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DTM SOUTH SUDAN





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Photo (cover page):

A woman smiling in a crowd of people.

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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 Bor. Separate profiles have been published for the urban areas of Juba, Wau, 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, subnational and localized conflicts have continued to affect communities and cause new displacement across the country (IOM DTM Event Tracking¹). 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 arrivals² 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 than half of South Sudan's population – are estimated to be facing

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.



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 <u>first round of the expanded FSNMS+ assessment in urban areas and IDP sites</u> (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 Bor were then re-adjusted to obtain 108 areas with an average of about 500 inhabited shelters and Bor IDP Camp.³

Sampling Design

In Bor 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 twelve strata based on shelter density as a proxy for the possible presence of slums, location near a local market, presence and size of informal settlements and presence and size of IDP settlements. Forty-nine enumeration areas and Bor IDP Camp 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, 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 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 empty⁴, non-

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 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.



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 Bor IDP Camp 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.

Data Collection

Data collection in Bor took place in September and October 2021, and 549 households were successfully interviewed. Challenges included higher than anticipated non-response, non-residential, empty and destroyed shelters in some areas and inaccessibility of four



Enumerators conducting interviews with beneficiaries in Bor town.

enumeration areas due to flooding and insecurity⁵.

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 package⁶ 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 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

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



Enumerators walking through flooded areas to reach shelters.

⁵ The four resampled enumeration areas were randomly sampled from within the same stratum to minimize bias.



estimated residential buildings in each stratum.

% sampled households, % estimated residential buildings and percentage point difference by stratum [n in Table]

Stratum	N SAMPLED	% SAMPLED	% est. Residential	P.P. DIFFERENCE
High Density (no info on markets)	13	2.4	2.0	-0.4
High Density, No Local Market	14	2.6	2.8	0.2
High Denisty, With Local Market	85	15.5	16.3	0.8
IDP Settlement, 1-29 buildings	52	9.5	7.4	-2.1
IDP Settlement, 30+ buildings	45	8.2	7.9	-0.3
Informal Settlement, 1-29 buildings	12	2.2	1.7	-0.5
Informal Settlement, 30+ buildings	25	4.6	4.4	-0.2
Low Density, Links to Market	42	7.7	7.2	-0.5
Low Density (no info on markets)	25	4.6	4.3	-0.3
Low Density, No Local Market	28	5.1	7.9	2.8
Low Density, With Local Market	195	35.5	36.4	0.9
Bor IDP Camp	13	2.4	1.7	-0.7

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 analysis⁷.

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" 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 Single-headed Households

Disability Chronic Illness
Shelter Damage Shelter Type

Crowding School Dropout

Access To Sufficient Water Safe and Timely Access to Water

Access to WASH NFI Sanitary Facility

Distance to Health Facility

Security Incidents

Protection Service Availability

GBV Risk

Behavioral Changes in Children

Coping Strategies Hunger Levels

Livelihoods

For a detailed definition of the used indicators and importance of components, see the <u>Urban Vulnerability Index and Intersectoral</u> 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 border⁸. 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 location⁹.

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 BOR TOWN SAMPLED FOR ASSESSMENT



Areas in dark gray indicate enumeration areas that were originally selected for sampling but could not be accessed due to insecurity and flooding.

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).



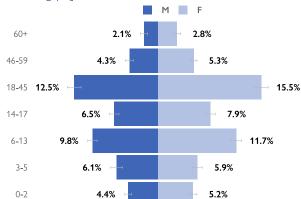
Demographics and Household Vulnerabilities

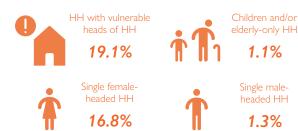
In this assessment, 86.7 (±3.2) per cent of responses are given by heads of household (HoH), while 13.3 (±3.2) per cent of households are represented by some other household member. These respondents tend to be younger members of the household (average age of 28 years compared to 39 years for heads of households responding).

The average household size is 8.3 (±0.4) persons, with a median of 8 persons. The average size of households hosting individuals is 10.7 (±1.1) persons whereas the size of households not hosting any individuals is 7.8 (±0.3) persons. Most households are headed by women (85.6% ±4.7%). Compared to their female counterparts, male heads of household are more likely to be older and have a secondary or university diploma. 21.7 (±1.7) per cent of household members are between the ages 0 and 5, and 35.9 (±1.5) per cent are between the ages of 6 and 17. Only 4.9 (±0.9) per cent are above the age of 60.

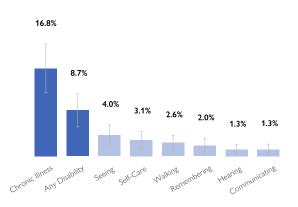
Among all households, 16.8 (±4.7) per cent of households have at least one member with a chronic illness, and 8.7 (±3.2) per cent report to have at least one member with a disability, as measured by the Washington Group Short Set questions. In comparison to figures from previous assessments and national estimates of the prevalence of persons with disabilities¹, these figures should be treated as an estimation of the lower bound of the real prevalence.

 $N HH = 541^2$



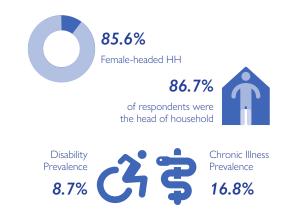


% individuals by age group and gender [n ind. = 4.488: % hh with a member with a disability or chronic illness. [N = 549]

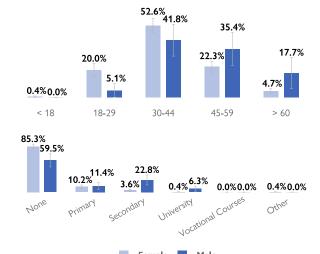


% hh by nationality [N = 549]

Nationality	%	LL	UL
South Sudan	97.8%	96.0%	99.6%
Mixed Foreign	1.8%	0.1%	3.5%
Somalia	0.2%	0.0%	0.5%
Uganda	0.2%	0.0%	0.5%



% MALE AND FEMALE-HEADED HH BY AGE AND EDUCATION LEVEL OF HH HEAD [N = 549]



- 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.

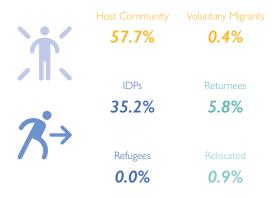


Displacement and Migration

Displaced households come mostly from within Jonglei state (91.7% \pm 4.4% of IDP HH), with Bor South being the most prominent county. Some IDP households also come from Lakes state (4.7% \pm 3.6% of IDP HH). The main reasons for displacement are natural disaster destroying homes (62.2% \pm 11.7%) or interrupting access to livelihoods (8.3% \pm 5.6%) and personal insecurity due to generalized violence (5.7% \pm 3.7%).

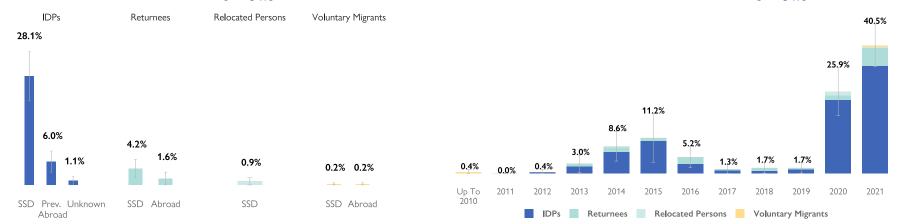
For returned and relocated households, key drivers are assurances from the government on safety (43.2% \pm 21.9%), improvement of security in area of return (40.4% \pm 19.9%), resolution of communal clashes (21.6% \pm 10.7%) and removal of land mines or UXOs (21.6% \pm 17.4%). About half of these households (54.1% \pm 23.3%) are satisfied with their decision to return or relocate, and 45.9 (\pm 23.3) per cent are not satisfied but will remain in their location.

Two in five IDP households intend to remain in their current location ($40.4\% \pm 10.6\%$), and a similar proportion intends to return to their area of habitual residence ($39.4\% \pm 10.3\%$) in the next two years. Only a few intend to relocate to a different location ($5.7\% \pm 4.6\%$), and $10.4 (\pm 4.9)$ per cent are unsure of their plans. Of the displaced households intending to return, $60.5 (\pm 20.2)$ per cent plan to return within a year. Indicatively, $16.2 (\pm 14.0)$ per cent of returned or relocated households have not reached their final destination where they intend to settle.



% HH BY DISPLACEMENT OR MIGRATION STATUS $[N = 549]^1$

% HH BY YEAR OF ARRIVAL AND DISPLACEMENT OR MIGRATION STATUS [N = 549]



% IDP HH BY MAIN REASON FOR MOST RECENT DISPLACEMENT (TOP 5) [N = 193]

Reason	%	LL	UL
Natural Disaster Destroyed Home	62.2%	50.5%	73.9%
Natural Disaster / No Livelihoods	8.3%	2.6%	13.9%
Personal Insecurity (Generalized)	5.7%	2.0%	9.4%
Communal Clashes	5.2%	1.4%	9.0%
Other	5.2%	1.8%	8.5%

% IDP HH NOT INTENDING TO RETURN WITHIN THE NEXT TWO YEARS BY MAIN REASON (TOP 5) [N = 163]

Barrier		LL	UL
Lack Of Livelihoods In AOR	28.2%	21.0%	35.4%
No Means	26.4%	15.4%	37.3%
Insecurity In AOR	23.3%	13.4%	33.2%
House / Land Destroyed	23.3%	12.8%	33.8%
Lack Of Services In AOR	18.4%	10.4%	26.4%



¹ N for sub-groups: HC n = 317; IDPs n = 193, Refugees n = 0; Returnees n = 32, Relocated persons n = 5, Voluntary migrants n = 2.

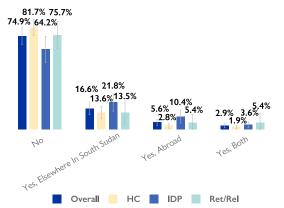


About a quarter of households (25.1% ±6.7%) have close family members living elsewhere in South Sudan (16.6% ±4.8%), abroad (5.6% ±2.3%) or both (2.9% ±1.6%), 18.6 (± 5.4) per cent of households have children living elsewhere, mostly to attend studies (36.3% \pm 10.9%) or due to marriage (25.5% \pm 9.6%).

Only 1.6 (±1.1) per cent of households possess identification documents for all their members. In 52.5 (±6.7) per cent of households some members have IDs, and in 37.0 (±5.5) per cent none of the members do. The porportion of households lacking IDs does not differ significantly between the different sub-groups. Of the households who have children, only 7.0 (±3.5) per cent have access to birth notifications for all their children, 52.1 (±7.4) per cent for some children and 37.2 (±7.8) per cent for none of their children.

About one in three households have experienced challenges in the 12 months preceding the assessment affecting their ability to travel safely within South Sudan (14.9% ±4.4%), abroad (3.1% ±1.9%) or both (15.3% ±6.2%). Households facing challenges cite flooding (49.7% ±11.3%), insecurity due to conflict (41.0% ±12.4%) and increase in cost (39.3% ±13.0%) as the main reasons. Climate-related challenges – including flooding and impassable roads during the rainy season – stand out with over half of respondents having faced travel issues citing them as reasons (52.6% ±11.5).

ELSEWHERE



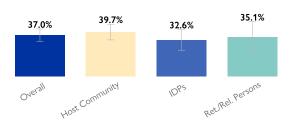
% HH WITH ADULT FAMILY MEMBERS LIVING ELSEWHERE BY REASON (TOP 5) [N = 117]

Reason	%	LL	UL
Education	22.1%	13.5%	30.7%
Join Family Members / Relatives	21.2%	11.7%	30.8%
Looking For Work / Employment	20.4%	10.1%	30.6%
Displaced By Insecurity	16.8%	8.7%	24.9%
Lack Of Food / Hunger	9.7%	4.7%	14.8%

% SUB-GROUP HH WITH CLOSE FAMILY CURRENTLY LIVING % HH WITH CHILDREN LIVING ELSEWHERE BY REASON [N = 102]

Reason	%	LL	UL
Attend Studies	36.3%	25.4%	47.2%
Married	25.5%	15.9%	35.1%
Visit Family Members Elsewhere	22.5%	14.1%	31.0%
Sent To Relatives	21.6%	12.1%	31.1%
Seek Employment	8.8%	2.9%	14.7%
Missing (Left And No News)	2.9%	0.0%	5.9%
Other	1.0%	0.0%	2.8%
Joined Army / Armed Groups	0.0%	0.0%	0.0%
Kidnapped	0.0%	0.0%	0.0%
No Answer	2.0%	0.0%	4.5%

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

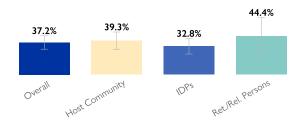


Households without Households without any identification any birth notifications 37.0% 37.2%





% 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 = 187]

Challenge	%	LL	UL
Flooding	49.7%	38.5%	61.0%
Insecurity Due To Conflict	41.0%	28.6%	53.4%
Increase In Cost	39.3%	26.4%	52.3%
Insecurity Due To Crime	22.4%	12.8%	32.0%
Roads Impassable	9.3%	3.7%	14.9%



Community-driven Assistance

Overall, 17.7 (±5.0) per cent of households host IDPs (11.3% ±4.3%), returnees (8.9% ±3.2%) or unaccompanied, separated or orphaned children (9.7% ±3.3%). IDP and returnee households (27.5% ±9.0% and 21.6% ±10.4%) are significantly more likely to host individuals compared to host community (10.7% ±5.4%), 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 (48.5% ±12.9%), indicatively citing high costs and a lack of space as the main reasons.

In the 12 months preceding the assessment, similar shares of households were receiving remittances in support from friends or relatives living elsewhere (6.4% ±2.6%) and sending remittances (5.6% ±2.5%). One in five households receiving remittances did not see any changes in the amounts they sent in the past six months (20.0% ±12.0%) while 25.7 (±16.9) per cent note a slight decrease and 51.4 (±18.0) per cent a substantial decrease in the amount. Indicatively, households sending remittances are more likely to report a decrease in the amount received in the past six months, with 32.3 (±20.4) per cent noting a slight and 35.5 (±21.8) per cent a significant decrease in the amount. Displaced and returned or relocated households were more likely to receive remittances than host community households although differences were not statistically significant.

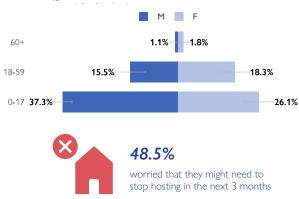
SEPARATED CHILDREN [N = 549]

%	LL	UL
17.7%	12.6%	22.7%
11.3%	7.0%	15.6%
8.9%	5.6%	12.2%
9.7%	6.4%	12.9%
	17.7% 11.3% 8.9%	17.7% 12.6% 11.3% 7.0% 8.9% 5.6%

% HH BY HOSTING IDPS, RETURNEES OR UNACCOMPANIED / % HH WORRIED ABOUT STOPPING HOSTING INDIVIDUALS IN THE NEXT THREE MONTHS BY REASON [N = 46]

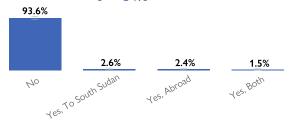
%	LL	UL
58.7%	37.6%	79.8%
34.8%	15.1%	54.5%
4.3%	0.0%	10.3%
2.2%	0.0%	6.5%
	58.7% 34.8% 4.3%	58.7% 37.6% 34.8% 15.1% 4.3% 0.0%

% hosted individuals by age and gender [n] hh = 92; nIND = 284]



Sending remittances Receiving remittances 6.4%

% HH RECEIVING REMITTANCES TO SUPPORT FRIENDS / RELATIVES IN LAST 12 MONTHS [N = 549]





17.7% hosting IDPs, returnees or unaccompanied children

Good 60.3%

IDP / Returnee -Host Community Relations

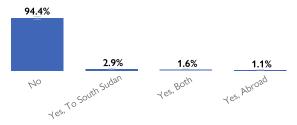
Poor 7.8%

77.1%

experienced a decrease in the amount of remittances received



% HH SENDING REMITTANCES TO SUPPORT FRIENDS / RELATIVES IN LAST 12 MONTHS [N = 549]



% hh sending remittances to support from friends , RELATIVES BY CHANGE IN AMOUNT IN LAST SIX MOS. [N = 71]

Change	%	LL	UL
Increased Substantially	3.2%	0.0%	8.9%
Increased Slightly	0.0%	0.0%	0.0%
Same	29.0%	11.0%	47.1%
Decreased Slightly	32.3%	12.0%	52.6%
Decreased Substantially	35.5%	13.7%	57.2%
Not Applicable	0.0%	0.0%	0.0%



Shelter and Non-Food Items

Two in three households (64.5% \pm 8.4%) live in traditional mud huts with thatched roofs (tukuls), while 23.8 (\pm 6.2) per cent live in hacks built with local materials (rakooba). Among those most in need, 3.7 (\pm 2.3) per cent live in improvised shelters and 3.5 (\pm 3.5) per cent in communal shelters, community buildings or emergency shelters provided by humanitarian partners. Overall, 31.1 (\pm 5.3) per cent of households live in partially damaged or destroyed shelters. IDP households are more likely to live in partially or completely damaged shelters (37.3% \pm 8.4%) than host community households (27.8% \pm 6.8%).

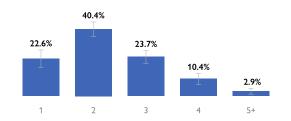
24.0 (\pm 7.8) per cent of households are involved in open disputes relating to their current housing and/or property, although the sensitivity of this issue in the context of South Sudan may result in under-reporting. Indicatively, the most common issues leading to open disputes are disputed ownership (10.7% \pm 4.9%). One in ten affected households did not answer how they attempted to resolve these disputes, while about half (46.0% \pm 12.7%) report that they did not take any action. Only 11.0 (\pm 5.8) per cent report using formal dispute resolution mechanisms.

22.6 (±5.3) per cent of households live in shelters made of only one room. 43.0 (±8.2) per cent do not have security risk mitigation measures (such as doors, locks or lighting) in place.

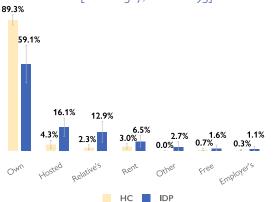
% HH BY SHELTER TYPE [N = 549]

Shelter Type	%	LL	UL
Tukul	64.5%	56.2%	72.9%
Rakooba	23.8%	17.6%	30.0%
Permanent Semi/Concrete Building	3.8%	1.5%	6.2%
Improvised Shelter (Plastic Sheet And Other Materials)	3.7%	1.3%	6.0%
Communal Shelter	2.4%	0.0%	5.4%
Community Building	0.5%	0.0%	1.2%
Emergency Shelter By UN / NGO	0.5%	0.0%	1.3%
No Shelter (Sleeping In The Open)	0.5%	0.0%	1.2%
Other	0.2%	0.0%	0.5%

% hh by number of rooms / partitioned spaces in shelter $\lceil N=549 \rceil$



% HC AND IDP HH LIVING IN INDIVIDUAL SHELTERS BY OWNERSHIP STATUS [HC N = 717; IDP N = 197]

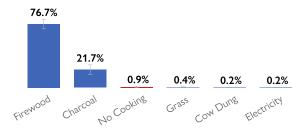




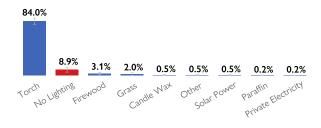




% HH BY MAIN SOURCE OF ENERGY FOR COOKING [N = 549]



% HH BY MAIN SOURCE OF ENERGY FOR LIGHTING [N = 549]



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

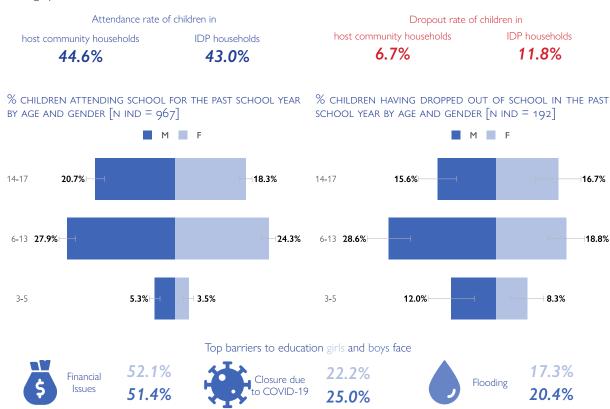


Education

With an attendance rate of $43.9 (\pm 3.7)$ 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. $8.9 (\pm 1.9)$ per cent of children dropped out of school in the 2021-2022 school year. Comparing attendance rates between host community, IDP and returnee households, there are no differences in the proportion of households with children attending school. Returnee and IDP households are more likely to have children dropping out, however. Differences are not statistically significant.

The top barrier that boys and girls face to accessing education are financial issues ($51.4\% \pm 7.4\%$ for boys; $52.1\% \pm 6.8\%$ for girls). Notably, $3.3 (\pm 2.0)$ per cent of households also indicate that marriage and / or pregnancy are one of the top three barriers to girls. Two in five households ($41.7\% \pm 5.2\%$) report that it takes between 30 minutes and 1 hour by foot to reach the nearest functional education facility, while $21.5 (\pm 6.1)$ 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.



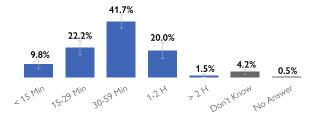




7.7% of households received training in the past 12 mo.



% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL EDUCATION FACILITY [N = 549]



% HH receiving training in the last 12 months by type of training [N = 42]

Training	%	LL	UL
Agriculture	57.1%	35.4%	78.9%
Vocational Training	21.4%	7.1%	35.7%
Childcare	7.1%	1.0%	13.3%
Nutrition	4.8%	0.0%	10.7%
Other	4.8%	0.0%	11.8%
Functional Adult Literacy (FAL)	2.4%	0.0%	7.1%
Business Skills Training	2.4%	0.0%	6.7%



Water, Sanitation and Hygiene (WASH)

Overall, 51.2 (\pm 7.8) per cent lack access to a safe and timely water source¹, with male-headed households indicatively faring worse than their female counterparts. This is mostly driven by the fact that 40.8 (\pm 8.1) per cent need more than half an hour to collect water, as 20.9 (\pm 5.2) per cent lack access to a safe water source. Almost all households (99.3% \pm 0.7%) 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 ($88.3\% \pm 5.5\%$) and shallow wells, rivers, streams and ponds ($4.4\% \pm 4.3\%$). Most households do not treat their water ($55.4\% \pm 8.3\%$), while 25.3 (± 8.2) per cent boil their water. 15.5 (± 4.6) per cent report having felt unsafe collecting water from their main water source in the two weeks prior to the interview, with male-headed, displaced and returned or relocated households indicatively being more likely to be affected than other sub-groups.

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. About half of all households ($48.8\% \pm 8.0\%$) report that the price of water has not changed, while 0.9 ± 1.5) per cent report an increase and 40.8 ± 8.2) per cent report a decrease.

Households not having enough water to meet needs:

Drinking
3.8%

Cooking
6.2%

Handwashing
21.5%

Personal hygiene
65.6%

Domestic purposes
96.0%

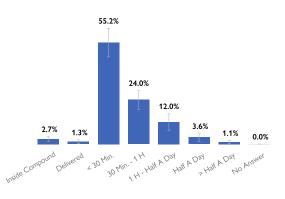
% HH BY MAIN SOURCE OF DRINKING WATER [N = 549]

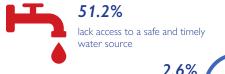
Source	%	LL	UL
Deep Borehole / Protected Well	88.3%	82.8%	93.9%
Shallow Well / River / Stream / Pond	4.4%	0.0%	8.7%
Public Tap (> 5 HHs)	2.9%	0.8%	5.0%
Tap Stand (< 5 HH)	2.0%	0.0%	4.3%
Collected Rainwater	1.8%	0.7%	3.0%
Bottled Water	0.5%	0.0%	1.2%

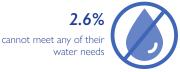
% SUB-GROUP HH WITH ACCESS TO SAFE AND TIMELY WATER

GROUP	N	%	LL	UL
Overall	549	48.8%	41.0%	56.6%
Female HoH	470	50.2%	41.6%	58.8%
Male HoH	79	40.5%	30.0%	51.0%
Host Community	317	56.5%	45.8%	67.1%
IDPs	193	34.7%	26.5%	42.9%
Ret./Rel. Persons	37	56.8%	36.4%	77.1%

% HH BY TIME TAKEN TO COLLECT WATER [N = 549]

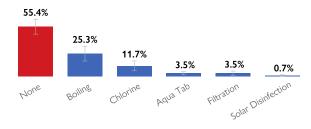








% HH BY MOST COMMON WATER TREATMENT [N = 549]



% SUB-GROUP HH FEELING UNSAFE COLLECTING WATER

GROUP	N	%	LL	UL
Overall	549	15.5%	10.8%	20.1%
Female HoH	470	13.6%	9.3%	18.0%
Male HoH	79	26.6%	14.6%	38.6%
Host Community	317	11.4%	7.4%	15.3%
IDPs	193	20.7%	11.6%	29.8%
Ret./Rel. Persons	37	24.3%	10.6%	38.0%

^{1 &}quot;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, bublic 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

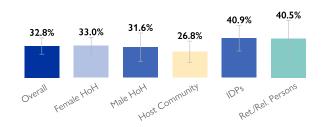


Three in four households (73.0% \pm 5.3%) do not have access to basic WASH NFIs, including at least two jerrycans in good conditions and soap. 70.5 (\pm 5.2) per cent of households do not have solid, liquid or powder soap at home. Of the households without soap, most state that they cannot afford soap or detergent (48.6% \pm 10.2%) or ran out of soap (48.6% \pm 10.3%). About half of all households (48.6% \pm 8.9%) report that women use sanitary pads in dealing with menstruation. 38.4 (\pm 8.3) per cent report that women use pieces of cloth while 8.6 (\pm 3.9) per cent report that women use nothing.

Half of all households ($49.4\% \pm 8.3\%$) report having access to family latrines, with traditional or open pit latrines being the most common ($22.6\% \pm 6.4\%$). $32.8 (\pm 8.4)$ per cent rely on buckets, bushes or open spaces for defecation. Indicatively, displaced and returned or relocated households are more likely to lack access to a toilet. Of households with children under the age of five, $39.2 (\pm 7.2)$ per cent indicate that children use household latrines. One in three households ($32.9\% \pm 8.2\%$) state that their children defecate openly.

For disposing waste, about two in three households burn their solid waste (64.3% ±8.2%) while 17.3 (±4.9) per cent discard theirs in garbage bins.

% SUB-GROUP HH WITHOUT A TOILET



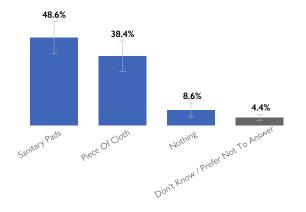
% HH BY TIMES WHEN THEY USUALLY WASH HANDS [N =549]

Timing	%	LL	UL
Before Eating	98.0%	96.8%	99.2%
Before Cooking	91.4%	87.3%	95.6%
After Defecation	85.6%	81.5%	89.7%
Before Breastfeeding	47.6%	41.0%	54.2%
Before Feeding Children	28.5%	20.8%	36.2%
After Handling A Child's Stool	12.5%	5.9%	19.1%
After Coughing / Sneezing	6.7%	3.3%	10.1%
After Interacting With People	6.4%	2.9%	9.9%
Other	0.0%	0.0%	0.0%
No Answer	0.0%	0.0%	0.0%

% HH BY WASTE DISPOSAL LOCATION [N = 549]

Location	%	LL	UL
Burn	64.3%	56.1%	72.5%
Garbage Bin	17.3%	12.4%	22.2%
Garbage Pit	11.7%	7.6%	15.7%
On The Street	4.2%	1.4%	6.9%
River / Canal / Drainage	2.0%	0.5%	3.5%
Solid Waste Truck Collection	0.5%	0.0%	1.6%

% hh by product/measure for dealing with menstruation [N = 549]



73.0% of households do not have access to WASH NFI



Households not using soap 70.5%





% hh by access to sanitation [n = 549]

Location	%	LL	UL
No Toilet / Bush / Open Space	32.4%	24.1%	40.8%
Family Latrine - Traditional Pit Latrine / Open Pit	22.6%	16.1%	29.0%
Family Latrine - Water-seal / Pour-flush Latrine	16.8%	10.3%	23.2%
Communal Latrine - Traditional Pit Latrine / Open Pit	10.0%	5.9%	14.2%
Family Latrine - Improved Pit Latrines With Concrete Slab	10.0%	6.5%	13.5%
Communal Latrine - Water-seal / Pour-flush Latrine	4.0%	0.1%	7.9%
Communal Latrine - Improved Pit Latrines With Concrete Slab	3.5%	1.4%	5.6%
Bucket	0.4%	0.0%	0.9%
Other	0.4%	0.0%	0.9%



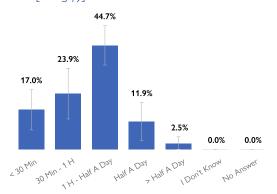
Healthcare and COVID-19

Over half of all households (53.7% ±6.8%) had a health problem and needed to access healthcare in the past three months, of which most were unable to do so (53.9% ±10.7%). Indicatively, displaced and returned or relocated households are more likely to lack access to healthcare compared to host community households. Of the households that could access health care, 61.5 (±12.2) 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 (43.3% ±11.9%), required services being unavailable (28.5% ±10.8%) and long waiting times (22.0% ±5.8%). 45.5 (±9.0) per cent have attempted to access ante-natal care services.

While most households aware of COVID-19 (94.0% ±3.1%) know that washing hands with soap is a prevention measure against the transmission, only 46.1 (±8.3) per cent know of using masks and 26.0 (±6.9) per cent of covering their cough or sneeze with a tissue. Less than five per cent know of preventive measures, such as reporting suspected cases and self-isolating, and only 0.9 (±0.8) per cent know of vaccination.

FACILITY [N = 549]



% sub-group hh with health issues unable to access HEALTH CARE WHEN NEEDED IN THE PAST THREE MONTHS

GROUP	N	%	LL	UL
Overall	295	53.9%	43.2%	64.6%
Female HoH	254	53.1%	41.9%	64.4%
Male HoH	41	58.5%	41.4%	75.7%
Host Community	155	41.9%	26.8%	57.1%
IDPs	122	63.1%	49.9%	76.3%
Ret./Rel. Persons	17	94.1%	84.1%	100.0%

% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL HEALTH % HH WITH UNMET HEALTH CARE NEEDS BY BARRIER TO ACCESS % SUB-GROUP HH UNAWARE OF COVID-19 IN THE PAST THREE MONTHS [N = 159]

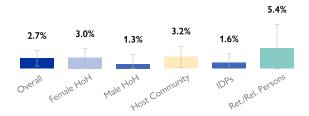
Barrier	%	LL	UL
Unaffordable Treatment Cost	43.4%	31.5%	55.3%
Specific Service Needed Unavailable	28.5%	17.7%	39.2%
Long Waiting Time	22.0%	16.3%	27.8%
Unaffordable Consultation Cost	21.0%	11.5%	30.5%
No Functional Facility Nearby	19.1%	10.0%	28.2%
Unaffordable Transportation Cost	16.5%	8.1%	24.8%
Distance	15.7%	7.4%	24.1%
Only Accessible At Certain Times	14.6%	7.5%	21.6%
None	12.6%	7.0%	18.1%
No Means Of Transport	3.1%	0.6%	5.7%
Did Not Need To Access	2.5%	0.3%	4.8%
Disability	1.9%	0.5%	3.3%
Incorrect Medications	1.9%	0.0%	4.1%
Lack Of Staff	1.9%	0.0%	5.6%
Wait For Improvement	0.6%	0.0%	1.9%
Discrimination	0.6%	0.0%	1.9%
No Time Due To Child Care	0.4%	0.0%	1.2%

Experienced health Needing care who issues in past 3 mo. were unable to access 53.7% 53.9%

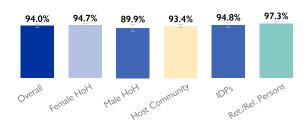
Accessed ante-natal care services

Ante-natal care services not available

0.5%



% SUB-GROUP HH TAKEN ACTION AGAINST COVID-19





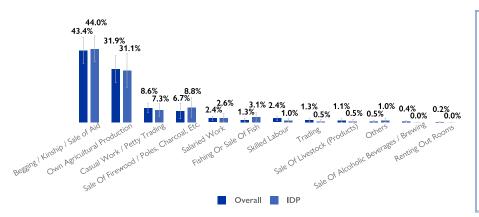
Economic Vulnerabilities and Livelihoods

Three in five households (57.9% ±9.1%) report a decrease in their income level or amount during the past six months, with 27.7 (±6.9) per cent reporting a substantial decrease. Households experiencing a decrease in income levels are more likely to be engaged in their own agricultural production (35.2% ±10.2% vs 27.3% ±9.7%) and the sale of firewood, poles and other essential goods (10.4% ±7.2% vs 1.7% ±1.7%). Indicatively, displaced households were more likely to experience a decrease than host community and returned or relocated households.

Begging, relying on help from family or the sale of aid (43.4% ±7.8%) and own agricultural production (31.9% ±8.1%) are the top sources of livelihoods. Livelihood activities of displaced households have significantly changed after displacement, with households previously relying on their own agricultural production (60.1% ±11.8%) switching to relying on begging, kinship or sale of aid (39.7% ±12.3% of those HH) or the sale of firewood (11.2% ±8.2%).

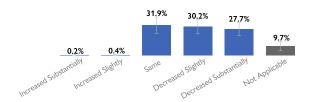
Overall, 64.8 (±7.8) per cent of households have experienced difficulties or shocks in the six months prior to the assessment. Female-headed households are more likely to be affected than male-headed households (67.9% ±7.7% vs 46.8% ±14.1%).

% HH BY MOST IMPORTANT ACTIVITY FOR GETTING FOOD AND INCOME IN LAST THREE MONTHS [N = 549; IDP N = 197]



Most important livelihood activity predisplacement: Own Agricultural Production 60.1% Begging / Kinship / Sale of Aid 23.8% Casual Work / Petty Trading 3.1%

% HH BY INCOME LEVEL CHANGE DURING THE PAST SIX MONTHS [N = 549]



% HH BY DIFFICULTIES OR SHOCKS EXPERIENCED IN PAST SIX MONTHS (TOP 5) [N = 549]

Sноск	%	LL	UL
No Shock Experienced	35.2%	27.4%	42.9%
Unusually High Food Prices	29.5%	21.6%	37.4%
Houses Flooded	19.5%	13.8%	25.2%
Too Much Rain	16.0%	9.4%	22.6%
Crops Flooded	7.3%	4.5%	10.0%

Experienced a decrease in income in past 6 months



Experienced an economic schock in past 6 months

Top economic shocks experienced in the past 6 mo.



Unusually high food prices



Houses flooded



Too much rain

% HH BY ASSETS OWNED (TOP 15) [N = 549]

Asset	%	LL	UL
Sleeping Mat	83.6%	78.2%	89.0%
Mattress	64.7%	57.3%	72.0%
Bed	55.6%	46.9%	64.3%
Chairs	38.4%	29.6%	47.3%
Mosquito Net	34.4%	26.2%	42.6%
Kitchen Utensils	23.3%	17.2%	29.4%
Blanket	21.9%	14.9%	28.8%
Phone	11.5%	6.7%	16.2%
Tables	10.7%	6.8%	14.7%
Radio	5.5%	3.4%	7.5%
None	5.1%	0.0%	10.3%
Mask For COVID-19	2.9%	1.0%	4.9%
Wheel Barrow	2.4%	0.5%	4.3%
Stove	1.1%	0.1%	2.1%
Livestock	1.1%	0.0%	2.2%



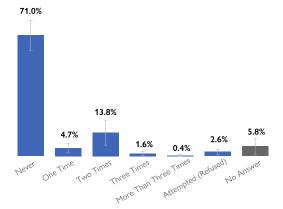
21.7 (± 6.1) per cent of households spent at least 65 per cent of their total household expenditure on food alone in the past three months while 24.0 (± 5.2) per cent report spending over 65 per cent of their expenditure on cereals and pulses only on average per month – these households are particularly vulnerable to market shocks. 3.3 (± 2.1) per cent of households use over three quarters of their expenditure on food. High to very high expenditure (over 65%) on food affects male-headed households more than female-headed households (27.8% $\pm 14.1\%$ vs 20.6% $\pm 5.7\%$).

About two in three households ($64.7\% \pm 7.6\%$) need to walk over 30 minutes to their nearest operational marketplace or grocery store, with 31.1 (± 6.8) per cent needing more than one hour. Indicatively, female-headed households are more likely to need more than 30 minutes compared to male-headed households ($66.4\% \pm 7.6\%$ vs. $54.4\% \pm 14.5\%$), highlighting the potential risks women can face during long travels for essential daily activities.

About a quarter households $(23.1\% \pm 7.9\%)$ attempted to use or used credit or borrowed money in the three months prior to the assessment, with over 15.8 (± 7.8) per cent having used credit or borrowed money more than once. Of these households, the vast majority did so to purchase food $(94.5\% \pm 4.9\%)$.

Despite living in an urban area, $36.8 (\pm 7.3)$ per cent have access to land for cultivation and $20.2 (\pm 4.9)$ per cent own livestock or farm animals, with male-headed households being more likely to have access to both than female-headed households.

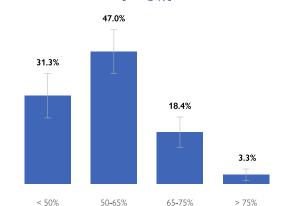
% HH BY FREQUENCY USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS [N = 549]



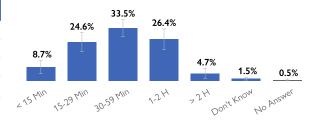
% HH USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS BY REASON [N = 127]

	/ -		
Reason	%	LL	UL
Purchase Of Food	94.5%	89.6%	99.3%
Payment Of Tuition Fees	3.9%	0.3%	7.6%
No Answer	0.8%	0.0%	2.4%
Purchase Of Agricultural Inputs	0.8%	0.0%	2.4%

% HH BY PROPORTION OF EXPENDITURE GOING TO FOOD IN THE LAST THREE MONTHS [N = 549]



% HH BY WALKING DISTANCE TO NEAREST OPERATIONAL MARKET/GROCERY STORE [N = 549]



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

21.7%



PURCHASE FOOD

% HH BY CHALLENGES EXPERIENCED DURING TRAVEL TO MARKET IN THE LAST MONTH [N = 549]

Challenge	%	LL	UL
Distance	49.7%	41.3%	58.1%
None	26.6%	19.6%	33.6%
Floods	25.3%	18.2%	32.5%
Too Hot	10.9%	7.0%	14.8%
Children Have To Join	8.9%	6.0%	11.9%
Conflict / Violence	4.0%	1.1%	6.9%
Struggled To Carry All Purchases	3.1%	1.6%	4.6%
Lack Of Water And Food On The Way	2.9%	0.3%	5.6%
COVID-19 Movement Restrictions	2.2%	0.1%	4.2%
Robberies / Crime	1.6%	0.7%	2.6%
Lack Of Shelter On The Way	1.6%	0.7%	2.6%
Unsafe	1.5%	0.4%	2.5%
Market Damaged / Destroyed	1.1%	0.0%	2.6%
Other	0.5%	0.0%	1.2%
Wild Animals	0.2%	0.0%	0.5%
Markets Closed Due To COVID-19	0.2%	0.0%	0.5%

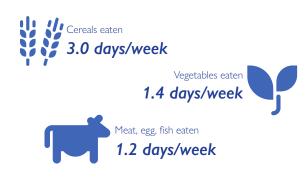


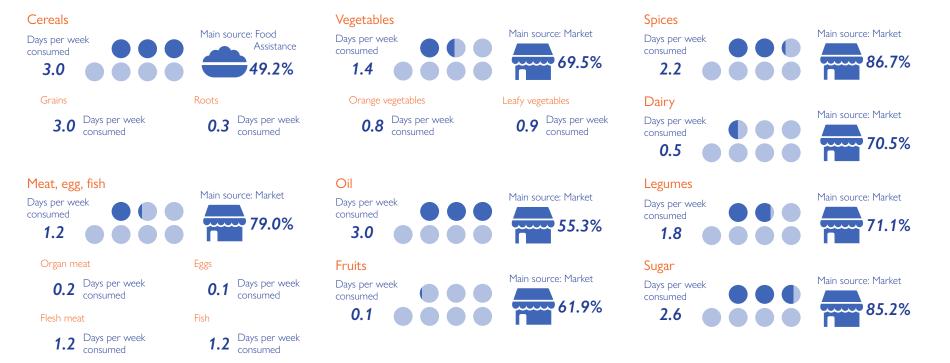
Food Security

On average, households consume cereals on 3.0 (\pm 0.4) days, oil on 3.0 (\pm 0.5) days, sugar on 2.6 (\pm 0.5) days and spices on 2.2 (\pm 0.5) days per week. All other food groups are consumed less than two days per week. There are some differences between the consumption of different food groups between male and female-headed households. Male-headed households tend to consume cereals on more days during the week (3.3% \pm 0.7% vs. 3.0% \pm 0.4%), while female-headed households tend to consume oil on more days during the week (3.0% \pm 0.5% vs. 2.7% \pm 0.6%).

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. The main source for cereals is food assistance $(49.2\% \pm 9.6\%)$.

Two in five households purchase their staple foods from the local market within the neighborhood (41.7% $\pm 8.6\%$), while 11.6 (± 4.2) per cent travel to neighboring locations to buy their staples. 28.4 (± 7.5) 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; 71.8% $\pm 10.8\%$), maize (flour or grain; 37.9% $\pm 9.7\%$) and beans (janjaro; 36.6% $\pm 9.9\%$).







Coping Strategies

Livelihood-based coping strategies illustrate households' capacity to cope with future shocks and maintain productivity. The majority (67.9% \pm 7.9%) 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 (52.8% \pm 8.0%), followed by eating with another household (47.5% \pm 8.8%), travelling to beg (37.5% \pm 7.9%) and borrowing money (36.1% \pm 7.4%) because of a lack of food or money for food. About two in five households (38.8% \pm 7.9%) indicate engaging in emergency coping, the most severe category of coping strategies.

Overall, 93.7 (\pm 3.9) per cent of households report to have used food-based coping strategies during the 12 months prior to the survey. 84.4 (\pm 4.8) per cent skipped meals while 83.8 (\pm 5.0) per cent ate less varied foods because of a lack of resources to obtain food. More than three in four households (78.1% \pm 5.8%) went to sleep at night hungry because there was not enough food in the past 12 months, of which 82.1 (\pm 4.3) per cent did so within four weeks prior to the interview. 70.3 (\pm 6.5) per cent of households went for a whole day and night without eating anything at all because there was not enough food, of which 83.7 (\pm 4.8) per cent did so within four weeks prior to the interview.

Maximum livelihood-based coping strategy

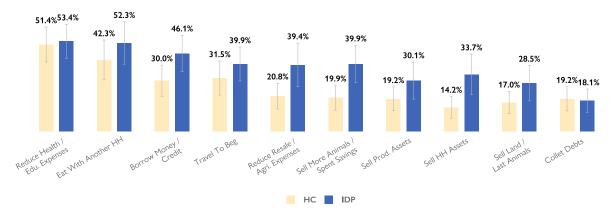


Emergency strategies 38.8%

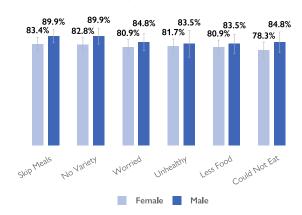
Main food-based coping strategy:

SKIPPING MEALS

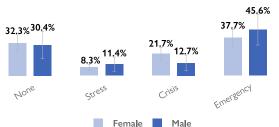
% IDP AND HC HH BY LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 549]



% FEMALE AND MALE-HEADED HH BY FOOD-BASED COPING STRATEGIES IN THE PAST 4 WEEKS [N = 549]



% female and male-headed hh by maximum livelihood-based coping strategies in the past 30 days $\left[\text{N} = 549 \right]$



% IDP and HC HH BY MAXIMUM LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 549]



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 srategies: 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.



Communication and Social Cohesion

Radio is the most common main source of information of households (31.3% $\pm 9.2\%$) followed by word of mouth (28.4% $\pm 8.0\%$). 73.6 (± 7.1) per cent of households have at least one member owning a functioning mobile phone that is reliably charged, with adult women (74.5% $\pm 7.0\%$) and men (66.3% $\pm 6.8\%$) being the most likely owners.

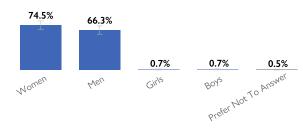
Although only 6.6 (± 2.7) per cent of households have members who participate in social groups, the majority (88.2% $\pm 6.1\%$) feels welcomed and accepted in their current community. Indicatively, displaced and returned or relocated households are less likely to feel welcome or accepted in their community (84.5% $\pm 11.8\%$ and 75.7% $\pm 9.3\%$) compared to host community households (91.8% $\pm 4.3\%$). Of the households that participate in social groups, about three in five (61.1% $\pm 17.4\%$) report that women are members while 55.6 (± 19.2) per cent report that men are members.

Most households report that women are either significantly involved (9.7% \pm 5.1%) or moderately involved (53.6% \pm 8.2%) in community decision-making. 13.7 (\pm 6.1) per cent state that women never partake in decision-making. Notably, male-headed households are more likely to perceive women as significantly involved (17.7% \pm 11.7% vs. 8.3% \pm 4.5%), while female-headed households are more likely to perceive women to never be involved in decision-making (14.0% \pm 6.7% vs. 11.4% \pm 7.5%). Differences are not statistically significant, however.

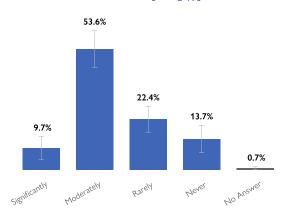
% HH BY MAIN SOURCE OF INFORMATION [N = 549]

Source	%	LL	UL
Radio	31.3%	22.2%	40.5%
Word Of Mouth	28.4%	20.4%	36.4%
Public Announcements	17.3%	10.5%	24.1%
Church Authorities	11.3%	7.1%	15.5%
Local Authorities	9.3%	4.2%	14.4%
Communal Meetings	0.7%	0.0%	1.6%
Community Mobilizers	0.7%	0.1%	1.4%
Other	0.4%	0.0%	0.9%
Newspapers	0.2%	0.0%	0.5%
Social Media	0.2%	0.0%	0.5%
Television	0.2%	0.0%	0.5%

% hh with mobile phones by main owner of functional and charged mobile phone $\lceil N = 404 \rceil$



% HH BY EXTENT TO WHICH WOMEN ARE INVOLVED IN COMMUNITY DECISION-MAKING [N = 549]



% HH BY EXTENT TO WHICH FEEL WELCOMED IN CURRENT COMMUNITY [N = 549]

Feeling integrated	%	LL	UL
A Lot	32.8%	23.3%	42.3%
Moderately	55.4%	46.7%	64.0%
A Little	6.9%	3.3%	10.6%
Not At All	3.3%	1.1%	5.5%
No Answer	1.6%	0.0%	3.6%

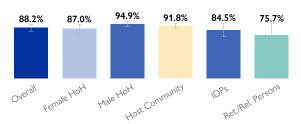
Main source of information



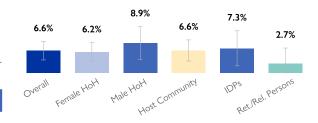




% SUB-GROUP HH FEELING INTEGRATED AND WELCOME IN CURRENT COMMUNITY



% SUB-GROUP HH INVOLVED IN SOCIAL GROUPS





Protection

Over half of all households (58.5% ±8.3%) state that they are not aware of any protection services in their area.1 While some households are aware of GBV health (29.3% ±8.4%), police (27.5% ±8.5%) and other GBV-related (25.1% ±8.4%) services being available, only few (less than 5%) are aware of any other protection services related to child protection, housing land and property, and others. 1.3 (±1.1) per cent report to have been affected by a safety or security incident in the past month, with female household members being indicatively more likely to be affected than male members (100.0% vs 85.7% ±26.3% of affected households).

Households cite gender-based violence (34.8% ±7.5%), criminality, extortion or gang-related violence (29.5% ±6.4%), harmful traditional practices (25.5% ±5.6%) and mistreatment of women or emotional violence (22.2% ±6.4%) as the most serious protection concerns in their community at the time of assessment. Top concerns differ between the genders of the head of household. Female-headed households are more likely to report gender-specific harms, such as GBV and harmful traditional practices, as serious concerns, while male-headed households are more likely to report general physical violence, such as targeted violence and inter-communal violence, as serious concerns.

Unaware of available Affected by security protection services incident 1.3% 58.5%

Top three protection issues of serious concern:

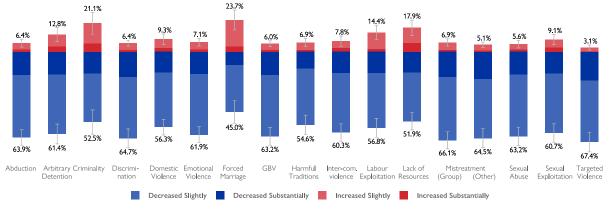






25.5%

% hh by change in likelihood or frequency of protection issues in community over the past six months [n = 5.49]



% HH WITH TRAVEL OFFER IN THE PAST THREE MONTHS BY MEMBER RECEIVING OFFER [N = 46]

Мемвек	%	LL	UL
Men	78.3%	63.7%	92.8%
Women	17.4%	7.6%	27.1%
Girls	13.0%	0.0%	26.7%
Boys	13.0%	1.3%	24.8%
No Answer	4.3%	0.0%	10.3%

% hh by awareness of available protection services in % hh by current protection issues that cause serious AREA (TOP 5) [N = 549]

Service	%	LL	UL
None	58.5%	50.2%	66.8%
Health Services (GBV)	29.3%	21.0%	37.7%
Police	27.5%	19.0%	36.0%
Counselling (GBV)	22.0%	13.4%	30.7%
Legal Aid (GBV)	10.2%	4.9%	15.5%

CONCERN (TOP 5) [N = 549]

Concern	%	LL	UL
GBV	34.8%	27.3%	42.3%
Criminality	29.5%	23.1%	35.9%
Harmful Traditions	25.5%	19.9%	31.1%
Emotional Violence	22.2%	15.9%	28.6%
Inter-communal Violence	18.9%	13.2%	24.7%

% Sub-group hh affected by a security incident in the LAST 30 DAYS

Group	N	%	LL	UL
Overall	549	1.3%	0.2%	2.3%
Female HoH	470	1.1%	0.0%	2.2%
Male HoH	79	2.5%	0.0%	5.9%
Host Community	317	0.6%	0.0%	1.5%
IDPs	193	2.1%	0.0%	4.1%
Ret./Rel. Persons	37	2.7%	0.0%	8.0%

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



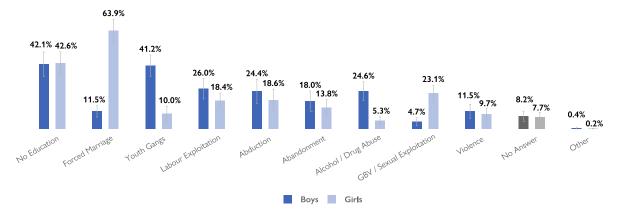
Two in five households (39.3% \pm 7.8%) report that there are areas in their location that women and / or girls avoid because they feel unsafe. The main areas avoided are routes for collecting firewood (19.7% \pm 7.9%), markets (3.8% \pm 1.7%) and latrines (2.9% \pm 1.5%), underlining the challenges women face when conducting daily, essential tasks.

13.3 (±5.1) 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. Indicatively, female-headed households are more likely to be affected than male-headed households.

While similar proportions of households report boys and girls to be most at risk to lack of access to education (42.1% $\pm 8.0\%$ for boys and 42.6% $\pm 7.6\%$ for girls), there are significant gender-specific differences between other top risks. Households are more likely to see girls at risk of forced or arranged marriage (63.9% $\pm 7.3\%$) and GBV or sexual exploitation (23.1% $\pm 5.3\%$). In contrast, households view boys to be more at risk of involvement in youth gangs (41.2% $\pm 7.0\%$) and substance abuse (24.6% $\pm 6.1\%$).

42.1 (\pm 8.4) per cent of households report seeing behavioral changes in their children during the month before the assessment, with households being equally likely to see these in boys and girls (38.1% \pm 8.5% vs 37.3% \pm 8.2%). The most common behavioral changes are more aggressive behavior (18.6% \pm 6.5% for girls and 21.9% \pm 7.6% for boys) and violence against younger children (16.0% \pm 5.1% and 21.9% \pm 7.6%).

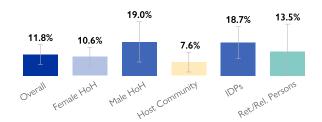
% hh by perceived biggest risks children under 18 are exposed to in community [n = 549]



% 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



39.3% report areas in their location avoided by women and / or girls

Areas avoided include:



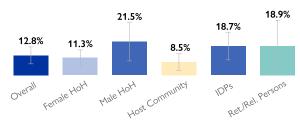






report behavioral changes in either girls or boys

% Sub-group hh observing three or more behavioral changes in boys in the last month



% SUB-GROUP HH WITH HH MEMBERS FEELING DISTRESSED

GROUP	N	%	LL	UL
Overall	549	13.3%	8.2%	18.4%
Female HoH	470	13.2%	7.9%	18.4%
Male HoH	79	13.9%	3.7%	24.2%
Host Community	317	10.7%	5.5%	16.0%
IDPs	193	13.5%	6.4%	20.5%
Ret./Rel. Persons	37	32.4%	12.5%	52.3%



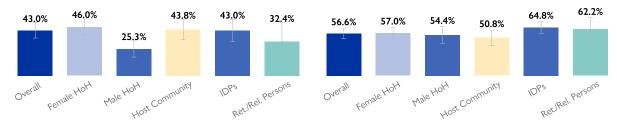
Humanitarian Assistance

During the three months preceding the assessment, $43.0~(\pm7.2)$ per cent of households received some form of humanitarian assistance, most of them receiving general food for all $(73.7\% \pm7.7\%)$ and unconditional cash or voucher transfers $(21.6\% \pm8.4\%)$. $56.6~(\pm7.2)$ per cent report to be dependent on humanitarian services to cover basic needs such as food, WASH, health and education. This indicates a gap of 13.6 per cent of households who did not receive assistance during the three months prior to the survey despite being reliant on it for their basic needs.

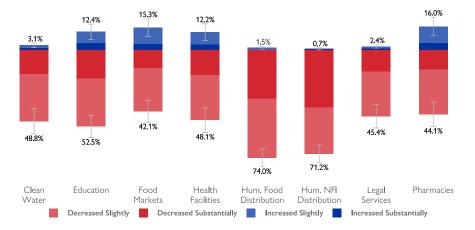
Two in three households ($64.3\% \pm 7.1\%$) state that they do not receive adequate information about the different available humanitarian services. The large shares of households not receiving humanitarian assistance and lacking access to information about assistance indicate that many households in need of assistance are not receiving the help they require.

As top priority needs for their household, respondents name food (95.8% \pm 1.9%), shelter or housing (73.6% \pm 7.7%) and healthcare (68.3% \pm 8.5%). IDP households are more likely to list seeds or other agricultural inputs (17.1% \pm 10.6%) and non-food items (14.0% \pm 6.3%) as priority needs compared to host community households (5.7% \pm 2.8% and 0.9% \pm 1.1%).

% SUB-GROUP HH RECEIVING HUMANITARIAN ASSISTANCE IN 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 = 549]



43.0%

received humanitarian assistance in the last 3 mo.

56.6%

are dependent on hum. services to cover basic needs





% hh who have accessed assistance or basic services in the past three months by type [N = 276]

_			
Assistance	%	LL	UL
General Food For All	73.7%	66.0%	81.4%
Unconditional Cash / Voucher Transfer	21.6%	13.2%	30.0%
Food For Assets	6.8%	3.2%	10.4%
Food For School Children	5.9%	2.7%	9.2%
Nutrition	2.5%	0.8%	4.3%
Cash For Work / Cash For Training	1.7%	0.1%	3.3%
Agricultural Inputs	1.3%	0.0%	2.7%
Agricultural Tools	0.4%	0.0%	1.3%
Fishing Gear	0.4%	0.0%	1.2%
Health / Medicines	0.4%	0.0%	1.2%
Shelter Material	0.4%	0.0%	1.3%
WASH Materials	0.4%	0.0%	1.3%
School Fees / Uniforms	0.0%	0.0%	0.0%
Other	0.0%	0.0%	0.0%
No Answer	0.0%	0.0%	0.0%



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 (33.0% of HH), closely followed by the fourth range (61% - 80% or high vulnerability; 32.8% of HH). As the population's most vulnerable category, 11.5 per cent of households fall into the highest range (81% - 100% or maximum vulnerability). Comparing different sub-groups, male-headed households tend to score higher on the UVI than female-headed households, with a higher proportion of households falling into high or maximum vulnerability classes (49.4% vs 43.4%) although female-headed households are more likely to fall into the highest range (11.9% vs 8.9% of male-headed HH). Although these interpretations are only indicative due to the small sample size by population sub-group, the UVI indicates that displaced, returned and relocated households fare worse than host community households. Displaced and returned households stand out with over 24.4 per cent and 20.0 per cent in the highest range, respectively, compared to the proportion of host community (3.8%).

UVI Indicators with largest weights:

Sufficent Water

44.2%

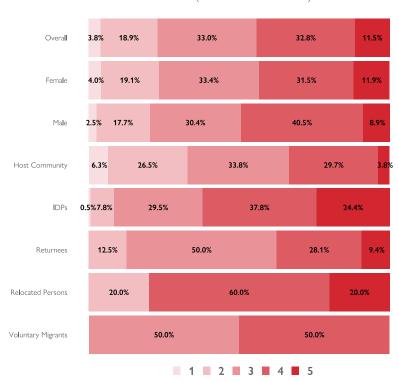
WASH NFI

35.7%

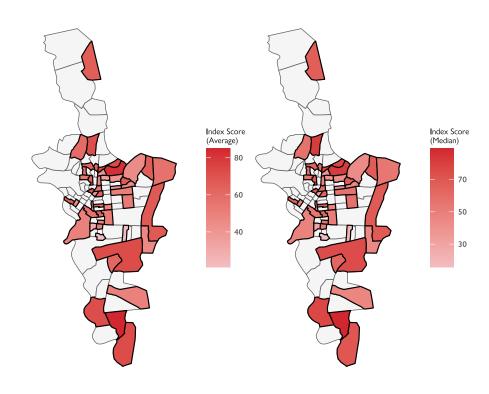
Hunger

34.6%

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

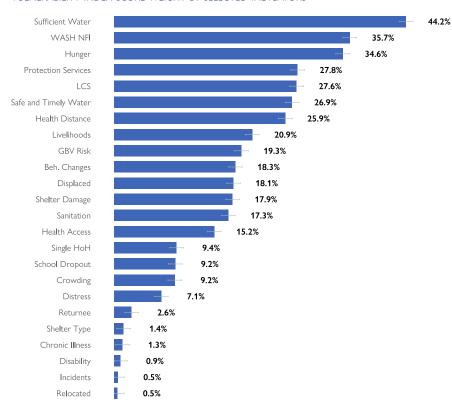


AVERAGE AND MEDIAN INDEX SCORE BY ASSESSED ENUMERATION AREA IN BOR TOWN



IOM DISPLACEMENT TRACKING MATRIX SOUTH SUDAN

VULNERABILITY INDEX SCORE WEIGHT BY SELECTED INDICATORS



METHODOLOGY ANNEX I: PRINCIPAL COMPONENT ANALYSIS - IMPORTANCE OF COMPONENTS

MEASURE	PC ₁	PC ₂	PC ₃	PC ₄	PC ₅	PC6	PC ₇	PC8
Standard deviation	21.417	6.345	5.357	5.093	4.833	4.718	4.312	4.037
Proportion of Variance	0.624	0.055	0.039	0.035	0.032	0.030	0.025	0.022
Cumulative Proportion	0.624	0.679	0.718	0.753	0.785	0.815	0.841	0.863

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.

