DTM
IOM DISPLACEMENT TRACKING MATRIX
SOUTH SUDAN

URBAN MULTI-SECTOR NEEDS AND VULNERABILITIES SURVEY (FSNMS+)

WAU TOWN

In collaboration with:

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Photo (cover page):

A woman having her arm measurements taken by a DTM enumerator.

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Aims

Between September and November 2021, the International Organization for Migration's Displacement Tracking Matrix (IOM DTM) undertook its second household-level multi-sector assessment of selected urban areas and camps for internally displaced persons (IDPs) in South Sudan. The assessment aims to:

- Quantify the prevalence of vulnerabilities and humanitarian needs across sectors, with a focus on food security, economic vulnerability and nutrition as well as selected indicators on shelter and non-food items (SNFI), education, health, water, hygiene and sanitation (WASH), protection (including child protection and gender-based violence) and mental health and psycho-social support (MHPSS).
- Generate a better understanding of urban displacement and migration, including return and relocation after displacement in South Sudan or abroad.

This survey is part of the country-wide extended Food Security and Nutrition Monitoring System (FSNMS+) assessment in South Sudan, jointly conducted by IOM, the World Food Programme (WFP), the United Nations Children's Fund (UNICEF), the Food and Agriculture Organization (FAO), the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), REACH and several humanitarian clusters. It was designed to be an independent, crisis-wide and coordinated inter-agency multi-sectoral needs assessment, mandated by the Humanitarian Country Team and endorsed by the Inter-Cluster Coordination Group. Together, the joint findings provide an evidence-base for the Integrated Food Security Phase Classification, the Humanitarian Needs Overview and the Humanitarian Response Plan.

This report presents sectoral findings for the urban area of Wau. Separate profiles have been published for the urban areas of Juba, Bor, Yei, Bentiu / Rubkona and Malakal. Further profiles will be published for Juba IDP Camps I and III, Naivasha IDP Camp, Bentiu IDP Camp and Malakal Protection of Civilians (PoC) Site.

Humanitarian Context in South Sudan

Despite a relative lull in large-scale hostilities since the signature of the Revitalized Peace Agreement for the Resolution of the Conflict in South Sudan (R-ARCSS) in September 2018 and the formation of the Transitional Government of National Unity in February 2020, sub-national and localized conflicts have continued to affect communities and cause new displacement across the country (IOM DTM Event Tracking[1]). Between January and September 2021, 138,637 individuals were displaced due to conflict, and 84,861 individuals were displaced due to communal clashes (IOM DTM Mobility Tracking Round 11). Although the overall number of casualties has decreased compared to 2020 figures, escalations in violence in Western Equatoria – particularly in Tambura - and Jonglei and Greater Pibor Administrative Area were flagged as concerning (HRD UNMISS). After two years of severe seasonal flooding, 2021 witnessed another year of extreme flooding, affecting over 835,000 people (OCHA). Three consecutive years of high levels of flooding have depleted resources and severely increased needs in many communities while simultaneously limiting humanitarian access. In this climate, the economic and health impact of COVID-19, including restrictions cross-border movement (IOM DTM Flow Monitoring), has further compounded the humanitarian effects of protracted insecurity.

As of September 2021, South Sudan hosts over 2 million IDPs and 1.78 million returnees, with over 400,000 new IDP arrivals[2] and over 400,000 former IDPs and refugees returning to their areas of habitual residence prior to displacement in the first nine months of 2021 (IOM DTM Mobility Tracking Round 11). Often, returnees find themselves in conditions of need comparable to those of the displaced population (IOM DTM Mobility Tracking Round 11 Multi-Sector Location Assessment).

According to the Integrated Food Security Phase Classification (IPC) analysis for February to March 2022, 6.8 million people – more

1 Due to limitations in coverage and access, DTM Event Tracking does not provide a comprehensive picture of displacement events.

2 Including both new displacement incidents and individuals moving to a different location of displacement.

than half of South Sudan's population – are estimated to be facing severe acute food insecurity, with parts of Jonglei and Unity states of extreme concern for food insecurity. The 2022 Humanitarian Needs Overview (HNO) estimates a total of 8.9 million people in need out of a projected population of 12.4 million. In the intersectoral severity of needs analysis, the HNO also classifies five counties – Duk, Fangak, Pibor, Cueibet and Rumbek East – to be in catastrophic need and another 71 counties to be in extreme need.

After the successful conclusion of the first round of the expanded FSNMS+ assessment in urban areas and IDP sites (FSNMS+ 2020), the second round enlarged its coverage to include the urban areas of Bor and Yei. The assessment took place after the former PoC sites in Juba, Wau and Bentiu transitioned out of their special status under the protection of the United Nations Mission In South Sudan (UNMISS) in 2020 and early 2021. All five targeted camps continue to be affected by congestion and sub-standard living conditions that are only partly mitigated by access to humanitarian services.

Methodology

Sampling Frame Development

South Sudan lacks an updated sampling frame, with the most recent census dating back to 2008, prior to the country's independence and two waves of civil war resulting in mass population displacement. To enable the roll-out of representative household surveys in urban areas within a short timeframe, IOM DTM relied on a combination of remote sensing technology and field mapping by teams of trained enumerators to produce a workable sampling frame. The methodology sought to avoid the need for door-to-door listings, which would have significantly increased costs and could have been mistaken by the local population for a registration exercise, potentially attracting residents from surrounding neighborhoods.

In the initial step, building footprints for the targeted areas were extracted from recent high-resolution satellite imagery from Maxar using automated image-recognition technology. The urban extent of each city was then mapped based on lower-level post-independence administrative boundaries (bomas) made available by South Sudan's National Bureau of Statistics, the local road and transport network and the extension of built-up areas. Within the urban extent, enumeration areas of approximately equal size were drawn following natural and man-made geographical boundaries, including roads, waterways and the former boma boundaries. Non-residential and destroyed areas were mapped by field teams using mobile GIS software, in consultation with key informants and direct observation for each enumeration area, to derive a layer of likely residential shelters.

In collaboration with South Sudan's National Bureau of Statistics (NBS), the boundaries of the enumeration areas in Wau were then re-adjusted to obtain 127 areas with an average of 500 inhabited shelters and Masna Collective Center. Naivasha IDP Camp was excluded from the town's sampling frame and assessed independently.[3]

Sampling Design

In Wau town, the study adopted a stratified two-stage clustered sampling strategy designed to be self-weighting. The sample was distributed between the enumeration areas proportional to the estimated number of inhabited shelters. In the first stage, enumeration areas served as the primary sampling units (PSUs). They were divided into seven strata based on shelter density as a proxy for the possible presence of slums, location near a local market, and presence of IDP camps or collective centers. Forty-nine enumeration areas and Masna Collective Center were sampled with probability proportional to size, reflecting the approximate distribution across strata. The estimated number of residential shelters in each enumeration area was used as the measure of size given the lack of accurate[4], geographically disaggregated population estimates.

In the second stage, shelters – excluding mapped non-residential and destroyed areas – acted as the secondary sampling units (SSUs), proxying households. Thirteen shelters were drawn by simple random

3 As the technical advisory member of the FSNMS+ Technical Working Group, IOM DTM contributed to the sampling frame development of the rural component based on updated enumeration areas. The 2022 assessment is the first round, in which the country-wide exercise relied on updated enumeration areas as primary sampling units.

4 Household figures from the most recent available DTM population count were used as the measure of size for Masna Collective Center.

sampling from each targeted enumeration area. Enumerators were provided with georeferenced maps helping them locate the sampled shelters on hand-held devices and were instructed to interview the household living in the pinpointed shelter or record it as empty[5], non-residential or destroyed. Random reserve shelters were used as a replacement in case of non-response or other sampling failure.

For the purposes of the survey, a household was defined as a group of people who regularly eat out of the same pot (sharing food and other resources) and sleep in the same compound most nights of the week, even if living in different structures within the compound and regardless of family relationships. When multiple households lived in the same compound, enumerators used the kobo tool to randomly select one.

The targeted sample size of 650 households from 49 enumeration areas and Masna Collective Center was calculated based on the standard formula for clustered sampling, with a margin of error of 5 per cent on a 95 per cent confidence interval, assuming a design factor of 1.5 and a non-response rate of 10 per cent.

5 Before recording a shelter as empty, enumerators had to visit it at least twice at different times of the day and attempt to set up an appointment through neighbors.

Enumerators taking height measurements of a child in Wau town.

Data Collection

Data collection in Wau took place in September and October 2021, and 645 households were successfully interviewed. Challenges included non-response, non-residential, empty and destroyed shelters in some areas.

To prevent transmission of COVID-19 during the survey, enumerators were instructed to carry out the interviews with sufficient physical distancing outside the respondents' shelters and were provided with masks and hand sanitizer for use during data collection.

Statistical Analysis

Confidence intervals – denoted in the summary text by a (±X.X) – were calculated using R's survey package[6] to account for the survey's sampling design (stratified clustering). Descriptive statistics reflect unweighted means and standard errors since the sample was designed to be approximately self-weighting. While non-response and other sampling failure rates differed across enumeration areas, it was not possible to correct for these differences due to lack of reliable, geographically disaggregated population estimates and the likelihood of

6 Lumey. T. (2020). "Survey: analysis of complex survey samples". R package version 4.0.

Enumerators surveying a mother with her child in Wau town.

correlation between sampling failure rates and error in the estimated number of residential buildings used as a proxy for population. The following table shows the deviation between sampled households and estimated residential buildings in each stratum.

% SAMPLED HOUSEHOLDS, % ESTIMATED RESIDENTIAL BUILDINGS AND PERCENTAGE POINT DIFERENCE BY STRATUM [N IN TABLE]

STRATUM	N SAMPLED	% SAMPLED	% EST. RESIDENTIAL	P.P. DIFFERENCE
High Density, Links To Market	13	2.0	1.5	-0.5
High Density, Near Local Market	104	16.1	16.6	0.5
High Density, No Local Market	13	2.0	2.5	0.5
Low Density, Links To Market	115	17.8	17.6	-0.2
Low Density, Near Local Market	273	42.3	41.6	-0.7
Low Density, No Local Market	114	17.7	18.9	1.2
Masna Collective Center	13	2.0	1.2	-0.8

Using the estimates proportion of residential buildings in each stratum as weights results in some difference for vulnerability and need indicators. However, because it is not feasible to identify the cause for sampling failure in certain enumeration areas, weighting estimates may result in the introduction of another bias. All findings are therefore reported without correcting weights.

The impossibility of stratifying based on household attributes constrained the ability to carry out representative sub-group analysis and cross-tabulations of needs and vulnerabilities with sufficient statistical confidence. However, given the importance of this analysis for the humanitarian response, indicative findings have been included where relevant. The subset function from R's survey package was used to accurately compute confidence intervals for sub-group analysis[7].

Confidence intervals are a measure of the statistical uncertainty regarding our estimate. The 95 per cent confidence interval will contain the true quantity of interest 95 per cent of the time over repeated samples. This means that if we were to repeat this survey one hundred times under identical conditions, on average ninety-five of the calculated intervals would contain the true value of our target quantity.

The confidence interval does not account for uncertainty due to systematic biases in the sample, such as that due to sampling bias (systematic under or over-representation of households with certain characteristics in the sample) or reporting bias (systematic under or over-reporting of certain indicators by respondents due to their sensitivity, surrounding stigma or perceived incentives). To the extent possible, these sources of bias were minimized through the survey's sampling design, training and monitoring of enumerators, and appropriate communication of the purposes of the study with respondents. A small number of data anomalies that may be due to reporting bias are flagged in the sectoral narratives.

Urban Vulnerability Index Calculation

The Urban Vulnerability Index uses Principal Component Analysis (PCA) to assess the relative impact of a set of high priority indicators on needs and vulnerabilities of households in urban areas. The index summarizes the variation around the complex drivers of vulnerability, need and re-integration in urban settings, or how multiple categories of vulnerability (displacement, disability, poverty, age, gender, etc.), sectoral needs (SNFI, health, WASH, food security, protection, etc.), and broader distributional and societal factors interact and compound each other.

The index ranges from 0 to 100, with 100 signifying the highest level of needs and vulnerability.

Vulnerability is defined as the set of household characteristics that reduces their resilience to internal and external shocks, or capacity to rely on sustainable coping mechanisms, resulting in a higher level of humanitarian needs and likelihood of adverse outcomes unless the household can benefit from appropriate mitigation measures, such as access to humanitarian services.

7 Ibid., p. 55. "Voluntary migrants" and "Refugees" were excluded from the sub-group analysis in this report due to their small sample sizes. "Returnees" and "Relocated persons" were grouped for sub-group analysis.

Index indicators:

- Population Group
- Disability
- Shelter Damage
- Crowding
- Access To Sufficient Water
- Access to WASH NFI
- Distance to Health Facility
- Security Incidents
- GBV Risk
- Coping Strategies
- Livelihoods
- Single-headed Households
- Chronic Illness
- Shelter Type
- School Dropout
- Safe and Timely Access to Water
- Sanitary Facility
- Access to Health Facilities
- Protection Service Availability
- Behavioral Changes in Children
- Hunger Levels

For a detailed definition of the used indicators and importance of components, see the Urban Vulnerability Index and Intersectoral Analysis section.

Population Groups

Displacement and migration status are self-reported by households. Population group definitions are based on IOM DTM Mobility Tracking.

IDPs

Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border[8]. There is no time limit on being an IDP. This status ends when the person is able and willing to return to their original home or makes a free choice to settle in a new location[9].

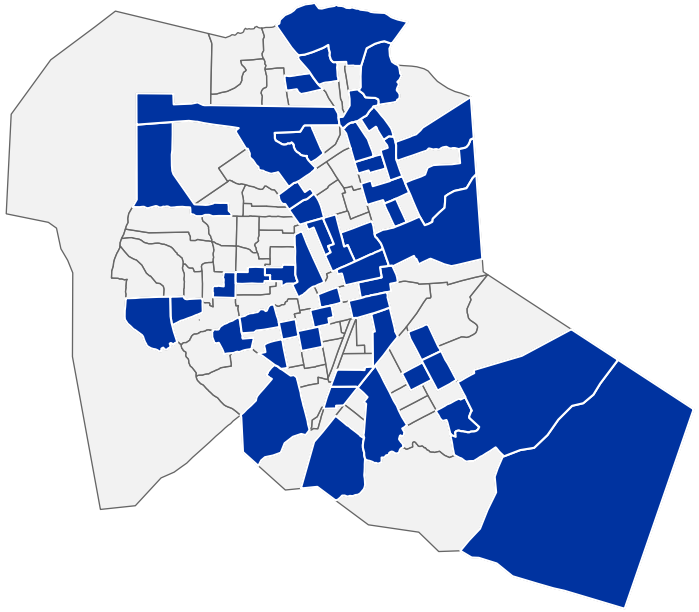
Returnees

Someone who was displaced from their habitual residence either within South Sudan or abroad, who has since returned to their habitual residence. Please note: the returnee category, for the purpose of DTM data collection, is restricted to individuals who returned to the exact location of their habitual residence, or an adjacent area based on a free decision. South Sudanese displaced persons having crossed the border into South Sudan from neighboring countries but who are unable to reach their former home are still displaced and as such not counted in the returnee category.

Relocated Persons

A person who was displaced from their habitual residence either within South Sudan (former IDP) or abroad (former refugee), who has since relocated voluntarily (independently or with the help of other actors) to a location other than their former habitual residence, without an intention to return to their former habitual residence.

ENUMERATION AREAS IN WAU TOWN SAMPLED FOR ASSESSMENT



8 UN OCHA. (2004). *Guiding Principles on Internal Displacement*. Article 2.

9 These conditions for ending IDP status are in line with the Inter-Agency Standing Committee's *Framework on Durable Solutions for Internally Displaced Persons* (April 2010).

Demographics and Household Vulnerabilities

In this assessment, 77.4 (±5.4) per cent of responses are given by heads of household (HoH), while 22.6 (±5.4) per cent of households are represented by some other household member. These respondents tend to be younger members of the household (average age of 32 years compared to 38 years for heads of households responding).

The average household size is 6.5 (±0.4) persons, with a median of 6 persons. The average size of households hosting individuals is 8.7 (±0.9) persons whereas the size of households not hosting any individuals is 6.3 (±0.4) persons. Most households are headed by women (59.8% ±5.7%). Compared to their female counterparts, male heads of household are more likely to be older and have a secondary or university diploma. 20.1 (±1.6) per cent of household members are between the ages 0 and 5, and 33.5 (±2.1) per cent are between the ages of 6 and 17. Only 3.8 (± 0.7) per cent are above the age of 60.

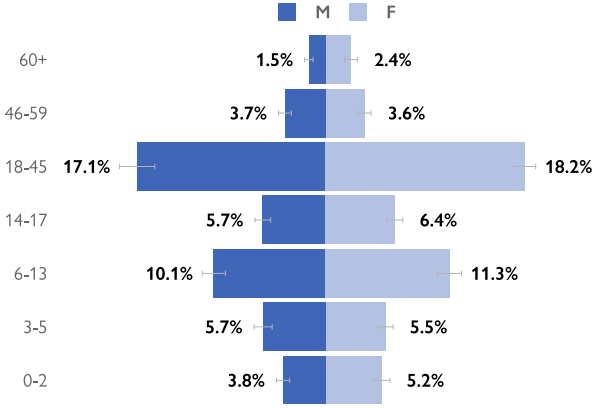
Among all households, 28.5 (±6.2) per cent of households have at least one member with a chronic illness, and 10.5 (±3.5) per cent report to have at least one member with a disability, as measured by the Washington Group Short Set questions. In comparison to figures from previous assessments and national estimates of the prevalence of persons with disabilities[1], these figures should be treated as an estimation of the lower bound of the real prevalence.

77.4%
of respondents were the head of household

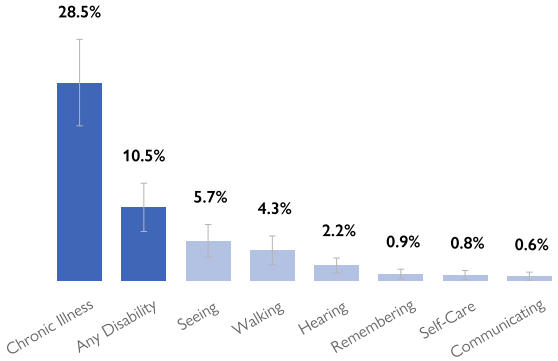
Disability Prevalence
10.5%

Chronic Illness Prevalence
28.5%

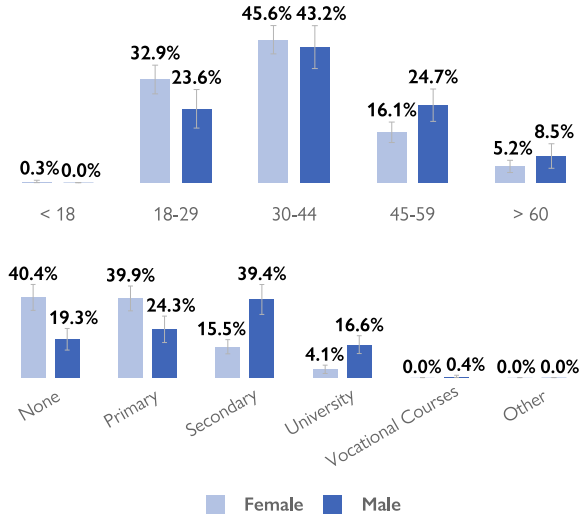
% INDIVIDUALS BY AGE GROUP AND GENDER [N IND. = 4,123; N HH = 637[2]]



% HH WITH A MEMBER WITH A DISABILITY OR CHRONIC ILLNESS [N = 645]



% MALE AND FEMALE-HEADED HH BY AGE AND EDUCATION LEVEL OF HH HEAD [N = 645]



HH with vulnerable heads of HH
25.3%

Children and/or elderly-only HH
2.8%

Single female-headed HH
10.9%

Single male-headed HH
11.6%

% HH BY NATIONALITY [N = 645]

Nationality	%	LL	UL
South Sudan	94.9%	92.5%	97.3%
Sudan	2.2%	0.4%	3.9%
Mixed Foreign	2.0%	0.7%	3.3%
Unknown	0.7%	0.0%	1.5%
Uganda	0.3%	0.0%	0.7%

1 The 2022 Humanitarian Needs Overview applies a standard rate of 15 per cent for their sectoral and inter-sectoral analysis.

2 Eight households were excluded from the breakdown due to household size anomalies.

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Displacement and Migration

Displaced households come mostly from within Western Bahr El Ghazal state (82.1% ±9.2% of IDP HH), with Wau and Jur River being the most prominent counties. Some IDP households also come from Warrap state (7.4% ±6.0% of IDP HH). The main reasons for displacement are personal insecurity due to generalized violence (46.7% ±9.0%) or targeted violence (14.8% ±7.5%) and conflict interrupting access to livelihoods (21.5% ±8.0%).

For returned and relocated households, key drivers are improvement of security in area of return (68.2% ±10.9%), resolution of communal clashes (24.2% ±10.2%) and access to land or housing (12.1% ±8.7%). Over three quarters of these households (75.8% ±10.2%) are satisfied with their decision to return or relocate, and 21.2 (±9.8) per cent are not satisfied but will remain in their location.

The majority of IDPs intend to remain in their current location (54.1% ±11.2%) while only a few intend to relocate to a different location (3.7% ±2.9%) in the next two years. Less than a third of IDP households (31.9% ±11.5%) intends to return to their area of habitual residence, and 8.1 (±5.7) per cent are unsure of their plans. Of the displaced households intending to return, 60.5 (±21.4) per cent plan to return within a year. Indicatively, 16.7 (±8.0) per cent of returned or relocated households have not reached their final destination where they intend to settle.

Host Community **67.4%**

Voluntary Migrants **0.6%**

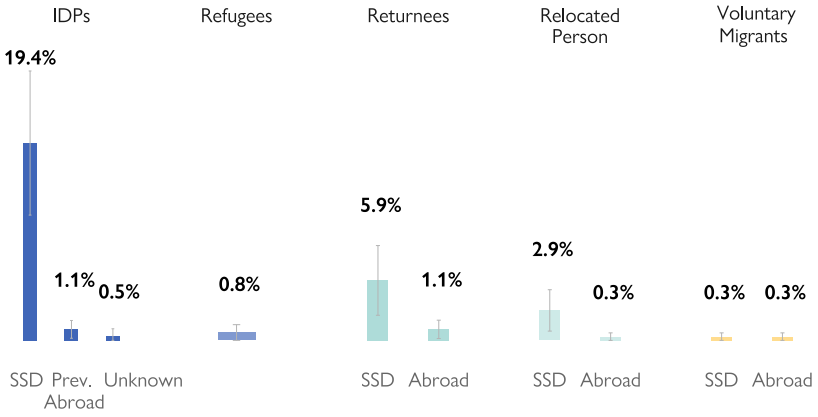
IDPs **20.9%**

Returnees **7.0%**

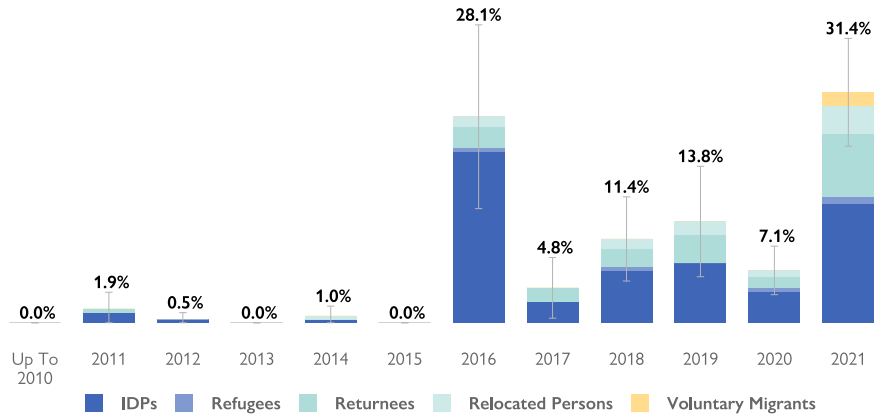
Refugees **0.8%**

Relocated **3.3%**

% HH by displacement or migration status [N = 645][1]



% HH by year of arrival and displacement or migration status [N = 645]



% IDP HH by main reason for most recent displacement (top 5) [N = 135]

Reason	%	LL	UL
Personal Insecurity (Generalized)	46.7%	37.7%	55.6%
Conflict / No Access To Livelihoods	21.5%	13.4%	29.5%
Personal Insecurity (Targeted)	14.8%	7.3%	22.3%
Communal Clashes	6.7%	1.7%	11.6%
Conflict / No Access To Services	5.9%	2.2%	9.6%

% IDP HH not intending to return within the next two years by main reason (top 5) [N = 115]

Barrier	%	LL	UL
Insecurity In AOR	33.0%	21.8%	44.3%
House / Land Destroyed	30.4%	18.5%	42.3%
No Means	29.6%	19.2%	40.0%
Lack Of Livelihoods In AOR	29.6%	18.1%	41.1%
Lack Of Services In AOR	19.1%	10.9%	27.4%

Households intending to return **31.9%**

Households intending to remain **54.1%**

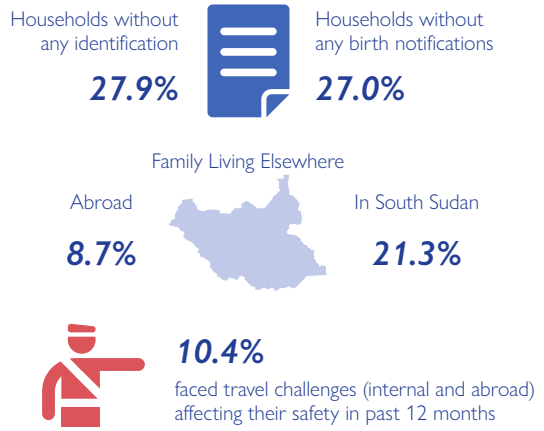
1 N for sub-groups: HC n = 435; IDPs n = 135, Refugees n = 5; Returnees n = 45, Relocated persons n = 21, Voluntary migrants n = 4.

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

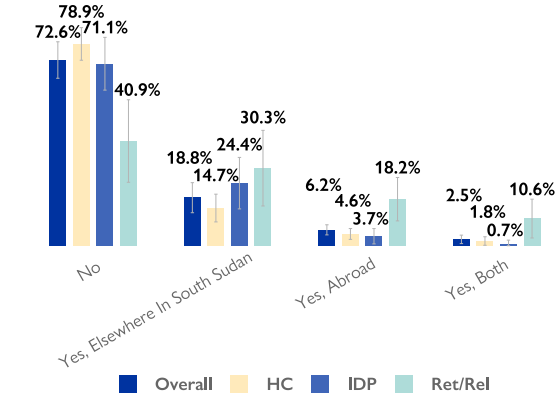
Over a quarter of households (27.4% ±7.1%) have close family members living elsewhere in South Sudan (18.8% ±5.9%), abroad (6.2% ±2.0%) or both (2.5% ±1.7%). 12.6 (± 4.6) per cent of households have children living elsewhere, mostly to attend studies (37.0% ±11.8%) or due to marriage (28.4% ±9.9%).

Less than one in ten households (9.0% ±3.5%) possess identification documents for all their members. In 58.3 (±6.2) per cent of households some members have IDs, and in 27.9 (±5.3) per cent none of the members do. Displaced (and indicatively, returned and relocated) households are more likely to lack IDs compared to host community households (39.3% ±11.8% vs 23.2% ±5.6%). Of the households who have children, only 17.8 (±4.1) per cent have access to birth notifications for all their children, 46.2 (±5.5) per cent for some children and 27.0 (±4.4) per cent for none of their children.

About one in ten households have experienced challenges in the 12 months preceding the assessment affecting their ability to travel safely within South Sudan (6.2% ±2.3%), abroad (2.0% ±1.4%) or both (2.2% ±1.2%). Households facing challenges cite increase in cost (47.1% ±13.3%), insecurity due to conflict (29.4% ±11.0%) and insecurity due to crime (27.9% ±12.3%) as the main reasons. Respondents also note climate-related challenges (17.9% ±8.6%) – including flooding and impassable roads during the rainy season – and lack of documentation (11.8% ±10.3%).



% SUB-GROUP HH WITH CLOSE FAMILY CURRENTLY LIVING ELSEWHERE



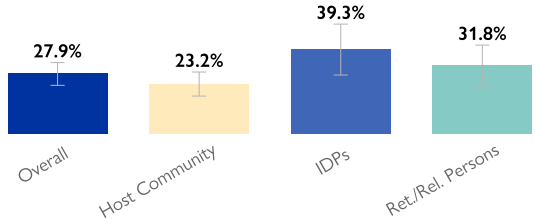
% HH WITH ADULT FAMILY MEMBERS LIVING ELSEWHERE BY REASON (TOP 5) [N = 165]

Reason	%	LL	UL
Education	32.7%	23.8%	41.7%
Looking For Work	23.0%	13.5%	32.5%
Displaced By Insecurity	9.1%	4.0%	14.1%
Join Family / Relatives	9.1%	5.3%	12.9%
Looking For A Different Lifestyle	8.5%	4.5%	12.4%

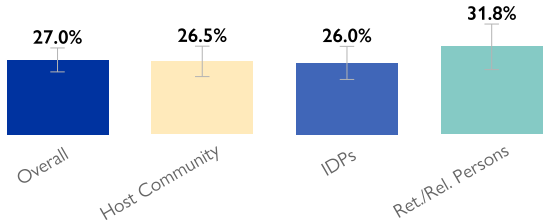
% HH WITH CHILDREN LIVING ELSEWHERE BY REASON [N = 81]

Reason	%	LL	UL
Attend Studies	37.0%	25.2%	48.9%
Married	28.4%	18.5%	38.3%
Seek Employment	16.0%	7.9%	24.2%
Visit Family Elsewhere	16.0%	8.4%	23.7%
Sent To Relatives	11.1%	3.8%	18.5%
Other	6.2%	1.0%	11.3%
Missing (Left And No News)	2.5%	0.0%	5.9%
Joined Army / Armed Groups	1.2%	0.0%	3.7%
Arbitrarily Detained	1.2%	0.0%	3.7%
No Answer	4.9%	0.0%	10.6%

% SUB-GROUP HH WITHOUT ACCESS TO VALID IDENTITY DOCUMENTATION FOR ALL MEMBERS



% SUB-GROUP HH WITH CHILDREN WITHOUT ACCESS TO BIRTH NOTIFICATIONS FOR ALL CHILDREN



% HH FACING TRAVEL CHALLENGES (INTERNAL AND ABROAD) IN THE PAST 12 MONTHS BY CHALLENGE (TOP 5) [N = 67]

Challenge	%	LL	UL
Increase In Cost	47.1%	33.8%	60.4%
Insecurity Due To Conflict	29.4%	18.4%	40.4%
Insecurity Due To Crime	27.9%	15.6%	40.3%
Roads Impassable	11.8%	3.0%	20.5%
Lack Of Documentation	11.8%	1.4%	22.1%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Community-driven Assistance

Overall, 6.8 (±3.3) per cent of households host IDPs (3.4% ±2.1%), returnees (4.2% ±2.7%) or unaccompanied, separated or orphaned children (4.3% ±2.0%). IDP and returnee households (14.9% ±10.4% and 16.7% ±7.0%) are significantly more likely to host individuals compared to host community (2.8% ±1.6%), underlining the increased burden on households in displacement. Close to half of households hosting others are worried that they may have to stop hosting some or all of them over the next three months while they still need support (45.5% ±18.0%), indicatively citing high costs and a lack of space as the main reasons.

In the 12 months preceding the assessment, more households were receiving remittances in support from friends or relatives living elsewhere (12.2% ±3.5%) than households sending remittances (7.8% ±2.1%). Half of households sending remittances did not see any changes in the amounts they sent in the past six months (50.0% ±13.8%) while 14.0 (±7.6) per cent note a slight decrease and 18.0 (±11.3) per cent a substantial decrease in the amount. Indicatively, households receiving remittances are less likely to report a decrease in the amount received in the past six months, with 16.5 (±7.6) per cent noting a slight and 12.7 (±8.4) per cent a significant decrease in the amount. Indicatively, host community and returned or relocated households were more likely to receive remittances than displaced households.

6.8%
hosting IDPs, returnees or unaccompanied children

Good **73.3%**

IDP / Returnee - Host Community Relations

Poor **1.4%**

32.0%
experienced a decrease in the amount of remittances sent

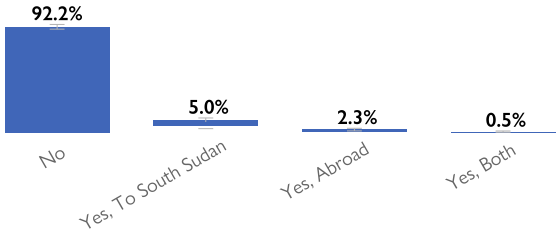
% HH by hosting IDPs, returnees or unaccompanied / separated children [N = 645]

Hosting	%	LL	UL
Any individuals	6.8%	3.5%	10.1%
IDPs	3.4%	1.3%	5.5%
Returnees	4.2%	1.5%	6.9%
Unaccompanied children	4.3%	2.4%	6.3%

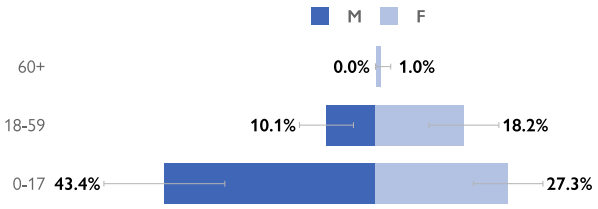
% HH worried about stopping hosting individuals in the next three months by reason [N = 14]

Reason	%	LL	UL
No Longer Able To Bear The Cost	57.1%	26.4%	87.8%
Not Enough Space	42.9%	12.2%	73.6%

% HH sending remittances to support friends / relatives in last 12 months [N = 645]



% hosted individuals by age and gender [N HH = 42; N IND = 99]

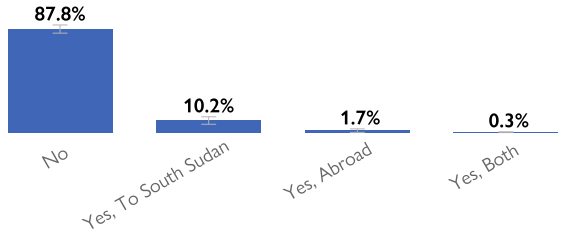


45.5%
worried that they might need to stop hosting in the next 3 months

Sending remittances **7.8%**

Receiving remittances **12.2%**

% HH receiving remittances to support friends / relatives in last 12 months [N = 645]



% HH receiving remittances in support from friends / relatives by change in amount in last six mos. [N = 79]

Change	%	LL	UL
Increased Substantially	1.3%	0.0%	3.7%
Increased Slightly	5.1%	0.0%	10.2%
Same	64.6%	52.2%	76.9%
Decreased Slightly	16.5%	8.9%	24.0%
Decreased Substantially	12.7%	4.3%	21.1%
Not Applicable	0.0%	0.0%	0.0%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Shelter and Non-Food Items

Two in five households (39.4% ±7.1%) live in traditional mud huts with thatched roofs (tukuls), while 38.8 (±7.0) per cent live in permanent semi/concrete buildings and 10.2 (±4.1) per cent live in shacks built with local materials (rakooba). Among those most in need, 10.2 (±3.3) per cent live in improvised shelters and 1.4 (±2.1) per cent in communal shelters, community buildings or emergency shelters provided by humanitarian partners. Overall, about one in five households (19.2% ±4.3%) live in partially damaged or destroyed shelters. IDP households are more likely to live in partially or completely damaged shelters (27.4% ±8.1%) than host community households (17.7% ±5.1%).

22.7 (±5.5) per cent of households are involved in open disputes relating to their current housing and/or property, although the sensitivity of this issue in the context of South Sudan may result in under-reporting. Indicatively, the most common issues leading to open disputes are disputed ownership (9.5% ±4.5%). One in ten affected households did not answer how they attempted to resolve these disputes, while over half (52.9% ±11.2%) report that they did not take any action. Only 18.6 (±6.7) per cent report using formal dispute resolution mechanisms.

20.6 (±3.9) per cent of households live in shelters made of only one room. 28.5 (±6.7) per cent do not have security risk mitigation measures (such as doors, locks or lighting) in place.

Households living in

Partially damaged shelters **18.9%**

Completely destroyed shelters **0.3%**

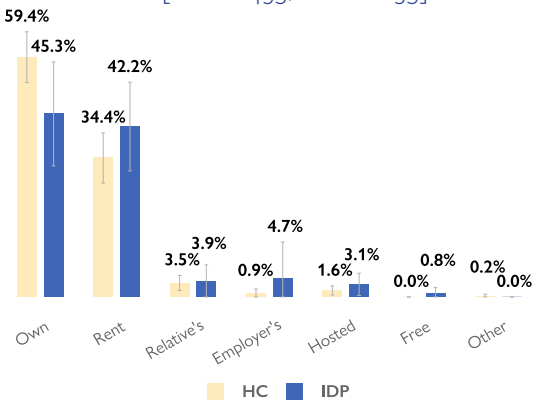
Households in improvised, communal or emergency shelters **11.6%**

Households in shelter with four or more persons per room **31.8%**

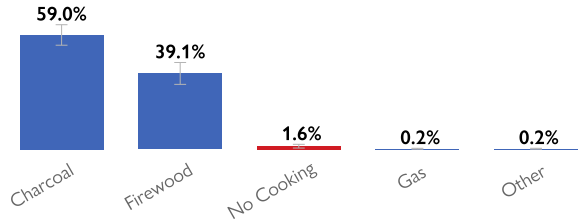
% HH BY SHELTER TYPE [N = 645]

Shelter Type	%	LL	UL
Tukul	39.4%	32.3%	46.5%
Permanent Semi/Concrete Building	38.8%	31.7%	45.8%
Improvised Shelter	10.2%	6.1%	14.4%
Rakooba	10.1%	6.7%	13.4%
Emergency Shelter by UN/NGO	1.1%	0.0%	3.2%
Communal Shelter	0.2%	0.0%	0.5%
Community Building	0.2%	0.0%	0.5%
Other	0.2%	0.0%	0.5%

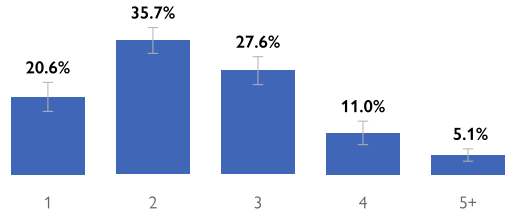
% HC AND IDP HH LIVING IN INDIVIDUAL SHELTERS BY OWNERSHIP STATUS [HC N = 435; IDP N = 135]



% HH BY MAIN SOURCE OF ENERGY FOR COOKING [N = 645]



% HH BY NUMBER OF ROOMS / PARTITIONED SPACES IN SHELTER [N = 645]

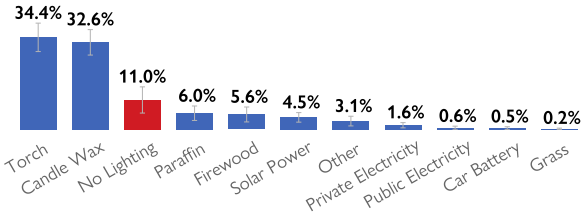


28.5% do not have security risk mitigation measures in place

HLP DISPUTE INVOLVEMENT

None	Disputed ownership	No answer
72.4%	**9.5%**	**4.8%**

% HH BY MAIN SOURCE OF ENERGY FOR LIGHTING [N = 645]



1 Damaged include those reported as "partially damaged" and "completely destroyed".

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Education

With an attendance rate of 48.9 (±4.3) per cent, over half of all children did not regularly attend formal school in the current school year (2021-2022), defined as attending an institution within a system of full-time education developed by and overseen by the National Ministry of Education. 12.6 (±3.4) per cent of children dropped out of school in the 2021-2022 school year. Comparing attendance rates between different sub-groups, host community and returned or relocated households are slightly less likely to have children attending school. Returnee and displaced households are more likely to have children dropping out. Differences are not statistically significant.

The top barrier that boys and girls face to accessing education are financial issues (61.9% ±6.1% for boys; 61.1% ±6.4% for girls). Notably, 6.8 (±2.5) per cent of households also indicate that marriage and/or pregnancy are one of the top three barriers to girls. About a third of households (31.6% ±4.2%) report that it takes between 30 minutes and 1 hour by foot to reach the nearest functional education facility, while 12.7 (±4.5) per cent report that they travel more than an hour by foot.

Estimates of attendance and dropout rates were calculated based on the total number of children reported in the household demographics section.

51.1% of children did not attend formal school in the 2021-2022 school year

12.6% of children dropped out of school in the 2021-2022 school year

13.8% of households received training in the past 12 mo.

Top trainings:
Agriculture
Business Skills

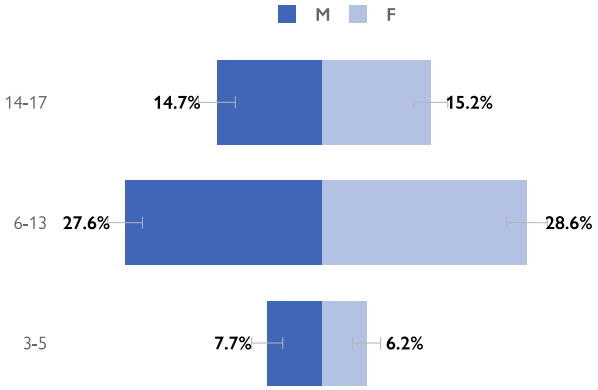
Attendance rate of children in

host community households	IDP households
47.9%	**48.5%**

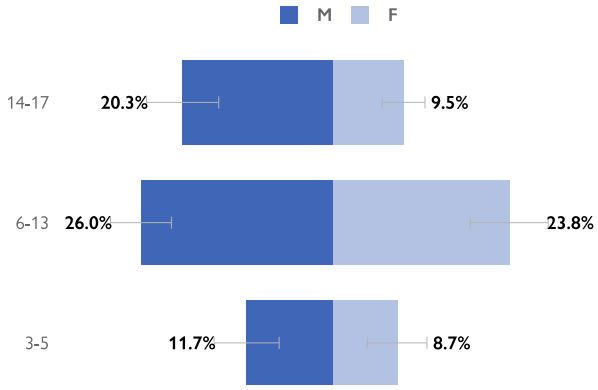
Dropout rate of children in

host community households	IDP households
10.6%	**12.3%**

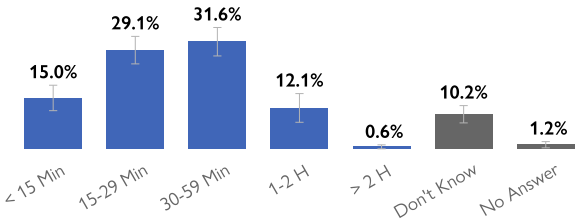
% CHILDREN ATTENDING SCHOOL FOR THE PAST SCHOOL YEAR BY AGE AND GENDER [N IND = 936]



% CHILDREN HAVING DROPPED OUT OF SCHOOL IN THE PAST SCHOOL YEAR BY AGE AND GENDER [N IND = 231]



% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL EDUCATION FACILITY [N = 645]



Top barriers to education girls and boys face

	Girls	Boys
Financial Issues	61.1%	61.9%
Closure due to COVID-19	9.9%	12.7%
Distance	9.9%	8.4%

% HH RECEIVING TRAINING IN THE LAST 12 MONTHS BY TYPE OF TRAINING [N = 89]

Training	%	LL	UL
Agriculture	27.0%	18.0%	35.9%
Business Skills Training	20.2%	10.2%	30.2%
Nutrition	18.0%	9.9%	26.0%
Other	14.6%	8.7%	20.6%
Vocational Training	13.5%	5.6%	21.3%
Childcare	6.7%	1.6%	11.9%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Water, Sanitation and Hygiene (WASH)

Overall, 37.8 (±5.1) per cent lack access to a safe and timely water source[1], with male-headed households indicatively faring worse than their female counterparts. This is mostly driven by the fact that the main water source for 21.9 (±4.7) per cent of households is bought water from tanks or trucks, as only 8.5 (±2.7) per cent of households need more than half an hour to collect water. 94.0 (±2.7) per cent of households do not have sufficient amounts of water, defined as 15 liters per household member per day.

The main water sources for households are deep boreholes or protected wells (61.4% ±6.5%) and bought water from tanks or trucks (21.9% ±4.8%). Most households do not treat their water (80.6% ±5.8%), while 6.2 (±2.5) per cent use chlorine. 9.2 (±2.8) per cent report having felt unsafe collecting water from their main water source in the two weeks prior to the interview, with returned or relocated households indicatively being more likely to be affected (18.2% ±11.8%).

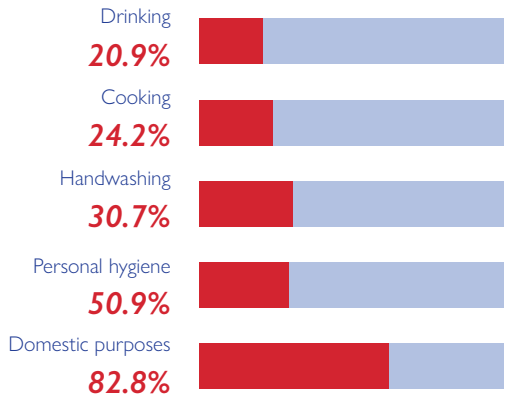
The survey did not include questions about the cost of water but asked about the change in the price experienced by households in the past six months. Three in five households (59.1% ±6.0%) report that the price of water has not changed, while 9.8 (±3.0) per cent report an increase and 19.1 (±5.4) per cent report a decrease.

37.8%
lack access to a safe and timely water source

19.1%
cannot meet any of their water needs

Main drinking water source:
DEEP BOREHOLE / PROTECTED WELL

Households not having enough water to meet needs:



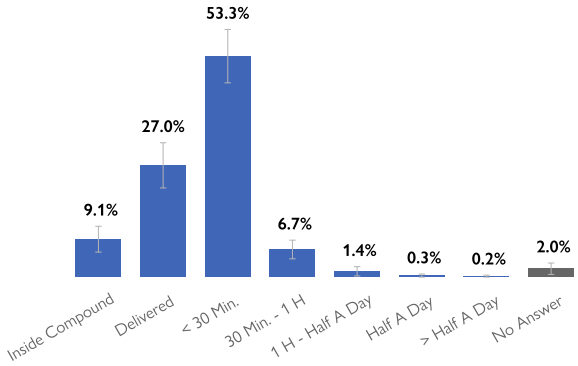
% HH BY MAIN SOURCE OF DRINKING WATER [N = 645]

Source	%	LL	UL
Deep Borehole / Protected Well	61.4%	54.9%	67.9%
Buy Water From Tank / Truck	21.9%	17.1%	26.6%
Public Tap (> 5 HHs)	7.8%	3.6%	11.9%
Tap Stand (< 5 HHs)	7.0%	4.2%	9.7%
Piped Water Into The House	0.8%	0.1%	1.4%

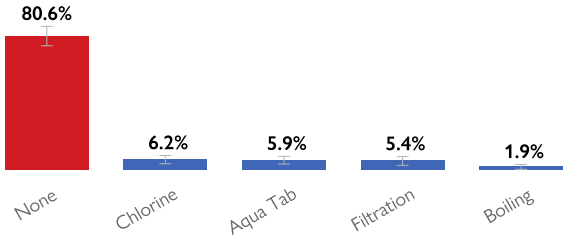
% SUB-GROUP HH WITH ACCESS TO SAFE AND TIMELY WATER

Group	N	%	LL	UL
Overall	645	62.2%	57.1%	67.3%
Female HoH	386	65.5%	59.3%	71.8%
Male HoH	259	57.1%	50.6%	63.7%
Host Community	435	62.1%	56.1%	68.0%
IDPs	135	64.4%	53.4%	75.5%
Ret./Rel. Persons	66	59.1%	44.2%	74.0%

% HH BY TIME TAKEN TO COLLECT WATER [N = 645]



% HH BY MOST COMMON WATER TREATMENT [N = 645]



% SUB-GROUP HH FEELING UNSAFE COLLECTING WATER

Group	N	%	LL	UL
Overall	645	9.2%	6.4%	12.0%
Female HoH	386	9.1%	6.1%	12.1%
Male HoH	259	9.3%	5.6%	13.1%
Host Community	435	8.1%	4.9%	11.3%
IDPs	135	8.1%	3.3%	13.0%
Ret./Rel. Persons	66	18.2%	6.4%	30.0%

1 "Access to safe and timely water" is fulfilled by the following criteria: the main water source is either deep borehole / protected well, tapstand serving no more than five households, public tapstand serving more than five households, bottled water or piped water into the house; households do not feel unsafe when collecting water; and households need less than 30 minutes to collect water.

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

58.0 (±7.2) per cent of households do not have access to basic WASH NFIs, including at least two jerrycans in good conditions and soap. Three in ten households (29.3% ±5.6%) do not have solid, liquid or powder soap at home. Of the households without soap, 70.4 (±9.7) per cent state that they cannot afford soap or detergent.

About half of all households (47.6% ±6.8%) report that women use sanitary pads in dealing with menstruation. A third of households (33.8% ±7.9%) report that women use pieces of cloth while 7.8 (±3.7) per cent report that women use nothing.

The majority (74.3% ±5.9%) reports having access to family latrines, with water-seal or pour-flush latrines being the most common (33.0% ±8.1%). 11.6 (±3.8) per cent rely on buckets, bushes or open spaces for defecation. Indicatively, displaced households are more likely to lack access to a toilet. Of households with children under the age of five, two thirds (66.7% ±6.6%) indicate that children use household latrines. One in ten households (9.9% ±4.1%) state that their children defecate openly.

For disposing waste, about half of all households burn their solid waste (47.8% ±6.8%) while 28.8 (±7.0) per cent discard theirs on the street.

58.0%
of households do not have access to WASH NFI

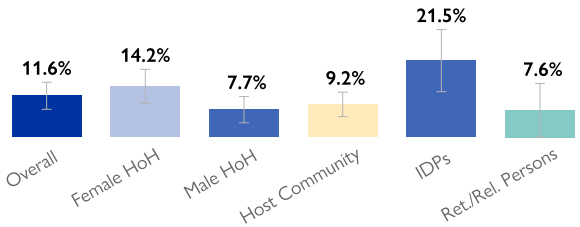
NFI

Households not using soap
29.3%

Main reason for not using soap
CANNOT AFFORD IT

Main female hygiene product:
SANITARY PADS

% SUB-GROUP HH WITHOUT A TOILET



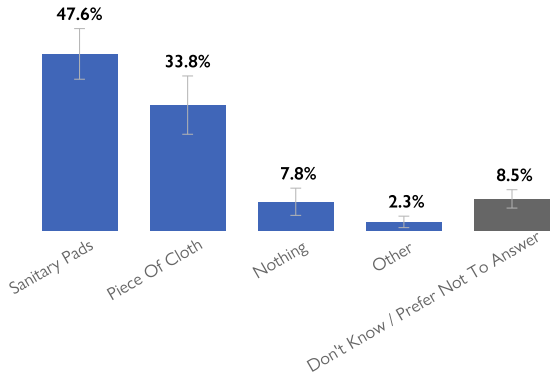
% HH BY TIMES WHEN THEY USUALLY WASH HANDS [N = 645]

Timing	%	LL	UL
Before Eating	94.9%	91.9%	97.9%
After Defecation	84.0%	80.3%	87.8%
Before Cooking	78.3%	72.3%	84.3%
Before Breastfeeding	44.6%	38.4%	50.8%
Before Feeding Children	41.6%	35.7%	47.5%
After Handling A Child's Stool	22.9%	17.2%	28.6%
After Interacting With People	16.4%	11.9%	21.0%
After Coughing / Sneezing	9.8%	6.4%	13.1%
Other	1.9%	0.4%	3.3%
No Answer	0.2%	0.0%	0.5%

% HH BY WASTE DISPOSAL LOCATION [N = 645]

Location	%	LL	UL
Burn	47.8%	41.0%	54.5%
On The Street	28.8%	21.9%	35.8%
Garbage Pit	13.6%	8.6%	18.7%
River / Canal / Drainage	5.7%	3.0%	8.5%
Garbage Bin	3.1%	1.7%	4.6%
Solid Waste Truck Collection	0.6%	0.0%	1.4%

% HH BY PRODUCT/MEASURE FOR DEALING WITH MENSTRUATION [N = 645]



% HH BY ACCESS TO SANITATION [N = 645]

Location	%	LL	UL
Family Latrine - Water-seal / Pour-flush Latrine	33.0%	24.9%	41.1%
Family Latrine - Traditional Pit Latrine / Open Pit	29.1%	22.7%	35.6%
Family Latrine - Improved Pit Latrines With Concrete Slab	12.1%	8.2%	15.9%
No Toilet / Bush / Open Space	11.5%	7.7%	15.2%
Communal Latrine - Traditional Pit Latrine / Open Pit	5.1%	2.2%	8.0%
Communal Latrine - Water-seal / Pour-flush Latrine	5.0%	2.1%	7.8%
Communal Latrine - Improved Pit Latrines With Concrete Slab	2.5%	0.8%	4.1%
Other	1.6%	0.3%	2.8%
Bucket	0.2%	0.0%	0.5%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Healthcare and COVID-19

Over half of all households (56.6% ±6.0%) had a health problem and needed to access healthcare in the past three months, of which most were unable to do so (66.8% ±6.3%). Indicatively, female-headed households are more likely to lack access to healthcare compared to male-headed households (71.5% ±8.4% vs 59.7% ±9.2%). Of the households that could access health care, 20.2 (±9.0) per cent needed more than one hour by foot to reach the nearest functional health facility. This highlights the difficulty of households to access timely health services when they need them.

Among households with unmet healthcare needs, the main barriers to access are unaffordable treatment costs (32.0% ±9.4%), required services being unavailable (22.8% ±8.0%) and long waiting times (18.5% ±6.9%). 40.2 (±7.6) per cent have attempted to access ante-natal care services.

While most households aware of COVID-19 (93.0% ±3.2%) know that washing hands with soap is a prevention measure against the transmission, only 67.0 (±5.7) per cent know of avoiding contact with sick people and 65.3 (±6.4) per cent of using hand sanitizer frequently. Less than half know of preventive measures, such as covering their cough or sneeze with a tissue or reporting suspected cases, and only 5.3 (±2.4) per cent know of vaccination.

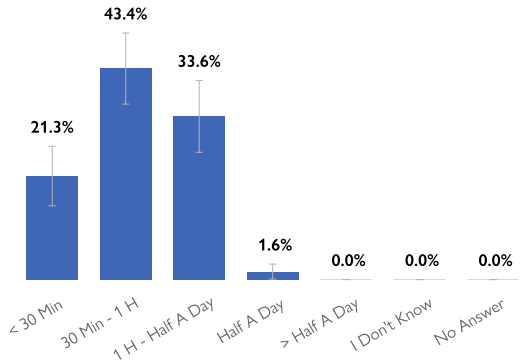
Experienced health issues in past 3 mo.
56.6%

Needing care who were unable to access
66.8%

Accessed ante-natal care services
40.2%

Ante-natal care servicces not available
0.9%

% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL HEALTH FACILITY [N = 645]



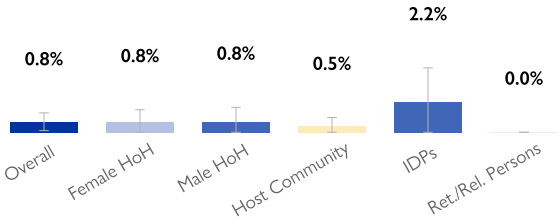
% SUB-GROUP HH WITH HEALTH ISSUES UNABLE TO ACCESS HEALTH CARE WHEN NEEDED IN THE PAST THREE MONTHS

Group	N	%	LL	UL
Overall	365	66.8%	60.6%	73.1%
Female HoH	221	71.5%	63.1%	79.9%
Male HoH	144	59.7%	50.5%	68.9%
Host Community	237	68.4%	60.3%	76.4%
IDPs	72	65.3%	55.9%	74.6%
Ret./Rel. Persons	52	60.0%	42.5%	77.5%

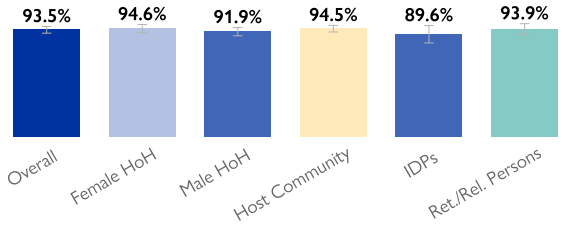
% HH WITH UNMET HEALTH CARE NEEDS BY BARRIER TO ACCESS IN THE PAST THREE MONTHS [N = 244]

Barrier	%	LL	UL
Unaffordable Treatment Cost	32.0%	22.6%	41.3%
Specific Service Needed Unavailable	22.8%	14.9%	30.8%
None	20.9%	11.4%	30.4%
Long Waiting Time	18.5%	11.6%	25.4%
Unaffordable Consultation Cost	17.6%	10.3%	25.0%
No Means Of Transport	11.1%	4.1%	18.1%
Unaffordable Transportation Cost	9.0%	3.6%	14.4%
Only Accessible At Certain Times	6.6%	2.9%	10.3%
Distance	5.7%	2.8%	8.7%
No Functional Facility Nearby	5.3%	2.7%	8.0%
Incorrect Medications	4.1%	1.2%	7.0%
Did Not Need To Access	3.3%	0.7%	5.9%
Disability	2.0%	0.3%	3.8%
Distrust Services	2.0%	0.0%	5.4%
Untrained Staff	0.4%	0.0%	1.2%
Wait For Improvement	0.4%	0.0%	1.2%
No Time Due To Child Care	0.4%	0.0%	1.2%

% SUB-GROUP HH UNAWARE OF COVID-19



% SUB-GROUP HH TAKEN ACTION AGAINST COVID-19



Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Economic Vulnerabilities and Livelihoods

Two in five households (41.1% ±7.4%) report a decrease in their income level or amount during the past six months, with 17.7 (±6.1) per cent reporting a substantial decrease. Households experiencing a decrease in income levels are more likely to be engaged in casual work or petty trading than households not experiencing a decrease (43.8% ±9.1% vs 38.2% ±7.0%). Indicatively, displaced and returned or relocated households were more likely to experience a decrease than host community households.

Casual work or petty trade (40.5% ±5.8%), own agricultural production (17.8% ±4.7%) and skilled labor (9.6% ±2.9%) are the top three sources of livelihoods. Indicatively, livelihood activities of displaced households have not significantly changed after displacement. However, there are some differences between livelihood activities of host community and IDP households, with host community households being more likely to engage in salaried work or skilled labor.

Overall, 49.6 (±6.3) per cent of households have experienced difficulties or shocks in the six months prior to the assessment. Female-headed households are more likely to be affected than male-headed households (52.6% ±7.9% vs 45.2% ±7.3%).

Experienced a decrease in income in past 6 months

41.1%

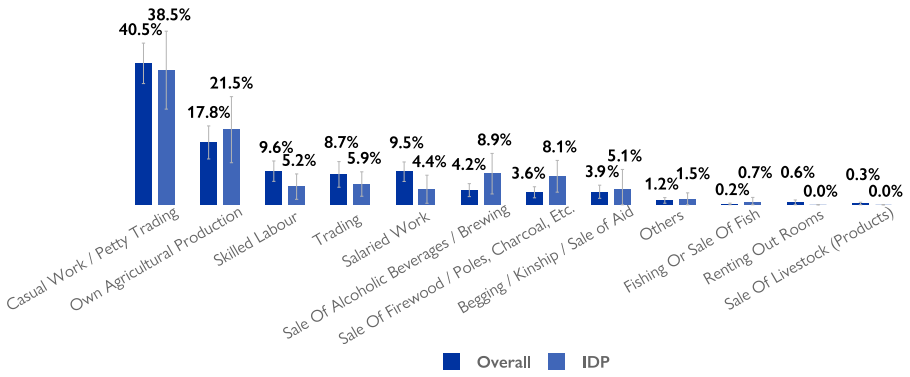
Experienced an economic schock in past 6 months

49.6%

Top economic shocks experienced in the past 3 mo.

- ***Unusually high food prices***
- ***Unusually high non-food prices***
- ***Loss / reduced employment***

% HH BY MOST IMPORTANT ACTIVITY FOR GETTING FOOD AND INCOME IN LAST THREE MONTHS [N = 645; IDP N = 135]



Most important livelihood activity pre-displacement:

Petty Trading

39.3%

Own Agricultural Production

23.7%

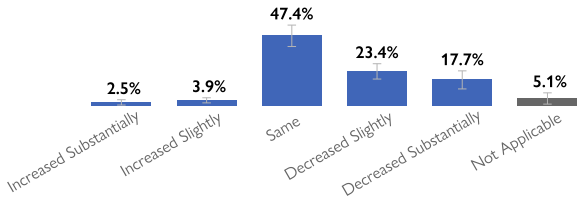
Sale of Alcoholic Beverages

8.9%

% HH BY ASSETS OWNED (TOP 15) [N = 645]

Asset	%	LL	UL
Bed	80.0%	73.6%	86.4%
Mattress	67.3%	61.2%	73.4%
Sleeping Mat	62.0%	56.2%	67.9%
Chairs	61.1%	54.7%	67.5%
Mosquito Net	51.5%	43.2%	59.8%
Tables	44.5%	37.9%	51.1%
Blanket	42.0%	35.5%	48.6%
Kitchen Utensils	41.1%	32.3%	49.9%
Phone	38.3%	30.9%	45.6%
Stove	25.3%	17.2%	33.3%
Radio	22.5%	17.5%	27.5%
Agriculture Tools	19.4%	13.9%	24.9%
Flat Iron	16.6%	10.7%	22.5%
Mask For COVID-19	16.4%	11.4%	21.5%
Lighting Tools	10.1%	6.6%	13.6%

% HH BY INCOME LEVEL CHANGE DURING THE PAST SIX MONTHS [N = 645]



% HH BY DIFFICULTIES OR SHOCKS EXPERIENCED IN PAST SIX MONTHS (TOP 5) [N = 645]

Shock	%	LL	UL
No Shock Experienced	50.4%	44.1%	56.6%
Unusually High Food Prices	18.1%	13.6%	22.7%
Unusually High Non-food Prices	16.1%	9.4%	22.8%
Loss Or Reduced Employment	10.9%	7.0%	14.7%
No Foods In Markets	9.6%	6.2%	13.0%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

26.7 (±6.6) per cent of households spend at least 65 per cent of their total household expenditure on food alone in the past three months while 22.3 (±4.0) per cent spend over 65 per cent of their expenditure on cereals and pulses only on average per month – these households are particularly vulnerable to market shocks. 11.2 (±6.1) per cent of households use over three quarters of their expenditure on food. High to very high expenditure (over 65%) on food affects displaced and returned or relocated households more than host community households (28.1% ±8.4% IDP HHs and 34.8% ±14.5% Ret. HH vs 24.4% ±8.1% HC HH).

About a quarter households (24.3% ±4.3%) attempted to use or used credit or borrowed money in the three months prior to the assessment, with over 13.8 (±3.4) per cent having used credit or borrowed money more than once. Of these households, most did so to purchase food (64.3% ±8.9%), pay for healthcare (22.3% ±8.3%) or pay for tuition fees (5.7% ±3.5%).

Despite living in an urban area, 36.0 (±5.3) per cent have access to land for cultivation and 14.3 (±3.6) per cent own livestock or farm animals, with male-headed households being more likely to have access to both than female-headed households.

Households spending more than 65% of expenditure on food in past 3 months

26.7%

Borrowed / used credit more than once

13.8%

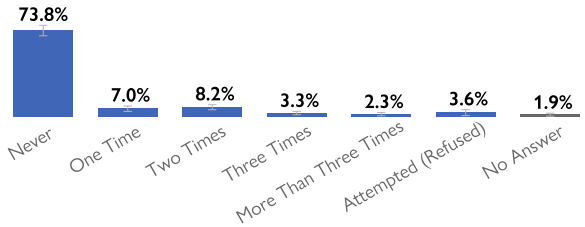
Attempted to borrow but was refused

3.6%

Most households borrowed to

PURCHASE FOOD

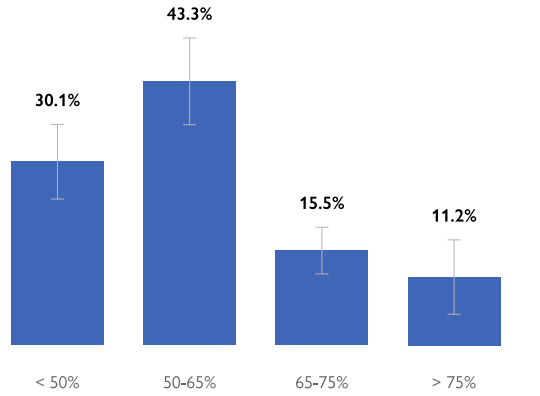
% HH BY FREQUENCY USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS [N = 645]



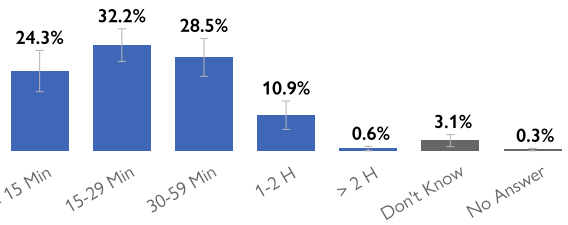
% HH USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS BY REASON [N = 157]

Reason	%	LL	UL
Purchase Of Food	64.3%	55.4%	73.2%
Health Care	22.3%	14.0%	30.5%
Payment Of Tuition Fees	5.7%	2.2%	9.3%
Investment In Business	2.5%	0.0%	5.4%
Other	1.9%	0.0%	4.0%
No Answer	0.6%	0.0%	1.9%
Purchase Of Bicycle / Vehicle	0.6%	0.0%	1.9%
Livestock Purchase	0.6%	0.0%	1.9%
Purchase Of Any HH Equipment	0.6%	0.0%	1.9%
Rent	0.6%	0.0%	1.9%

% HH BY PROPORTION OF EXPENDITURE GOING TO FOOD IN THE LAST THREE MONTHS [N = 645]



% HH BY WALKING DISTANCE TO NEAREST OPERATIONAL MARKET/GROCERY STORE [N = 645]



% HH BY CHALLENGES EXPERIENCED DURING TRAVEL TO MARKET IN THE LAST MONTH [N = 645]

Challenge	%	LL	UL
None	61.4%	55.1%	67.7%
Distance	28.4%	22.7%	34.1%
Robberies / Crime	5.0%	1.8%	8.1%
Children Have To Join	3.3%	1.6%	4.9%
Too Hot	2.6%	0.5%	4.8%
COVID-19 Movement Restrictions	2.2%	0.8%	3.5%
Struggled To Carry All Purchases	1.7%	0.6%	2.8%
Conflict / Violence	1.4%	0.2%	2.6%
Unsafe	1.4%	0.5%	2.3%
Floods	1.4%	0.5%	2.3%
Lack Of Water / Food On The Way	0.9%	0.0%	1.9%
Lack Of Shelter On The Way	0.8%	0.1%	1.4%
Market Damaged / Destroyed	0.8%	0.0%	1.6%
Market Closed Due To COVID-19	0.8%	0.0%	2.0%
Other	0.5%	0.0%	1.1%
Wild Animals	0.2%	0.0%	0.5%

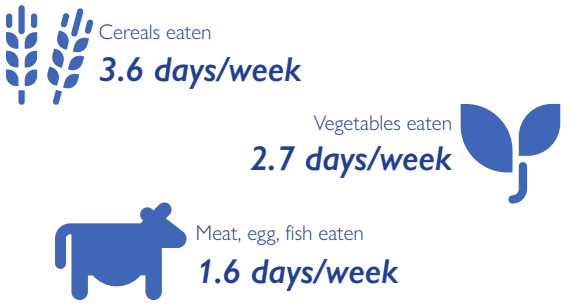
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Food Security

On average, households consume cereals on 3.6 (±0.4) days, spices on 3.1 (±0.4) days, vegetables on 2.7 (±0.4) days, sugar on 2.4 (±0.3) days and legumes on 2.1 (±0.2) days per week. All other food groups are consumed less than two days per week. While there are no significant difference between the consumption of different food groups between male and female-headed households, displaced households indicatively consume less of each food group compared to host community hosueholds.

Households' main source for these foods in the last seven days are markets, with some also relying on their own production, especially for vegetables and fruits.

Over a third purchase their staple foods from the local market within the neighborhood (36.1% ±6.3%), while 16.1 (±4.2) per cent purchase locally from other community members. 36.1 (±9.3) per cent do not purchase any staple foods at all. Of households that buy their staple foods, households spend the most in cash or credit on sorghum (flour or grain; 84.7% ±5.0%), sugar (35.2% ±7.4%) and okra (27.4% ±8.7%).



Cereals

Days per week consumed: **3.6**

Main source: Market **87.2%**

Grains: **3.3** Days per week consumed

Roots: **1.7** Days per week consumed

Vegetables

Days per week consumed: **2.7**

Main source: Market **70.7%**

Orange vegetables: **1.8** Days per week consumed

Leafy vegetables: **1.7** Days per week consumed

Spices

Days per week consumed: **3.1**

Main source: Market **89.0%**

Dairy

Days per week consumed: **0.7**

Main source: Market **82.6%**

Meat, egg, fish

Days per week consumed: **1.6**

Main source: Market **92.7%**

Organ meat: **0.7** Days per week consumed

Eggs: **0.5** Days per week consumed

Flesh meat: **1.1** Days per week consumed

Fish: **1.0** Days per week consumed

Oil

Days per week consumed: **1.6**

Main source: Market **93.0%**

Legumes

Days per week consumed: **2.1**

Main source: Market **84.9%**

Fruits

Days per week consumed: **0.8**

Main source: Market **74.5%**

Sugar

Days per week consumed: **2.4**

Main source: Market **91.8%**

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Coping Strategies

Livelihood-based coping strategies illustrate households' capacity to cope with future shocks and maintain productivity. The majority (67.4% ±7.1%) engaged in at least one type of livelihood-based coping strategy in the 30 days prior to the interview. Most report reducing health and education expenses (45.0% ±7.1%), followed by borrowing money or purchasing food on credit (42.9% ±6.5%), reducing expenses on goods for resale (40.5% ±7.0%) and selling household assets (37.8% ±7.1%) because of a lack of food or money for food. Over one in three households (34.6% ±7.6%) indicate engaging in emergency coping, the most severe category of coping strategies.

Overall, 91.5 (±4.3) per cent of households report to have used food-based coping strategies during the 12 months prior to the survey. Over 76.4 (±6.1) per cent ate only few kinds of foods while 75.2 (±5.9) per cent ate less than they thought they should because of a lack of resources to obtain food. More than two in three households (69.0% ±6.9%) went to sleep at night hungry because there was not enough food in the past 12 months, of which 76.6 (±6.5) per cent did so within four weeks prior to the interview. About three in five households (57.0% ±7.0%) went for a whole day and night without eating anything at all because there was not enough food, of which 77.4 (±7.9) per cent did so within four weeks prior to the interview.

Maximum livelihood-based coping strategy

Stress strategies **11.3%**

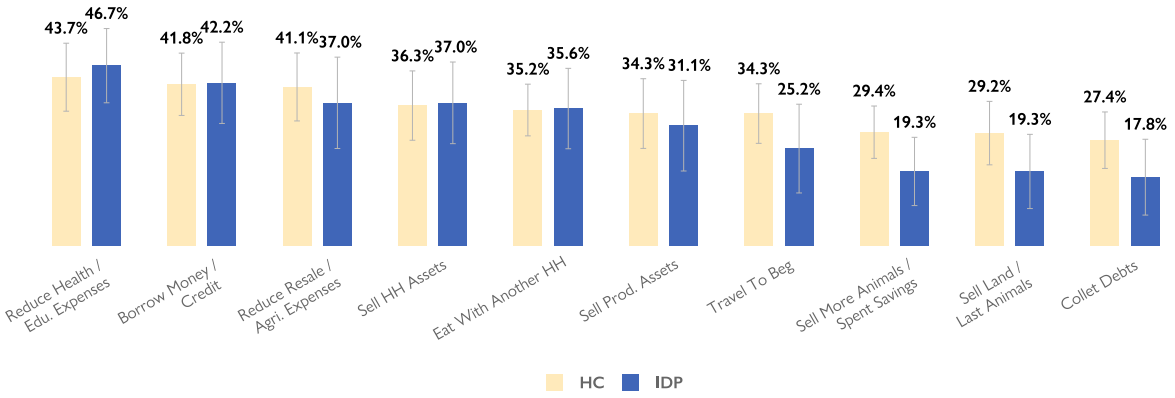
Crisis strategies **21.6%**

Emergency strategies **34.6%**

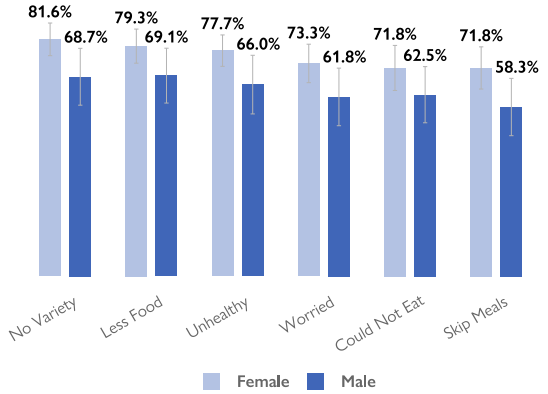
Main food-based coping strategy:

EATING FEWER KINDS OF FOOD

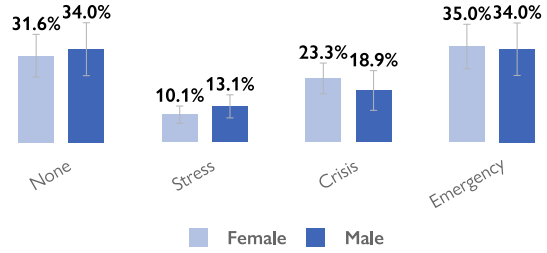
% IDP AND HC HH BY LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 645]



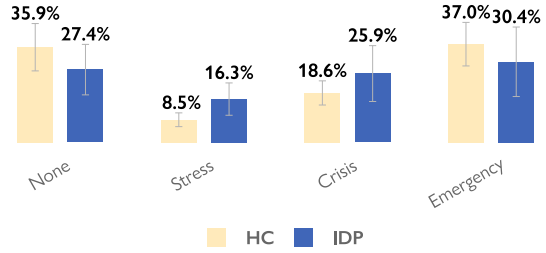
% FEMALE AND MALE-HEADED HH BY FOOD-BASED COPING STRATEGIES IN THE PAST 4 WEEKS [N = 645]



% FEMALE AND MALE-HEADED HH BY MAXIMUM LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 645]



% IDP AND HC HH BY MAXIMUM LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 645]



1 Breakdown of livelihood coping strategies by actions taken within 30 days prior to assessment due to a lack of food or money to buy food: **Stress coping strategies**: sent household members to eat with another household, sold more animals than usual for this time of the year or spent savings, borrowed money or purchased food on credit more than usual during this time of year, sold household assets / goods; **Crisis coping strategies**: reduced expenses on goods for resale or on business / petty trade or agricultural inputs, reduced expenses on health and education, sold productive assets or means of transport; **Emergency coping strategies**: sold house or land or sold or slaughtered the last of their cows and goats, traveled back to the village / out of town to look for / search for (begging) food or other resources, used community leaders or local court to collect debts or bride wealth / dowry or engaged in illegal income activities.

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Communication and Social Cohesion

Radio is the most common main source of information of households (50.1% ±2.6%) followed by word of mouth (35.8% ±7.6%). 72.7 (±5.3) per cent of households have at least one member owning a functioning mobile phone that is reliably charged, with adult men (71.4% ±6.7%) and women (65.7% ±4.8%) being the most likely owners.

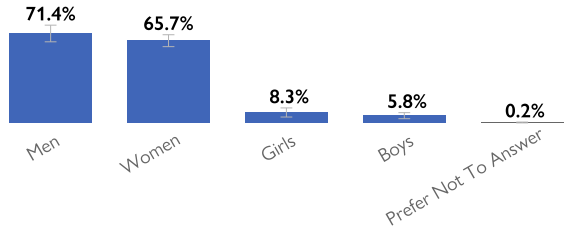
Although only 12.1 (±2.4) per cent of households have members who participate in social groups, the majority (72.9% ±8.0%) feels welcomed and accepted in their current community. Indicatively, host community households are less likely to feel welcome or accepted in their community (67.6% ±6.8%) compared to displaced (80.7% ±9.3%) or returned or relocated households (89.4% ±6.3%). Of the households that participate in social groups, about three in four (74.4% ±6.7%) report that women are members while only three in ten (29.5% ±11.9%) report that men are members.

Most households report that women are either significantly involved (31.2% ±6.7%) or moderately involved (36.9% ±6.3%) in community decision-making. 15.0 (±4.8) per cent state that women never partake in decision-making.

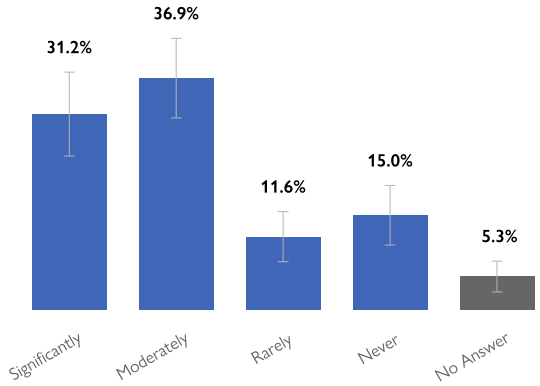
% HH by main source of information [N = 645]

Source	%	LL	UL
Radio	50.1%	42.9%	57.3%
Word Of Mouth	35.8%	28.3%	43.4%
Public Announcements	7.0%	4.4%	9.6%
Social Media	3.1%	1.4%	4.8%
Other	2.2%	0.8%	3.6%
Local Authorities	0.9%	0.1%	1.8%
Television	0.6%	0.0%	1.2%
Church Authorities	0.2%	0.0%	0.5%
Communal Meetings	0.2%	0.0%	0.5%

% HH with mobile phones by main owner of functional and charged mobile phone [N = 469]



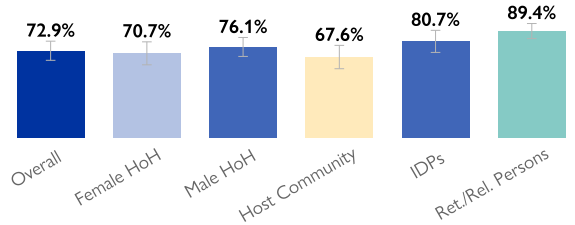
% HH by extent to which women are involved in community decision-making [N = 645]



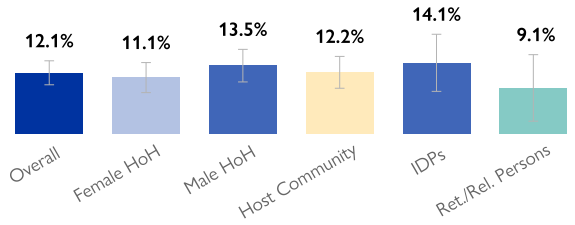
% HH by extent to which feel welcomed in current community [N = 645]

Feeling integrated	%	LL	UL
A Lot	21.6%	14.9%	28.2%
Moderately	51.3%	42.5%	60.1%
A Little	14.0%	9.1%	18.8%
Not At All	9.8%	4.1%	15.4%
No Answer	3.4%	0.7%	6.1%

% sub-group HH feeling integrated and welcome in current community



% sub-group HH involved in social groups

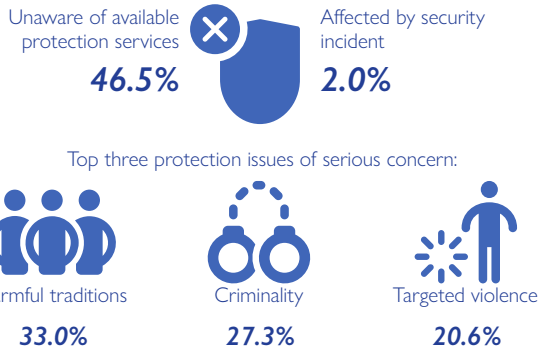


Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

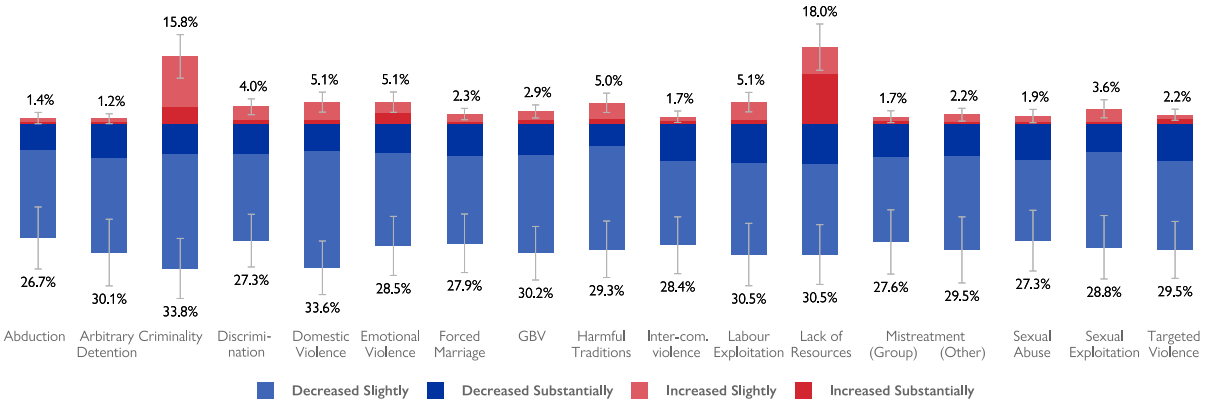
Protection

Almost half of all households (46.5% ±9.4%) state that they are not aware of any protection services in their area.[1] While some households are aware of police (26.7% ±7.8%) and GBV health services (14.4% ±4.9%) being available, only few (less than 5%) are aware of any other protection services related to GBV, child protection, housing land and property, and others. 2.0 (±1.3) per cent report to have been affected by a safety or security incident in the past month.

Households cite harmful traditional practices (33.0% ±6.3%), criminality, extortion or gang-related violence (27.3% ±6.0%), targeted violence (20.6% ±6.3%) and lack of resources (19.2% ±5.6%) as the most serious protection concerns in their community at the time of assessment. While the top concerns do not differ between the genders of the head of household, the proportion of households regarding them as concerns does. Female-headed households are more likely to view harmful traditional practices and criminality (36.8% ±7.2% and 29.5% ±7.5%) as serious concerns than male-headed households (27.4% ±7.3% and 23.9% ±6.6%).



% HH BY CHANGE IN LIKELIHOOD OR FREQUENCY OF PROTECTION ISSUES IN COMMUNITY OVER THE PAST SIX MONTHS [N = 645]



% HH BY AWARENESS OF AVAILABLE PROTECTION SERVICES IN AREA (TOP 5) [N = 645]

Service	%	LL	UL
None	46.5%	37.1%	55.9%
Police	26.7%	18.8%	34.5%
Health Services (GBV)	14.4%	9.5%	19.3%
Counselling (GBV)	4.5%	2.5%	6.5%
Case Management (GBV)	3.7%	1.9%	5.5%

% HH BY CURRENT PROTECTION ISSUES THAT CAUSE SERIOUS CONCERN (TOP 5) [N = 645]

Concern	%	LL	UL
Harmful Traditions	33.0%	26.7%	39.3%
Criminality	27.3%	21.3%	33.3%
Targeted Violence	20.6%	14.3%	26.9%
Lack Of Resources	19.2%	13.6%	24.8%
Discrimination	17.8%	12.6%	23.1%

% HH WITH TRAVEL OFFER IN THE PAST THREE MONTHS BY MEMBER RECEIVING OFFER [N = 20]

Member	%	LL	UL
Men	50.0%	26.1%	73.9%
Girls	35.0%	13.2%	56.8%
Women	25.0%	5.9%	44.1%
Boys	25.0%	4.7%	45.3%
No Answer	10.0%	0.0%	23.7%

% SUB-GROUP HH AFFECTED BY A SECURITY INCIDENT IN THE LAST 30 DAYS

Group	N	%	LL	UL
Overall	645	2.0%	0.7%	3.3%
Female HoH	386	2.1%	0.4%	3.7%
Male HoH	259	1.9%	0.2%	3.6%
Host Community	435	2.3%	0.8%	3.8%
IDPs	135	0.0%	0.0%	0.0%
Ret./Rel. Persons	66	3.0%	0.0%	7.1%

1 This question was posed to all respondents, regardless of potential protection services needs.

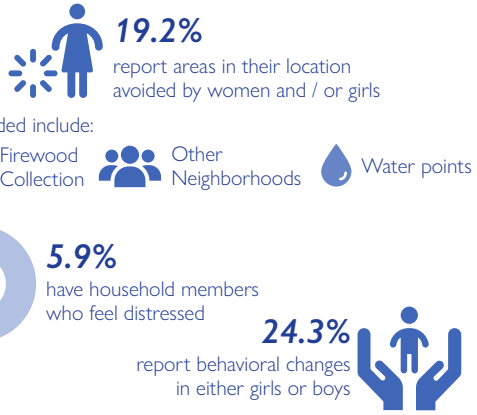
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

One in five households (19.2% ±4.2%) report that there are areas in their location that women and / or girls avoid because they feel unsafe. The main areas avoided are routes for collecting firewood (7.8% ±2.8%), other neighborhoods (4.0% ±2.5%) and water points (3.1% ±1.6%), underlining the challenges women face when conducting daily, essential tasks.

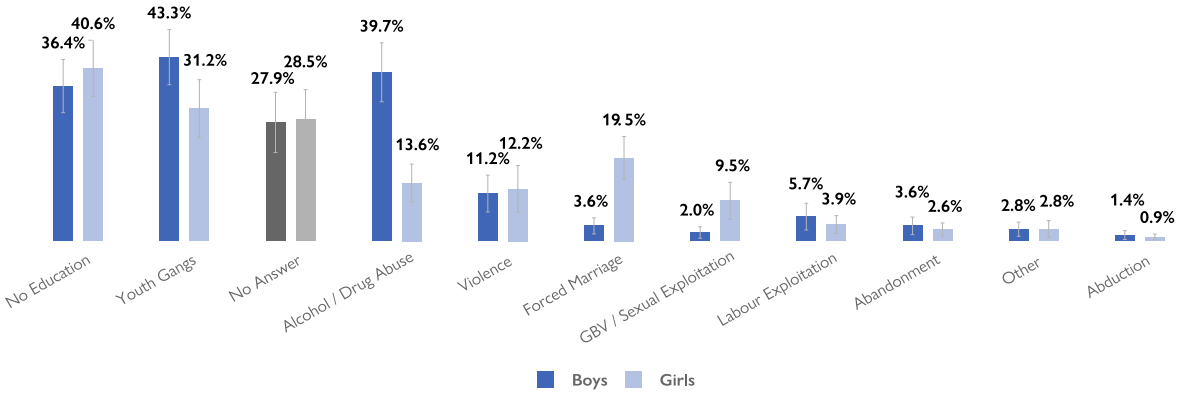
5.9 (±2.4) per cent of households include at least one member who feels distressed to the extent that they have a lot of difficulty to work or perform daily routine activities.

Households report boys and girls to be most at risk to lack of access to education (36.4% ±6.3% for boys and 40.6% ±6.6% for girls), involvement in youth gangs (43.3% ±6.5% and 31.2% ±6.8%) and substance abuse (39.7% ±6.9% and 13.6% ±4.5%). In addition, they see girls particularly at risk of forced or arranged marriage (19.5% ±.5.0%) and GBV or sexual exploitation (9.5% ±4.3%).

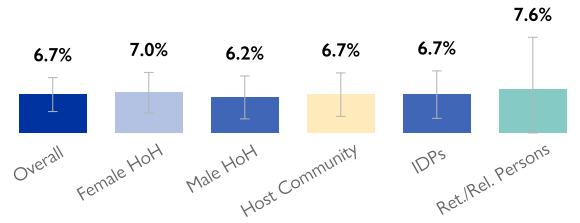
24.3 (±6.1) per cent of households report seeing behavioral changes in their children during the month before the assessment, with households being slightly more likely to see changes in boys than girls (22.8% ±6.1% vs 21.2% ±6.0%). The most common behavioral changes are disrespectful behavior in the family (8.8% ±4.3% for girls and 8.7% ±4.1% for boys), committing crimes (7.1% ±3.8% and 11.0% ±4.9%) and unwillingness to go to school (7.0% ±3.6% and 7.4% ±3.5%). For boys, households also note more aggressive behavior (5.1% ±1.9%).



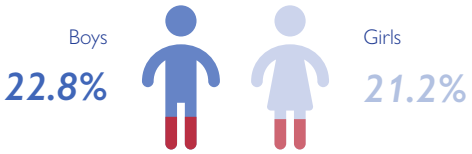
% HH BY PERCEIVED BIGGEST RISKS CHILDREN UNDER 18 ARE EXPOSED TO IN COMMUNITY [N = 645]



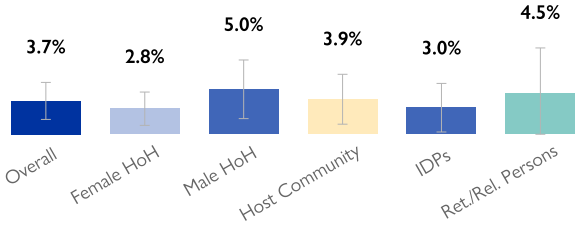
% SUB-GROUP HH OBSERVING THREE OR MORE BEHAVIORAL CHANGES IN BOYS IN THE LAST MONTH



% HH OBSERVING BEHAVIORAL CHANGES IN CHILDREN IN THE LAST MONTH



% SUB-GROUP HH OBSERVING THREE OR MORE BEHAVIORAL CHANGES IN GIRLS IN THE LAST MONTH



% SUB-GROUP HH WITH HH MEMBERS FEELING DISTRESSED

Group	N	%	LL	UL
Overall	645	5.9%	3.5%	8.3%
Female HoH	386	7.5%	4.4%	10.6%
Male HoH	259	3.5%	0.5%	6.4%
Host Community	435	3.9%	1.7%	6.1%
IDPs	135	7.4%	2.5%	12.3%
Ret./Rel. Persons	66	15.2%	3.5%	26.8%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Humanitarian Assistance

During the three months preceding the assessment, 9.0 (±3.9) per cent of households received some form of humanitarian assistance, most of them receiving cash for work or training (31.0% ±10.4%) and general food for all (25.9% ±14.1%). 9.6 (±3.1) per cent report to be dependent on humanitarian services to cover basic needs such as food, WASH, health and education.

More than three in four households (78.4% ±6.0%) indicate that they do not receive adequate information about the different available humanitarian services. Displaced and returned or relocated households are less likely to lack this information than host community households (73.3% ±6.7% and 71.2% ±15.3% vs 81.4% ±7.0%). The large shares of households not receiving humanitarian assistance and lacking access to information about assistance indicate that many households in need of assistance are not receiving the help they require.

As top priority needs for their household, respondents name food (77.2% ±4.3%), shelter or housing (60.2% ±6.5%), healthcare (47.4% ±6.6%) and education (28.8% ±5.7%).

9.0% received humanitarian assistance in the last 3 mo.

9.6% are dependent on hum. services to cover basic needs

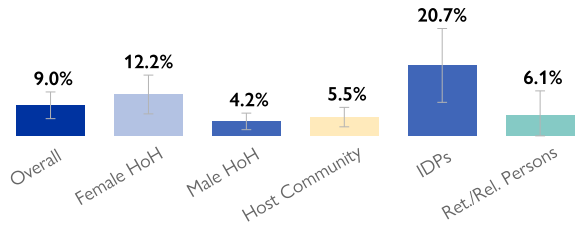
Most accessed assistance / basic service in last 3 months

CASH FOR WORK

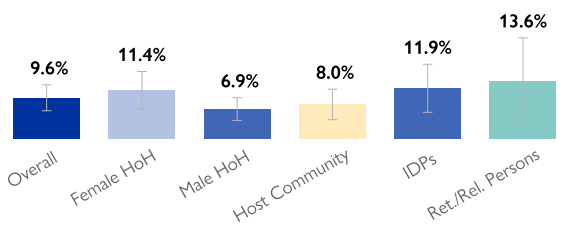
In the last 6 months, access to humanitarian services / basic needs has generally

INCREASED

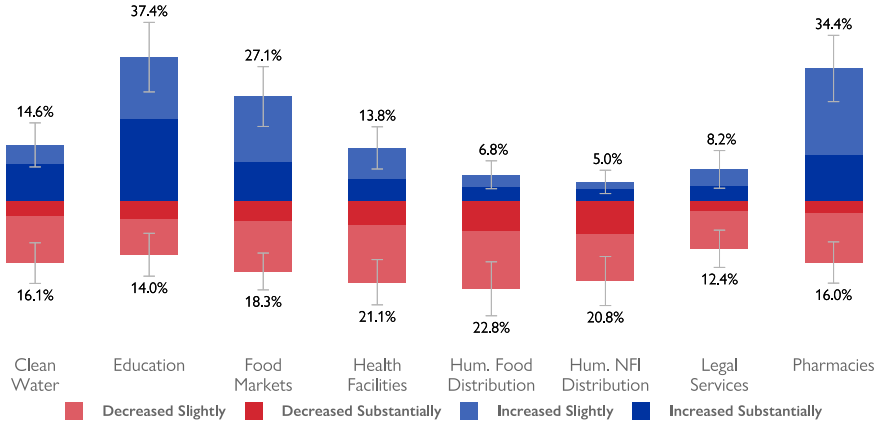
% SUB-GROUP HH RECEIVING HUMANITARIAN ASSISTANCE IN THE PAST THREE MONTHS



% SUB-GROUP HH DEPENDENT ON HUMANITARIAN SERVICES TO COVER BASIC NEEDS



% HH BY CHANGE IN ABILITY TO ACCESS HUMANITARIAN OR BASIC SERVICES OVER THE PAST SIX MONTHS [N = 645]



% HH WHO HAVE ACCESSED ASSISTANCE OR BASIC SERVICES IN THE PAST THREE MONTHS BY TYPE [N = 58]

Assistance	%	LL	UL
Cash For Work / Cash For Training	31.0%	20.7%	41.4%
General Food For All	25.9%	11.8%	40.0%
Unconditional Cash / Voucher Transfer	12.1%	2.3%	21.8%
WASH Materials	12.1%	0.0%	24.3%
Agricultural Inputs	10.3%	0.8%	19.9%
Other	8.6%	1.3%	16.0%
Shelter Material	6.9%	0.1%	13.7%
Food For School Children	5.2%	0.3%	10.0%
Nutrition	5.2%	0.0%	11.2%
Food For Assets	3.4%	0.0%	8.1%
Household Utensils	3.4%	0.0%	8.2%
School Fees / Uniforms	0.0%	0.0%	0.0%
Health / Medicines	0.0%	0.0%	0.0%
No Answer	5.2%	0.0%	12.3%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Urban Vulnerability Index and Intersectoral Analysis

The Urban Vulnerability Index (UVI) uses Principal Component Analysis (PCA) – a dimensionality reduction technique. In this usage, PCA aggregates and simplifies the various component indicators into a single index that reflects the greatest variation in needs and vulnerability. The technique weights more highly indicators for which the data displays greater variance, and weights lower on indicators for which we see little variation. The computed weights of the indicators are used to calculate the vulnerability score of each assessed household, ranging from 0 to 100 (maximum vulnerability).

Overall, the largest proportion of households fall in the third range (41% - 60% or medium vulnerability) of the UVI (38.1% of HH), followed by the fourth range (61% - 80%; 22.3% of HH or high vulnerability). As the population's most vulnerable category, 3.1 per cent of households fall into the highest range (81% - 100% or maximum vulnerability). Comparing different sub-groups, female-headed households tend to score higher on the UVI than male-headed households, with a higher proportion of households falling into the two highest ranges (28.0% of which 3.9% in the maximum vulnerability class, vs 21.6% of which 1.9% in the maximum vulnerability class). Although these interpretations are only indicative due to the small sample size by population sub-group, the UVI indicates that displaced, returned, relocated and voluntarily migrated households fare worse than host community households. The breakdown of the index's indicator weights highlights that WASH, food security and protection-related needs play a significant role in defining vulnerability for households in Wau town.

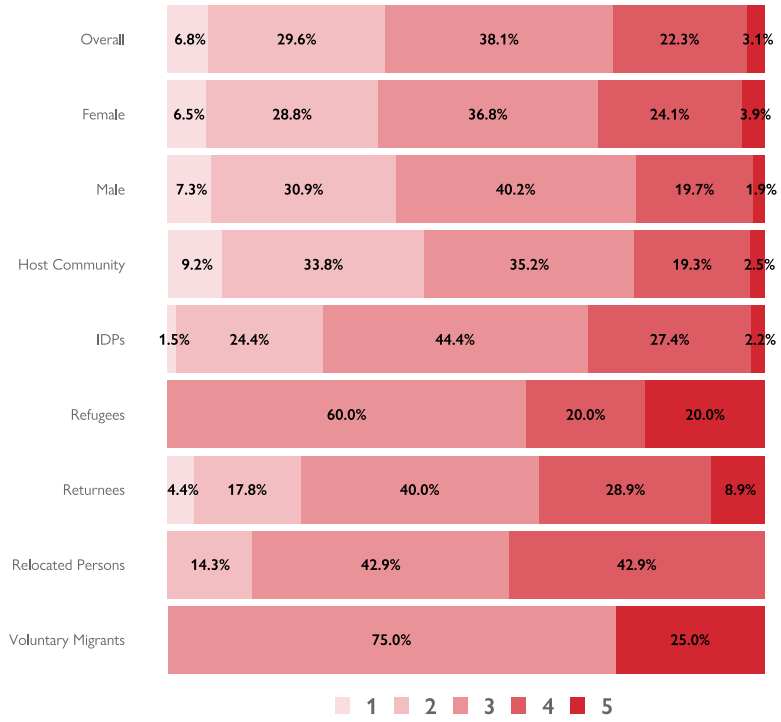
UVI Indicators with largest weights:

Sufficent Water
53.7%

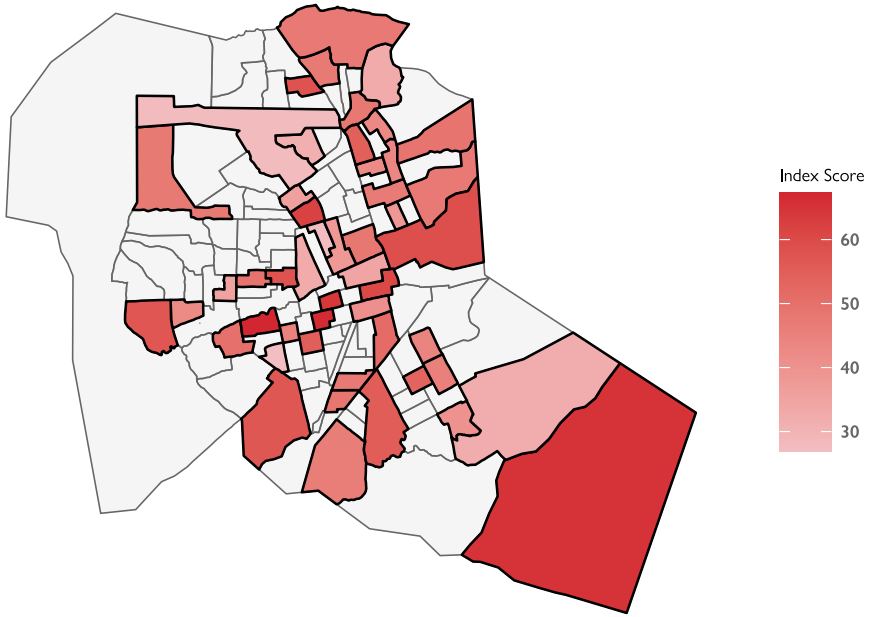
Hunger
36.9%

Livelihood Coping
32.9%

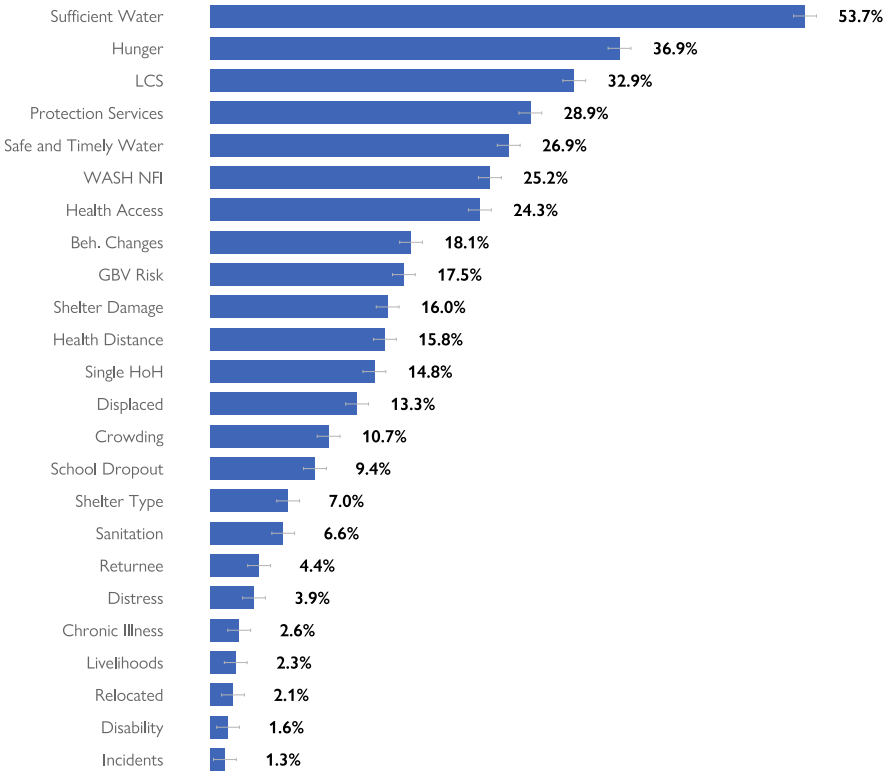
% HH BY VULNERABILITY INDEX SCORE RANGE (MINIMUM TO MAXIMUM) BY SUB-GROUP



AVERAGE INDEX SCORE BY ASSESSED ENUMERATION AREA IN WAU TOWN



VULNERABILITY INDEX SCORE WEIGHT BY SELECTED INDICATORS



METHODOLOGY ANNEX I: PRINCIPAL COMPONENT ANALYSIS - IMPORTANCE OF COMPONENTS

MEASURE	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8
Standard deviation	17.088	5.876	5.354	4.962	4.754	4.496	4.340	4.209
Proportion of Variance	0.521	0.062	0.051	0.044	0.040	0.036	0.034	0.032
Cumulative Proportion	0.521	0.583	0.634	0.678	0.718	0.754	0.788	0.819

METHODOLOGY ANNEX II: PRINCIPAL COMPONENT ANALYSIS - INDICATOR DEFINITIONS

INDICATOR	SCORE RANGE
Household Vulnerabilities	
Displaced household	0 - 1
Returned household	0 – 1
Relocated household	0 - 1
Single-headed household or elderly / children-only household	0 - 1
Number of household members with a disability	0 - Inf
Number of household members with a chronic illness	0 - Inf
SNFI	
Shelter damage	0 – 3
Number of persons in most crowded room	1 - Inf
Shelter type	0 - 2
Education	
Number of children in household having dropped out of school	0 – Inf
WASH	
Access to safe and timely water	0 – 1
Access to sufficient water	0 – 1
Access to latrines	0 – 1
Access to WASH NFIs	0 – 1
Health	
Access to health facility when needed	0 – 1
Availability of health facility within 30 min. walking distance	0 – 1
Protection	
Protection services available	0 – 1
Household affected by security incident	0 – 1
Behavioral changes in children observed	0 – 1
Concerns about GBV or sexual exploitation issues	0 – 4
Households with members feeling distressed	0 – 1
Food Security and Livelihoods	
Begging, Kinship or Sale of Aid as main livelihood	0 – 1
Whole day and night spent hungry in last 4 weeks	0 – 1
Livelihood-based Coping Strategy employed	0 – 3

Note: All indicators were demeaned and rescaled before PCA was run.

International Organization for Migration (IOM)

The UN Migration Agency