illness serious enough to require medical treatment in the 30 days prior to data collection, who sought treatment (n = 5,771).
[45] ISCG, *Joint Multi-Sector Needs Assessment, "Light" MSNA Factsheet, June 2019, Refugee sites* (Cox's Bazar, 2019). Available here (accessed 10 November 2019).
[46] UNDP, *Report on Environmental Impact of Rohingya Influx, March 2018* (Dhaka, 2018). Available here (Accessed 8 December 2019).

2. **However, there remain outstanding gaps in access and coverage of basic goods and services, with many of these concerns appearing to affect refugee communities as a whole, regardless of who or where they are located:**

- While findings suggest that households have managed to avoid "poor" food consumption outcomes, far too many households continue to face "borderline" conditions **– 41% of households are calculated to have a "borderline" FCS**. Estimates of household dietary diversity based on the reported quantity of food groups consumed during the seven days prior to data collection also suggest that **the majority of refugee families face difficulties accessing a varied diet.** Roughly three-quarters of households are estimated to consume three food groups or fewer in any given day and approximately one-third are estimated to consume just two food groups or fewer in any given day.[47]

- **Nearly one-third (32%) of households reported not making improvements to their shelter in the six months prior to data collection, despite reporting the need to do so.**

- Forty per cent (40%) of households reported owning no functioning portable lamps.

- Only 44% of households reported having enough water to meet all basic needs at the time of data collection (including drinking, cooking, personal hygiene and other domestic purposes).[48]

- One-third of male respondents reported at least one area in their neighbourhood where male members feel unsafe[49] (top three areas: markets, 18%; latrines, 15%; shelter[50], 8%); 45% of female respondents reported at least one area in their neighbourhood where female members feel unsafe (top three areas: latrines, 25%; water points, 14%; markets, 12%).

- Eighty-one per cent (81%) of households that reported at least one member with an illness in the 30 days prior to data collection reported engaging in coping mechanisms in order to manage health-related issues.[51] **Sixty-six per cent (66%) of the households that reported engaging in any health-related coping mechanisms reported that they went into debt to pay for health expenditures.** Thirteen per cent (13%) reported engaging in home treatment due to a lack of money, while 12% reported seeking lower-quality care or medication due to a lack of money.

- Of individuals aged 6 to 59 months, 30% were reported as not being enrolled in any nutrition-feeding programme at the time of data collection.[52]

- Forty-four per cent (44%) of households reported facing challenges picking up aid distributions in the 30 days prior to data collection.[53]

- Over one-third (36%) of households reported insufficient shelter materials as an aspect perceived as not going well with assistance and services received in the six months prior to data collection, while 29% of households reported "insufficient access to income sources" and one quarter of households reported "insufficient or not diverse enough foods". "Insufficient camp infrastructure", reported by 22% of households, rounded out the top four most frequent responses to this question.[54]

3. **In some cases, gaps in coverage seem to disproportionately affect specific population groups or localities (see Annex D, as well as the J-MSNA Dashboard for camp-level findings for which notable geographic variation was observed):**

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[47] The standard module to calculate a Household Dietary Diversity Score (24-hour recall period) was not included in this questionnaire. These findings represent the proportion of households who reported consuming any food group at least six or seven times in the week prior to data collection.
[48] "Personal hygiene" includes activities such as washing and bathing; "other domestic purposes" includes activities such as cleaning house, floor, etc.
[49] Respondents were asked to respond on behalf of household members of their respective gender only (male, n = 1,669; female, n = 1,749). Respondents could choose more than one option.
[50] "Shelter" implies issues related to the shelter structure itself.
[51] This question was only asked of households that reported at least one member with an illness serious enough to require medical treatment in the 30 days prior to data collection (n = 2,724). Respondents could choose more than one option.
[52] This indicator is a proportion out of all individuals aged 6 to 59 months (n = 3,440). Nutrition-feeding programs encompass "BSFP" (blanket supplementary feeding programme); "TSFP" (targeted supplementary feeding programme); or "OTP" (outpatient therapeutic programme).
[53] The three most frequently reported barriers were: "language" (11%); "do not understand the jargon / terms" (10%); and "humanitarian workers are rude or disrespectful" (3%).
[54] Respondents could choose up to three options for this question.

- Camp-level findings on FCS **indicate wide variation in food consumption outcomes between different camps** – ranging from as low as 27% of households found to have an acceptable FCS to as high as 78% of households with an acceptable FCS in some areas.
- While only 12% of households reported using firewood (purchased or self-collected) as a cooking fuel source in the 30 days prior to data collection, the proportion of households reporting using either type of firewood was as high as 52% in some areas.
- While 51% of households reported that members faced any physical challenges accessing their shelter at the time of data collection, the proportion of households reporting facing any physical access challenges was as high as 81% in some areas.[55]

In many instances, these gaps appear to be experienced in greater proportions by households living in southern Teknaf camps and / or in more mixed conditions with host communities:

- One in ten refugee households reported paying money or goods to someone to live in their current shelter in the six months prior to data collection. **While most households reported not paying rent, those reporting the need to do so were concentrated in certain Teknaf camps**, ranging from 32% of households in Camp 26 to as high as 95% of households in Camp 25.
- Eleven per cent (11%) of refugee households reported needing to access surface water for drinking or cooking purposes either some days or almost every day during the last dry season.[56] **Most households reporting the need to do so were concentrated in six camps in southern Teknaf,** ranging from 31% of households in Camp 22 to as high as 58% of households in Camp 24.
- While approximately one in three households reported facing any challenges accessing markets in the 30 days prior to data collection, the proportion of households reporting having faced any challenges was as high as 54% in Camp 24 and Nayapara RC.

4. **In other cases, these gaps in coverage seem to highlight issues of particular concern related to gender norms, roles and dynamics, and their potential effect on access to services:**

- The proportion of children aged 6 – 11 reported as regularly attending a Temporary Learning Centre (TLC) at least four days per week in the 30 days prior to data collection was 89% for girls and 85% for boys[57]. **While education attendance rates dropped significantly for both adolescent boys and girls from age 12 onward, attendance rates decreased more rapidly for girls than for boys.** Fifty-four per cent (54%) of boys aged 12-14 were reported to be attending a TLC for at least four days per week during the 30 days prior to data collection compared with just 32% of girls.[58] Adolescent boys aged 12-18 were more likely to be reported as regularly attending madrassa than a TLC, while **attendance rates for girls aged 12-18 were similarly low regardless of the type of learning space.**
- **Of children aged 0 to 11 months at the time of data collection, 82% were reported to be born at home.**[59] When respondents were asked who in the household was the primary decision-maker[60] on the location of delivery of children, 53% reported that the decision was that of the husband of the pregnant woman and 14% reported that the decision was made by another relative of the pregnant woman. Only 13% of respondents reported that the decision was made by the pregnant woman herself, while 10% reported that it was a joint decision between the pregnant woman and someone else.

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[52] The physical access challenges reported by households including: "pathway too steep" (29% overall); "shelter located on hilltop" (22% overall); "pathway is damaged" (21% overall); and "drain on the way to shelter" (reported by 10% of households).

[56] Respondents were asked to recall frequencies from the previous dry season, as data collection occurred during the rainy season. The calendar period corresponding to "dry season" was not specifically defined but is commonly understood to include the months immediately preceding monsoon season (Roughly April – May 2019).

[54] These indicators present proportions out of all males or females aged 6 – 11 (males, n = 1,534; females, n = 1,398).

[58] These indicators present proportions out of all males or females aged 12 – 14 (males, n = 654; females, n = 644).

[59] This indicator presents a proportion out of all individuals 11 months of age or younger at the time of data collection (n = 520). Findings on location of delivery should be triangulated with health sector data, which may reflect increases in clinic births over recent months.

[60] The reported primary decision-maker within the household was consistent between male and female respondents; for example, 56% of male respondents and 51% of female respondents cited the husband of the pregnant woman as the primary decision-maker, and 12% of male respondents and 13% of female respondents cited the pregnant woman herself.

- Nine out of ten households would report to *Majhi*[61] as the first point-of-contact in the event of a serious security issue. A far smaller proportion of households would report to camp management authorities (4%), the army (3%) or UN / NGO staff (1%). When respondents were asked about their preferred point of contact in a hypothetical scenario in which they needed to refer a friend who was sexually assaulted to find care and support, the majority (83%) again reported *Majhi,* followed by 15% who reported legal aid providers, health facilities, or police and security.[62] **Although the *Majhi* system is male-dominated, female respondents were as likely as male respondents to report these individuals as the first point-of-contact** in the event of a serious security issue or in the event of referral for sexual and gender-based violence (SGBV). In the latter scenario, **female respondents were consistently less likely / less able to name other SGBV resources or mechanisms of support aside from *Majhi* when compared with male respondents.**
- Twenty per cent (20%) of households reported that *married* women (aged 18 and over) are not allowed to go to the local market to buy things, either alone or accompanied by someone else. Twenty-eight per cent (28%) of households reported that *unmarried* women (aged 18 and over) are not allowed to go to the local market to buy things, either alone or accompanied by someone else. Female respondents were more likely than male respondents to report that women (married or unmarried) are never permitted to go to the market (either accompanied or unaccompanied).[63]

5. **While findings point to generally high coverage of basic needs and services, refugees reported the need to seek out additional means beyond humanitarian assistance in order to cover their basic needs. Almost all households (95%) reported engaging in coping mechanisms due to a lack of income to meet basic needs in the 30 days prior to data collection. Levels of household-level coping extended beyond aid dependency and selling of items provided as assistance:**

- Forty-one per cent (41%) of households reported selling non-food items provided as assistance, while roughly one-third of households reported selling, sharing and / or exchanging food rations, both as coping strategies due to a lack of money to meet basic needs in the 30 days prior to data collection.
- **Nearly seven out of ten refugee households reported borrowing money or purchasing items on credit (i.e. incurring debt) in the 30 days prior to data collection**. Fifty-seven per cent (57%) of households reported incurring debt in order to meet basic food needs, while 55% of households reported needing to cover health expenses as a reason for incurring debt**.[64] The proportion of households reporting incurring new debts (borrowing money or purchasing items on credit) also appears to be increasing across different rounds of the MSNA**, from 35% in the July 2018 MSNA[65], to 45% in the June 2019 "Light" MSNA[66] and 69% during the current round.
- There are indications that the rate at which debt is being incurred outpaces the rate at which households are repaying debts or paying off credit, with only 37% reporting spending any money (> 0 BDT) on debt repayment in the 30 days prior to data collection.
- **Households also reported the need to engage in "crisis" or "emergency" coping mechanisms in order to meet basic needs.** These are coping mechanisms which may have long-term (potentially irreversible) negative impacts on individual safety and/or wellbeing. One in five households reported depending on community support as their only food or income source in the 30 days prior to data collection; 9% reported that they sold labour in advance; 7% reported that they reduced essential non-food expenditures (e.g. on education, health or clothing); between 1-2% of households reported accepting

[61] *Majhis* are selected by the Government of Bangladesh to support camp management authorities and act as the focal point for an unofficial "block" of households. *Majhis* were appointed without a formalised process. The system was introduced in registered camps after the 1991-92 influx and revived after the onset of the recent crisis [ACAPS NPM Analysis Hub, *Rohingya Crisis: Governance and community participation, thematic report, June 2018* (Cox's Bazar, 2018). Available here (accessed 1 December 2019).

[62] Respondents could choose multiple options for this question.

[63] This question was only asked of households with at least one female individual over the age of 12 (n = 3,391).

[64] Respondents could report multiple reasons for incurring debt.

[65] UNHCR and REACH, *Multi Sector Needs Assessment Report, Rohingya Refugee Response, July 2018* (Cox's Bazar, 2018). Available here (accessed 2 December 2019).

[66] ISCG, *Joint Multi-Sector Needs Assessment, "Light" MSNA Factsheet, June 2019, Refugee sites* (Cox's Bazar, 2019). Available here (accessed 10 November 2019).

high risk or illegal temporary jobs, begging, or withdrawing children from school. One per cent (1%) of households reported that adults (aged 18 and over) worked long hours (more than 43 hours) or in hazardous conditions in the 30 days prior to data collection.[67]

6. **Certain household diversity characteristics had a significant relationship with varied outcomes on indicators related to well-being. However, of the characteristics that were tested, findings were varied across sectors and indicators. No single household characteristic stood out as consistently producing worse-off outcomes across the board. These observations would require additional targeted research and exploration before serving as the basis for informing programmatic and strategic decisions:**

    - Household diversity characteristics linked to gender – female-headed households and households with no males aged 18-59 – were less likely to be found to have an "acceptable" FCS, with slightly higher proportions of households with either of these characteristics found to have a borderline or poor FCS. Households reflecting either or both of these demographic characteristics were less likely to have diets of adequate quantity and quality compared with households with a male head of household or at least one adult male aged 18-59.
    - Male-headed households were twice as likely to report at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection compared with female-headed households.[68]
    - As the highest level of education in the household increased by category (from "no formal education" to "some primary education" and "primary education and above"), so too did the proportion of households that reported at least one adult member (aged 18 and above) who engaged in self-reliance activities in the 30 days prior to data collection.
    - Over half (55%) of households with at least one male aged 18-59 reported that at least one adult member (aged 18 and above) engaged in self-reliance activities in the 30 days prior to data collection, compared with just 8% of households with no males aged 18-59 reporting that at least one adult member (aged 18 and above) engaged in self-reliance activities in the 30 days prior to data collection.
    - Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities as well as households with no males aged 18-59 were more likely to report having incurred new debts (borrowed money or purchased items on credit) in the 30 days prior to data collection.
    - Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities reported incurring health or medical expenses in the 30 days prior to data collection in significantly higher proportions than households reporting no members as requiring daily assistance.
    - Findings suggest that household education obtainment has an impact on outcomes related to household interaction with the humanitarian system (represented by households reporting challenges accessing aid distributions in the 30 days prior to data collection or reporting facing barriers to interacting with humanitarian workers). Other diversity characteristics were not strongly associated with outcomes on these two indicators.
    - Compared with other household social and demographic characteristics explored in this analysis, household dependency ratio was generally less likely to have a relationship with worse-off outcomes on key wellbeing indicators. The category of dependency ratio (low or high) did not lead to significantly different outcomes in households reporting at least one adult (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection, in food consumption or new debts incurred.[69]

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[67] Respondents could choose multiple options for this question.

[68] Engaging in self-reliance activities does not refer to formal engagement in employment but instead refers to stipend-generating activities. The majority of refugees that reported having worked to earn an income were participating in "cash-for-work" opportunities (paid volunteer work) offered by certain aid groups [(ISCG, *Light Mid-Term Joint Multi-Sector Needs Assessment (MSNA) Outputs (June 2019)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019)].

[69] This may be due to the categorical nature through which this characteristic was explored (high vs. low) rather than as a continuous variable, and warrants further exploration particularly given different findings from other needs assessments (namely, *REVA II).*

FINDINGS: VARIATIONS IN HOUSEHOLD OUTCOMES BASED ON HOUSEHOLD DIVERSITY CHARACTERISTICS

Overview

This section presents findings related to additional analysis of J-MSNA data, to assess how household social and demographic characteristics may lead to significantly different outcomes on a number of sectoral and cross-sectoral key indicators related to household wellbeing. In total, five key household social and demographic characteristics were selected and tested for correlation against a mix of 14 total indicators. These indicators were tied to a range of dimensions of well-being, including access to food, income generation, education, market access, health care, and general safety and security. For a complete list of which relationship tests were conducted for which indicators and household characteristics, please refer to Annex C.

The present analysis, which relies on chi-square tests for independence, serves to test binary associations between variables. This is a descriptive test that is meant to establish correlation between categorical variables, but it is not a model of the determinants of said relationship, nor does it provide answers on the likelihood of an outcome occurring. As a result, this study does not intend to establish causation between relationships. The findings in this section are not intended to inform service provision or assess current access to services. Rather, they serve to provide a more nuanced understanding of the diversity of needs between different households, as well as the household profiles which may be more vulnerable to facing deprivations in key indicators and may thus be worth researching in more depth.

Description of household characteristics

This sub-section outlines the five household demographic and social characteristics selected for study in the present analysis, background on the diversity of household needs for each of these characteristics and the rationale for further study.

Gender of head of household

Figure 1: % of households with a female head of household

16%
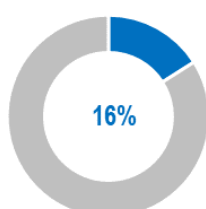
During the present assessment, 16% of households were determined to be female-headed. Most assessments conducted thus far have found female-headed households to constitute roughly one-fourth of all refugee households.[70] The proportion of female-headed households may be lower than the rates reported in other assessments due to the specific definition of "head of household" that was provided to respondents in this J-MSNA, clarifying that the head of household is "the individual who makes decisions on behalf of the entire household" and was unrelated to the household composition described on any registration or assistance cards.

Female-headed households are characterized as being some of the most vulnerable and marginalized within Rohingya refugee communities.[71] *REVA II* findings showed that female-headed households were one of three population groups (in addition to small-size households and households with high dependency ratios) that were

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[70] For example, the REVA II survey found that 27% of households were female-headed. The proportion of households that were found to be female-headed during the "Light" MSNA was 26%.
[71] Strategic Executive Group, *2019 Joint Response Plan for Rohingya Humanitarian Crisis (January – December)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).

likely to have an inadequate diet.[72,73] Even prior to displacement, female-headed households in Rohingya communities in Myanmar were one of the demographics considered to be most vulnerable to food insecurity.[74] Female heads of household are often more vulnerable to sexual exploitation, trafficking and other forms of violence and exploitation.[75] They may also face more difficulties accessing aid distribution sites and in reinforcing or rebuilding their shelters, leading to additional protection concerns for themselves and their families.[76]

In acknowledging that households with female heads may be more vulnerable to facing deprivations in a number of dimensions, the present analysis compares households in this demographic to male-headed households, under the broad hypothesis that the gender of the head of household may be correlated with varying outcomes on key J-MSNA indicators.

Highest education levels in the household

Figure 2: % of households by highest level of education completed by anyone in the household
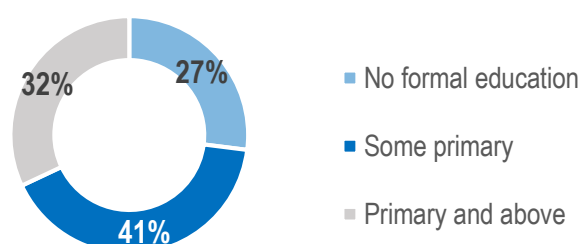
Findings regarding highest education levels completed in the household show that households were distributed roughly equally between the three categories: those that completed no formal education (which includes households that reported having attended madrassa only); some primary education (including Kindergarten through Elementary Standard level 4); and primary and above (these being any households reporting having completed Elementary Standard level 5 through tertiary levels of education).

Low education obtainment for Rohingya refugees is not a new phenomenon arising out of displacement but instead reflects a continuation of conditions that were symptomatic of life back in Myanmar.[77] Lack of education means that refugee households have fewer skills development opportunities that may enable them to be more self-reliant. Lower education levels may perpetuate cycles of poverty and increase the likelihood that households engage in potentially harmful coping mechanisms in order to meet their needs.[78] Education levels may also have important implications in the ways in which humanitarian assistance is effectively delivered to affected populations. A large proportion of the Rohingya population aged 15 and above that arrived during or after the August 2017 influx were illiterate,[79] which may explain why most refugees prefer to receive key information face-to-face.[80] A BBC Media Action survey conducted in July 2018 also found that the largest barrier for Rohingya people to giving feedback or making complaints is not knowing how to, or feeling that they did not have the skills to use these more formal mechanisms.[81]

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[72] WFP, *Refugee Influx Emergency Vulnerability Assessment (REVA II) 2018*, *Cox's Bazar, Bangladesh* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).

[73] ISCG, *Review of Gender Mainstreaming in Rohingya Refugee Response in Cox's Bazar, Bangladesh, March – August 2018* (Cox's Bazar, 2018). Available here (accessed 12 December 2019).

[74] WFP, *Food Security Assessment in Northern Rakhine State, Myanmar* (Cox's Bazar, 2011). Available here (accessed 3 December 2019).

[75] UNHCR, *Bangladesh: Analysis of Gaps in the Protection of Rohingya Refugees* (Cox's Bazar, 2007). Available here (accessed 12 December 2019);

[76] NPM and ACAPS Analysis Hub, *Rohingya crisis: Lessons learned about the impact of cyclones, Thematic report – April 2018* (Cox's Bazar, 2018). Available here (accessed 12 December 2019).

[77] PLAN International and REACH, *Joint Education Sector Needs Assessment, North Rakhine State, Myanmar* (Yangon, 2016). Available here (accessed 16 November 2019).

[78] Strategic Executive Group, *2019 Joint Response Plan for Rohingya Humanitarian Crisis (January – December)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).

[79] Bhatia et. al. (2018). "The Rohingya in Cox's Bazar: When the stateless seek refuge", *Health and Human Rights Journal,* 20(2): 105 – 122.

[80] BBC Media Action, *How Effective is Communication in the Rohingya Refugee Response? An evaluation of the common service of community engagement and accountability* (Cox's Bazar, 2018). Available here (accessed 12 December 2019).

[81] Ibid.

Against this backdrop, J-MSNA data were analysed based on the three aforementioned education categories (no formal education, some primary education, primary and above) under the hypothesis that household education levels would have a correlation to different outcomes on key wellbeing-related indicators.

Household dependency ratio

The dependency ratio of a household was calculated as the ratio of individuals aged 0 – 14 or 65+ to individuals aged 15 – 64, assumed to be of productive working age. *REVA II* findings from 2018 indicate that households with high dependency ratios are significantly more vulnerable to facing poverty and lack of access to food and other essential services, while households with lower dependency ratios are more likely to be better off economically and be less dependent on humanitarian assistance.[82]

For the purposes of the present analysis, households were separated into two categories – those having low calculated dependency ratios (<1.5) (69% of households overall) versus those having high calculated dependency ratios (≥ 1.5) (31% of households overall). The broad hypothesis informing exploration of this demographic characteristic in the present analysis, in line with *REVA II,* was that households with high dependency ratios could have a correlation with less favourable outcomes in key well-being related indicators.

Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities

Figure 3: Presence of individuals (aged 5 and above) reported as requiring assistance to complete daily activities[83]

% of **households** reporting **at least one member** (aged 5 and above) as requiring assistance to complete daily activities

% of **individuals** (aged 5 and above) reported as requiring assistance to complete daily activities

% of **individuals** (aged 60 and above) reported as requiring assistance to complete daily activities
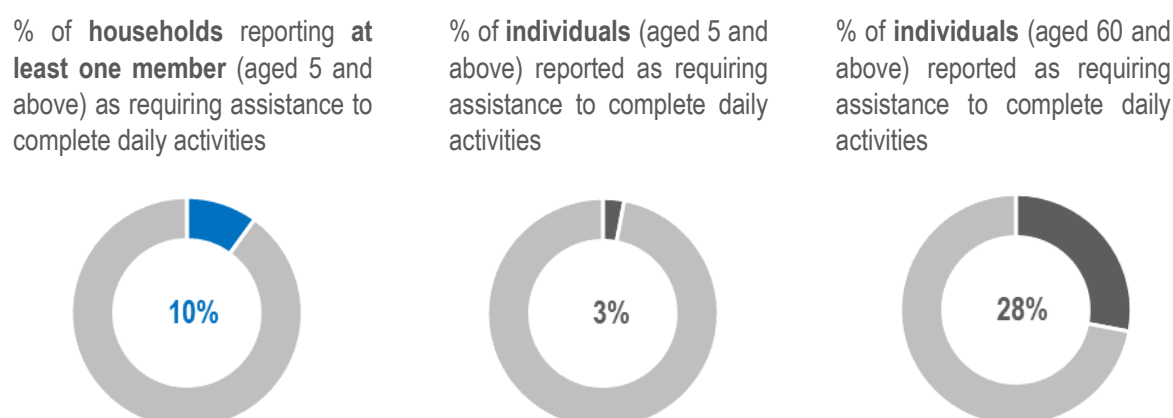
J-MSNA findings show that one in ten refugee households reported at least one member (aged 5 and above) as requiring assistance to complete daily activities (such as eating, dressing, bathing or going to the toilet). This indicator serves as a loose proxy for disability but is not a comprehensive analysis given that questions on household disability prevalence were not asked according to Washington Group Short Set of Questions on Disability.

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[82] WFP, *Refugee Influx Emergency Vulnerability Assessment (REVA II) 2018, Cox's Bazar, Bangladesh* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).

[83] The indicator "% of individuals (aged 5 and above) reported as requiring assistance to complete daily activities" is a proportion out of all individuals (male and female) aged 5 and above (n = 14,089). The indicator "% of individuals (aged 60 and above) reported as requiring assistance to complete daily activities" is a proportion out of all individuals aged 60 and above (n = 648).

Most individuals reported to require daily assistance were elderly, illustrated by the 28% of individuals aged 60 and above who were reported as requiring assistance to complete daily activities, compared with roughly 3% of individuals aged 5-59.[84,85] Of those individuals (aged 5 and above) reported as requiring assistance to complete daily activities, 21% were reported to require daily assistance due to long-term pain and 20% were reported as having a physical disability; 7% were reported to have a mental health concern.[86]

People with disabilities living in refugee communities may face barriers in accessing essential facilities such as latrines, health centres, aid distribution sites and shelters, often due to lack of adapted facilities to meet their needs.[87] Roads and walkways are often not adequate enough to enable safe passage by people with physical disabilities, who struggle to move about in rain-soaked and hilly terrain where many camps are currently situated.[88] Access to mental health and psychiatric care, and safe spaces for individuals with mental health concerns in camps is limited, with few qualified professionals available to deal with the scale of community needs in this area.[89] Given that individuals with disabilities lack the same degrees of autonomy and may be restricted in movement outside of the home and / or stigmatized for their condition, they may face exclusion from important community decision-making processes or may not be adequately consulted for feedback in service provision and planning.[90] The *REVA II* household assessment (2018) found that households with disabled members were among the most vulnerable in refugee populations.[91]

The present analysis compared outcomes on a number of well-being indicators for households that reported at least one member (aged 5 and above) as requiring assistance to complete daily activities (10% of households overall), compared to the 90% of households who did not report any members as requiring assistance.

Households reporting no males aged 18 – 59 [92]

This analysis looks at households who had no adult males aged 18-59, encompassing households that were composed of only women as well as households that only had boys aged 0 – 17 or elderly men aged 60 and over. Overall, 14% of households were determined to have no males within the defined age range.

Gender composition of households may have important implications for access to essential services, linked to risks and fears associated with women and girls' movement outside of their shelters, as well as cultural restrictions linked to *purdah*.[93] Particularly in absence of an adult male, Rohingya women and girls often face violence and intimidation while traveling through camps, including on the way to pick up aid distributions. Women may be at particular risk of forced and child marriage, and there are reports of trafficking networks in camps that exploit

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84 Data on individual disability were collected by proxies (from respondents on behalf of all household members), and not directly from household members themselves. Respondents were asked to report on each individual in their household who required another person to help him / her complete daily activities. These indicators present proportions out of the individuals in each of the specified age groups (5 – 17, n = 5,870; 18-59, n = 7,571; 60 and above, n = 648).

85 Disability prevalence may likely be underreported in refugee households, reportedly due to stigma attached to discussing and acknowledging disability in Rohingya communities – particularly psychological disability (REACH, Rohingya refugees with disabilities: Prevalence, meaningful access, and notes on measurement (Cox's Bazar, 2019). Available here (accessed 12 December 2019). The May 2019 WASH household survey, which inquired about household disability prevalence based on Washington Group Short Set of Questions on Disability, found that 14% of households had at least one member with a disability.

86 These reasons for requiring daily assistance are not based on an actual medical diagnosis but are instead reported by the survey respondent on behalf of these individuals. This question was only asked for all individuals (aged 5 and above) reported as requiring assistance to complete daily activities (n = 393). Respondents could choose more than one option.

87 ACAPS and NPM Analysis HUB, *Rohingya Influx Overview – April 2019* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).

88 Human Rights Watch, *Bangladesh: Rohingya Refugees with Disabilities,* 24 September 2018 (Cox's Bazar, 2018). Available here (Accessed 12 December 2019).

89 World Health Organization (WHO), *Bangladesh: Rohingya Refugee Crisis 2017-2018, Public Health Situation Analysis,* (Cox's Bazar, 2018). Available here (accessed 13 December 2019);

90 Aktion Deutschland Hilft, Centre for Disability in Development and Arbeiter-Samariter-Bund, *Rohingya Refugee Crisis in Bangladesh: Age and Disability Inclusion, Rapid Assessment Report, December 2017.* Available here (accessed 17 December 2019); ISCG, *Gender in Humanitarian Action Brief No. 4* (Cox's Bazar, 2018). Available here (accessed 17 December 2019).

91 WFP, *Refugee Influx Emergency Vulnerability Assessment (REVA II) 2018, Cox's Bazar, Bangladesh* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).

92 While there is likely to be significant overlap between households headed by females and households with no males aged 18-59, these two categories are treated separately in the analysis due to specific hypotheses and assumptions from in-country Sectors. For example, a household headed by 40-year-old female with an adult 20-year-old son may have different access to stipend-earning activities, shelter-related labour, and "protective" gender-based factors as compared to a female-headed household with no males in that age bracket.
households with no adult males aged 18-59 was a specific (but adapted) request from Shelter and Protection teams - although Shelter's hypotheses were specifically related to households with no *able-bodied* men ages 15-59,

93 *Purdah* is a practice by which there is a separation of sexes and seclusion of women from public observation.

women and girls for sex work.[94] At the same time, conditions in camps are also influencing many women to move outside of the home and seek stipend-earning opportunities, which might put them at additional risk of confronting violence and exploitation.[95]

Assessment findings highlight the fact that stipend-earning opportunities for women are still minimal. A low proportion of Rohingya women were reported to have engaged in self-reliance activities in the 30 days prior to data collection during the present J-MSNA – only 2% of all females aged 5 and above – compared with 27% of all males aged 5 and above.[96] The absence of male adults of productive age may have implications for household economic vulnerability, given that even small injections of cash into households have been found to have an immediate effect in pulling Rohingya households out of vulnerability.[97]

Household characteristics compared to outcomes on key indicators

This sub-section presents key messages and notable findings from the statistical relationship testing of the household demographic and social characteristics outlined in the previous sub-section, compared against outcomes on key indicators related to household wellbeing. Relationships were determined to be statistically significant and are reported on as such if the *p*-value[98] was low (typically ≤ 0.05). Error bars on all graphs reflect the 95% confidence interval.

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1. **FOOD CONSUMPTION:** **Exploration of household diversity characteristics against outcomes on food consumption show that household gender composition and structure is strongly associated with vulnerability to food insecurity. Female-headed households, as well as households with no males aged 18-59 were less likely to have diets found to be of adequate quantity and quality when compared with households with a male head of household, or at least one adult male aged 18-59.**

- *Indicator: Household food consumption score (FCS)[99]*

J-MSNA findings show that 54% of refugee households have a calculated FCS of "acceptable". Forty-one per cent (41%) of households have a calculated FCS of "borderline". Four per cent (4%) have a calculated FCS of "poor".

Results from this analysis show correlation between food consumption and gender of head of household, as well as households with no males aged 18 – 59. On the other hand, household dependency ratio, or whether households reported at least one member (aged 5 and above) as requiring assistance to complete daily activities had no significant associations with FCS outcomes.

a. *Gender of head of household*

Female-headed households in this assessment were less likely than male-headed households to have an "acceptable" calculated FCS, at the same time that they were more likely to fall within "borderline" food consumption parameters (see Figure 4). This indicates that female-headed households are less likely to have diets of adequate quantity and quality when compared with male-headed households and are more vulnerable to being food insecure.

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[94] Simonti, S. (2018), "Gendered nature of safety – Rohingya women", 8 May. Available here (accessed 10 December 2019); Oxfam, *One year on: Time to put women and girls at the heart of the Rohingya response – September 2018* (Cox's Bazar, 2018). Available here (accessed 13 December 2019).

[95] Ibid.

[96] This indicator is a proportion out of all individuals of either gender aged 5 and above (females, n = 6,991; males, n = 7,097).

[97] WFP, *Refugee Influx Emergency Vulnerability Assessment (REVA II) 2018, Cox's Bazar, Bangladesh* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).

[98] The *p*-value reflects the probability that any correlation between two variables could be due to random chance.

[99] The Food Consumption Score is a composite score based on: (1) dietary diversity; (2) food frequency; and (3) relative nutritional importance of nine weighted food groups. The FCS is recorded from a seven-day recall period. In Bangladesh, thresholds for FCS classifications set by WFP are as follows: ≥ 42 Acceptable; 28 - 41 Borderline; ≤ 27 Poor.

Figure 4: % of households by food consumption score, by gender of head of household[100]

Acceptable	Borderline	Poor
55% 48%	40% 44%	5% 8%

■ Male HoH ■ Female HoH
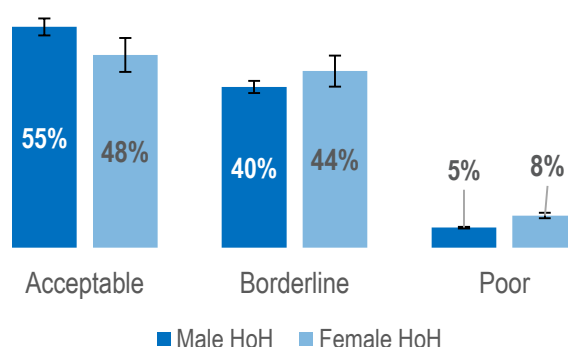
b. Households with no males aged 18-59

Households with no males aged 18-59 were more likely to have a "borderline" FCS and less likely to have an "acceptable" FCS than households with at least one male in the defined age range (see Figure 5). This indicates that households with no adult males of productive working age are also more vulnerable to being food insecure.[101]

Figure 5: % of households by food consumption score, by whether or not the household had at least one male aged 18-59[102]

Acceptable	Borderline	Poor
55% 45%	40% 48%	5% 7%

■ At least one male aged 18-59 ■ No males aged 18-59

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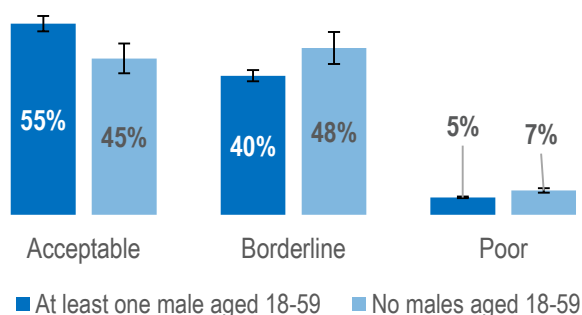
2. SELF-RELIANCE: Household engagement in basic stipend-earning activities appeared to have a strong correlation with gender composition and structure of households. Far smaller proportions of female-headed households and households with no males aged 18-59 reported at least one member that engaged in self-reliance activities in the 30 days prior to data collection. Households with higher education obtainment appeared to have greater engagement in stipend-generating activities.

- *Indicators: Households reporting at least one member (adult aged 18 and over and / or child aged 17 and below) who engaged in self-reliance activities in the 30 days prior to data collection*

Half of refugee households (49%) reported that at least one adult member (aged 18 and above) engaged in self-reliance activities in the 30 days prior to data collection. Five per cent (5%) reported that at least one child member (aged 17 and below) engaged in self-reliance activities in the 30 days prior to data collection. Of households reporting "labour" as a main source of income at the time of data collection, the most frequently reported sources of stipends were: unskilled UN / NGO volunteer (62%); agricultural / casual labour (14%); domestic work (12%); skilled UN / NGO volunteer (12%); and other unskilled wage labour (e.g. construction) (11%).[103]

[100] *p*-value =0.002
[101] *p*-value <0.001
[102] *p*-value <0.001
[103] This question was only asked of households indicating "labour" or "employment" as an income source (n = 1,792). Respondents could choose multiple options.

The present analysis found that there was generally a significant association between whether households reported at least one adult member (aged 18 and above) and / or at least one child member (aged 17 and below) that engaged in self-reliance activities in the 30 days prior to data collection and the **gender of head of household, the highest level of education obtained in the household, and households with no males aged 18 – 59.** On the other hand, no significant correlation was observed between **household dependency ratio** and whether or not the household reported at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection. There was, however, an association between household dependency ratio and whether or not a child (aged 17 and below) in the household was reported to have engaged in self-reliance activities in the 30 days prior to data collection, although variation in outcomes was minimal.

a.   *Gender of head of household*

Overall, 53% of male-headed households reported at least one adult member (aged 18 and above) who engaged in self-reliance activities in the 30 days prior to data collection, compared with just 25% of female-headed households. That is, male-headed households were twice as likely than female-headed households to report at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection (see Figure 6 below). While there was an association between the gender of the head of household and whether or not the household reported children that engaged in self-reliance activities in the 30 days prior to data collection, the difference between male-headed and female-headed households was minimal.[104]

Figure 6: % of households that reported at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection, by gender of head of household (HoH)[105]
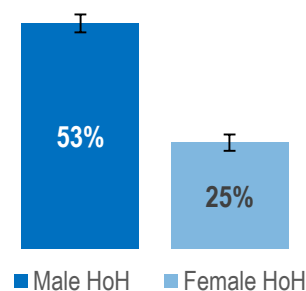

b.   *Highest level of education obtained in the household*

As household education levels increased by category (from no formal education to some primary education and primary education and above), so too did the proportion of households that reported at least one adult member (aged 18 and above) who engaged in self-reliance activities in the 30 days prior to data collection. The proportion of households in the highest education category (primary and above) reporting at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection was 10 percentage points higher than in households with no formal education, with households in the "some primary" education category falling in the middle between these two categories (see Figure 7 below). The highest level of education obtained in the household was not correlated with whether or not a child (aged 17 and below) in the household was reported to have engaged in self-reliance activities in the 30 days prior to data collection.

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[104] *p*-value =0.013.
[105] *p*-value <0.001

Figure 7: % of households that reported at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection, by highest level of education obtained in the household[106]

- No formal education
- Some primary
- Primary and above
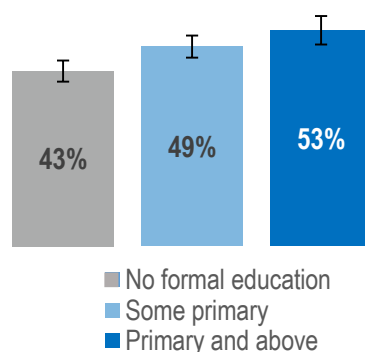
c. Household dependency ratio

Contrary to the initial hypothesis, slightly higher proportions of households with a low dependency ratio reported at least one child (aged 17 and below) who engaged in self-reliance activities in the 30 days prior to data collection compared with households with a high dependency ratio (5.3% of households with a low dependency ratio compared to 2.9% of households with a high dependency ratio).[107] As high dependency ratios may be driven by the presence of either children (aged 17 and below) or elderly individuals (aged 60+), additional analysis would be required to understand the relationship between the presence of working children and the age-demographics of the household.

d. Households with no males aged 18-59

The variation in outcomes on this indicator is substantial when looking at gender and age composition of household members. In households with at least one male aged 18-59, 55% reported that at least one adult member (aged 18 and above) engaged in self-reliance activities in the 30 days prior to data collection. This is compared with just 8% of households with no males aged 18-59 that reported at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection (see Figure 8).

Figure 8: % of households that reported at least one adult member (aged 18 and above) that engaged in self-reliance activities in the 30 days prior to data collection, by whether or not the household had at least one male aged 18-59[108]

- No males aged 18-59
- At least one male aged 18-59
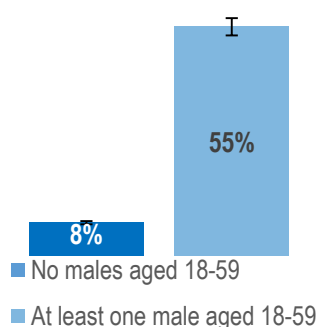
[106] *p*-value <0.001
[107] *p*-value =0.005
[108] *p*-value: <0.001

3. **COPING MECHANISMS:** Households with no adult males of productive age reported engaging in certain coping mechanisms – including sales of food rations or other assistance items, as well as incurring new debts – in greater proportions than households with at least one adult male of productive age. Whether or not the household reported at least one member (aged 5 and above) as requiring assistance to complete daily activities had a significant association with a higher likelihood of incurring new debts in the 30 days prior to data collection, as well as a higher likelihood of having paid for health or medical expenses in the 30 days prior to data collection. The gender of the head of household (whether male or female) had no strong association with whether households reported either incurring new debts or paying for health or medical expenses in the 30 days prior to data collection

- *Indicator: Selling and / or exchanging food rations, non-food items provided as assistance and / or other household goods*

In this analysis, three coping mechanisms reported by households due to a lack of money to meet basic needs in the 30 days prior to data collection – (1) households reporting selling, sharing and exchanging food rations; (2) households reporting selling non-food items that were provided as assistance; or (3) households reporting selling household goods (e.g. radio, furniture, clothes) – were tested against households with no males aged 18-59 for correlation. Findings show that households with no males aged 18-59 were more likely to report having engaged in any of these coping mechanisms in the 30 days prior to data collection compared with households with at least one male in the defined age range.

Figure 9: % of households reporting selling and / or exchanging food rations, non-food items provided as assistance and / or other household goods as a coping mechanism due to lack of money to meet basic needs in the 30 days prior to data collection, by whether or not the household had at least one male aged 18-59[109]
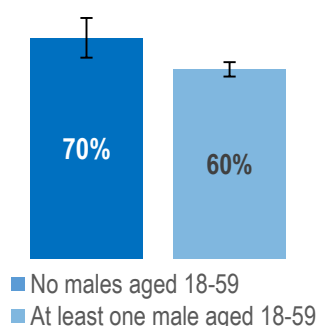
- No males aged 18-59
- At least one male aged 18-59

- *Indicator: Households reporting borrowing money and / or purchasing items on credit (i.e. incurring debts) in the 30 days prior to data collection*

J-MSNA findings show that 69% of households either borrowed money or purchased items on credit (i.e. incurred new debts) in the 30 days prior to data collection. Most households reporting that they incurred debt in the 30 days prior to data collection reported doing so in order to meet immediate food and health needs. There are also indications that the rate at which debt is being incurred outpaces the rate at which households are repaying debts or paying off credit, with only 37% of households reporting spending any money (> 0 BDT) on debt repayment in the 30 days prior to data collection. These findings are in line with *REVA II,* which found that most refugee households who had incurred new debts had yet to repay them. *REVA II* also identified households with outstanding debts as having higher economic vulnerability, given the absence of stable income opportunities.[110] Even prior to displacement, debt burdens for Rohingya families were reportedly high. A 2011 WFP Food Security

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[109] *p*-value: <0.001
[110] WFP, *Refugee Influx Emergency Vulnerability Assessment (REVA II) 2018, Cox's Bazar, Bangladesh* (Cox's Bazar, 2019). Available here (accessed 19 November 2019).

Assessment of predominantly Rohingya communities in Northern Rakhine State found that four in every five households had outstanding debts.[111]

The results of the current analysis showed that the gender of head of household had no significant associations with whether or not a household reported incurring debt in the 30 days prior to data collection, whereas the investigation did show significant correlation between new debts incurred among households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities, households with a high dependency ratio, and households with no males aged 18-59.

  a. *Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities*

Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities were more likely to report having incurred new debts in the 30 days prior to data collection when compared with households that did not report any members (aged 5 and above) as requiring assistance to complete daily activities, by a difference of 8 percentage points.

Figure 10: % of households reporting borrowing money and / or purchasing items on credit (i.e. incurring debts) in the 30 days prior to data collection, by whether or not the household reported at least one member (aged 5 and above) as requiring assistance to complete daily activities[112]

■ 1+ members requiring daily assistance
■ No members requiring daily assistance
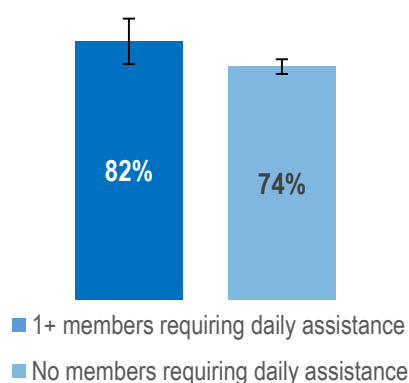
  b. *Households with no males aged 18 – 59*

Findings from this analysis show that there may be a slight relationship (*p*-value 0.062) between new debts incurred and whether households reported having or not having males aged 18-59. Households with no adult males in the defined age range were slightly less likely (71% of households in this subset) than households with at least one male aged 18-59 (76% of households in this subset) to report incurring new debts in the 30 days prior to data collection. Coupled with further analysis and triangulation with the most commonly reported reasons for incurring new debts, this may suggest that households with adult males are more likely to take on new debts – either due to higher access to sources of credit or a higher propensity for taking on loans – primarily to maintain the health and food consumption of household members.

• *Indicator: Households reporting any health or medical expenses in the 30 days prior to data collection*

Of the households that reported at least one individual as having an illness serious enough to require medical treatment in the 30 days prior to data collection in this assessment, 57% reported paying for care as a coping mechanism for addressing health-related issues.[113] In a separate question, households were asked to estimate the amount of money spent on medical expenses, health care and / or medicine in the 30 days prior to data collection. The below Table 1 shows a breakdown of these expenditure ranges (in Bangladeshi Taka).

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[111] WFP, *Food Security Assessment in Northern Rakhine State, Myanmar* (Cox's Bazar, 2011). Available here (accessed 3 December 2019).
[112] *p*-value =0.003
[113] This question was only asked of households reporting at least one individual as having an illness serious enough to require medical treatment in the 30 days prior to data collection (n = 5,967).

Table 1: % of households reporting spending money on medical expenses, health care and / or medicine in the 30 days prior to data collection, by expenditure amount (Bangladeshi Taka, BDT)

0 BDT	28%
1 – 500 BDT	20%
501 – 1,000 BDT	21%
1,001 – 2,000 BDT	17%
2,001 – 5,000 BDT	10%
>5000 BDT	5%

Overall, 72% of households reported spending money on health-related items and services in the 30 days prior to data collection. A composite indicator for whether households either: (1) reported spending money on medical treatment as a coping mechanism for addressing health-related issues in the 30 days prior to data collection; OR (2) reported spending greater than 0 BDT on medical expenses, health care and / or medicine in the 30 days prior to data collection was created and tested against household social and demographic characteristics, to see whether certain characteristics were correlated with a lower or higher likelihood that the household reported incurring any health or medical expenses.

Results from this analysis show that household health or medical expenses had no strong association to gender of head of household. On the other hand, there was a strong correlation with households that reported at least one member (aged 5 and above) as requiring assistance to complete daily activities, and whether the household reported incurring any health or medical expenses in the 30 days preceding data collection.

The proportion of households reporting incurring health or medical expenses in the 30 days prior to data collection was roughly 20 percentage points higher for households with at least one member (aged 5 and above) as requiring assistance to complete daily activities compared with those households reporting no members as requiring assistance to complete daily activities (see Figure 11 below). This would suggest that households are often incurring additional expenses in order to manage the care for these individuals.

Figure 11: % of households reporting any health or medical expenses in the 30 days prior to data collection, compared with whether or not households reported any members (aged 5 and above) as requiring assistance to complete daily activities[114]

- ■ 1+ members requiring daily assistance
- ■ No members requiring daily assistance
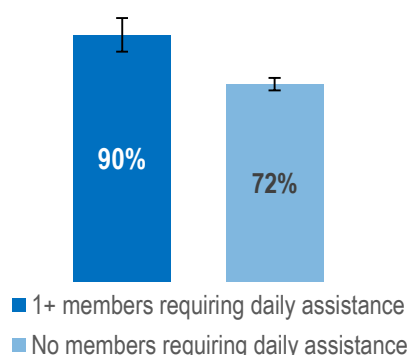
a. Additional relationships tested against health and medical expenses

Of individuals reported as having an illness serious enough to require medical treatment in the 30 days prior to data collection during this assessment, 97% were reported to have sought treatment for their illness.[115] The majority of those seeking treatment reported having accessed an NGO clinic (79%), while 29% reported accessing

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[114] *p*-value <0.001
[115] This indicator is a proportion of all individuals who were reported to have had an illness serious enough to require medical treatment in the 30 days prior to data collection (n = 5,967).

treatment at a private clinic, 22% at a pharmacy or drug shop in the market and 8% at a government clinic.[116] Treatment for refugees obtained at NGO or government clinics is typically available free of cost, whereas treatment obtained at a private clinic or pharmacy / drug shop in the market typically requires payment. Treatment locations were broken up into two categories – one for NGO clinics OR government clinics (assumed to be unpaid) – and one for pharmacies or private clinics (assumed to be paid). These two categories were tested between households that reported any medical or health expenses in the 30 days prior to data collection to assess whether the assumptions held true regarding the types of medical care associated with incurred costs. This analysis showed that **there was a significant correlation between whether or not households reported any health or medical expenses, and where they accessed treatment (paid or unpaid locations) –** households that reported individuals as exclusively seeking treatment at an NGO or government clinic were far less likely to report having incurred any health or medical expenses in the 30 days prior to data collection, compared with households that reported any individuals to have sought treatment at a private clinic or pharmacy / drug shop in the market.[117]

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4. **BARRIERS IN ACCESSING ESSENTIAL GOODS, SERVICES AND FACILITIES: With the exception of the highest education level in the household, the diversity characteristics under present study were not strongly correlated to whether households reported barriers accessing aid distributions in the 30 days prior to data collection, nor to interacting with aid workers. There was a minor variation in outcomes regarding households reporting barriers accessing markets, and the gender of head of household, but no strong association for any other household characteristics. No significant variation in outcomes was observed between the diversity characteristics in question and whether or not households reporting safety concerns as a barrier to accessing markets, health or education facilities in the 30 days prior to data collection.**

- *Indicator: Households reporting barriers to accessing aid distributions in the 30 days prior to data collection and / or to interacting with aid workers*

Households in this assessment were asked whether: (1) anyone in the household had faced challenges picking up aid distributions in the 30 days prior to data collection; and (2) whether anyone in the household faced any barriers to interacting with humanitarian workers. Overall, 44% of households reported facing any challenges to picking up aid distributions in the 30 days prior to data collection. The three most frequently reported challenges were long waiting times (reported by 29% of households), distribution points being too far (21% of households) and needing to pay to transport items from distribution points to the home (16%).[118] Most households (78%) reported not facing any barriers to interacting with humanitarian workers. However, the most frequently reported barriers were language (11%); do not understand the terms / jargon (10%); and humanitarian workers are rude or disrespectful (3%).[119]

Results from the present analysis demonstrated that **gender of head of household and whether or not the household reported at least one member (aged 5 and above) as requiring assistance to complete daily activities were generally not correlated with outcomes on either of these two indicators. On the other hand, further investigation did yield a significant relationship between outcomes on these two indicators and the highest level of education obtained in the households, as well as whether or not the household reported any males aged 18-59.**

a. *Highest level of education obtained in the household*

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[116] This question was only asked for individuals reported as having an illness serious enough to require medical treatment in the 30 days prior to data collection, who sought treatment (n = 5,771). Respondents could choose multiple treatment locations.
[117] *p*-value <0.001
[118] Households could choose multiple options for this question.
[119] Households could choose multiple options for this question.

Figure 12: % of households reporting challenges accessing aid distributions in the 30 days prior to data collection, by highest level of education obtained in the household[120]
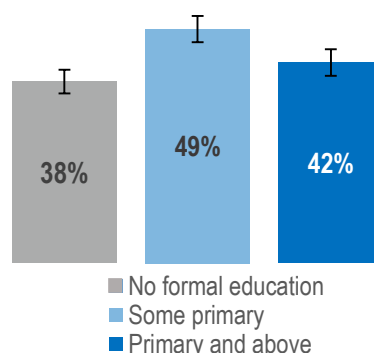
Households that reported that no members had obtained formal education were least likely to report facing any challenges accessing aid distributions in the 30 days prior to data collection. Households falling within the intermediate category of education level (some but incomplete primary education) were most likely to report any challenges accessing aid distributions in the 30 days prior to data collection.

A slightly higher proportion of households with some primary education as the highest level of education completed in the household reported facing any barriers to interacting with humanitarian workers when compared with households in other categories. Households in the highest educational obtainment category were only slightly less likely than households in other education categories to report facing any barriers to interacting with humanitarian workers (see Figure 13 below).

Figure 13: % of households reporting facing barriers to interacting with humanitarian workers, by highest level of education obtained in the household[121]
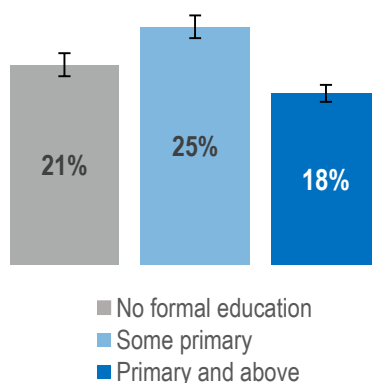
    b.   *Households with no males aged 18-59*

A slightly higher proportion of households with no males aged 18-59 reported facing challenges accessing aid distributions in the 30 days prior to data collection, compared to households with at least one male in the defined age range. Forty-nine per cent (49%) of households with no males aged 18-59 reported challenges accessing aid distributions in the 30 days prior to data collection compared with just 43% of households with at least one male in the defined age range.[122] On the other hand, this household demographic characteristic was not strongly correlated to whether households reported facing any barriers in interacting with humanitarian workers.

- *Indicator: Households reporting barriers accessing markets in the 30 days prior to data collection*

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[120] *p*-value <0.001
[121] *p*-value <0.001
[122] *p*-value =0.022

Access to markets has multi-faceted implications for overall household well-being, as sites through which key items and goods for household food consumption may be accessed and where medications and other health-related goods can be purchased.

Households were asked whether they had faced any significant barriers to accessing markets in the 30 days prior to data collection. Most households (70%) did not report facing any barriers. The most frequently reported barrier was that markets are too far (reported by 18% of households), which is similar to the proportion of households – 16% - reporting that it takes more than 30 minutes to travel to the closest market by foot. The second-most frequently reported barrier to accessing markets was "bad roads due to traffic and / or rough weather" reported by 8% of households, followed by transport being too expensive (8%). Five per cent (5%) of respondents reported safety or security concerns on the way to the market as a barrier to accessing markets.[123]

Results from the analysis of reported barriers to markets against the gender of head of household were slightly significant, with a difference in outcomes of 5%. Thirty-two per cent (32%) of female-headed households reported facing barriers accessing markets in the 30 days prior to data collection, which was only slightly higher than the proportion of male-headed households that reported facing any barriers – 27%.[124] **Other social and demographic characteristics revealed no significant associations on whether households reported barriers to accessing markets in the 30 days prior to data collection, including households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities, or with households with no males aged 18-59.**

- *Indicator: Households reporting safety concerns as a barrier to accessing markets, health, or education facilities[125]*

A composite indicator was created to represent any households that reported safety concerns as a barrier to accessing three key facilities – health centres, markets, or education centres – during the present assessment, derived from responses to a number of questions asked throughout the survey. Overall, 16% of households reported safety concerns as a barrier to accessing any of these three key facilities during the interview.

There was no correlation between the gender of the head of household and whether or not households reported safety concerns as a barrier to accessing markets, health, or education facilities.

Households with no males aged 18-59 were less likely to report safety concerns as a barrier to accessing these key facilities than households with at least one adult male aged 18-59 (see Figure 14 below), although the difference was minimal. These findings should not imply that females are less likely to feel unsafe accessing key facilities but may likely be tied to trends in which female respondents were generally less likely to report complaints, grievances or safety concerns during the J-MSNA (the majority of interviews conducted with households with no males aged 18-59 in this assessment were conducted with female respondents).

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[123] Respondents could select multiple options for this question.
[124] *p*-value =0.049
[125] This indicator does not reflect a question asked directly of the respondent but instead represents a composite indicator for whether households cited safety concerns as a reason for not being able to access any of these three types of facilities in three separate questions during the survey.

Figure 14: % of households that reported safety concerns as a barrier to accessing markets, health or education facilities, by whether or not households reported at least one male aged 18-59[126]

■ No males aged 18-59

■ At least one male aged 18-59

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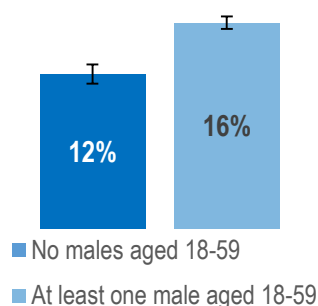
5. **SHELTER STRUCTURE AND MAINTENANCE: Households with no adult males of productive age (18-59) were more likely to report not making improvements to their shelter in the six months prior to data collection, despite reporting the need to do so. Households with at least one individual (aged 5 and above) reported to require assistance to complete daily activities were also more likely to report not making improvements to their shelter in the six months prior to data collection, despite reporting the need to do so.**

- *Indicator: households reporting not making improvements to their shelter in the six months prior to data collection, despite reporting the need to do so*

Rohingya refugee households currently face a number of challenges in accessing shelter materials and maintaining shelter structures fit enough to withstand natural and environmental hazards and keep occupants safe. Most shelters are constructed with tarpaulin and untreated bamboo, materials which typically only last for roughly one year to a year-and-a-half before needing to be replaced, and are not designed for multiple-year sustained use.[127] Given constraints in the current operating environment, the response is currently unable to provide more durable shelter materials to refugee households.[128]

J-MSNA findings show that more than four-fifths of refugee households (81%) reported facing issues with their shelter in the 6 months prior to data collection, including a leaking roof (71%), rotten and / or damaged bamboo (46%) and leaking walls (43%).[129] When households were asked to report on what they perceived as not going well with assistance and services received in the six months prior to data collection, "poor quality or insufficient shelter materials" was the most frequently reported response. Eight per cent (8%) of male respondents in this assessment reported the shelter (implying issues related to the structure itself) as an area where male members of their household feel unsafe.[130] This was the third most frequently reported area where male respondents reported male members feeling unsafe. Seven per cent (7%) of female respondents in this assessment reported the shelter as an area where female members of their household feel unsafe.[131]

J-MSNA findings show that 32% of refugee households reported not making improvements to their shelter in the six months prior to data collection, despite reporting the need to do so. Outcomes regarding whether or not households reported not making improvements despite reporting the need to do so **were strongly correlated with households reporting at least one member (aged five and above) as requiring assistance to complete daily activities and households with no males aged 18 - 59. On the other hand, no strong association was observed between this indicator and household dependency ratio.**

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[126] *p*-value =0.017
[127] ISCG, *Light Mid-Term Joint Multi-Sector Needs Assessment (MSNA) Outputs (June 2019)* (Cox's Bazar, 2019). Available here (accessed 12 December 2019).
[128] Ibid.
[129] Respondents could choose multiple options for this question.
[130] Respondents were asked to respond on behalf of household members of their respective gender only (male, n = 1,669).
[131] Respondents were asked to respond on behalf of household members of their respective gender only (female, n = 1,749).

*a.	Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities*

Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities were more likely to report not having made improvements to their shelter despite reporting the need to do so in the 6 months prior to data collection.

Figure 15: % of households reporting not making improvements to their shelter in the six months prior to data collection despite reporting the need to do so, by whether or not households reported any members (aged 5 and above) as requiring assistance to complete daily activities

- 1+ members requiring daily assistance
- No members requiring daily assistance
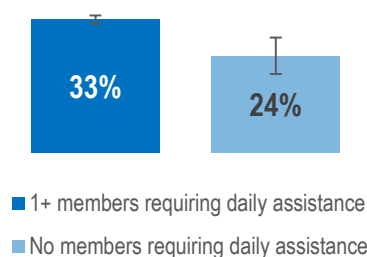
*b.	Households with no males aged 18-59*

As with households reporting the presence of at least one member (aged 5 and above) as requiring assistance to complete daily activities, households reporting no males aged 18-59 were also more likely to report not making improvements to their shelter in the 6 months prior to data collection, despite needing to do so (see Figure 15). Notably, the difference observed in outcomes on this indicator based on the gender of head of household was minimal (less than one per cent).[132]

Figure 16: % of households reporting not making improvements to their shelter in the six months prior to data collection despite reporting the need to do so, by whether or not the household had at least one male aged 18-59[133]

- No males aged 18-59
- At least one male aged 18-59
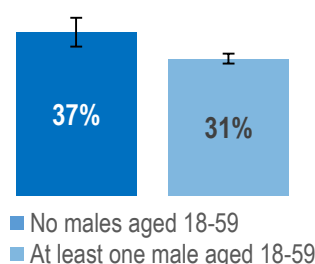
6.	**AWARENESS AND ACCESS OF KEY SGBV RESOURCES: Female-headed households were more likely to exclusively report *Majhi* as the first point-of-contact in the event of SGBV and less likely to name other key SGBV support resources when compared with male-headed households**

- *Indicator: Sources of referral for a friend in the event of sexual and gender-based violence (SGBV)*

Many Rohingya women and girls who fled the conflict resulting in the most recent influx of refugees in 2017 were either survivors of, or witnesses to sexual violence, rape and gang-rape.[134] However, sexual and gender-based violence has not only come as a result of violent conflict and displacement for Rohingya females, but also as a

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[132] *p*-value <0.001
[133] *p*-value =0.021
[134] UN Women, *Gender brief on Rohingya refugee crisis response in Bangladesh, January 2018* (Cox's Bazar, 2018). Available here (accessed 7 December 2019).

product of embedded gender discrimination and harmful gender norms that has normalised intra-community SGBV and intimate partner violence (IPV) within Rohingya communities.[135] Women who are victims of SGBV rarely seek support, often because it is highly stigmatized, or because they do not know where to access it and because they are often not permitted to leave the house.[136]

As a proxy for determining community awareness of resources for SGBV during the present assessment, each respondent was asked (based on a hypothetical situation) where they would refer a friend who was sexually assaulted to find care and support. The overwhelming majority of respondents (83%) reported *Majhi* as the preferred point of contact. Only 15% of respondents reported that they would refer a friend to four key SGBV support resources: including health facilities, psychosocial service providers (e.g. community centres or counselling centres), legal aid service providers, or police and security.[137] Female respondents were consistently less likely than male respondents to be able to name other resources or mechanisms of support aside from *Majhi* (all of whom are males) when compared with male respondents.

Additional statistical testing based on the gender of head of household showed that there was a relationship between this household characteristic and the indicator in question. Respondents residing in female-headed households were less likely than respondents in male-headed households to be able to name at least one of these four aforementioned SGBV support resources in response to this question, by a difference of 11 percentage points.

Figure 17: % of households able to name at least one of the four key SGBV support resources (health, psychosocial service providers, legal aid service providers, or policy and security) in the hypothetical scenario that they needed to refer a friend who was sexually assaulted for care and support, by gender of HoH[138]
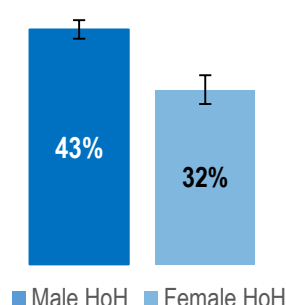
■ Male HoH ■ Female HoH

The above outcomes should not necessarily be interpreted as meaning that female-headed households have a *preference* for accessing *Majhi* as a first point-of-contact but rather may be a reflection that female household heads and / or members of female-headed households are less likely to be aware of referral systems available in camps in the event of SGBV, or may imply that they do not feel safe / may feel stigmatization in accessing these resources.[139] Explored in more depth, this correlation could have significant protection implications, and warrants further exploration.

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[135] BBC Media Action, *Violence Against Women Within the Rohingya Community: Prevalence, Reasons and Implications for Communication, November 2018* (Cox's Bazar, 2018). Available here (accessed 12 December 2019).
[136] Ibid.
[137] The respondent could choose multiple options for this question.
[138] *p*-value: <0.001
[139] ISCG, *Review of gender mainstreaming in Rohingya Refugee response in Cox's Bazar, Bangladesh, March – August 2018* (Cox's Bazar, 2018). Available here (accessed 10 December 2019).

CONCLUSION

This assessment aimed to inform the humanitarian community of the multi-sectoral needs and vulnerabilities of Rohingya refugees residing in 34 camps in Cox's Bazar, Bangladesh. It has measured key indicators related to Protection, Education, WASH, Health, Food Security, Shelter & NFI, Site Management and Communication with Communities, identified community perceptions and preferences and potential gaps in coverage, and explored a number of underlying factors contributing to variation in outcomes on household wellbeing-related indicators. This J-MSNA may serve as a valuable tool in informing future evidence-based programming, as the current crisis moves beyond the initial emergency phase, and as actors in the response begin to transition their sights to more medium-term planning that focuses not only on the provision of basic humanitarian assistance, but also on the wellbeing, self-reliance and dignity of refugee populations.

J-MSNA findings show a number of areas where the basic needs of Rohingya refugees are being met. The proportion of households with a calculated FCS of "poor" was not found to exceed 9% in any camp. Almost all (99%) refugee households reported accessing improved water sources as their main source of water for drinking and cooking purposes at the time of data collection. Of individuals that were reported to have an illness serious enough to require medical treatment in the 30 days prior to data collection, 97% were reported to have sought treatment, while the majority of these individuals (79%) were reported to have sought treatment at an NGO clinic. The vast majority of refugee households (88%) reported exclusively using LPG as their cooking fuel source in the 30 days prior to data collection, with very few households reporting using firewood (either purchased or self-collected).

At the same time, there remain outstanding gaps in access and coverage of basic goods and services. Thirty-two per cent (32%) of households did not make improvements to their shelter in the six months prior to data collection, despite reporting the need to do so. Many households reported not having enough money as reason for not making shelter improvements. Estimates of household dietary diversity based on the number of food groups consumed during the 6-7 days prior to data collection suggest that many households face difficulties accessing a diverse diet. Approximately one-third of refugee households are estimated to consume two food groups or fewer in any given day. One-third of male respondents reported at least one area in their neighbourhood where male members feel unsafe, while 45% of female respondents reported at least one area in their neighbourhood where female members feel unsafe. Many gaps in coverage seem to highlight issues of concern related to gender roles, structures and dynamics and their potential effects on access to services. This is particularly the case for outcomes on education for adolescent girls, on practices related to the freedom of movement for women and on knowledge of key mechanisms of support for matters related to security and sexual and gender-based violence.

Despite widespread coverage of basic humanitarian needs, refugees remain almost entirely dependent on humanitarian assistance. Even so, J-MSNA findings show that many refugee households seek out additional means beyond humanitarian assistance in order to meet basic needs, including by engaged in negative coping mechanisms. A large proportion of households reported borrowing money or purchasing items on credit due to a lack of money to meet basic needs in the 30 days prior to data collection.

Finally, the statistical analysis presented in this report suggests that household diversity characteristics related to the gender of head of household, the highest level of education obtained in the household, calculated household dependency ratio, households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities, and households with no males aged 18-59, can have significant associations with worse-off outcomes on a number of key indicators related to household well-being.

However, additional research is needed in these areas in order to arrive at a comprehensive understanding of household vulnerability characteristics and the specific deprivations that households with these diversity characteristics may face. Further exploration is also required in order to contextualise some of the indicator-level information presented in this report and in other J-MSNA resources. The following actions are recommended for the next round of assessment:

- o Arrive to a common understanding regarding a methodology to measure severity of household needs and the underlying factors that contribute to households having more or less severe needs.

- o Inclusion of a qualitative component to complement the household quantitative survey, used to better understand the "how" and "why" behind certain findings and contextualise them accurately in order to inform appropriate programming responses. This component may also serve to explore intra-household dynamics and contribute to continued gender mainstreaming efforts in the response.
- o A more in-depth study of practices related to debt incurrence (e.g. from whom debt is being incurred, when, how much and for what reasons) and the possible risks that permeate this informal system.
- o Incorporation of certain findings from this report regarding household social and demographic characteristics that may contribute to varied outcomes on key wellbeing-related indicators into the design of future assessments, in order to arrive at a better understanding of vulnerability and the diversity of needs between different household profiles.

It is intended that the J-MSNA become a regular feature of joint humanitarian response planning for the Rohingya crisis. This exercise is likely to be repeated in the coming year in order to monitor progress on the 2020 JRP, assess trends over time and inform further medium-term planning and programming for the Government of Bangladesh and aid organizations.

Annex 1: Household Surveys Completed Per Camp

Table 2: List of assessed camps and household surveys completed in 34 camps in Teknaf and Ukhiya Upazilas, Cox's Bazar

Camp	Estimated # of households	# of interviewed households
Camp 1E	9,333	117
Camp 1W	9,477	96
Camp 2E	7,299	98
Camp 2W	5,979	99
Camp 3	9,200	109
Camp 4	7,943	102
Camp 4 Extension	1,492	92
Camp 5	6,048	98
Camp 6	5,804	105
Camp 7	9,404	96
Camp 8E	7,208	96
Camp 8W	7,465	99
Camp 9	8,715	103
Camp 10	7,651	103
Camp 11	7,161	102
Camp 12	5,278	109
Camp 13	9,800	97
Camp 14	7,049	100
Camp 15	11,175	98
Camp 16	4,889	96
Camp 17	4,149	99
Camp 18	6,540	102
Camp 19	4,826	96
Camp 20	1,794	93
Camp 20 Extension	1,131	91
Camp 21	3,243	102
Camp 22	4,587	127
Camp 23	2,488	96
Camp 24	7,760	116
Camp 25	2,143	92
Camp 26	9,392	100
Camp 27	3,150	98
Kutupalong RC	3,549	96
Nayapara RC	5,697	95
Assessment total	**208,819**	**3,418**

Annex 2: Rohingya Response Analytical Framework

The sections outlined in yellow in the below figure are the three principal pillars covered in this J-MSNA that served as the framework for analysis.

CONTEXT PRE-AUGUST 2017		
SOCIO-CULTURAL	ECONOMY	HUMANITARIAN CONDITIONS
VULNERABILITIES	DISPLACEMENT	

CURRENT CONTEXT		
SOCIO-CULTURAL	ECONOMY	LEGAL FRAMEWORK
POLITICS	NATURAL HAZARDS	MAN MADE HAZARDS
ENVIRONMENT	SAFETY/SECURITY	LOGISTICS AND COM

OF REFUGEES AND IN HOST COMMUNITY AFFECTED
by sex, age and other relevant characteristics of diversity

HUMANITARIAN CONDITIONS	RESPONSE
ACCESS TO NEEDS/SERVICES	COMMUNITY
COPING MECHANISMS/RESILIENCE	NATIONAL
PHYSICAL AND MENTAL HEALTH	INTERNATIONAL
(AGGREVATED) VULNERABILITIES	HUMANITARIAN ACCESS

COMMUNITY PERCEPTIONS, PRIORITIES, PREFERENCES

OF PEOPLE IN NEED AND SEVERITY OF NEEDS
by sex, age and other relevant characteristics of diversity

TREND/RISK ANALYSIS

CURRENT AND POSSIBLE FUTURE NEEDS AND CONCERNS

Annex 3: Relationships Tested for Correlation

Table 3: List of household demographic and social characteristics and indicators related to well-being compared against each characteristic

Household characteristic	Indicator of interest
Gender of head of household (male and female-headed households)	% of households that reported borrowing money or purchasing items on credit in the 30 days prior to data collection (i.e. incurring new debts)
	% of households by Food Consumption Score (FCS)
	% of households reporting not making improvements to their shelter in the 6 months prior to data collection, despite reporting the need to do so
	% of households reporting any health or medical expenses in the 30 days prior to data collection[140]
	% of households reporting facing problems accessing markets in the 30 days prior to data collection
	% of households reporting at least one adult member (18 and above) that engaged in self-reliance activities in the 30 days prior to data collection
	% of households reporting at least on child (17 and under) that engaged in self-reliance activities in the 30 days prior to data collection
	% of households reporting safety concerns as a barrier to accessing health facilities, education facilities OR markets[141]
	% of households able to name at least one of four key GBV support resources (health facilities, psychosocial service providers, police and security OR legal aid service providers)[142]
	% of households reporting facing challenges picking up aid distributions in the 30 days prior to data collection
	% of households reporting facing barriers to interacting with humanitarian workers
Highest level of education obtained in the household (no formal education, some primary education, primary or above)	% of households reporting at least one adult member (18 and above) that engaged in self-reliance activities in the 30 days prior to data collection
	% of households reporting at least on child (17 and under) that engaged in self-reliance activities in the 30 days prior to data collection
	% of households reporting facing challenges picking up aid distributions in the 30 days prior to data collection
	% of households reporting facing barriers to interacting with humanitarian workers
Household dependency ratio (high or low)	% of households that reported borrowing money or purchasing items on credit in the 30 days prior to data collection (i.e. incurring new debts)
	% of households reporting at least one adult member (18 and above) that engaged in self-reliance activities in the 30 days prior to data collection
	% of households reporting at least on child (17 and under) that engaged in self-reliance activities in the 30 days prior to data collection

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[140] This is a composite indicator based on whether or not the household reported spending any money (>0 Bangladeshi Taka) on medical expenses, health care or medicine in the 30 days prior to data collection, OR indicating paying for care as a coping mechanism for health-related issues when a member of the household had an illness serious enough to require medical treatment in the 30 days prior to data collection.

[141] This indicator does not reflect a question asked directly of the respondent but instead represents a composite indicator for whether households cited safety concerns as a reason for not being able to access any of these three types of facilities in three separate questions during the survey.

[142] Each respondent was asked (based on a hypothetical situation) where they would refer a friend who was sexually assaulted to find care and support. This indicator reflects households that reported any of these resources as a point-of-contact.

	% of households reporting not making improvements to their shelter in the 6 months prior to data collection, despite reporting the need to do so
	% of households by Food Consumption Score (FCS)
Households reporting at least one member (aged 5 and above) as requiring assistance to complete daily activities (yes or no)	% of households that reported borrowing money or purchasing items on credit in the 30 days prior to data collection (i.e. incurring new debts)
	% of households reporting not making improvements to their shelter in the 6 months prior to data collection, despite reporting the need to do so
	% of households by Food Consumption Score (FCS)
	% of households reporting any health or medical expenses in the 30 days prior to data collection
	% of households reporting facing challenges picking up aid distributions in the 30 days prior to data collection
	% of households reporting facing barriers to interacting with humanitarian workers
Households with no males aged 18 – 59 (yes or no)	% of households that reported borrowing money or purchasing items on credit in the 30 days prior to data collection (i.e. incurring new debts)
	% of households by Food Consumption Score (FCS)
	% of households reporting not making improvements to their shelter in the 6 months prior to data collection, despite reporting the need to do so
	% of households reporting facing problems accessing markets in the 30 days prior to data collection
	% of households reporting at least one adult member (18 and above) that engaged in self-reliance activities in the 30 days prior to data collection
	% of households reporting at least on child (17 and under) that engaged in self-reliance activities in the 30 days prior to data collection
	% of households reporting safety concerns as a barrier to accessing health facilities, education facilities OR markets
	% of households reporting facing challenges picking up aid distributions in the 30 days prior to data collection
	% of households reporting facing barriers to interacting with humanitarian workers
	% of households reporting having sold, shared or exchanged food rations; sold non-food items that were provided as assistance; OR sold other household goods (i.e. radio, furniture, mobile, solar panel, television, clothes, kitchen items, etc.) as a coping mechanism due to lack of money to meet basic needs in the 30 days prior to data collection

Annex 4: Mapped Indicator-Level Findings

This annex presents maps of key J-MSNA indicators, by sector, for which notable geographic variation in outcomes was observed. Users may also access the J-MSNA Dashboard for additional visualization of these indicators.

Communication with Communities

Map 2: % of households reporting access to electricity (solar / battery) as a top 3 priority need for which they require additional support, unranked[143]


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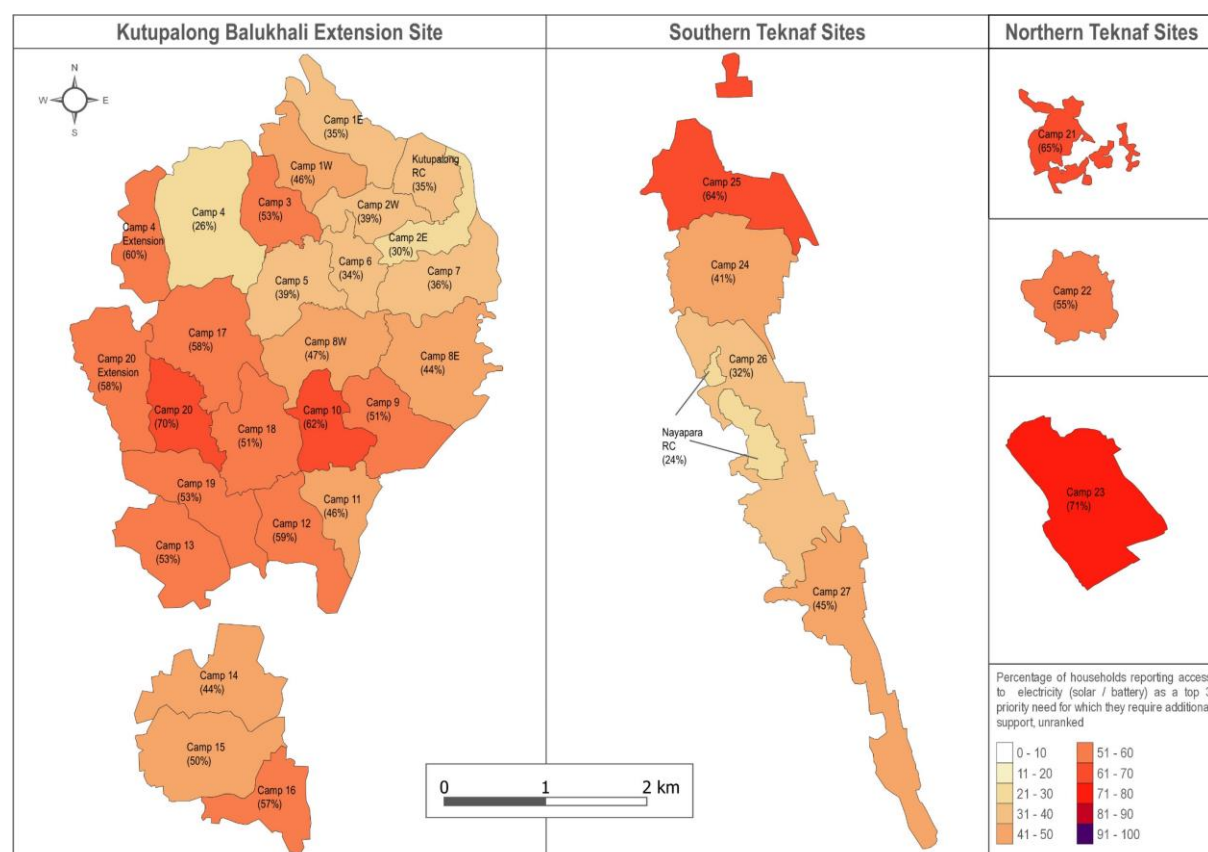
[143] Respondents were asked to report the top three priority needs for which their family required additional support, and then rank the three identified needs in order of importance. The unranked findings present the proportion of households who named each option as a top-three priority need, regardless of rank.

Map 3: % of households reporting <u>access to clean drinking water</u> as a top 3 priority need for which they require additional support, unranked[144]
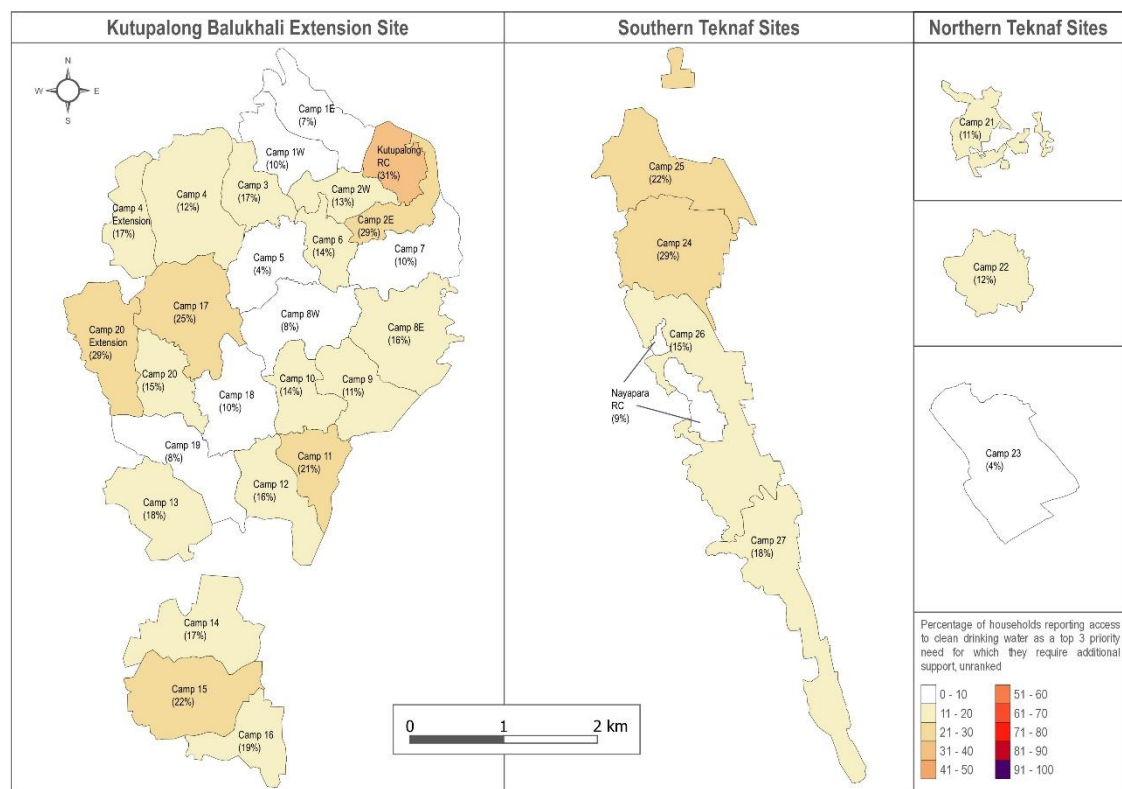
Map 4: % of households reporting <u>access to food</u> as a top 3 priority need for which they require additional support, unranked[145]
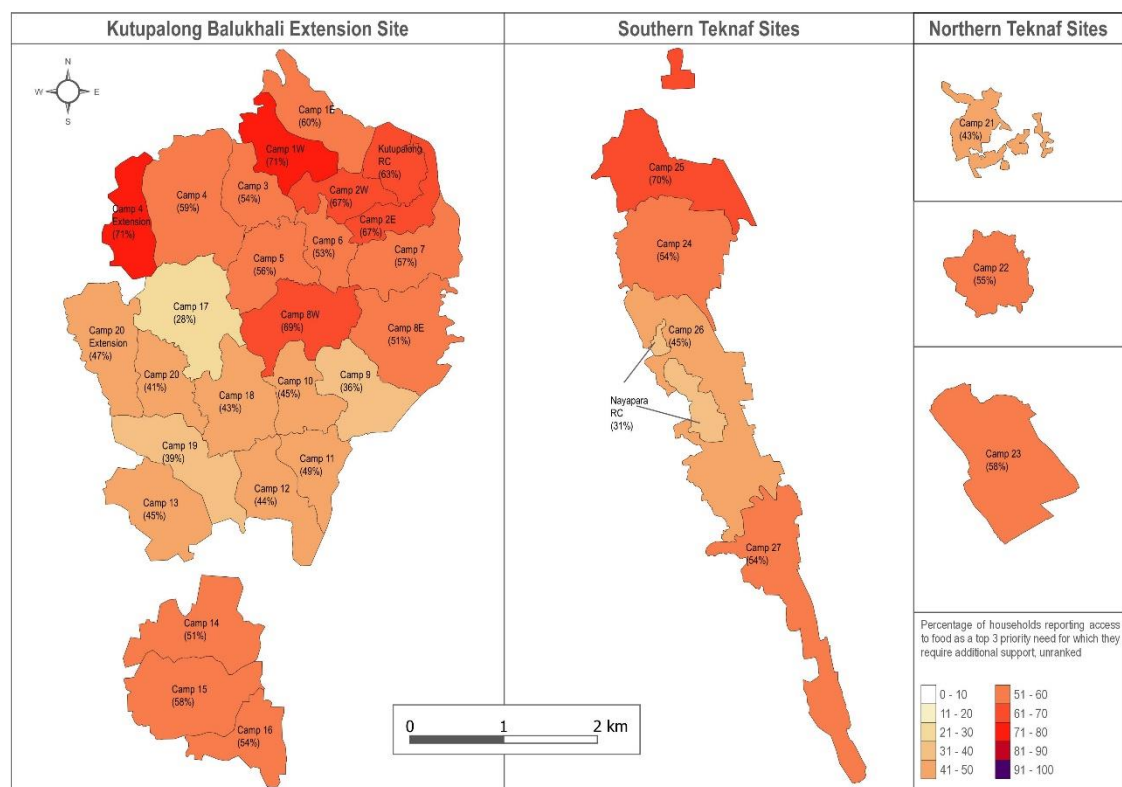
[144] See footnote 144, Map 2.
[145] See footnote 144, Map 2.

Map 5: % of households reporting <u>access to health services and / or medicine</u> as a top 3 priority need for which they require additional support, unranked[146]
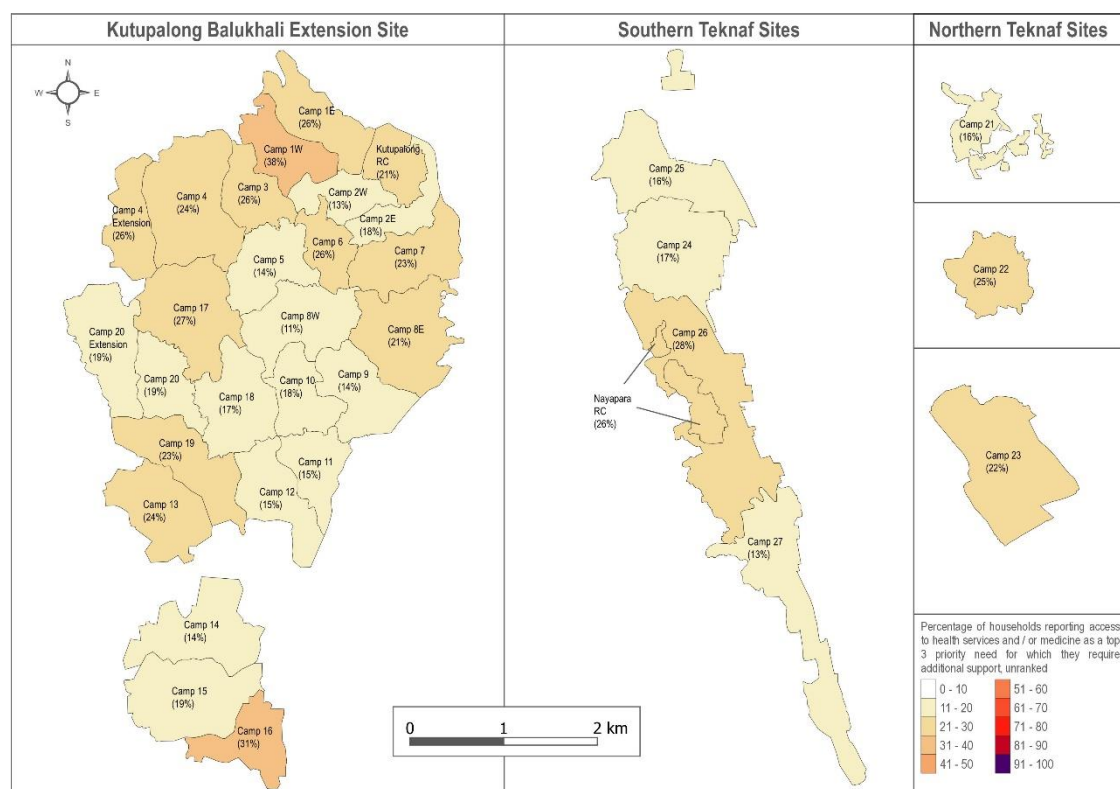
Map 6: % of households reporting <u>access to safe and functional latrines</u> as a top 3 priority need for which they require additional support, unranked[147]
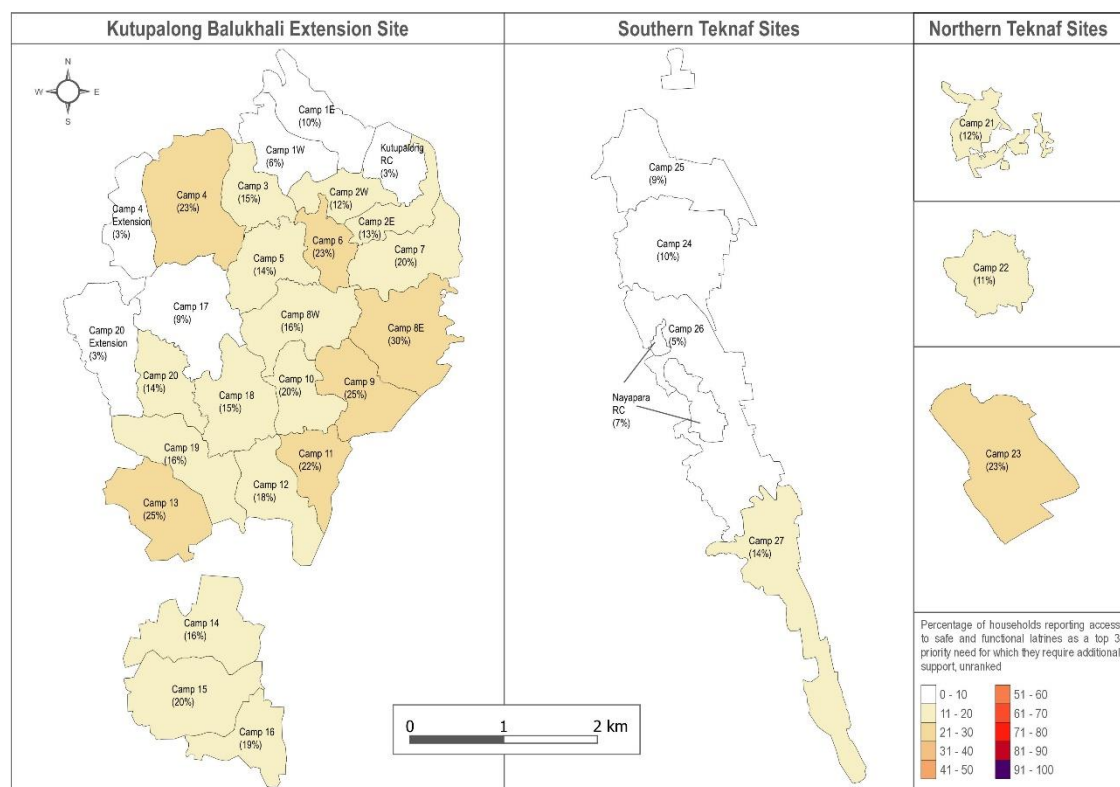
[146] See footnote 144, Map 2.
[147] See footnote 144, Map 2.

Map 7: % of households reporting <u>clothing</u> as a top 3 priority need for which they require additional support, unranked[148]
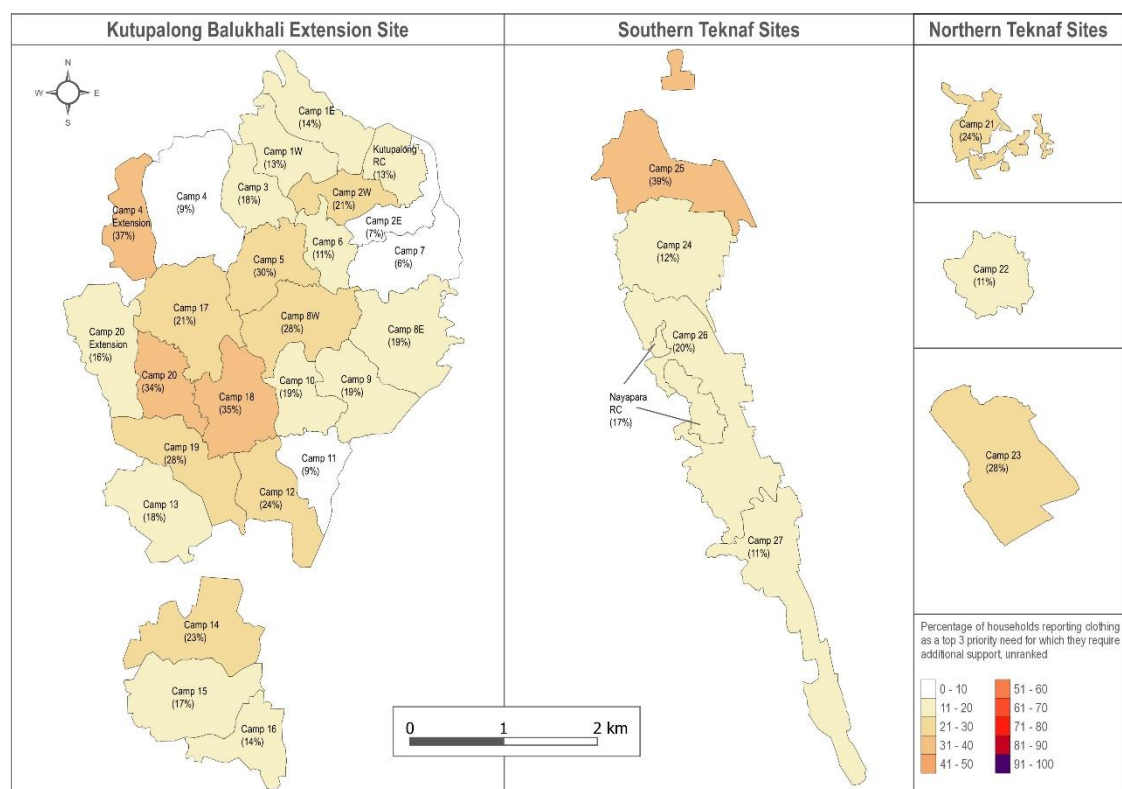
Map 8: % of households reporting <u>cooking fuel</u> as a top 3 priority need for which they require additional support, unranked[149]

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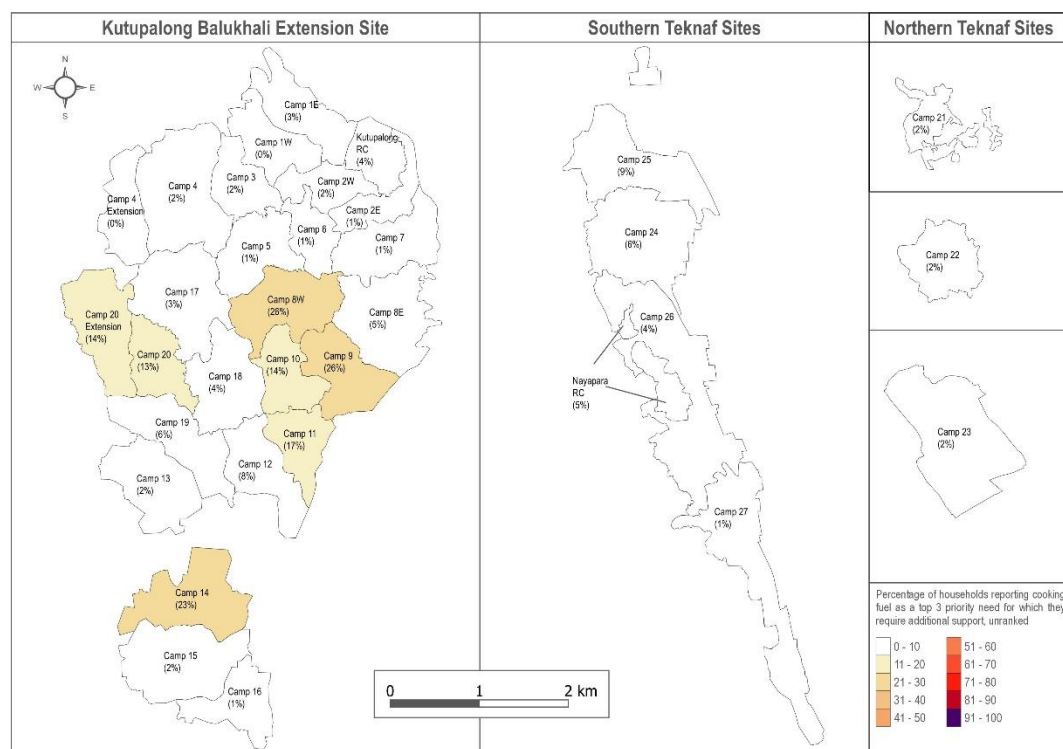
[148] See footnote 144, Map 2.
[149] See footnote 144, Map 2.

Map 9: % of households reporting household household/cooking items as a top 3 priority need for which they require additional support, unranked[150]
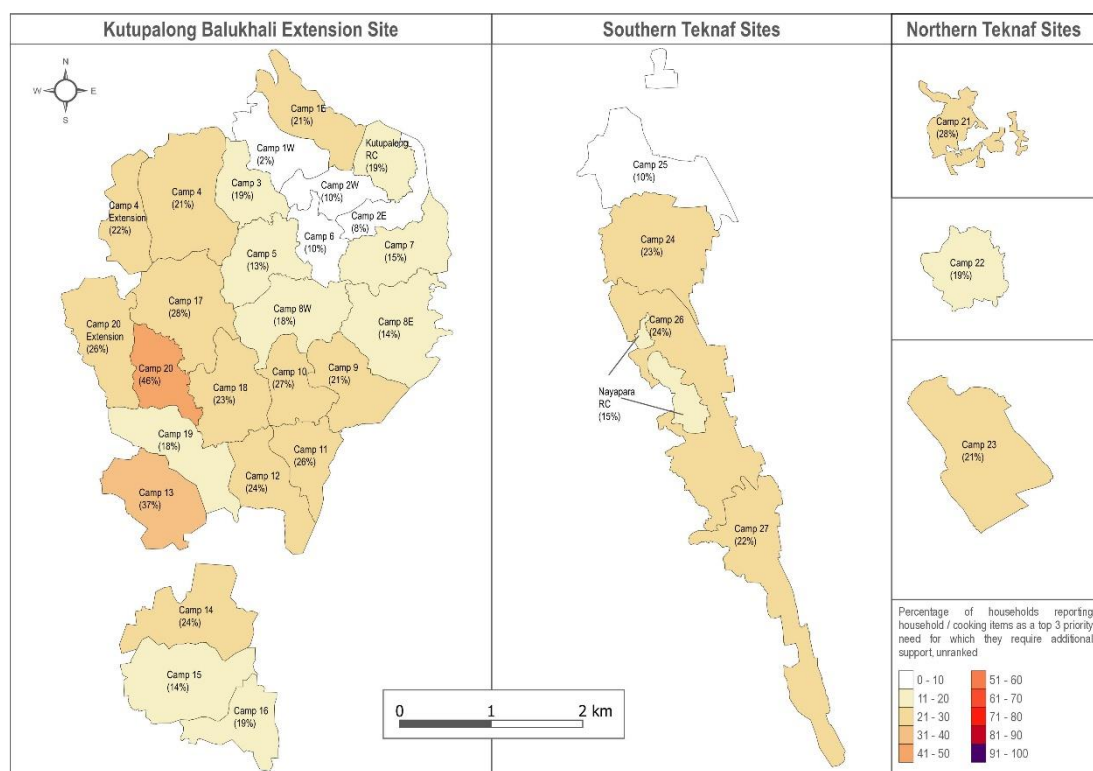
Map 10: % of households reporting shelter materials / upgrades as a top 3 priority need for which they require additional support, unranked[151]

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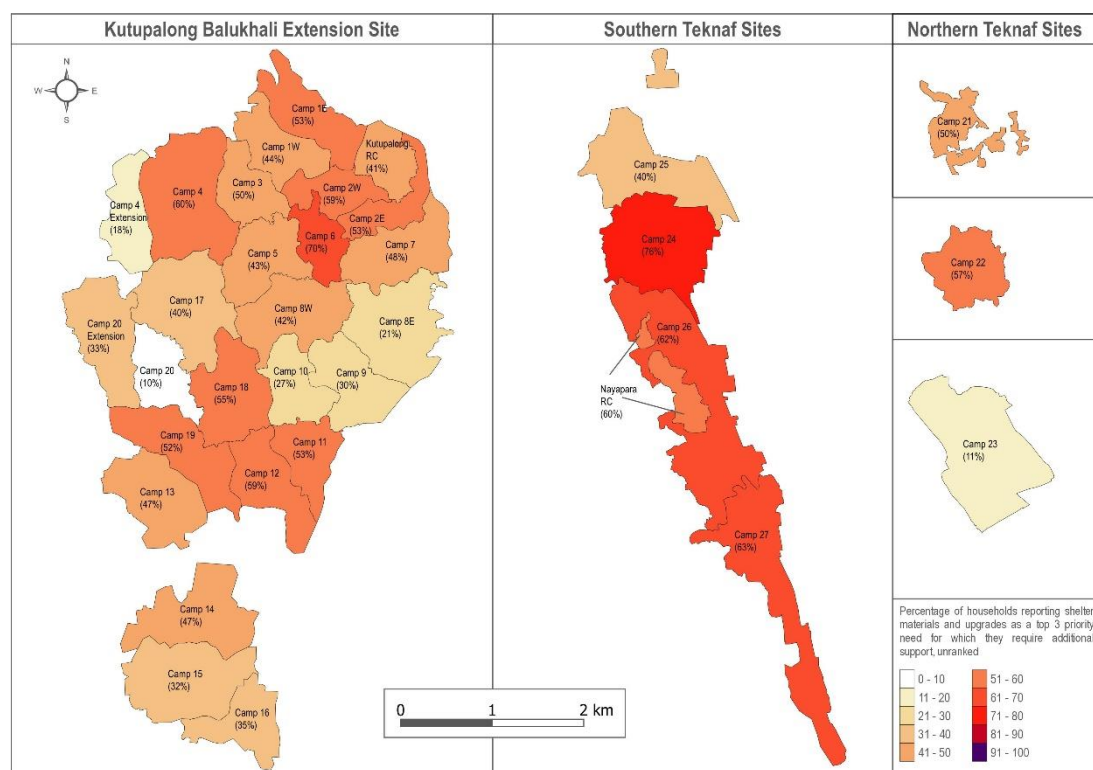
[150] See footnote 144, Map 2.
[151] See footnote 144, Map 2.

Map 11: % of households reporting <u>improved access to clean water</u> as an aspect that is going well with assistance and services received in the 6 months prior to data collection[152]
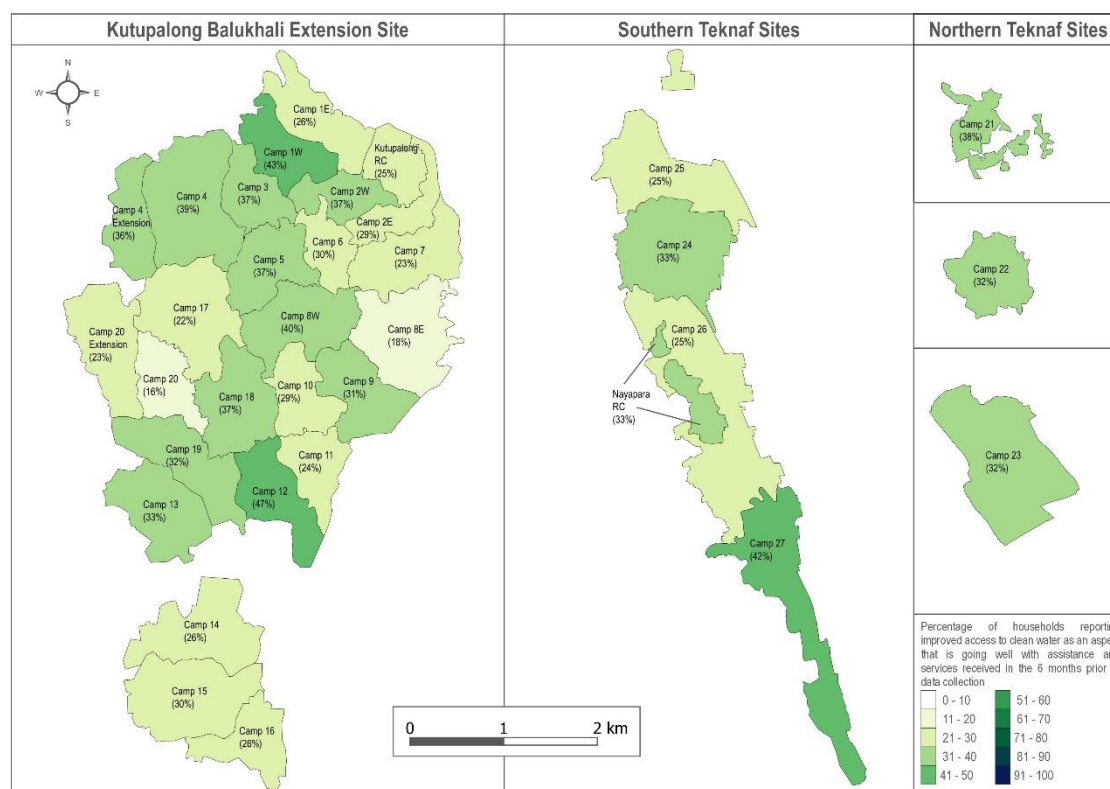
Map 12: % of households reporting <u>improved sanitation in camps</u> as an aspect that is going well with assistance and services received in the 6 months prior to data collection[153]

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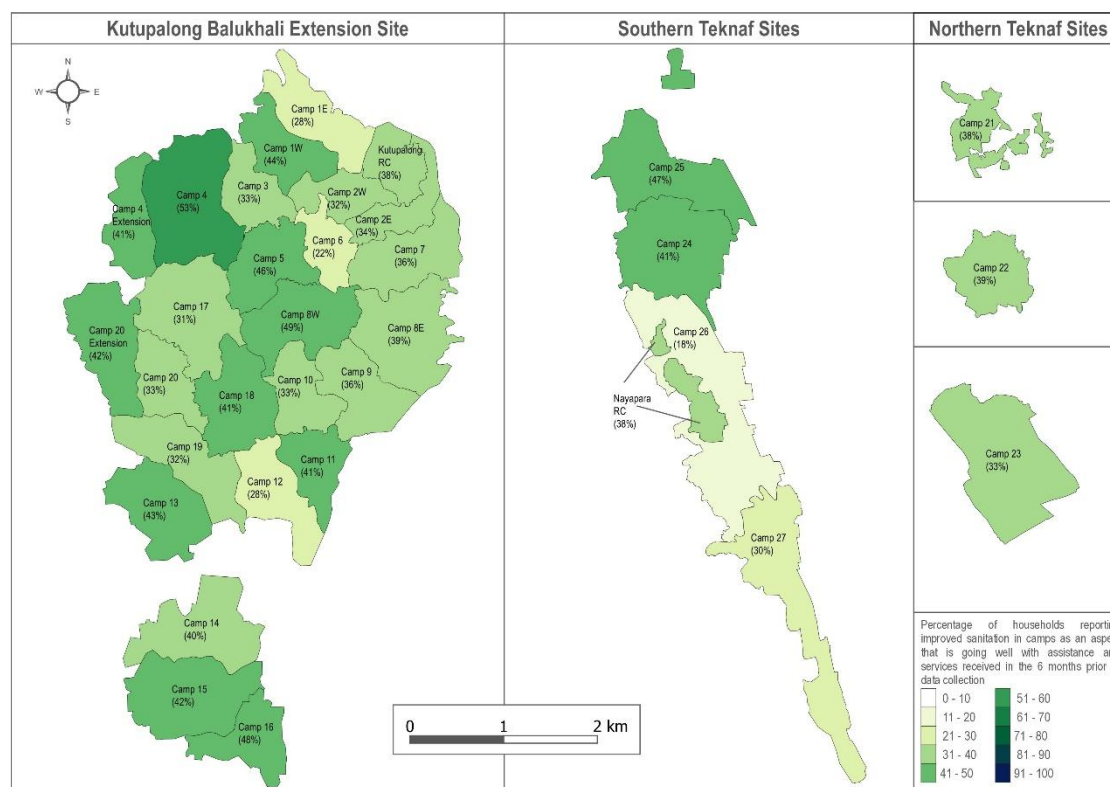
[152] Respondents could choose up to three options for this question.
[153] Respondents could choose up to three options for this question.

Map 13: % of households reporting <u>not needing to collect firewood anymore</u> as an aspect that is going well with assistance and services received in the 6 months prior to data collection[154]
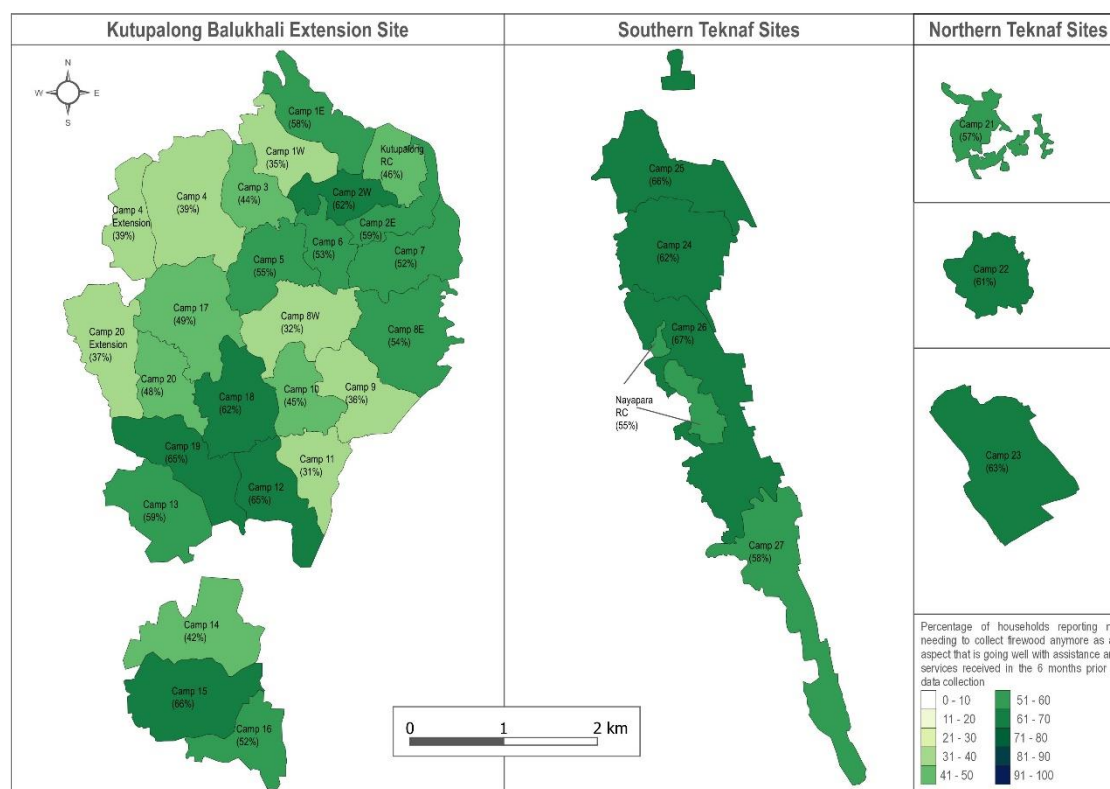
Map 14: % of households reporting stronger shelter materials as an aspect that is going well with assistance and services received in the 6 months prior to data collection[155]
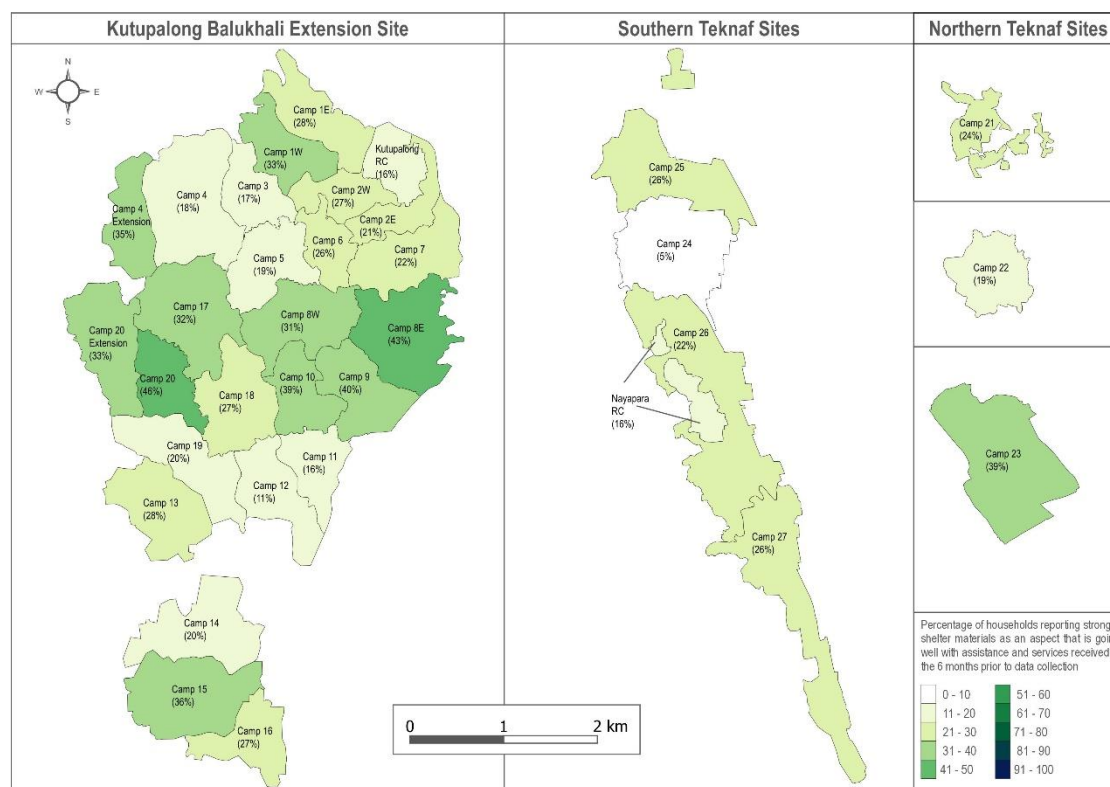
[154] Respondents could choose up to three options for this question.
[155] Respondents could choose up to three options for this question.

Map 15: % of households reporting <u>structural improvements in camps (e.g. roads, public areas)</u> as an aspect that is going well with assistance and services received in the 6 months prior to data collection[156]
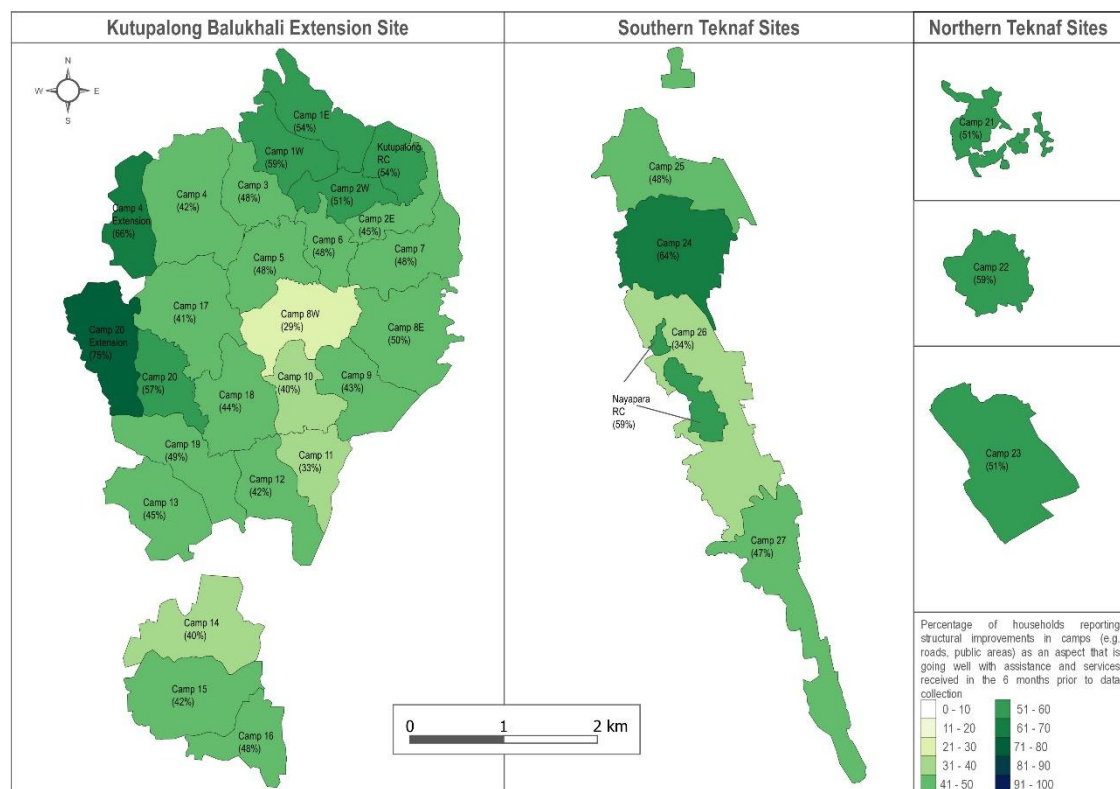
Map 16: % of households reporting they have faced any challenges picking up aid distributions in the 30 days prior to data collection

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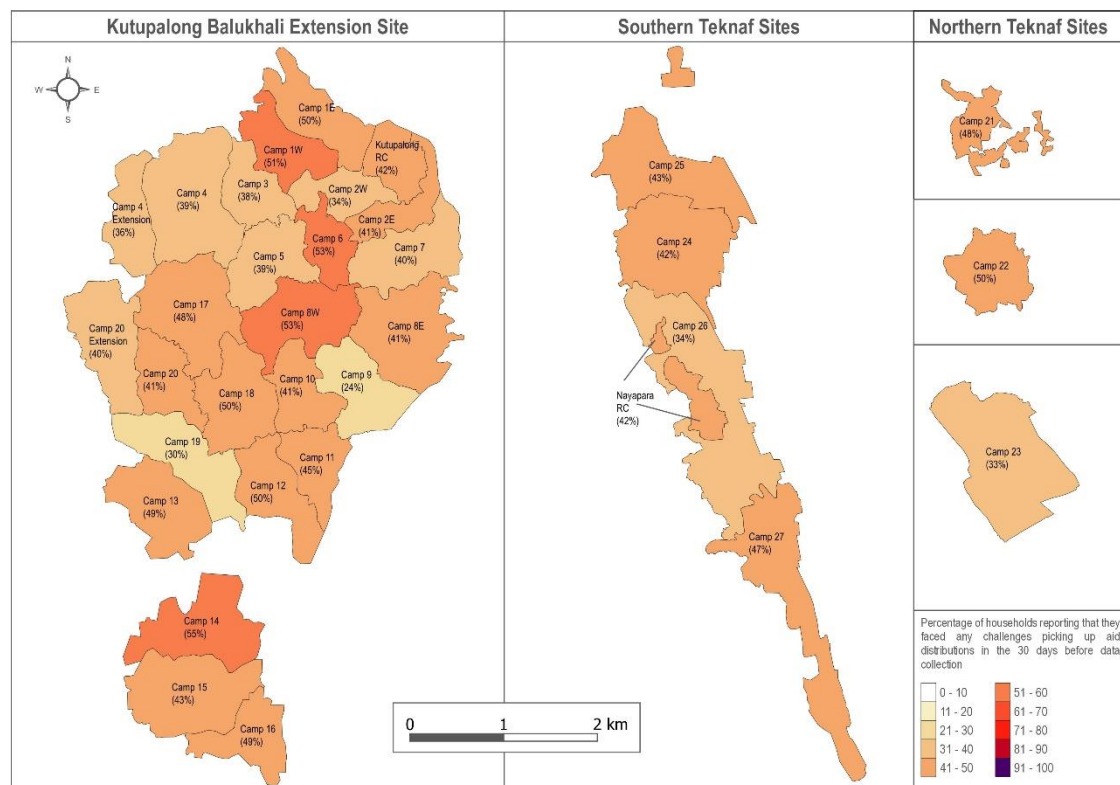
[156] Respondents could choose up to three options for this question.

Cross-sectoral

Map 17: % of households reporting they have faced any problems accessing markets in the 4 weeks prior to data collection
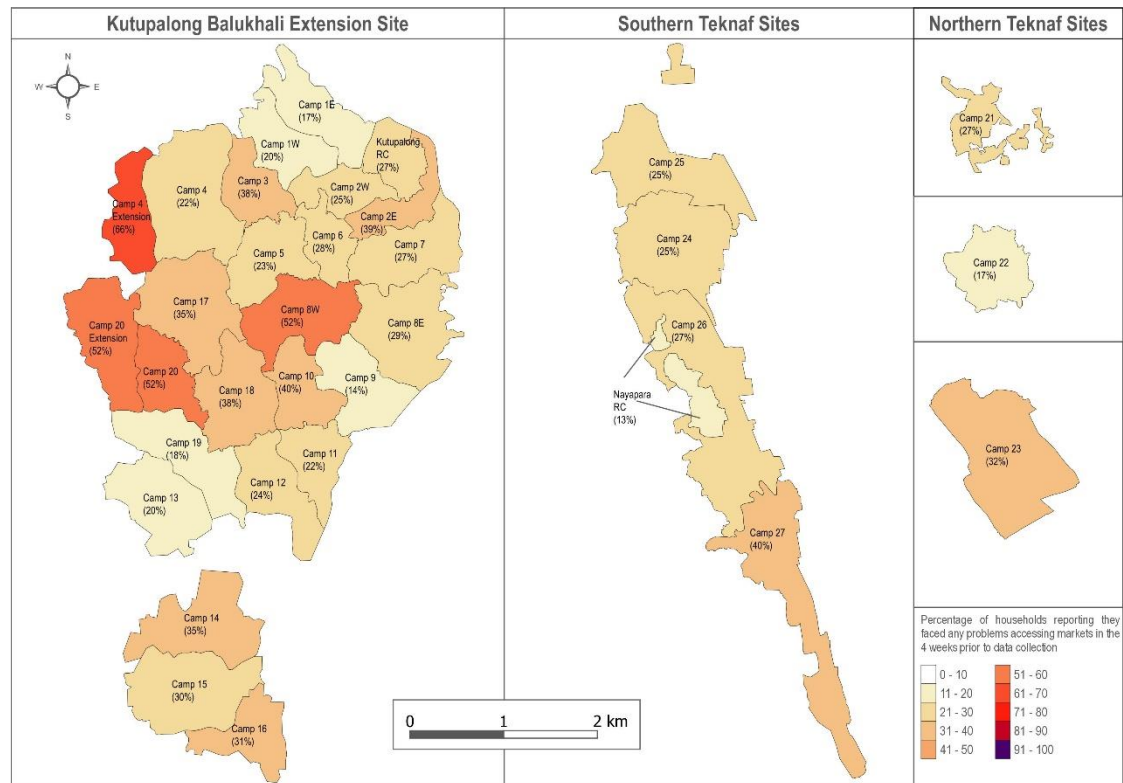
Education

Map 18: % of children and youth aged 6 – 14 reported as *not* attending a temporary learning centre (TLC) for at least 4 days per week in the 30 days prior to data collection[157]

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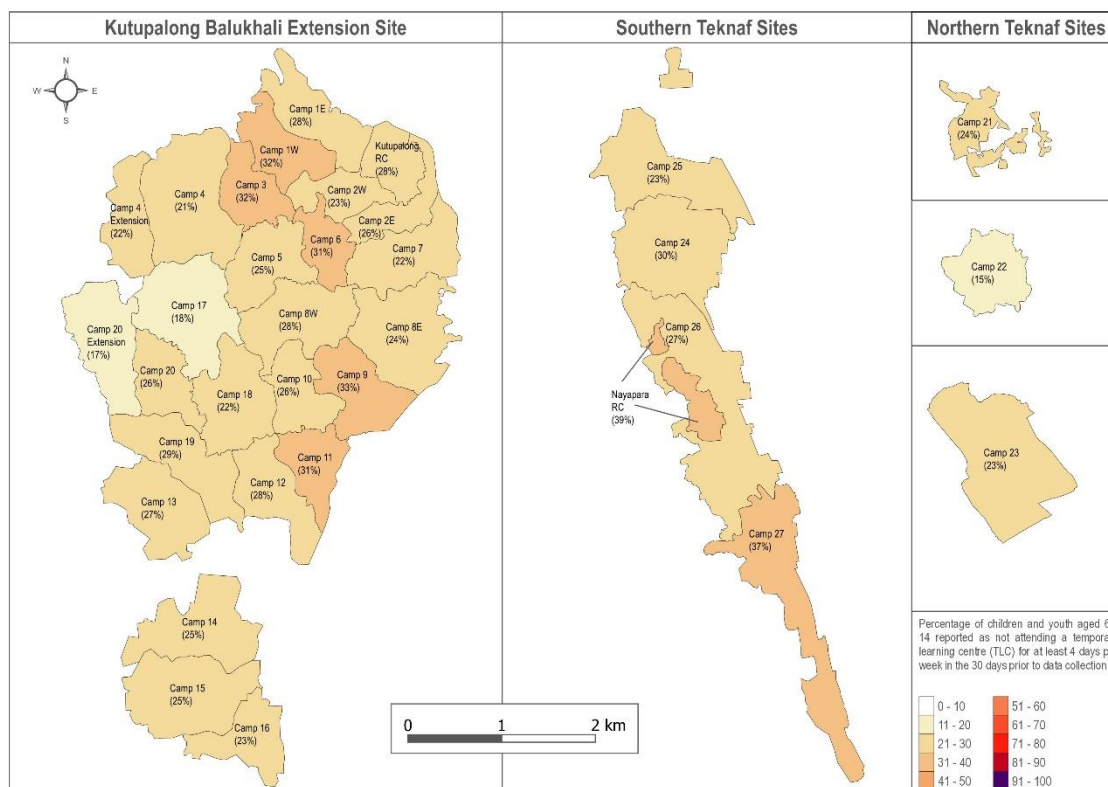
157 The denominator for this indicator is all individuals in this age group (n = 4,230).

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Food security

Map 19: % of households with a calculated Food Consumption Score (FCS) of 'Acceptable' (42+)[158]
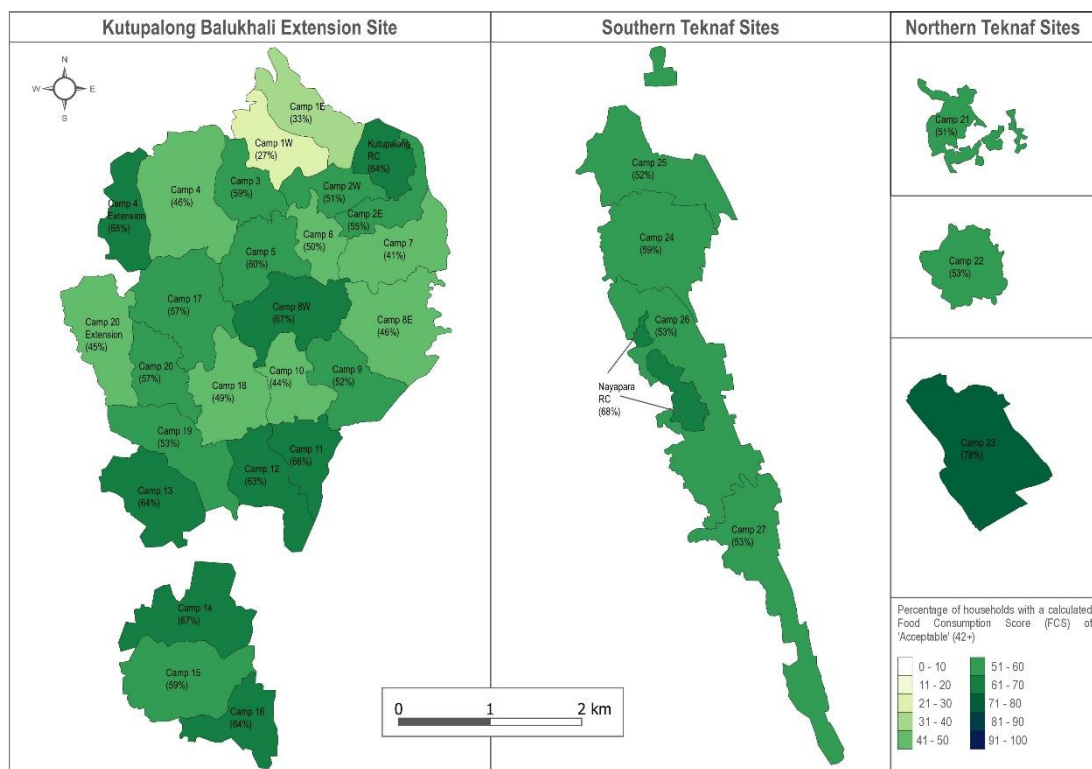
Map 20: % of households with a calculated Food Consumption Score (FCS) of 'Borderline' (28-41)[159]
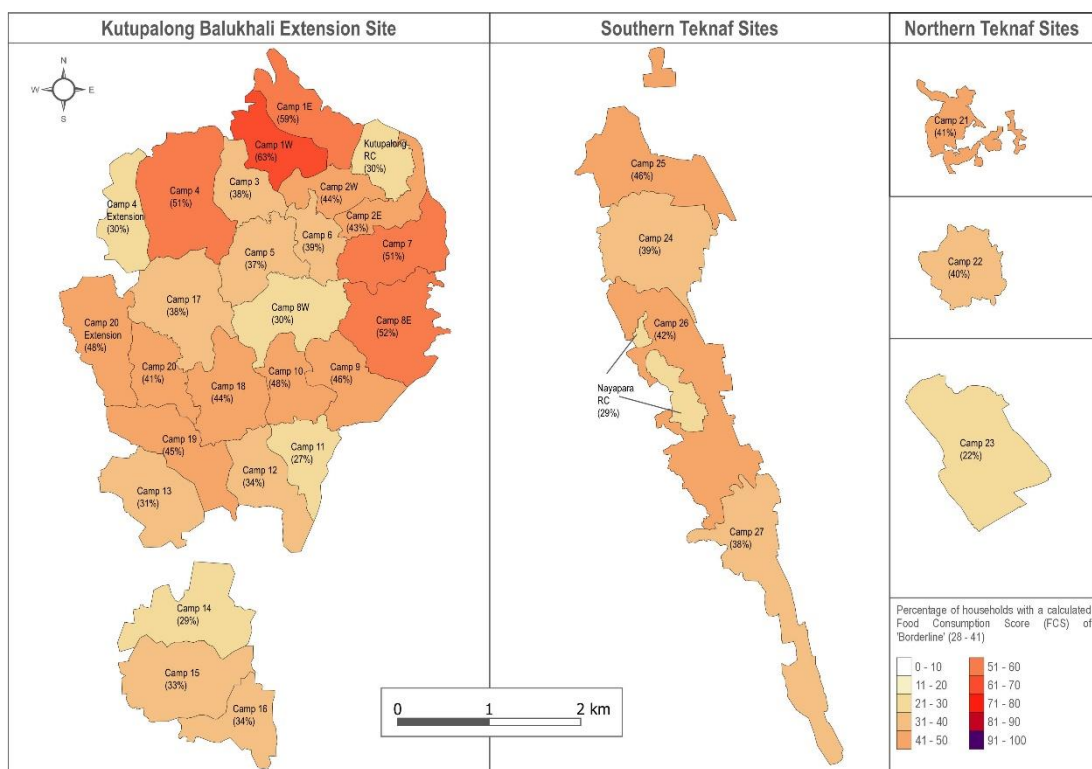
[158] The Food Consumption Score (FCS) is a composite score based on: (1) dietary diversity; (2) food frequency; and (3) relative nutritional importance of 9 weighted food groups. The FCS is recorded from a 7-day recall period. In Bangladesh, thresholds for FSC classifications set by the World Food Programme are as follows: Acceptable (greater than 41); Borderline (28 - 41); Poor (27 or less).
[159] See footnote XXXX, Map 18

Health

Map 21: % of households reporting not being visited by a community health worker in the two weeks prior to data collection
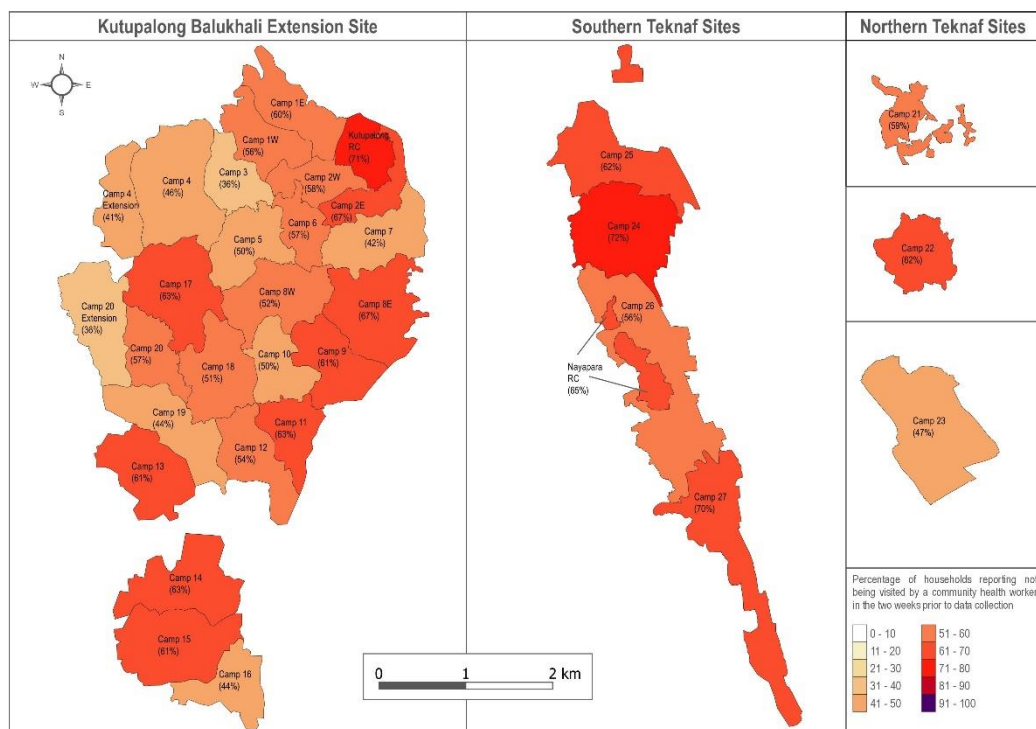
Map 22: Of individuals reported as having an illness serious enough to require medical treatment in the 30 days prior to data collection who sought treatment, % who sought treatment at a pharmacy or drug shop in the market[160]


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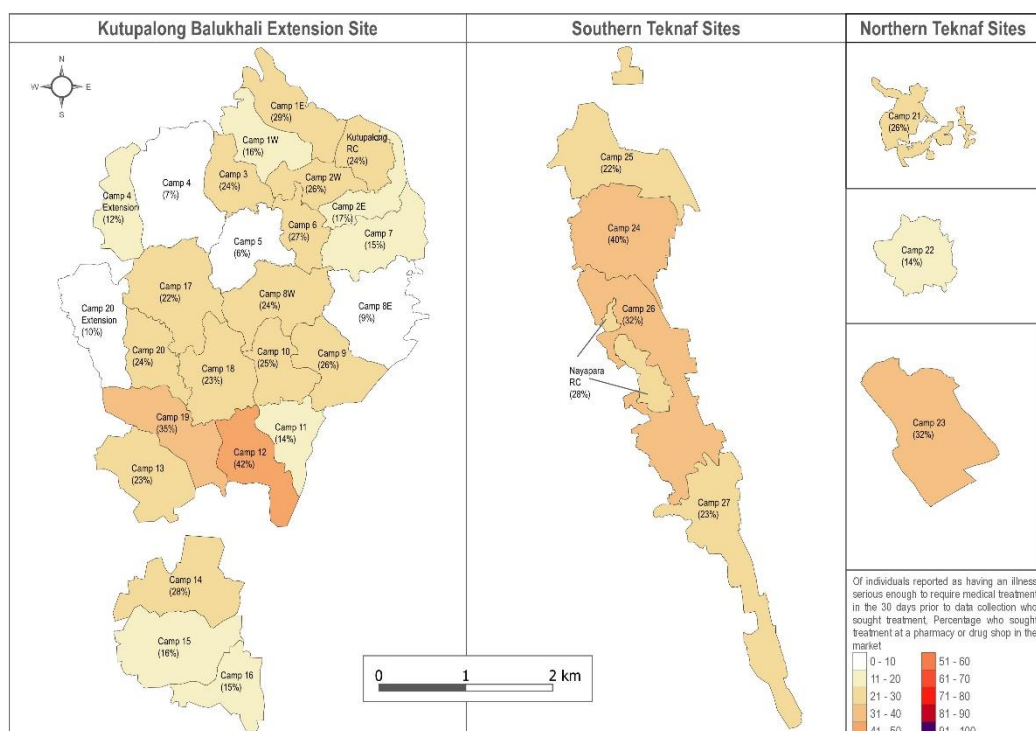
[160] The denominator for this indicator is individuals reported as having illness serious enough to require medical treatment in the 30 days prior to data collection, who sought treatment (n = 5,771).

Map 23: Of individuals reported as having an illness serious enough to require medical treatment in the 30 days prior to data collection who sought treatment, % who sought treatment at a private clinic[161]

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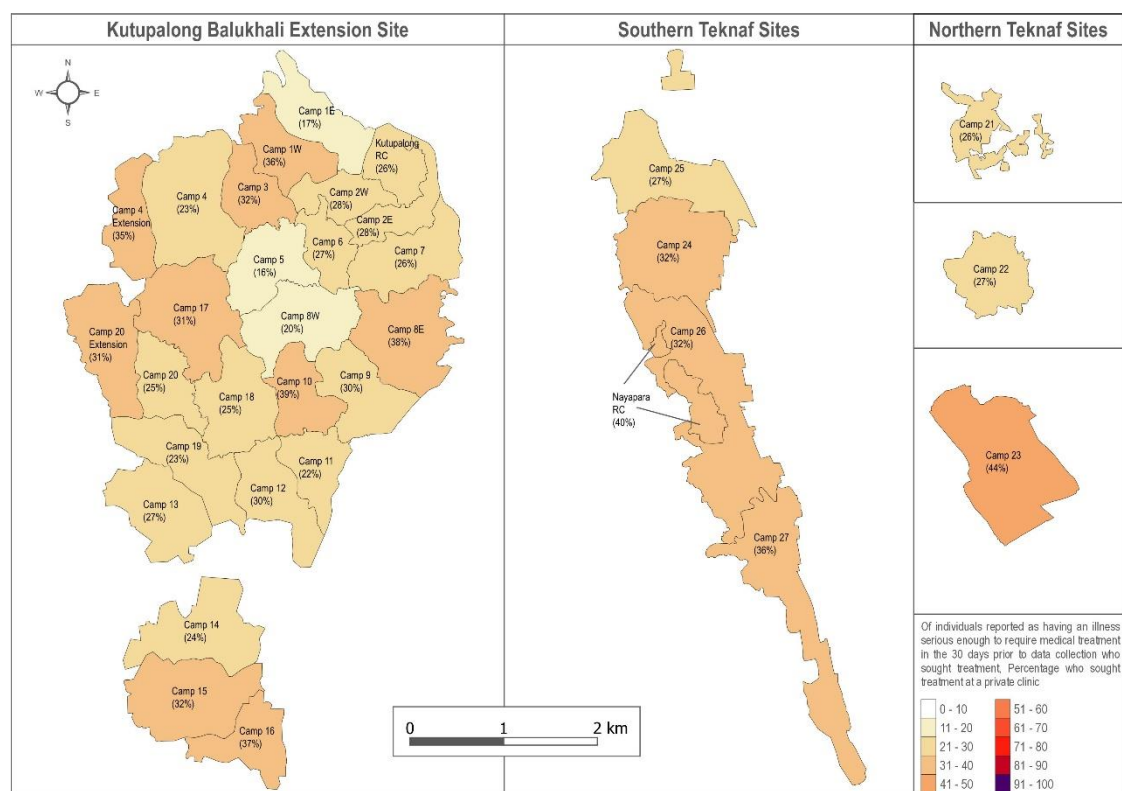
[161] The denominator for this indicator is individuals reported as having illness serious enough to require medical treatment in the 30 days prior to data collection, who sought treatment (n = 5,771).

Nutrition

Map 24: % of individuals aged 6 to 59 months reported as not being enrolled in any nutrition-feeding program at the time of data collection[162]

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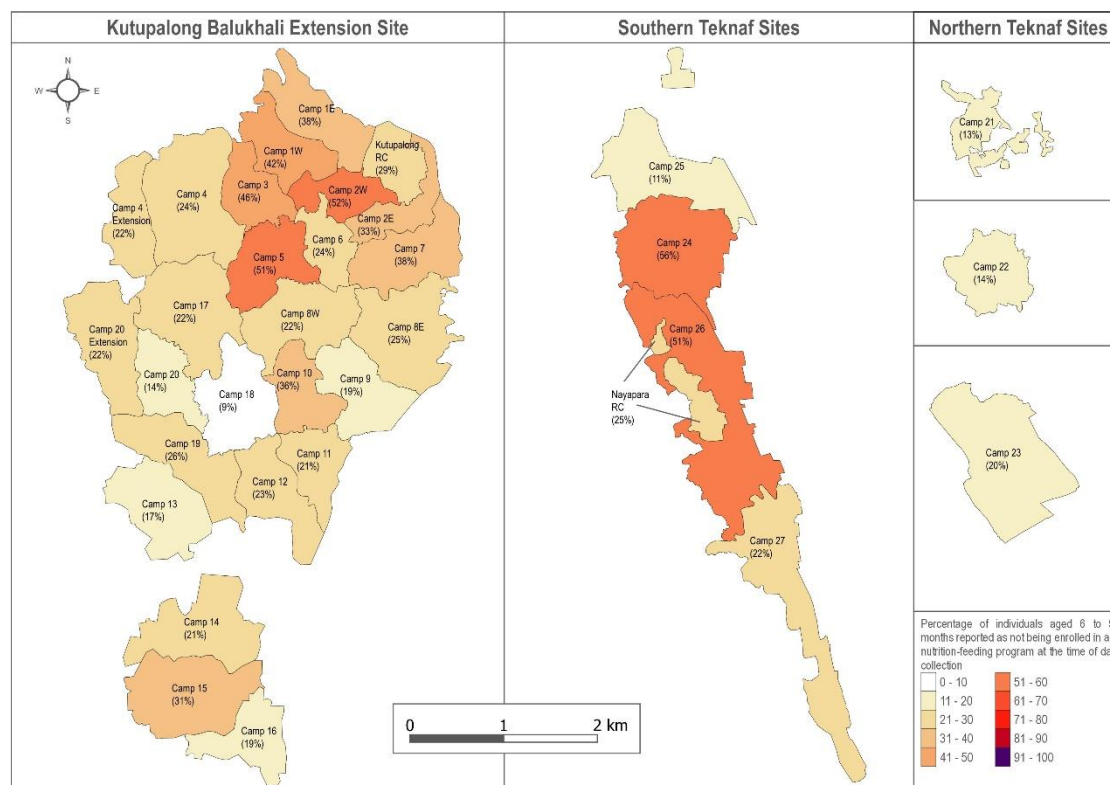
[162] The denominator for this indicator is all individuals aged 6 to 59 months (n = 3,440). Nutrition-feeding programs encompass BSFP (blanket supplementary feeding programme); TSFP (targeted supplementary feeding programme); or OTP (outpatient therapeutic programme).

Protection

Map 25: % of households reporting that <u>married</u> women are never allowed to go to the local market (alone or accompanied)[163]
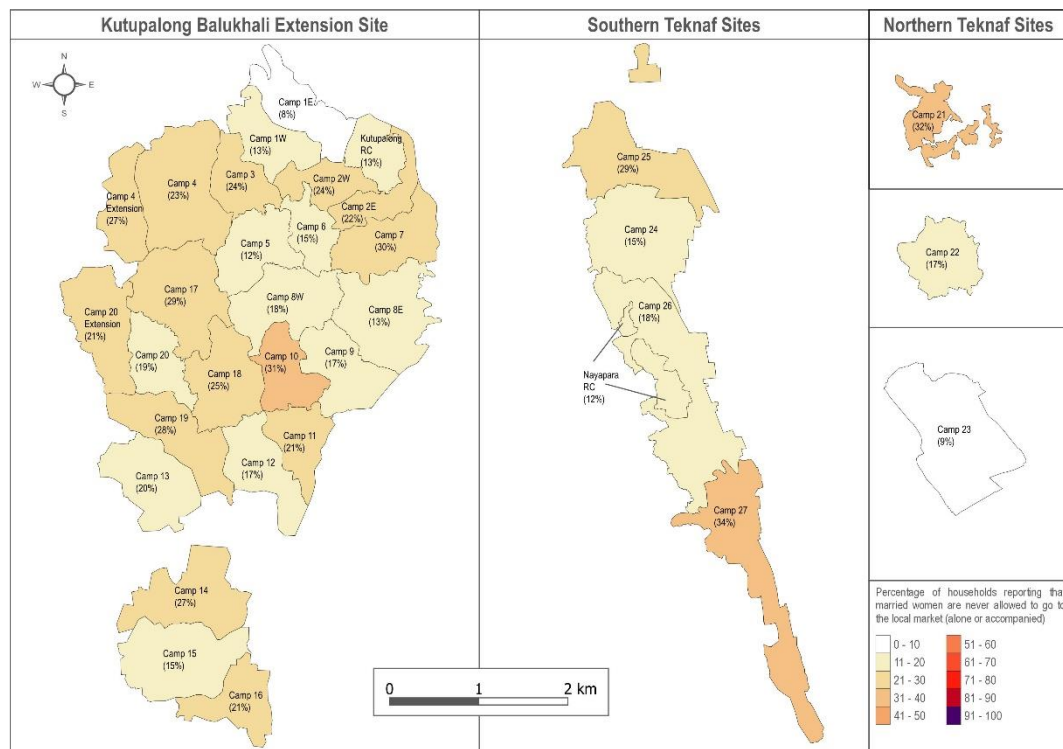
Map 26: % of households reporting that <u>unmarried</u> women are never allowed to go to the local market (alone or accompanied)[164]

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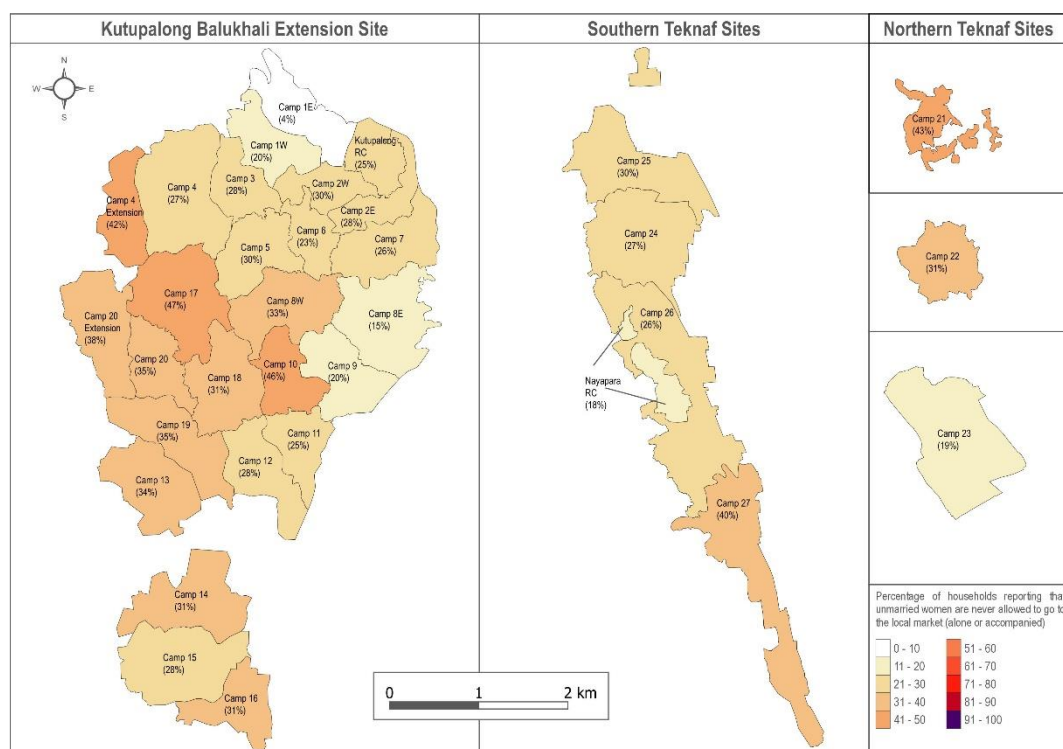
[163] This question was only asked of households reporting the presence of at least one female individual over the age of 12 (n = 3,391).

[164] This question was only asked of households reporting the presence of at least one female individual over the age of 12 (n = 3,391).

Shelter & NFI

Map 27: % of households reporting not making improvements to their shelter in the 6 months prior to data collection, despite reporting the need to do so
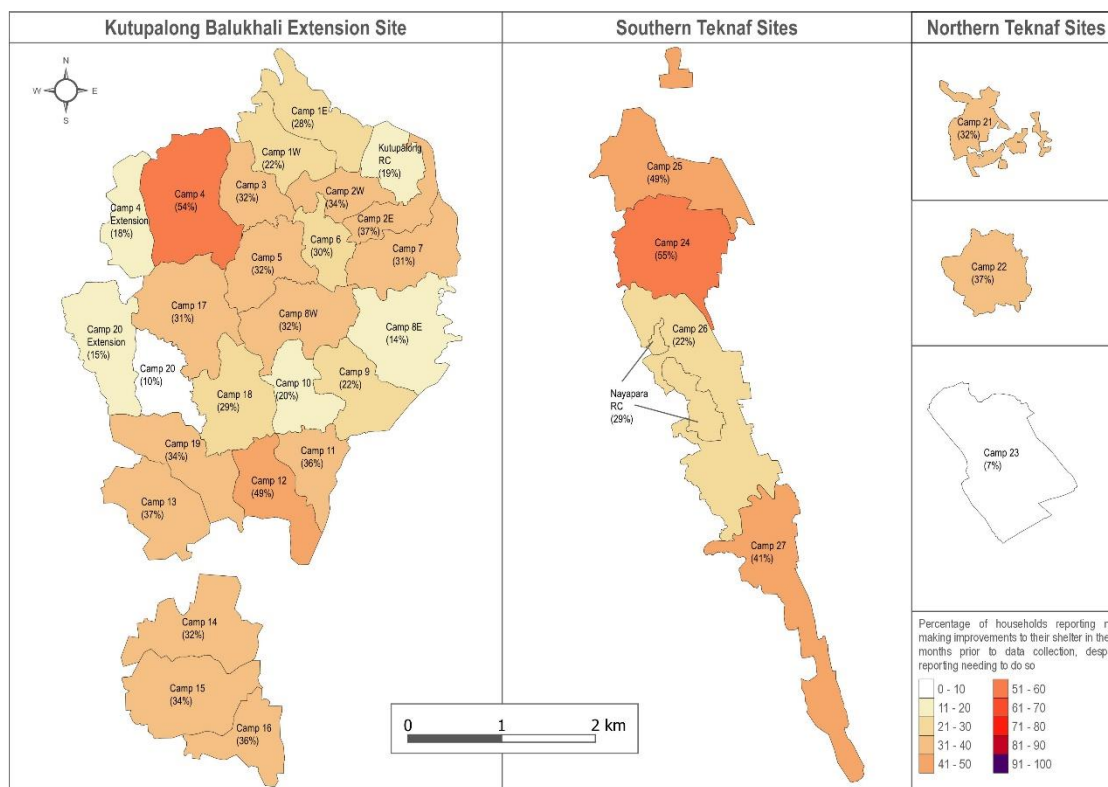
Map 28: % of households reporting owning <u>no</u> (functioning) portable lamps at the time of data collection
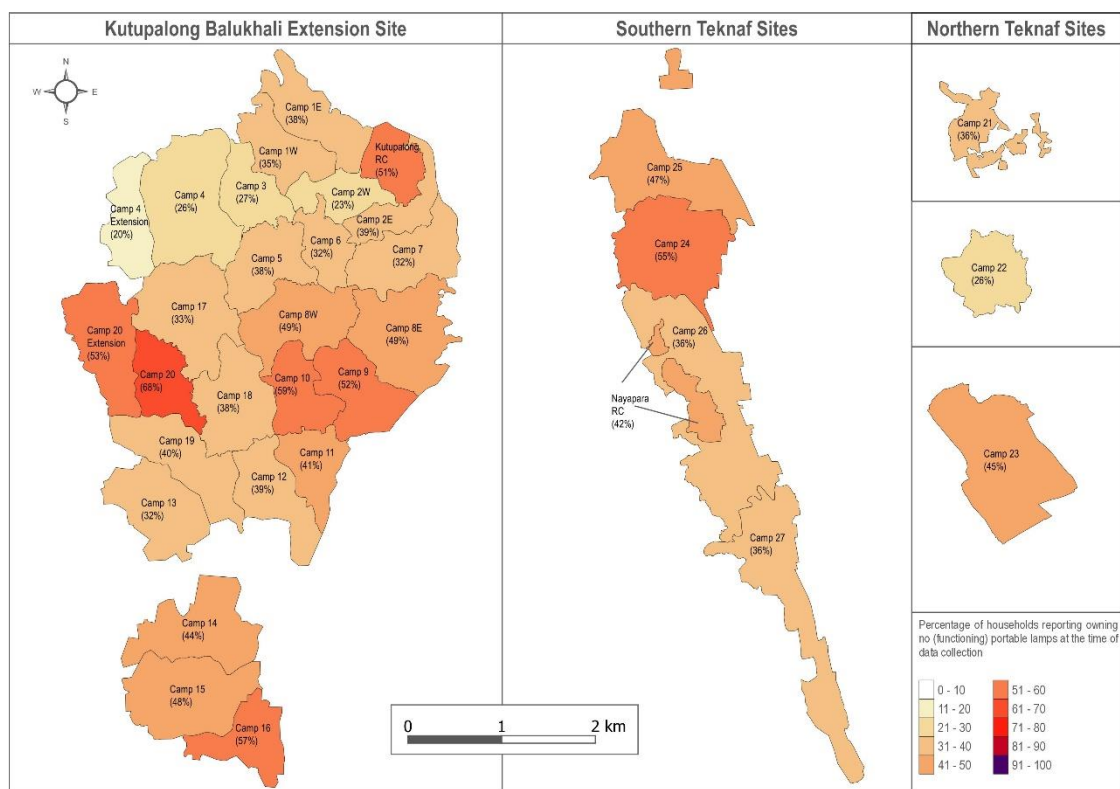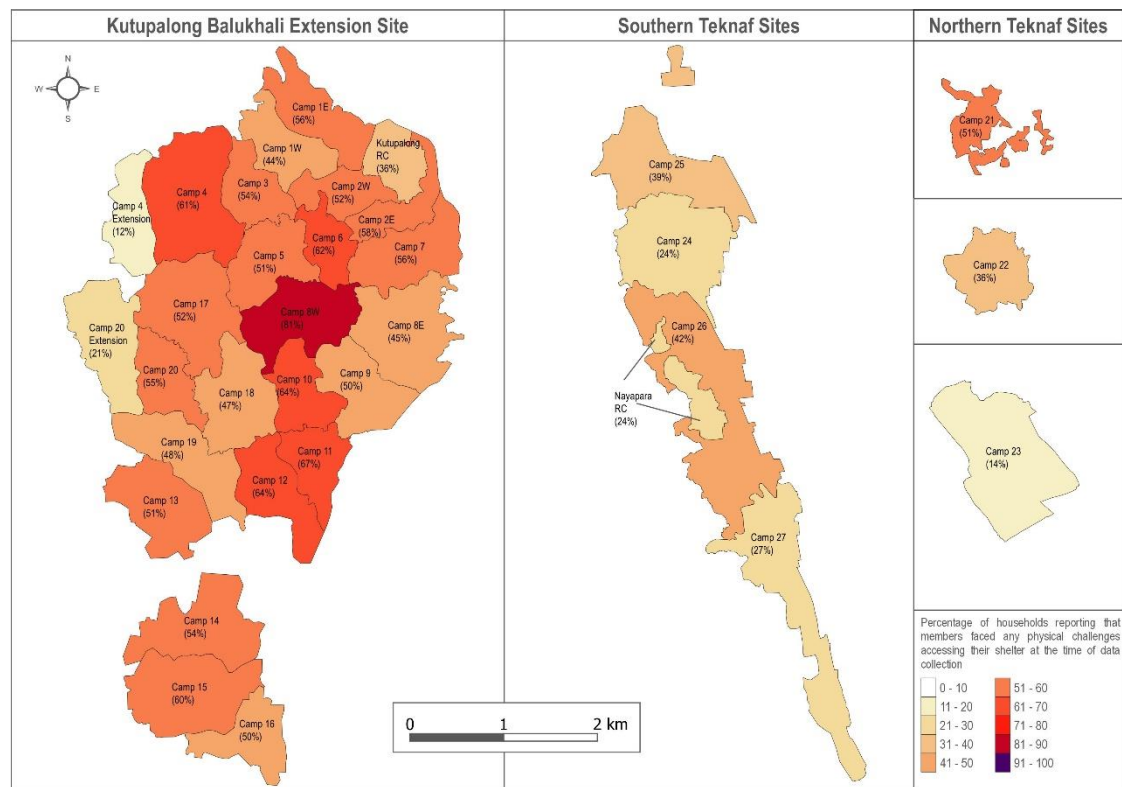
Map 29: % of households reporting owning <u>only one</u> (functioning) portable lamps at the time of data collection
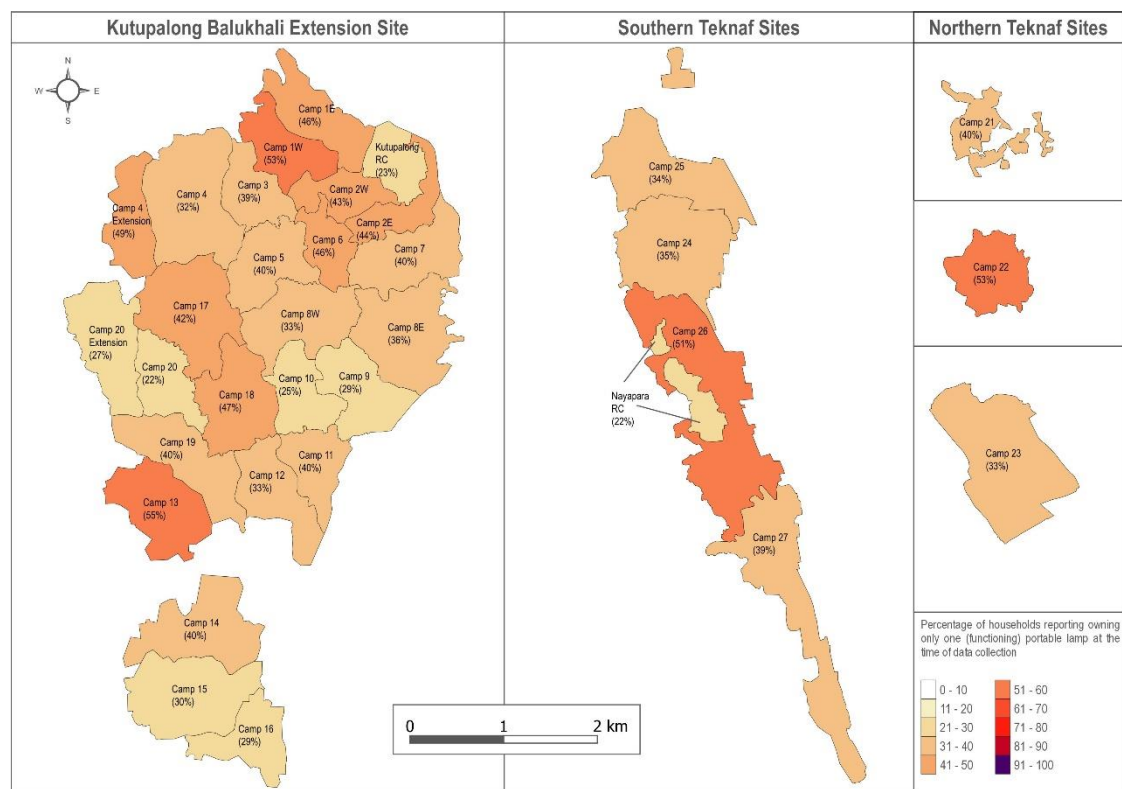

Map 30: % of households reporting owning <u>two or more</u> (functioning) portable lamps at the time of data collection
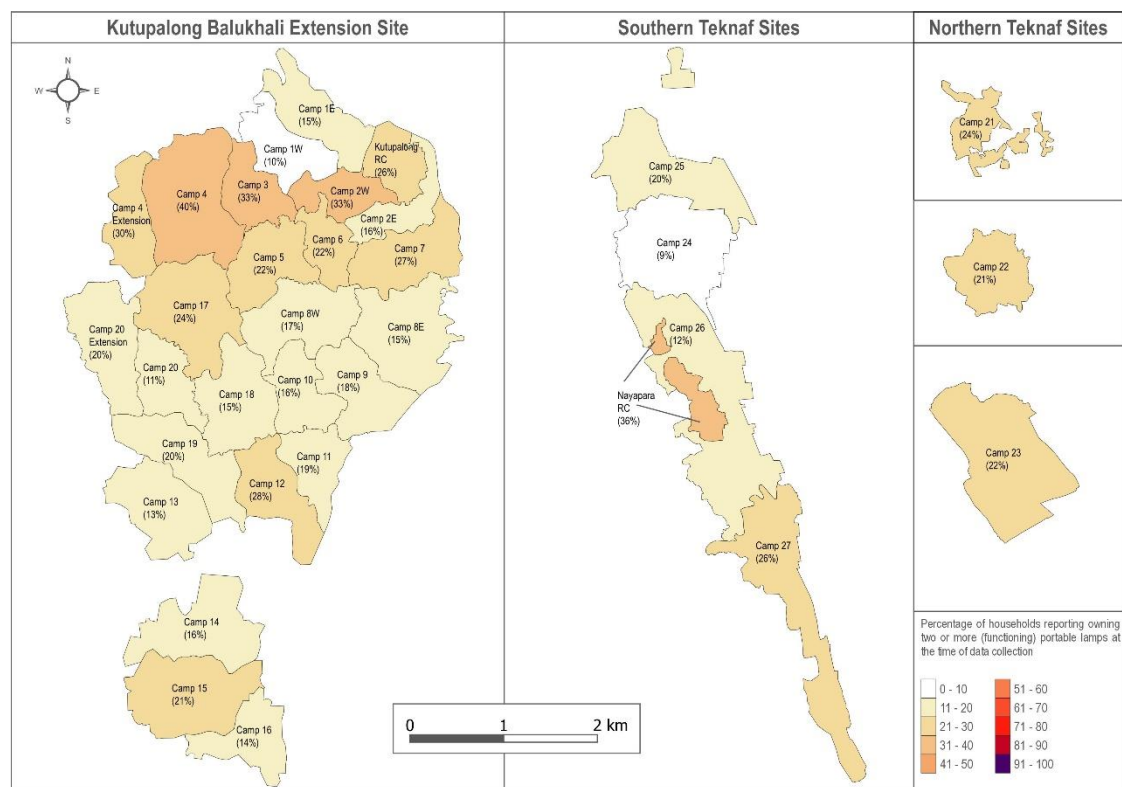
Map 31: % of households reporting that members faced any physical challenges accessing their shelter at the time of data collection

Map 32: % of households that reported paying money or goods to anyone to live in their current shelter, in the 6 months prior to data collection
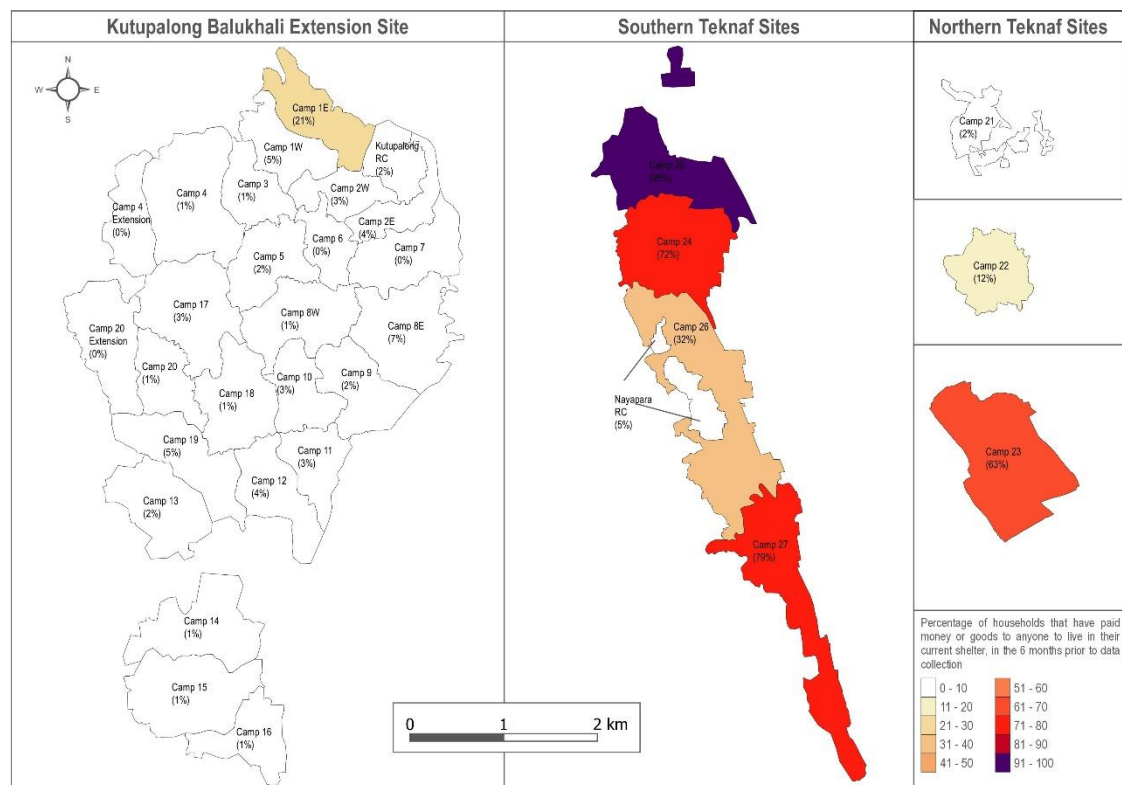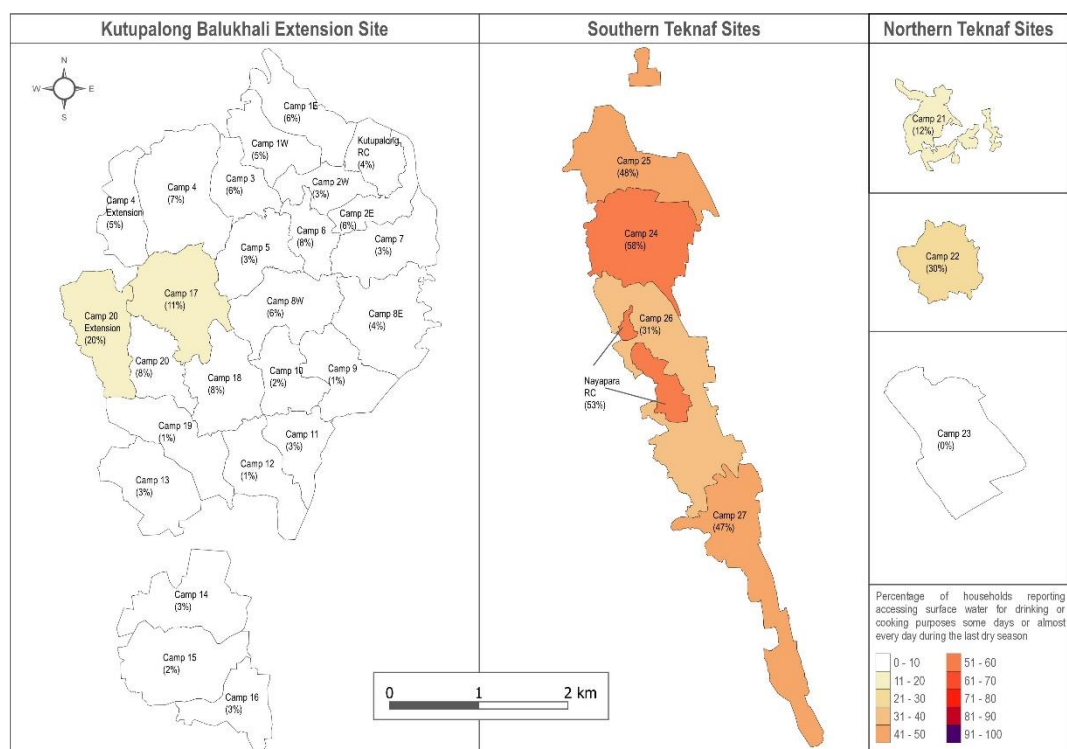
Map 33: % of households reporting using a fuel source other than LPG (cooking gas cylinder) for cooking purposes in the 4 weeks prior to data collection
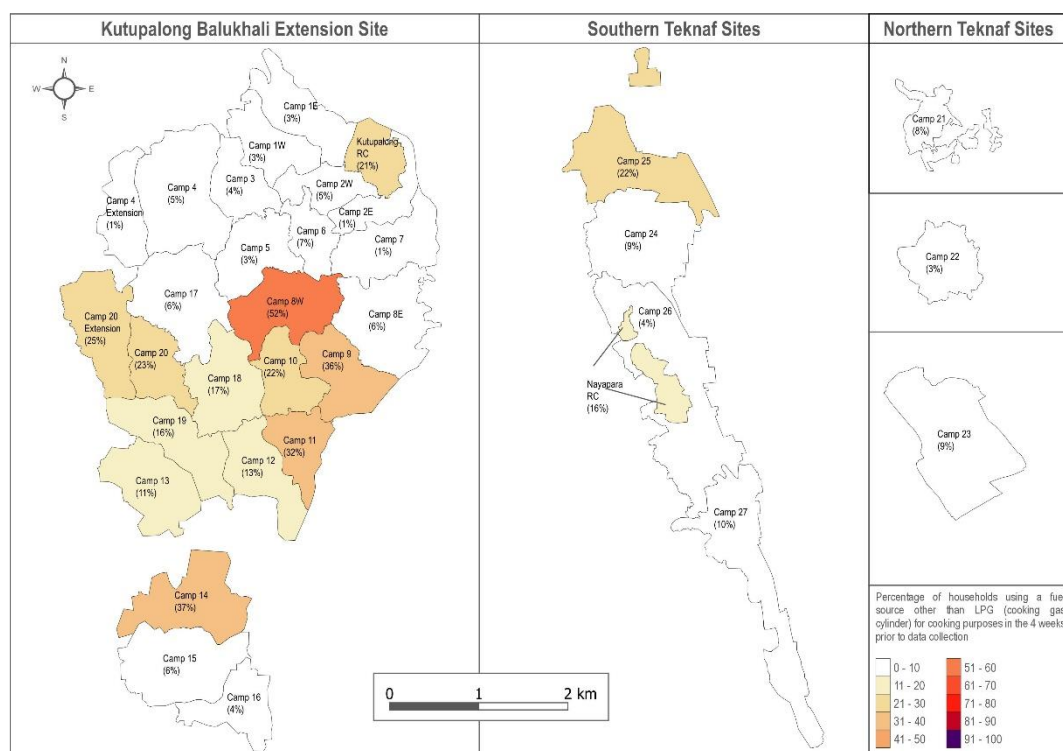

WASH

Map 34: % of households reporting accessing surface water for drinking or cooking purposes some days or almost every day during the last dry season[165]


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[165] Respondents were asked to recall frequencies from the previous dry season, as data collection occurred during the monsoon season. The calendar period corresponding to "dry season" was not specifically defined but is commonly understood to include the months immediately preceding monsoon season (roughly April - May 2019).

Map 35: % of households reporting not having enough water to meet all needs (drinking, cooking, personal hygiene, and domestic purposes) at the time of data collection[166]
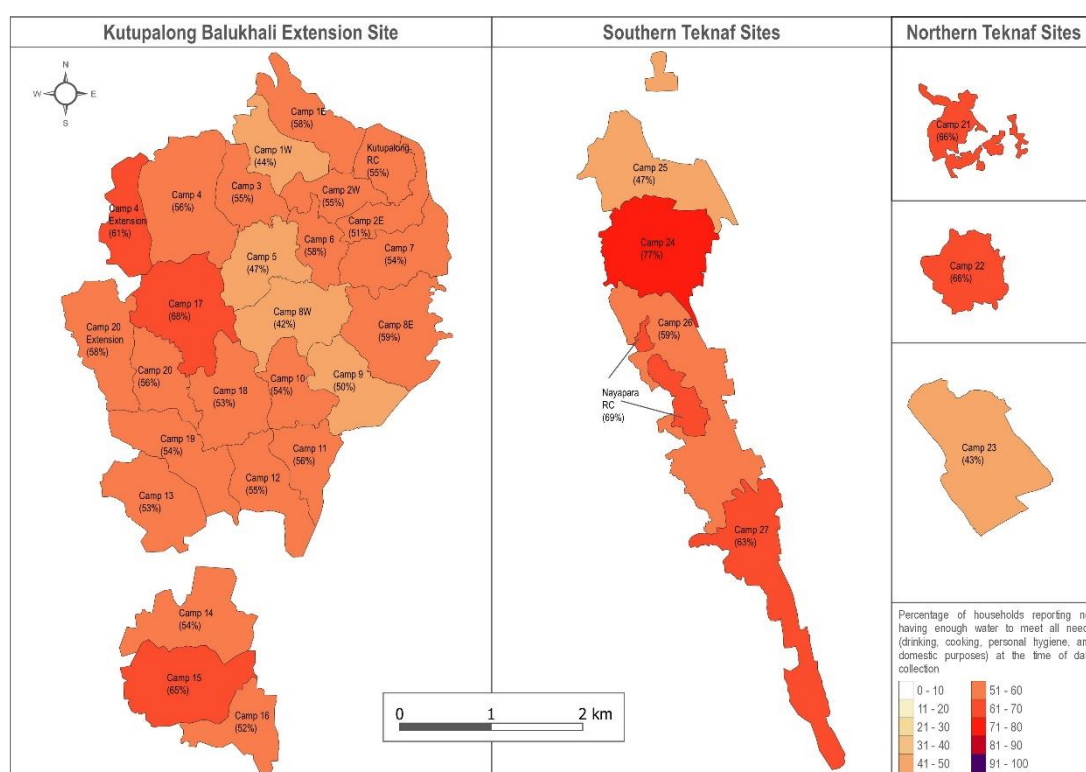
Map 36: % of households reporting not having enough water to meet basic drinking needs at the time of data collection

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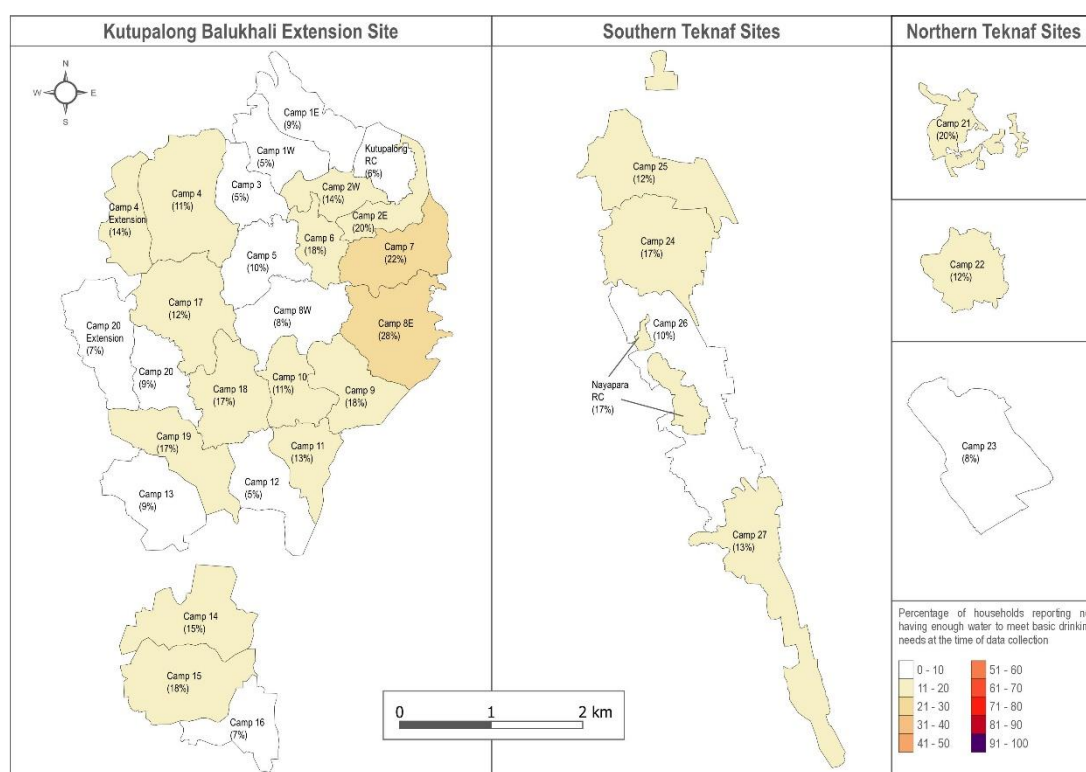
[166] This indicator reflects all households noting that they did not have enough water to meet needs for drinking; cooking; personal hygiene; and domestic purposes. The denominator for this indicator is all households.