

# Research Terms of Reference

Area of Knowledge Neighbourhoods (AoK-N) Multi-Sectoral Needs Assessment

SSD2002

South Sudan

July 21, 2020

Version 1

**REACH** Informing  
more effective  
humanitarian action

## 1. Executive Summary

<b>Country of intervention</b>	South Sudan						
<b>Type of Emergency</b>	<input checked="" type="checkbox"/>	Natural disaster	<input checked="" type="checkbox"/>	Conflict			
<b>Type of Crisis</b>	<input type="checkbox"/>	Sudden onset	<input type="checkbox"/>	Slow onset	<input checked="" type="checkbox"/>	Protracted	
<b>Mandating Body/ Agency</b>	ECHO OFDA						
<b>Project Code</b>	32iAKW, 99iAFH, 32iAKB						
<b>Overall Research Timeframe</b> (from research design to final outputs / M&E)	13/07/2020 to 30/12/2020						
<b>Research Timeframe</b>	1. Start of data collection: 03/08/2020			5. Preliminary presentation: 07/09/2020			
<i>Add planned deadlines (for first cycle if more than 1)</i>	2. Data collected: 28/08/2020			6. Preliminary outputs sent for validation: 11/09/2020 <sup>1</sup>			
				6. Final outputs sent for validation 30/10/2020 <sup>2</sup>			
	3. Data analysed: 04/09/2020			7. Outputs published: 11/09/2020			
	4. Data sent for validation: 04/09/2020			8. Final presentation: 14/09/2020			
<b>Number of assessments</b>	<input checked="" type="checkbox"/>	<b>Single assessment (one cycle)</b>					
	<input type="checkbox"/>	Multi assessment (more than one cycle)					
<b>Humanitarian milestones</b> <i>Specify what will the assessment inform and when</i> <i>e.g. The shelter cluster will use this data to draft its Revised Flash Appeal;</i>	<b>Milestone</b>			<b>Deadline</b>			
	<input checked="" type="checkbox"/>	<b>HNO Sectoral analysis of PiN and severity</b>			17/09/2020 (dependent on OCHA update)		
	<input type="checkbox"/>	Donor plan/strategy			__/__/__		
	<input checked="" type="checkbox"/>	<b>Inter-cluster plan/strategy</b>			15/11/2020 (dependent on OCHA update)		
	<input type="checkbox"/>	Cluster plan/strategy			__/__/__		
	<input type="checkbox"/>	NGO platform plan/strategy			__/__/__		

<sup>1</sup> Preliminary outputs include data analysis and cleaning logs, raw and clean datasets, and sectoral county level factsheets to support cluster sectoral PiN calculations.

<sup>2</sup> The final output will be a full AoK-N report, including sectoral and intersectoral analysis.

	<input type="checkbox"/>	Other (Specify):	_ _ / _ _ / _ _ _ _	
<b>Audience Type &amp; Dissemination</b> <i>Specify <b>who</b> will the assessment inform and <b>how</b> you will disseminate to inform the audience</i>	<b>Audience type</b>		<b>Dissemination</b>	
	<input checked="" type="checkbox"/> Strategic <input checked="" type="checkbox"/> Programmatic <input checked="" type="checkbox"/> Operational <input type="checkbox"/> [Other, Specify]		<input checked="" type="checkbox"/> General Product Mailing (e.g. mail to NGO consortium; HCT participants; Donors) <input checked="" type="checkbox"/> Cluster Mailing (Education, Shelter and WASH) and presentation of findings at next cluster meeting <input checked="" type="checkbox"/> Presentation of findings (e.g. at HCT meeting; Cluster meeting) <input checked="" type="checkbox"/> Website Dissemination (Relief Web & REACH Resource Centre) <input type="checkbox"/> [Other, Specify]	
<b>Detailed dissemination plan required</b>	<input type="checkbox"/>	Yes	x	No
<b>General Objective</b>	To inform and improve the effectiveness of the humanitarian response in South Sudan, given COVID-19 movement restrictions, and an associated severely constrained assessment landscape, by providing humanitarian actors with an indicative source of data for nationwide, county-level, multi-cluster analysis of current population needs and dynamics.			
<b>Specific Objective(s)</b>	1. To provide a snapshot of the current humanitarian needs and gaps in South Sudan to support the Humanitarian Needs Overview and Humanitarian Response Plan for 2021; 2. To encourage inter-sectoral joint analysis to build linkages in response planning for 2021; 3. To identify variations in need between different geographic areas in order to support prioritisation of response planning.			
<b>Research Questions</b>	1. What are the key priorities and needs in South Sudan regarding Food Security and Livelihoods (FSL), including the use of various coping strategies? 2. What are the key priorities and needs in South Sudan regarding Nutrition? 3. What are the key priorities and needs in South Sudan regarding Water, Sanitation, and Hygiene (WASH), include the use of various coping strategies? 4. What are the key priorities and needs in South Sudan regarding Camp Coordination and Management (CCCM)? 5. What are the key priorities and needs in South Sudan regarding Non Food Items & Shelter, including use of various coping strategies? 6. What are the key priorities and needs in South Sudan regarding Health, including use of various coping strategies? 7. What are the key priorities and needs in South Sudan regarding Education? 8. What are the key priorities and needs in South Sudan regarding Protection and Housing Land and Property (HLP), including various coping strategies?			
<b>Geographic Coverage</b>	All of South Sudan: 10 States, 78 counties (excluding Abyei) <sup>3</sup> , dependent on access and security restrictions during data collection, as well as mobile phone network coverage. <ul style="list-style-type: none"> <li>Relies mostly on existing AoK coverage (10 States, 73 Counties)</li> <li>Aims to engage national NGO partners to cover the 6 counties that the AoK structure currently does not cover.</li> </ul>			

<sup>3</sup> Abyei is contested territory between Sudan and South Sudan, so REACH does not conduct assessments in this location.

<b>Secondary data sources</b>	<ul style="list-style-type: none"> <li>2020 South Sudan <a href="#">Humanitarian Needs Overview</a></li> <li>South Sudan 2020 <a href="#">Humanitarian Response Plan</a></li> <li>South Sudan National Bureau of Statistics (NBS) <a href="#">Population Estimates by Payam (2015-2020)</a> from 2008 census</li> </ul>			
<b>Population(s)</b>	<input type="checkbox"/>	IDPs in camp	x	IDPs in informal sites
Select all that apply	x	IDPs in host communities	<input type="checkbox"/>	IDPs [Other, Specify]
	<input type="checkbox"/>	Refugees in camp	x	Refugees in informal sites
	x	Refugees in host communities		Refugees [Other, Specify]
	x	Host communities	x	Returnees
<b>Stratification</b> Select type(s) and enter number of strata	x	Geographical #: 78 counties Population size per strata is known? X Yes <input type="checkbox"/> No	<input type="checkbox"/> Group #: ___ Population size per strata is known? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> [Other Specify] #: ___ Population size per strata is known? <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Data collection tool(s)</b>	x	Structured (Quantitative)	x	Semi-structured (Qualitative)
	<b>Sampling method</b>		<b>Data collection method</b>	
<b>Structured data collection tool # 1</b>	<p><i>Description of tool:</i></p> <p>- Multi-sectoral Key Informant (KI) questionnaire asking about the KI and their 9 closest neighbours</p> <p><b>Location selection:</b> - 25 clusters will be sampled per county, where each cluster is defined as either a settlement or urban neighbourhood. Specific clusters/locations are NOT randomly sampled, instead a target number of clusters will be proportionately allocated to sub-county payams (admin level 3) based on their population size, using probability proportional to size (PPS) sampling. The sampling frame consists of a list of payams by county, and an estimate of their population.</p> <p><b>Participant selection:</b> - Within each cluster, one KI will be purposively sampled. KIs are asked a series of questions on their own household and their 9 geographically closest neighbours. The selection criteria for a KI, is that s/he has knowledge of their own settlement, knowledge on up to 9 of the closest neighbours to the KIs household geographically, and have been established in their location for at least 1 month. KIs are either remotely interviewed, or</p>		<p>1,950 Key informant interviews, reporting household level information for their own and up to 9 of their neighbours' households.</p>	

	interviewed directly in their settlement if accessible.  Please see Section 3.4 for further details and rationale on the sampling approach.					
<b>Semi-structured data collection tools # 1</b>	X Purposive/Snowballing <i>Description of tool:</i> <ul style="list-style-type: none"> <li>Monthly displacement mapping focus group discussions</li> </ul>		X Focus group discussion (Target #): minimum 6 FGDs per state, to be led by saturation			
<b>Semi-structured data collection tool # 2</b>	X Purposive <i>Description of tool:</i> <ul style="list-style-type: none"> <li>Monthly Food Security and Livelihood mapping focus group discussions</li> </ul>		X Focus group discussion (Target #): minimum 6 FGDs per state, to be led by saturation			
<b>Semi-structured data collection tool # 3</b>	X Purposive <i>Description of tool:</i> <ul style="list-style-type: none"> <li>Monthly Service Access Gap focus group discussion (where applicable)</li> </ul>		X Focus group discussion (Target #): minimum 6 FGDs per state, to be led by saturation			
<b>Target level of precision if probability sampling</b>	__% level of confidence – <b>N/A</b>		__ +/- % margin of error – <b>N/A</b>			
<b>Data management platform(s)</b>	<input checked="" type="checkbox"/>	IMPACT	<input type="checkbox"/>	UNHCR		
	<input type="checkbox"/>	[Other, Specify]				
<b>Expected output type(s)</b>	<input type="checkbox"/>	Situation overview #: __	<input checked="" type="checkbox"/>	Report #: 1	<input type="checkbox"/>	Profile #: __
	<input checked="" type="checkbox"/>	Presentation (Preliminary findings) #: 1	<input checked="" type="checkbox"/>	Presentation (Final) #: 1	<input checked="" type="checkbox"/>	Factsheet #: 73 (one per county covered)
	<input type="checkbox"/>	Interactive dashboard #: __	<input type="checkbox"/>	Webmap #: __	<input type="checkbox"/>	Map #: __
	<input type="checkbox"/>	[Other, Specify] #: __				
<b>Access</b>	<input checked="" type="checkbox"/>	Public (available on REACH resource centre and other humanitarian platforms)				
	<input type="checkbox"/>	Restricted (bilateral dissemination only upon agreed dissemination list, no publication on REACH or other platforms)				
<b>Visibility</b> <i>Specify which logos should be on outputs</i>	<b>REACH</b>					
	<b>Donor:</b> ECHO and OFDA					
	<b>Coordination Framework:</b> OCHA					
	<b>Partners:</b> N/A					

## 2. Rationale

### 2.1. Rationale

Humanitarian needs continue to increase in South Sudan in 2020, and the convergence of multiple shocks in already vulnerable areas could lead to severe intersectoral outcomes. Shocks include COVID-19, forecasted flooding, desert locusts, continuation of armed conflict, displacement and mobility restrictions, increase in market prices, and risk of disruption in aid delivery. Each of these shocks will not necessarily apply to all locations in the same way, which means that county-level monitoring and analysis is particularly important to better identify needs and hotspots. However, emergency response and assessment/monitoring capacity has been constrained due to COVID-19 travel restrictions put in place to avoid the spread of the virus countrywide. Most rapid response assessment teams are grounded, whilst the planned multi-sector needs assessment (called the Food Security and Nutrition Monitoring System Plus (FSNMS+) in South Sudan) is going ahead but in a constrained form, with reduced indicators, and is delayed due to government restrictions; this means household level data might not be fully ready in time for the HNO analysis. As a consequence, alternative and innovative means of collecting data, even indicative, would allow the response to pinpoint the most vulnerable areas to be prioritised for both short- and long-term response.

To fill some of these information gaps, REACH proposes to conduct a remote data collection based loosely on the Area of Knowledge (AoK) methodology and the Neighbourhood Methodology. The Neighbourhood Methodology was first developed by the CPC Learning Network to gather population based data in areas with severely constrained operating environments, where direct data collection is not possible. This method is based on the assumption that people reasonably know some information about other people in their neighbourhoods. The Area of Knowledge-Neighbourhoods (AoK-N) methodology will complement AoK's strong "settlement-level" indicators, with some "household-level" and "individual-level" information. The proposed methodology uses the same method for sampling key informants as used by AoK in South Sudan. However, each Key Informant (KI) would be asked to list or "sample" their 9 closest neighbours and provide information on each of those neighbours. The AoK-N will identify differences in humanitarian needs among targeted population groups and geographic areas, and it is intended to support strategic planning and to contribute, as one of many data sources, to a more targeted and evidence-based humanitarian response.

## 3. Methodology

### 2.1. Methodology overview

The aim of AoK-N is to provide multi-sectoral household level information at the county level to inform the HNO process, given the current constraints surrounding conducting direct assessments during the COVID-19 pandemic, and uncertainty in availability or timeliness of FSNMS+ as a data source. AoK-N has been designed as the most reliable and methodologically rigorous approach to obtain country-wide multi-sectoral data in this context, albeit with the noted limitations compared to a direct household assessment. The assessment aims to cover all 78 counties across South Sudan and provide indicative data at the household level through 1,950 key informant interviews reporting on their household and up to 9 geographically closest neighbours. The sampling is not broken down by population group due to various limitations with data collection methodology and constraints due to COVID-19, but all data will be produced for the county level. The ability to collect qualitative data will depend heavily on COVID-19 restrictions at the time of assessment (see section 2.4) but will aim to include approximately 6 FGDs per base, 2 of each sector. Data collection will take place from August 4<sup>th</sup> -August 31<sup>st</sup>, with the possibility of mop up data collection in the first week of September if required.

## 2.2. Population of interest

In recognition of the urgent need for data to improve the understanding of the humanitarian context in South Sudan, this assessment focuses on IDP and host community populations across all 10 States of South Sudan, including hard-to-reach or inaccessible areas in Greater Upper Nile, Greater Equatoria and Greater Bahr el Ghazal. For the purpose of this assessment, hard-to-reach areas are defined as those areas of the country that are not regularly accessible either due to poor infrastructure, active conflict, humanitarian access restrictions, or a combination of these.

Data is collected at the lowest possible administrative unit – individual settlements – as derived from the OCHA settlement dataset (in which a settlement represents a village or neighbourhood in a defined urban area), to ensure that the area for which KIs are providing information corresponds directly to their actual area of knowledge, thereby mitigating unfounded deductions. Moreover, reporting and collection of data at the settlement level is driven by the absence of a common operational dataset on payam and bomas (higher administrative levels). The level of coverage (proportion of proxy HHs and settlements assessed in a given county/state) will be declared for each product when results are presented.

## 2.3. Secondary data review

The main secondary data source used in this assessment is the South Sudan National Bureau of Statistics (NBS) Population Estimates by Payam (2015-2020) from 2008 census for the sampling calculations. In addition, the assessment is built from the existing [AOK methodology](#) under the Humanitarian Situation Monitoring (HSM) Unit in REACH South Sudan. Finally, since the Neighbourhood methodology is built from the [CPC Learning Network](#), their research documents will also be of value.

## 2.4. Primary Data Collection

As outlined in Table 1 below, data for this assessment will be collected across 16 field locations (including Juba) in South Sudan over a period of four weeks, with data collection teams in each location consisting of a minimum of four enumerators and one Field Officer (FO). Please also see Map 1 in Annex 2 for an overview of data collection sites.

Table 1: Overview of data collection sites

Geographical region	(Former) State	Data collection base location
Greater Equatorias	Eastern Equatoria	Kapoeta Town
		Juba (remote phone calling)
	Central Equatoria	Juba (remote phone calling)
	Western Equatoria	Yambio Town
		Maridi Town
Greater Upper Nile	Unity	Nyal Town
		Bentiu PoC
		Jamjang Town
	Jonglei	Akobo Town
		Bor PoC + Bor Town

	Upper Nile	Akobo Town
		Malakal PoC
		Renk Town
Greater Bahr el Ghazals	Western Bahr el Ghazal	Wau PoC + IDP Collective Sites
	Northern Bahr el Ghazal	Aweil Town
	Warrap	Wau PoC Wau (remote phone calling)
	Lakes	Mingkaman Spontaneous Settlement
		Rumbek Town

## Sampling

A two-stage, **non-probability sampling approach** will be applied for this methodology. **In the first stage**, 25 clusters will be targeted per county (admin 2), where each cluster would be defined as a settlement or urban neighbourhood. Specific settlements or neighbourhoods would not be randomly sampled, instead a certain number of clusters per payam (admin level 3) will be purposively selected to ensure some minimum geographical spread of clusters over the county. The number of clusters assigned per payam would be proportional to the estimated population size of that payam (see Annex 6). For each cluster, a minimum of one KI interview is needed.

**In the second stage**, key informants (KIs) would be purposively sampled using the following approaches:

- 1) Interviews with IDPs or other individuals moving through key transit points like bus stops and ports, or travelling to 3<sup>rd</sup> locations to access markets or other services, all reporting remotely on hard to reach settlements
- 2) Interviews with host community members, reporting directly on an accessible settlement
- 3) Phone interviews for areas with mobile phone coverage, with KIs reporting remotely on their settlement

Each KI will be asked to list the 9 geographically closest households to their own household in their community, and will then be asked a multi-sectoral questionnaire about their own household, as well as each of the listed neighbours. This method was first developed by the [CPC Learning Network](#) to gather population based data in areas with severely constrained operating environments, where direct data collection is not possible. The method is based on the assumption that people reasonably know some information about other people in their neighbourhoods, and data will complement AoK's strong "settlement-level" indicators, with some "household-level" and "individual-level" information. The benefit of this methodology is to provide household level cross-country data inform and update humanitarian actors' understanding of the humanitarian needs in South Sudan, in a context where the opportunity to carry out direct household surveys are extremely limited, due to pre-existing access issues and COVID-19 restrictions.

For focus group discussion (FGD) participants, a purposive approach will also be employed. Field Officers will seek out people with knowledge of the county in question. For most FGDs, participants can be people with direct or remote contact with the county, however, for displacement FGDs the participants must be new (within 1 month) arrivals. Often they must all be from a specific place. Men and women will be interviewed in separate FGDs, by a facilitator of the same gender wherever possible.



## Quantitative tool

Quantitative data will be collected across the above-mentioned field locations through a structured multi-sector tool (see Annex 3, 4 and 5) that captures household-level information on displacement, FSL, WASH, Shelter, Nutrition, Protection, Education, Health and CCCM, and can be used in both direct as well as remote data collection. In all REACH AoK field locations, the same multi-sector tool and questions are used. The tool was designed in collaboration with input from cluster partners and based as much as possible on the draft of the global Joint Intersectoral Analysis Framework (JIAF).

The tool is available in English, with data collected on mobile phones through the Open Data Kit application (Kobo Toolbox). Data is collected by enumerators who are supervised by Field Officers (FOs) who in turn are managed by Assessment Officers (AOs). Before the start of data collection each morning, enumerators are briefed by FOs based on the data cleaning process of the previous day (described in the next section) to ensure appropriate coverage and debrief on any potential data collection errors.

## Qualitative tool

In order to provide a more in-depth understanding of the context as well as to complement data collected through the quantitative tool, the monthly data collection will also involve Focus Group Discussions. FGDs are conducted by Field Officers and/or Assessment Officers, with FGDs typically separated by gender of participants. COVID-19 restrictions will be taken into account during FGDs (see below) During FGDs the following tools will be used:

- Displacement mapping tool (see Annex 3): A participatory mapping tool will be used to capture displacement flows and push and pull factors to and from static IDP sites. This is done by asking FGD participants to direct the Field Officer to draw on a paper print out of the map; adapted due to COVID-19 (see below). This is conducted to provide an analysis of displacement trends per geographical area. FGD participants are purposively sampled new arrivals (IDPs who arrived within the last month).
- Food security and livelihoods mapping tool (see Annex 4): A participatory mapping tool will be used to capture key changes in livelihoods, and resultant impact on quality of life, through access to resources and severity of coping strategy usage. Information can be collected at both the settlement and county (or sub-county) level. In the majority of cases this tool is used to look at wider county-level FSL trends, with participants purposively selected according to their origin in a specific county, ensuring that key population centres from a county are represented in the FGD. Depending on the county of interest, participants are either new arrivals, traders or host community members. The tool has been shared with FSL partners for review.
- Service access gap tool (see Annex 5): A participatory mapping tool will be used to capture level of access to services and service access constraints by sector (Health, WASH, Shelter/NFI, Education, FSL). Using this tool, information can be collected at both the settlement as well as county level. In the majority of cases this tool is used to look at wider county-level service access trends, with participants purposively selected according to their origin in a specific county, ensuring that key population centres are represented in the FGD. Depending on the county of interest, participants are either new arrivals, traders or host community members.

## COVID-19

In the context of COVID-19, REACH teams will ensure qualitative data collection under AoK-N follows strict measures put in place to protect REACH staff, and to ensure that REACH staff are not putting vulnerable populations at risk (Do No Harm). For FGDs to go ahead, the AO or FO leading the FGD is responsible for ensuring that:



1. The FGD has no more than six individuals participating, and there are no crowds gathering to watch the FGD. If it is not possible to control crowds, then the FGD should be cancelled.
2. No one can shake hands and all participants sit at least 2 meters away from each other.
3. If any participants show any symptoms of fever, coughing or shortness of breath, they should not participate in the discussion.
4. Participatory mapping will not involve participants directly drawing on the maps; instead the FO will stand in front of the group and draw where the participants direct.
5. All FGD participants will receive the soap incentive at the end of the discussion. Staff must wash hands before and after distributing soap
6. All staff wash their hands after finishing the FGD and when returning to the office.
7. All staff wear a REACH provided reusable mask at all times when conducting an FGD, and follow REACH guidelines on safe use of masks at all times.

In addition, any proposed qualitative data collection will need to be responsive to the directives of local and national authorities, and humanitarian partners. REACH staff will respect government regulations, and seek advice from local authorities in circumstances where it is unclear if FGDs should go ahead. Base staff must review changes in the context and government regulation on COVID-19 contingency, and be prepared to amend planned FGD activities.

## 2.5. Data Processing & Analysis

*Quantitative data processing and analysis:* At the end of each day, FOs will ensure that the data is uploaded from the smartphones used by the enumerators to the Kobo Collect server. The entries will then be checked and cleaned following [the IMPACT Data Cleaning Minimum Standards Checklist](#) and the AoK-N data cleaning SOP (see Annex 7) by the AO, with any points for follow-up provided to the field staff during their daily briefing with enumerators. In addition to the daily data checks, the final quantitative dataset for each county will then undergo a thorough cleaning, with any outstanding issues reported to field staff for feedback. In order to standardise this process two tools will be used:

- Data cleaning standard operating procedure: a step by step guide for key data cleaning issues, including checking the time stamp of each survey, issues with skip logic and outliers. The SOP will be developed based on the final tool. Please see Annex 7 for the SOP.
- Data cleaning R script that produces an HTML output: to help automate some of the biggest data cleaning issues.

Following the analysis, findings will be assembled into a cleaned, aggregated dataset which will be shared with clusters in South Sudan in order to support with their sectoral PiN calculations. In addition, REACH will produce sectoral factsheets per county, to support the HNO, as well as a full analytical intersectoral report.

*Qualitative data analysis:* All qualitative data generated through KIIs and FGDs will be written up from field notes to transcripts and organised in clearly labelled folders. All data gathered will be triangulated with quantitative data from the household-level survey. Follow-up data collection will be conducted if deemed necessary to address inconsistencies or information gaps. A data saturation grid per base will be maintained throughout the data collection process, and summary of key findings will be synthesised at the end of data collection.

## Data protection and confidentiality

The AoK-N methodology is affected by several data protection concerns that will be considered throughout the assessment. Enumerators should be cautious about asking people to report on their neighbours in situations where there might be low levels of social cohesion and trust within the community, especially if there might be multiple armed

actors, concerns about informants infiltrating a community, and if the interviewers themselves are not from the community. Reservations exist about using the methodology to understand Gender Based Violence (GBV) in humanitarian settings. Whilst the original Neighbourhoods methodology was designed to help obtain area-level prevalence estimates of GBV in camp-settings, potential safety concerns need to be weighed carefully when using this methodology in the South Sudan context. Asking question about GBV raises concerns of harm coming to women who are perceived to have 'gossiped' about their neighbours to an outsider, either from their intimate partners or from other people in the community. Because of this, the indicators and questions developed in the tool will be reviewed and selected with the support of the Protection Cluster and only general information which will not cause harm to the respondents will be asked.

During the interview the KI will be asked to list the first name of the nine closest heads-of-household to their own house. These are the households the KI will report on, and names are used to keep track of the neighbours during the interview. Data protection concerns might arise during the interview and afterwards, particularly related to KI identification and targeting by armed actors or community members. To mitigate these risks, each State team will have their own tool username and will not be able to download datasets from other locations. During daily data cleaning, FOs in each base will delete the names from the dataset to ensure anonymity of the respondents. Enumerators will be trained to explain this to KIs. Enumerators will also be trained to explain to KIs that the neighbours on which they report will not receive any type humanitarian assistance for being listed in this survey.

## 4. Roles and responsibilities

Table 3: Description of roles and responsibilities

<b>Task Description</b>	<b>Responsible</b>	<b>Accountable</b>	<b>Consulted</b>	<b>Informed</b>
<i>Research design</i>	Senior Assessment Officer, Research Specialist	HSM Manager	Cluster Coordinators, OCHA, IMPACT Research Design Unit	Clusters, ICCG, FSNMS+ TWG
<i>Supervising data collection</i>	Assessment Officers per base	HSM Manager	IMPACT Research Reporting Unit	IMPACT Research Reporting Unit, OCHA
<i>Data processing (checking, cleaning)</i>	Field Officers, Assessment Officers per base	HSM Manager	IMPACT Research Reporting Unit	IMPACT Research Reporting Unit, OCHA
<i>Data analysis</i>	Data Officer, Research Specialist	HSM Manager	IMPACT Research Reporting Unit	IMPACT Research Reporting Unit, OCHA
<i>Output production</i>	Data Officer	HSM Manager	IMPACT Research Reporting Unit, Data Officer	OCHA/Partner organizations

<i>Dissemination</i>	Communications Officer, Senior Assessment Officers	HSM Manager	IMPACT Communications	OCHA/Partner organizations / FSNMS+ TWG
<i>Monitoring &amp; Evaluation</i>	Senior Assessment Officers	HSM Manager	IMPACT Research Reporting Unit	REACH Field Staff
<i>Lessons learned</i>	Research Specialist/Data Officer	HSM Manager	IMPACT Research Reporting Unit	REACH Field Staff

**Responsible:** the person(s) who executes the task

**Accountable:** the person who validates the completion of the task and is accountable of the final output or milestone

**Consulted:** the person(s) who must be consulted when the task is implemented

**Informed:** the person(s) who need to be informed when the task is completed

## 5. Data Analysis Plan

### 5.1 Analysis plan for structured multi-sectoral tool

Research questions	IN#	Data collection method	Indicator/Variable	Questionnaire QUESTION	Questionnaire Response	Data Collection Level
These will primarily be used to disaggregate data during analysis as needed	1	KI	Metadata - KI information	What is your (key informant) gender?	Male Female	HH
	2	KI	Metadata - KI information	What is your (key informant) age?	integer	HH
	3	KI	Metadata - KI information	What is your (key informant) current displacement status?	Host community IDP IDP returnee Refugee Refugee returnee Relocated household Don't know	HH
	4	KI	Metadata - Recall period for displaced KIs	If IDP, refugee or returnee, how long have you been in your current location?	Less than 1 month 1 - 3 months 3 - 6 months More than 6 months	HH
	5	KI	Metadata - AoK information	I will now ask you some questions about the location you have knowledge of.		HH
	6	KI	Metadata - AoK information	What state is the location in?		HH
	7	KI	Metadata - AoK information	What county is the location in?		HH
	8	KI	Metadata - AoK information	What settlement is the location in?		HH
	9	KI	Metadata - AoK information	Please specify other settlement:		HH
	10	KI	Metadata - AoK information	In the last month, what did you use to make contact with someone living in \${info_settlement_final}?	Recently visited Mobile phone Satellite phone (Thuraya) Computer internet Mobile phone app (Whatsapp, etc.) HF or VHF Radio Other I don't know or don't want to answer	HH
	11	KI	Metadata - AoK information	To confirm, you have either visited \${info_settlement_final} IN THE LAST MONTH, or talked remotely with someone living in \${info_settlement_final} IN THE LAST MONTH? (do not continue survey if last contact is more than a month ago)	Yes No Don't know	HH
	12	KI	HH listing	What is the first name for Neighbour # \${neighbour_count}?		HH
	13	KI	HH listing - Reliability questions	How well do you know \${neighbour_name}?	Own household (KI's HH) Well	HH

				Somewhat well Not very well	
	14	KI	HH listing - Reliability questions	How recently have you talked with the household of \${neighbour_name}?	Within the last month Greater than one month HH
	15	KI	HH listing - Reliability questions	Can you describe where in your community \${neighbour_name}'s house is located?	In the centre On the edge of the settlement Isolated from the main settlement HH
	16	KI	% of HHs by sex of the head of the household	What is the sex of the head of household?	Male Female HH
	17	KI	% of HHs by type of vulnerabilities	Does your household or any of your neighbours households contain people with any of the following VULNERABILITIES?	(A) None (B) Elderly person (C) Pregnant or breastfeeding woman (D) A separated or unaccompanied child (E) Chronically ill person, (F) Physically disabled person (DK) Don't know HH
	18	KI	% of HHs by displacement status	What is the displacement status of MOST PEOPLE in your own and your neighbours households?	(A) Host community/non-displaced (B) IDP (C) IDP returnee (D) Refugee (E) Refugee returnee (DK) Don't know HH
	19	KI	% of HHs hosting displacement individuals	Do you or any of your neighbours HOST other displaced people in the household?	(A) None (not hosting anyone) (B) IDP (C) IDP returnee (D) Refugee (E) Refugee returnee (DK) Don't know HH
What are the key household priorities and needs in South Sudan regarding Shelter and Non Food Items?	20	KI	% of HHs with access to a safe and healthy housing enclosure unit	What kind of structures do you and your neighbours live in?	(A) Tukul (B) Rakooba (C) Improvised shelter (e.g. plastic sheeting) (D) Concrete building (E) Community building (e.g. church, school) (F) No shelter (sleeping in the open) (O) Other (please specify) (DK) Don't know HH
	21	KI	% of HHs whose shelter was damaged in the last month	Did you or any of your neighbours experience any SHELTER DAMAGE in the last month?	Yes No Don't know HH
	22	KI	% of HHs by severity of shelter damage	How severe was the damage to the shelter?	(A) Completely destroyed (100%) (B) Partially damaged HH

				(C) Minimally damaged (DK) Don't know	
	23	KI	% of HHs by cause of shelter damage	What was the main cause of damage to the shelter? (A) Fire (B) Storm / wind (C) Rain / floods (D) Conflict / fighting (O) Other (please specify) (DK) Don't know	HH
	24	KI	% of HHs affected by flooding in the last month	Which of your neighbours, if any, have been TEMPORARILY displaced from their shelter because of heavy flooding during the last month? Yes No Don't know	HH
	25	KI	% of HHs with access to basic NFIs	Which of your neighbours, if any, have access to or own the following items? (A) Plastic sheet (B) Mosquito net (C) Mask for COVID-19 (D) Blanket (E) Kitchen set (F) Kanga/Katanga (G) Lighting (e.g. solar lamp, torch) (H) None of the above	HH
What are the key household priorities and needs in South Sudan regarding Food Security and Livelihoods?	26	KI	% of HHs accessing enough food in the last month	In the last month, did you and your neighbours have access to adequate amounts of food? Yes No Don't know	HH
	27	KI	% of HHs by reasons for not being able to access enough food in the last months	In the last month, what was the main reason you and your neighbours could not access adequate amounts of food? (A) Cannot access land for harvesting (B) Crops destroyed or damaged (C) Cannot access/use markets (D) Was not able to plant this year (E) New arrivals (F) Food distribution stopped (O) Other (DK) Don't know	HH
	28	KI	% of HHs by type of HH main livelihood activity to get food and income	Which activities do your neighbours NORMALLY engage in for getting food and income? (A) Own cultivation (B) Livestock; cattle, goats, sheep, pigs or poultry (C) Fishing/hunting (D) Petty trade (e.g. selling crops, selling charcoal, making tea, selling firewood) (E) Retail trade (e.g. own a shop) (F) Casual/daily labour (G) Collect wild food (O) Other	HH
	29	KI	% of HHs having planted or harvested successfully in 2020	Did you and your neighbours PLANT and HARVEST successfully in 2020? (A) Planted, not yet time for harvest (B) Planted and harvested (C) Planted, but harvest insufficient (D) Did not plant (DK) Don't know	HH

30	KI	% of HHs by reasons for not having planted or harvested successfully in 2020	If you or your neighbour were not able to plant or harvest successfully in 2020, what was the main reason?	(A) Lack materials or land (tools, seeds, land) (B) Insecurity / conflict (C) Crop disease (D) Pests (locusts, armyworm, birds, etc.) (E) Natural disaster (floods, drought, etc.) (O) Other (DK) Don't know	HH
31	KI	% of HHs by lack of materials causing the inability to plant or harvest successfully in 2020	What materials (seeds, tools, land, etc.) were lacking that prevented these neighbours from planting or harvesting?	(A) Lack tools (B) Lack seeds (C) Lack access to land (O) Other (DK) Don't know	HH
32	KI	% of HHs by type of pest causing the inability to plant or harvest successfully in 2020	What pests affected these neighbours?	(A) Locusts (B) Armyworm (C) Birds (O) Other (DK) Don't know	HH
33	KI	% of HHs by type of natural disaster causing the inability to plant or harvest successfully in 2020	What natural disaster affected these neighbours?	(A) Floods (B) Drought (O) Other (DK) Don't know	HH
34	KI	% of HHs by strategy to cope with lack of food in the last month	In the last month, what did you and your neighbours do when there was insufficient food?	(A) Limit portion size (B) Adults don't eat so children can (C) Reduce number of meals eaten in a day (D) Skip entire days without eating (E) None of the above (O) Other (DK) Don't know	HH
35	KI	% of HHs by frequency of coping strategy	If only children eat or skip days, how often did you or your neighbours households employ this coping strategy, in the last month?	(A) Regularly- we/they have used this coping strategy five times or more in the last month (B) Sometimes- we/they have used this coping strategy three of four times in the last month (C) Rarely- we/they have used this coping strategy once or twice in the last month	HH
36	KI	% of HHs accessing a food distribution in the last three months	Did you or any of your neighbours receive a FOOD DISTRIBUTION in the last 3 months?	Yes No Don't know	HH
37	KI	Livelihood Coping Strategy Index - LCSI	In the last 30 days, did you or any of your neighbours have to BEG FOR FOOD in your community or other communities because of a lack of food or money to buy food?	(A) Yes (B) No, their household did not experience hunger that would make them do this	HH



				(C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	
38	KI	Livelihood Coping Strategy Index - LCS	In the last 30 days, did you or any of your neighbours send household members to eat with another household because of a lack of food or money to buy food?	(A) Yes (B) No, their household did not experience hunger that would make them do this (C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	HH
39	KI	Livelihood Coping Strategy Index - LCS	In the last 30 days, did you or any of your neighbours sell more animals than usual for this time of year because of a lack of food or money to buy food?	(A) Yes (B) No, their household did not experience hunger that would make them do this (C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	HH
40	KI	Livelihood Coping Strategy Index - LCS	In the last 30 days, did you or your neighbours borrow money or purchase food on credit because of a lack of food or money to buy food more than usual during this time of year?	(A) Yes (B) No, their household did not experience hunger that would make them do this (C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	HH
41	KI	Livelihood Coping Strategy Index - LCS	In the last 30 days, did you or your neighbours gather wild foods more than normal for this time of year because of a lack of food or money to buy food?	(A) Yes (B) No, their household did not experience hunger that would make them do this	HH

				(C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	
42	KI	Livelihood Coping Strategy Index - LCSI	In the last 30 days, did you or your neighbours send more household members than normal to cattle and/or fishing camps because of a lack of food or money to buy food?	(A) Yes (B) No, their household did not experience hunger that would make them do this (C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	HH
43	KI	Livelihood Coping Strategy Index - LCSI	In the last 30 days, did you or your neighbours sell or eat seeds intended for planting this season because of a lack of food or money to buy food?	(A) Yes (B) No, their household did not experience hunger that would make them do this (C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	HH
44	KI	Livelihood Coping Strategy Index - LCSI	In the last 30 days, did you or your neighbours sell or slaughter the last of your cows and goats because of a lack of food or money to buy food?	(A) Yes (B) No, their household did not experience hunger that would make them do this (C) No, because they have ALREADY engaged in this activity in the last 12 months and cannot continue doing it (D) No, because it is not possible for them to do this, even if they needed to (DK) Don't know	HH
45	KI	% of HHs with access to market	In the last month, have you or your neighbours bought any goods from a market?	Yes No Don't know	HH

	46	KI	% of HHs by type of issues to access the market	If yes, have you or your neighbours experienced any challenges in accessing or using the market in the last 30 days?	(A) No challenges (B) Market too far away/no means of transport (C) It is not safe to travel there (crime, violence, robberies, etc) (D) Too much water or flooding on the way to marketplace (E) Market closed/movement restricted due to COVID-19 (F) No money to purchase goods (O) Other (DK) Don't know	HH
What are the key household priorities and needs in South Sudan regarding Water, Sanitation and Hygiene?	47	KI	% of HHs with access to improved water sources	Did you or any of your neighbours have access to an IMPROVED water source in the last month?	(A) No improved watersource (B) Borehole (C) Tapstand (D) Protected well (E) Water yard (F) Donkey cart (G) Water Truck (DK) Don't know	HH
	48	KI	% of HHs with access to unimproved water sources	If no access to an improved water source, what was the main water source accessed by you and your neighbours?	(A) River (B) Swamp (C) Pond (D) Open well with no lid (O) Other (DK) Don't know	HH
	49	KI	% of HHs accessing their primary water source in under 30 minutes	Do you or any of your neighbours have access to their primary water source within 30 minutes?	Yes No Don't know	HH
	50	KI	% of HHs who reported problems related to access water	Did you or any of your neighbours face problems related to accessing water in the last month?	(A) No problems (B) Waterpoints are too far/difficult to reach (C) Fetching water is a dangerous activity (D) Long waiting time at waterpoints (E) Water points are not functioning (F) Water is too expensive (G) Insufficient containers to store the water (H) Taste / quality of water is bad (O) Other (please list) (DK) Don't know	HH
	51	KI	% of HHs who reported not having access to enough water for HH needs	Do you or your neighbours have ENOUGH WATER to meet any of the following needs?	A) Drinking (B) Cooking (C) Personal hygiene (washing/bathing) (D) Other domestic purposes (cleaning house etc)	HH

					(E) Not enough water to meet any of the above needs (DK) Don't know	
	52	KI	% of HHs with access to a functional latrine	Do you or any of your neighbours have access to a FUNCTIONAL LATRINE?	Yes No Don't know	HH
	53	KI	% of HHs with access to soap for washing hands	Do you or any of your neighbours have access to a SOAP for washing hands?	Yes No Don't know	HH
What are the key household priorities and needs in South Sudan regarding Health and Nutrition?	54	KI	% of HHs with malnourished child	In the last month, did you or any of your neighbours have a severely malnourished child that is attending a nutrition clinic, or that may look like this? (show picture of malnourished child)	Yes No Don't know	HH
	55	KI	% of HHs by number of malnourished child	In the last MONTH did you or any of your neighbours have a severely MALNOURISHED CHILD that is attending a nutrition clinic, or that looks like this? If yes, how many?	Integer	HH
	56	KI	% of HHs by sign of malnutrition	What signs of malnutrition does this child have?	Currently in a feeding program Very thin Old person face Sunken eyes Thin, discolored hair Currently sick Frequently sick Both feet swollen Belly swollen	HH
	57	KI	% of HHs with access to healthcare in the last six months	At any point in past 6 months, were you or any of your neighbours unable to access health care?	Yes No Don't know	HH
	58	KI	% of HHs by reasons for not being able to access healthcare in the last six months	If yes, what is the main reason that prevented you and your neighbours from accessing health services?	(A) Discrimination (B) Medicines out of stock/No staff (C) Health facility too far/unsafe to walk/ lack of transport (D) Do not have the right documents (E) Cost/Money (F) Health services are only accessible part of the day or some days a week (G) Worried we will get sick if we go to the health facility (O) Other (Specify)	HH
	59	KI	% of HHs by time taken to access healthcare	How long does it take you and your neighbours to reach the nearest healthcare facility by walking?	(A) Less than 15 mins (B) 16- 30 mins (C) 31 mins - 1 hour (D) 1 hour - 2 hours (E) 2 hours - 3 hours (F) More than 3h (DK) Dont know	HH

What are the key household priorities and needs in South Sudan regarding Protection and Housing, Land and Property?	60	KI	% of HHs with access to Antenatal Care (ANC) services	Have you or your neighbours ever tried to access Antenatal Care (ANC) services?	(A) Yes (B) No (C) ANC services not available (DK) Don't know	HH
	61	KI	% of HHs with sick HHs members in the last two weeks	Has anyone in your own or your neighbours house been sick in the last two weeks?	(A) No (B) Yes- children only (C) Yes- adults only (D) Yes- children and adults (DK) Don't know	HH
	62	KI	% of HHs by type of sickness for children	If yes, which sickness did CHILDREN have?	(A) Malaria (B) Acute watery diarrhoea (C) Cholera (D) Eye infection (E) Flu (F) Fever (G) Stomach pain (H) Skin disease (I) Cough (O) Other (specify) (DK) Don't know	HH
	63	KI	% of HHs by type of sickness for adults	If yes, which sickness did ADULTS have?	(A) Malaria (B) Acute watery diarrhoea (C) Cholera (D) Eye infection (E) Flu (F) Fever (G) Stomach pain (H) Skin disease (I) Cough (O) Other (specify) (DK) Don't know	HH
	64	KI	% of HHs by type of shelter occupancy arrangement	What is the occupancy arrangement for you and your neighbours?	(A) Owner of the shelter (B) Renting (C) Squatting (D) Hosted by relative/other community member (O) Other (DK) Don't know	HH
	65	KI	% of HHs experiencing land disputes in the last three months	In the last 3 months, did you or any of your neighbours experience land disputes or have their land taken away?	Yes No Don't know	HH
	66	KI	% of HHs by type of actors involved in the land disputes	If yes, who were the disputes with?	(A) Local authorities (B) Armed actors (C) Family member (D) Community member (O) Other (DK) Do not know/ want to answer	HH
	67	KI	% of HHs at risk of forced eviction in the last three months	In the last 3 months, have you or any of your neighbours been at risk of forced eviction?	Yes No	HH

				Don't know	
	68	KI	% of HHs affected by security incidents in the last month	In the last 1 month, have you or any of your neighbours been affected by a security or safety incident?	Yes No Don't know HH
	69	KI	% of HHs by type of insecurity incident	If yes, what type of incidents?	(A) Killing or injury (B) Abduction (C) Cattle raids (D) Violence between neighbours (O) Other (DK) Don't know or don't want to say HH
	70	KI	% of HHs experiencing conflict with displaced populations	In the last 3 months, have you or any of your neighbours experienced conflict between members of the host community and IDPs?	(A) Yes (B) No (C) There are no IDPs/Returnees in my settlement/community (D) Don't know or don't want to answer HH
What are the key household priorities and needs in South Sudan regarding Education?	71	KI	% of HHs with school-aged children living in the HH	Do you or any of your neighbours have school-aged children (3 to 17 years old) living in the household?	Yes No Don't know HH
	72	KI	% of HHs with school-aged children attending school in the last year (February to December 2020)	BEFORE the COVID-19 outbreak, did any children from your own or your neighbours households attend formal school regularly (at least 4 days a week) in the past school year (February 2019-December 2019)?	Yes No Don't know HH
	73	KI	% of HHs with school-aged children dropping out during the last year (February to December 2020) before the COVID 19 outbreak	BEFORE the COVID-19 outbreak, did any children from your own or your neighbours households drop out of school during the past (February 2019-December 2020) school year?	Yes No Don't know HH
	74	KI	% of HHs with school-aged children who stopped attending school during the current (April 2020-August 2020) school year	SINCE the COVID-19 outbreak, did any children from your own or your neighbours households stop attending school during the current (April 2020-August 2020) school year?	Yes No Don't know HH
	75	KI	% of HHs with school-aged children who intend to return to school when the schools will reopen	Do you or your neighbours children intend to return to school when they reopen?	Yes No Don't know HH
	76	KI	% of neighbourhoods with school-aged children at risk of drop-out due to school closures by reason for not returning to school	If no, why do you or your neighbours not intend to return children to school?	(A) Risk of Covid-19 transmission at school (B) Risk of Covid-19 transmission when travelling to school (C) Can no longer afford to send children to school (D) Children have started working instead (E) Children prefer to stay at home (O) Other (DK) Don't know HH
	77	KI	% of HHs with school-aged children who have never attended school	Do you or your neighbours have school-aged children who have never attended formal school for any reasons?	Yes No Don't know HH

	78	KI	% of HHs with school aged children not attending school due to disabilities	Do you or your neighbours have school-aged children who are not attending school due to physical or mental disabilities?	Yes_physical_disability Yes_mental_disability No Don't know	HH
What are the key household priorities and needs in South Sudan regarding Camp Coordination and Camp Management?	79	KI	% of IDP HHs without minimum coping capacity	Do you or any of your neighbours have access to community based initiatives?	Yes No Don't know	HH
	80	KI	% of IDP HHs without minimum coping capacity	Are you or any of your neighbours dependent on humanitarian services to cover your/their basic food needs?	Yes No Don't know	HH
	81	KI	% of IDP HHs without minimum coping capacity	Are you or any of your neighbours dependent on humanitarian services to cover your/their basic WASH needs?	Yes No Don't know	HH
	82	KI	% of IDP HHs without minimum coping capacity	Are you or any of your neighbours dependent on humanitarian services to cover your/their basic health needs?	Yes No Don't know	HH
	83	KI	% of IDP HHs without minimum coping capacity	Are you or any of your neighbours planning on returning to their area of origin or habitual residence in the next month?	(A) Yes (B) No (C) Not displaced (host community) (DK) Don't know	HH
			Mortality Consent	"The last set of questions we are going to ask is about deaths that have occurred in your or your neighbours households in the last month. This information helps us understand the severity of humanitarian needs in your community, however if you are not comfortable providing this information please let us know.  Do you consent for us to ask about deaths in your or your neighbours households?"	Yes No Don't know (coded as a no)	KI
What are the key household priorities and needs in South Sudan regarding Mortality?	84	KI	Proxy Crude Death Rate	In the last month, has anyone from any of your neighbours passed away / died?	Yes No Don't know	HH
	85	KI		Please provide the following information about the deceased in {p1}'s household?		HH
	86	KI		First Name		HH
	87	KI		Sex:	F/M	HH
	88	KI		Age:	integer	HH
	89	KI		Cause of Death:		HH
	90	KI		Location of Death:		HH
	91	KI		Please describe other cause of death		HH

## 5.2 Analysis plan for semi-structured displacement mapping



Research questions	SUBQ#	Sub-question	Questionnaire QUESTION	Probes	Data collection method	Key disaggregation (Group types)
What are the dynamics and patterns of displacement from an identified area of interest?	1	What were the push factors for displacement?	1. Have people recently (within the last month) left [AREA OF INTEREST]? If so, why?	- If violence, when? Threat or realized violence? - If lack of resources, why? What happened? What is the geographic scale? (map)	FGD	- County of interest - KI gender
	2	What are the demographics of the area of interest?	2. What was the original population of [AREA OF INTEREST] before displacement?	- Approx. how many left? - Approx. how many remain? Host community, IDP?	FGD	- County of interest - KI gender
	3	Where routes did people take in leaving the area of interest?	3. Where did people go to? [Please find this on the map]. Identify both current location and any others where large population numbers went.	- Did everyone go to the same place? If not, where else? - Where did people go originally? For how long? Where next? - How did they travel? What was the cost?	FGD	- County of interest - KI gender
	4	What were the pull factors for displacement?	4. Why did they come to/stay in this particular location?	- Were there other location that they could have gone to? If so, why did they come here? - Are they free to move?	FGD	- County of interest - KI gender
	6	What are the intentions, into the future?	5. Do they intend to stay here in this location? Is so, why? If not, where do they plan to go?	- Is it a temporary more or permanent? - Are they free to move?	FGD	- County of interest - KI gender
	7	How will decisions about the future be made? With what information, collected how?	6. Do they personally expect to visit (temporarily or permanently) their homeland again? If so, why? Under what conditions would go back with their families permanently back to their homeland?	- How know if these conditions are in place? - Expect these conditions to happen?	FGD	- County of interest - KI gender
	8	Displacement route mapping	<ul style="list-style-type: none"> <li>- introduce participants to the map. Show them where we are now, and the area of interest on the map.</li> <li>- Show them major towns in the region so they understand the map. Through showing them key roads, rivers/swamps, towns etc., work with each participant to identify where they were staying before they were displaced on the map. Circle each participant's town/village on the map, if the settlement name doesn't exist, identify approximately where the village/town is and circle with the name.</li> <li>- Once in sub-question 3, identify displacement routes each person took, including major transit sites and challenges along the way – mark with differently colored highlighters. Ask about the size of groups that people travelled with and about populations remaining in transit locations.</li> </ul>		FGD	- County of interest - KI gender

### 5.3 Analysis plan for semi-structured food security and livelihoods mapping

Research questions	SUBQ#	Sub-question	Questionnaire QUESTION	Probes	Data collection method	Key disaggregation (Group types)
What is the state of food security and livelihoods in a given area of interest?	1	What is the livelihood profile of a given community in a typical year?	1. In a normal year, how does the community feed itself/obtain food or money to buy food? Note for enumerator: What are the common ways households feed themselves in this area (area however defined)"	- Primary crops? Seasons? - Livestock? Where? How managed? - Fishing and hunting? By who? - Wild foods? When? By who? - Financial resources? Who? Where? Migration? What activities? Who	FGD	- County of interest - KI gender
	2	What shocks or changes has the community experienced, impacting their food security and livelihoods?	2. In the last month, have these activities changed? If yes, how? Are any of these activities no longer available? (this includes "normal seasonal changes" and also large changes to the context (aka fighting, flooding etc.) Why are these activities no longer available?	- Crops? - Livestock management? - Fishing and hunting? - Wild food gathering? - Income generation activities? - Migration patterns?	FGD	- County of interest - KI gender
	3	What is the current state of access to food in the community?	3. Based on the previous discussion of your ability to access to resources to meet your families food needs, how would you present your own personal quality of life (e.g. very good, good, neutral, bad, very bad)?	- Quality of life improved/worsen over last month? - Why? - When?	FGD	- County of interest - KI gender
	4	What is the broader state of access to food in surrounding areas?	4. Please mark on the map (state level) where access to resources is good and where access to resources is limited and explain why for each point.	Mark where: - Quality of life is bad (in red) - Quality of life is good (in green) Explain why different levels in various places.	FGD	- County of interest - KI gender
What is the state of risk, resilience and mitigation strategies in a given area of interest?	5	What are the typical coping strategies employed by communities in a given area of interest?	5. Please think back to a time before this, during a normal year, when your family had insufficient food or a lack of resources to buy food. During this time of little food access, what were the usual activities your family adopted to seek additional resources or change the use of existing resources to meet your families food needs?	- Community able to use coping strategies? - If not, why?	FGD	- County of interest - KI gender
	6	Are these strategies currently available?	6. Have the strategies used by residents in your settlement of knowledge to cope with a lack of resources recently changed?	- If changed, what strategies using now? - Why have strategies recently become unavailable?	FGD	- County of interest - KI gender
	7	What are the typical networks of support, and what is their current state?	7. Do families in your settlement rely on social, family networks, neighbours and friends to share resources and receive support when facing food or resource shortages?	- Please describe how networks of support work - Are networks still functioning? - If not, why? - If not, since when?	FGD	- County of interest - KI gender

## 5.4 Analysis plan for semi-structured service access gap mapping

Research questions	SUBQ#	Sub-question	Questionnaire QUESTION	Probes	Data collection method	Key disaggregation (Group types)
What is the access to food, livelihoods and related services? Where are the gaps?	1.	What are the main sources of food?	1. What is currently the main source of food?	- Sufficient food? - If no, what are the reasons? - If no, what coping strategies? How frequently used?	FGD	- County of interest - KI gender
	2.	Can communities access a market?	2. To what extent is there a functioning market in the area?	- If yes, are all items available? - If not, why not? - If yes, why/did the prices change?	FGD	- County of interest - KI gender
	3.	What is the state of livelihood activities?	3. Are people currently engaging in livelihood activities?	- If no, why? - If yes, what are main activities? - Access to land? Why, why not? - Cultivate in previous season? - Livestock? Which, where, who responsible, any incidents? - Casual labor? What type?	FGD	- County of interest - KI gender
What is the access to health, WASH, and related services? Where are the gaps?	1.	Are health services accessible?	1. To what extent is there access to health care in the [AREA OF INTEREST]?	- What facilities? - Medical staff? Why, why not? - Drugs? Why, why not? - In no access, what reasons? - If no access, how do people cope?	FGD	- County of interest - KI gender
	2.	What are the main causes of morbidity?	2. What are the main causes of morbidity?	- Sickness - Injury? - Conflict	FGD	- County of interest - KI gender
	3.	What is the access to water?	3. To what extent is there clean/safe drinking water in the [AREA OF INTEREST]?	- If yes, source? - If no, reasons? - If no, alternative sources? What side effects?	FGD	- County of interest - KI gender
	4.	What is the access to sanitation?	4. To what extent do people use latrines regularly?	- Why, why not?	FGD	- County of interest - KI gender
What is the access to education services? Where are the gaps?	1.	Is education accessible?	1. Are education services available in the [AREA OF INTEREST]?		FGD	- County of interest - KI gender
	2.	What are the barriers to education?	2. What are the main barriers to education?	- List main reasons for lack of access? - Do all girls attend? Why not? - Do all boys attend? Why not?	FGD	- County of interest - KI gender

	3.	What are the levels of resources and support?	3. Do the schools have enough teachers?	- Are the teachers supported? - NGOs, government, fees?	FGD	- County of interest - KI gender
What is the access to shelter and related services? Where are the gaps?	1.	What is the state of access to shelter in the community?	1. Is everyone sleeping under a shelter [AREA OF INTEREST]? If not, why?		FGD	- County of interest - KI gender
	2.	What are the main types of shelter available?	2. What are the main shelter types used by the community?	- For host community? - For IDPs?	FGD	- County of interest - KI gender
	3.	Has there been shelter damage?	3. Have any shelters been burned/destroyed?	- How many? When? - Have shelters been rebuilt?	FGD	- County of interest - KI gender
	4.	What is the access to NFIs?	4. Do people have access to NFIs in their homes?	- Which NFIs? - If not, what items are most needed?	FGD	- County of interest - KI gender

## 6. Monitoring & Evaluation Plan

IMPACT Objective	External M&E Indicator	Internal M&E Indicator	Focal point	Tool	Will indicator be tracked?
Humanitarian stakeholders are accessing IMPACT products	Number of humanitarian organisations accessing IMPACT services/products  Number of individuals accessing IMPACT services/products	# of downloads of x product from Resource Center	Country request to HQ	User_log	X Yes
		# of downloads of x product from Relief Web	Country request to HQ		X Yes
		# of downloads of x product from Country level platforms	Country team		<input type="checkbox"/> Yes
		# of page clicks on x product from REACH global newsletter	Country request to HQ		X Yes
		# of page clicks on x product from country newsletter, sendingBlue, bit.ly	Country team		X Yes
		# of visits to x webmap/x dashboard	Country request to HQ		X Yes
IMPACT activities contribute to better program implementation and coordination of the humanitarian response	Number of humanitarian organisations utilizing IMPACT services/products	# references in HPC documents (HNO, SRP, Flash appeals, Cluster/sector strategies)	Country team	Reference_log	Humanitarian Needs Overview Humanitarian Response Plan Food Security and Livelihoods Cluster Response Strategy UNHCR Country Strategy
		# references in single agency documents			
Humanitarian stakeholders are using IMPACT products	Humanitarian actors use IMPACT evidence/products as a basis for decision making, aid planning and delivery	Perceived relevance of IMPACT country-programs	Country team	Usage_Feed back and Usage_Survey template	Survey monkey: As part of regular dissemination email, survey monkey sent every six months to assess usage of REACH products.

	Number of humanitarian documents (HNO, HRP, cluster/agency strategic plans, etc.) directly informed by IMPACT products				Qualitative feedback: Each REACH staff responsible for reporting back to communications manager each time agency requests REACH information or provides feedback on how REACH information has been used.
		Perceived usefulness and influence of IMPACT outputs			
		Recommendations to strengthen IMPACT programs			
		Perceived capacity of IMPACT staff			
		Perceived quality of outputs/programs			
		Recommendations to strengthen IMPACT programs			
<b>Humanitarian stakeholders are engaged in IMPACT programs throughout the research cycle</b>	Number and/or percentage of humanitarian organizations directly contributing to IMPACT programs ( <i>providing resources, participating to presentations, etc.</i> )	# of organisations providing resources (i.e.staff, vehicles, meeting space, budget, etc.) for activity implementation	Country team	Engagement _log	X Yes
		# of organisations/clusters inputting in research design and joint analysis			X Yes
		# of organisations/clusters attending briefings on findings;			X Yes

## ANNEX 1: ACRONYMS

### REACH Internal team:

CC – Country Coordinator  
SMT – Senior Management Team  
SAO – Senior Assessment Officer  
SGO – Senior GIS Officer  
AO – Assessment officer  
GO – GIS Officer  
FO- Field Officer

### Clusters:

ICWG – Inter Cluster Working Group  
FSL – Food Security and Livelihoods Cluster  
WASH – Water, Sanitation and Hygiene Cluster  
Shelter/NFI – Shelter and Non Food Items Cluster

### Partners:

IOM DTM – International Organization for Migration, Displacement and Tracking Matrix  
WFP – World Food Programme  
FAO – Food and Agriculture Organization  
UNHCR – United Nations High Commission for Refugees

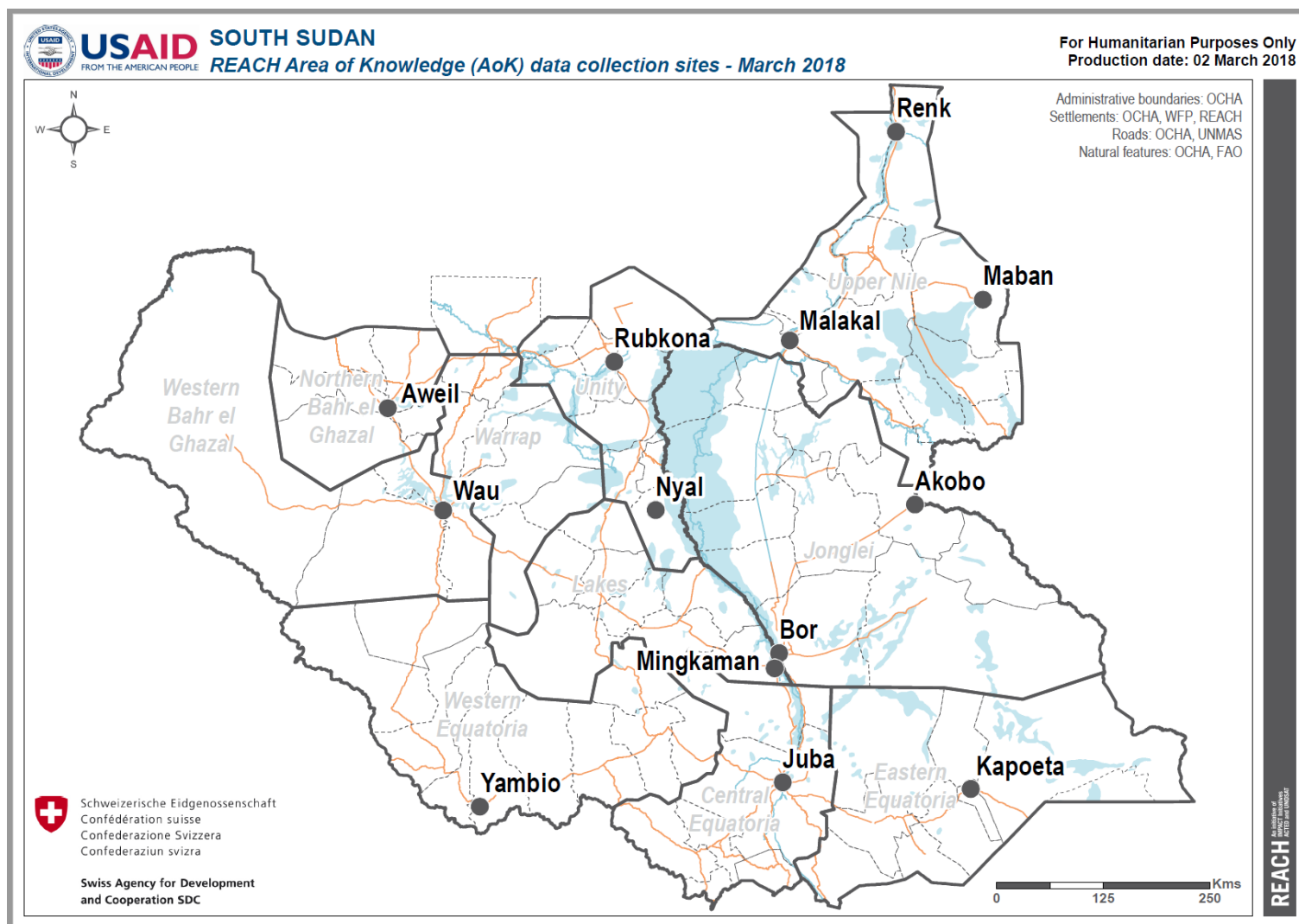
### Data:

ACLED – Armed Conflict Location and Event Data (project)  
FSNMS – Food Security and Nutrition Monitoring Survey  
CLIMIS – Crop and Livestock Market Information System  
NIWG – Nutrition Information Working Group



## ANNEX 2: AOK DATA COLLECTION SITES

Map 1: Aok data collection sites, March 2018



## ANNEX 3: DISPLACEMENT MAPPING FGD TOOL

Moderator Name:

Assistant Moderator Name:

Focus Group Name/Code:

Started at

Completed at

County of Knowledge (the area we are seeking information about)	How do they know about this county? (Recently left, HH member visited, Regular contact etc.)	State of origin	Age	Sex

### Facilitator's welcome, introduction and instructions to participants [5 minutes]

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#### Introductory note [2 minutes]

- Welcome and thank you for volunteering to take part in this focus group discussion about the current crisis in South Sudan, which is about a better understanding of community and settlements in your country of origin. You have been asked to participate as your point of view and knowledge about your community situation and current needs will be used to inform response strategy and planning. I appreciate your time.
- **Please note that this meeting does not have any impact on whether you or your family receives assistance. These discussions are only meant to better understanding how you, your household, and the community perceive the situation in your villages of origin**
- **Anonymity:** I would like to assure you that the discussion will be anonymous. I and the other focus group participants would appreciate it if you would refrain from discussing the comments of other group members outside the focus group. If there are any questions or discussions that you do not wish to answer or participate in, you do not have to do so; however please try to answer and be as involved as possible.
- The discussion will take no more than one hour.
- We are asking for your ration card number because we might want to contact you again to know how things have changed in your home communities several weeks of months after this focus group discussion.

#### Ground rules [2 minutes]

1. The most important rule is that only one person speaks at a time. There may be a temptation to jump in when someone is talking but please wait until they have finished.
2. There are no right or wrong answers
3. You do not have to speak in any particular order
4. When you do have something to say, please do so. There are many of you in the group and it is important that I obtain the views of each of you
5. You do not have to agree with the views of other people in the group you can say that.
6. Does anyone have any questions? (answers).
7. OK, let's begin

## Questioning Route

### INSTRUCTIONS TO MODERATORS

1. **Questions to participants:** these are the questions that should be read and communicated to the participants. If there are some specific vocabulary which may be unclear, do not hesitate to provide a definition for the purpose of the exercise.
2. **Probing questions:** Probes and clarifying questions are an important part of interviewing and have two main purposes: **1)** To help clarify what an interview respondent has said and **2)** To help get more detailed information on topics of interest. Probes allow the interview respondent to provide more than just a one-sentence answer to the questions you ask. **Do not read probing questions together with the questions to participants.** Use or adapt them if necessary

### Questions to Participants:

(Engagement question)

**INTRODUCE PARTICIPANTS TO THE MAP** – show them where we are now, and the area of interest on the map. Show them major towns in the region so they understand the map.

**Exercise to build participant familiarity with the map:** Through showing them key roads, towns etc., work with each participant to identify their home town on the map. Circle each participants home town/village on the map, if the settlement name doesn't exist, identify approximately where the village/town is and circle with the name. This helps participants orientate themselves to the map and ensures a reference point for discussions.

**Note on using map:** Wherever possible during the discussion mark details on the map, aka original homes prior to displacement, where people moved to, where was the fighting etc.

Have people recently (within the last month) left [AREA OF INTEREST]? If so, why?

- If violence, when? Was it a threat of violence, or did fighting suddenly start? Where is the violence expected to move to? To what geographic scale was the fighting (limited to one town or a larger region)?
- If lack of resources, why? What happened to mean resources were no longer available? What was the geographic scale of the lack of resources, the entire map or a specific sub-section?

What was the original population of [AREA OF INTEREST]?

- Approximately how many people have left?
- Approximately how many people remain?
  - o Host community (approx. numbers)
  - o IDPs? (approx. numbers)

Where did people go to? [Please find this on the map]

- Did everyone go to the same location? If not, please identify other directions people fled to?
- Did people go to one location and stay there or were their multiple phases of their journey, if so ask them about this,
  - o where did they originally go, how long did they stay there?
  - o where did they go next?
- What routes did people take (ask them to draw this on the map)?
  - o Were there any challenges on these routes, please ask them to specify and where
- How did they travel (on foot, car, bicycle)? How much did it cost?

Why did they come to/stay in this particular location?

- Were there other locations that they could have gone to? Is not, why did they come here?
- Are they free to move?

Do they intend to stay here in this location? Is so, why? If not, where do they plan to go?

- *If they came here, is this a temporary move or a permanent one?*
- *Are they free to move?*
- 

Do they personally expect to visit (temporarily or permanently) their homeland again? If so, why? Under what conditions would go back with their families permanently back to their homeland?

- *How would they know if these conditions are in place?*
- *Do they expect these conditions to happen?*

## ANNEX 4: FOOD SECURITY AND LIVELIHOODS FGD TOOL

Same intro and conclusion as Annex 4, only question route listed below

1. In a normal year, how does the community feed itself/obtain food or money to buy food? What are the common ways households feed themselves in this area (area however defined)?
  - **[Probing Questions]**
    - a. What are the primary crops your household relies on to access food? When do you normally have access to these crops as a food source?
    - b. What animals do the family own? Who looks after them? Are the animals nearby or further away? When does the household use these animals to seek food?
    - c. How does the household rely on fishing and hunting, who engages in this activity? When does the household normally engage in this activity?
    - d. How does the household rely on wild foods? When does this normally occur? Who in the household collects wild foods and how?
    - e. How does the household seek financial resources? (tea shops, casual labour, government salaries?) Who in the household seek these financial resources? Where are they?
    - f. Have members of the family been sent somewhere further away to seek resources for the family?
      - What activities are they engaging in? (livestock herding, seeking work in urban centres, sought resources in another country)
2. In the last month, how have these activities changed? Are any of these activities no longer available? (this includes “normal seasonal changes” and also large changes to the context (aka fighting, flooding etc.) Why are these activities no longer available?
  - **[Probing Questions]**
    - g. Probe on how the following activities have changed (if applicable):
      - Crops
      - Livestock management
      - Fishing and hunting
      - Wild food gathering
      - Income generation activities
      - Migration patterns
3. Based on the previous discussion of your ability to access to resources to meet your family’s food needs, how would you present quality of life (e.g. very good, good, neutral, bad, very bad)?
  - **Note to facilitator:** Remind participants that the determination of this rating should be based on availability of resources to meet household needs.
  - **[Probing Questions]**
    - h. Has your present quality of life improved or worsened over the last month?
    - i. Why has your quality of life improved/worsened?
    - j. When did it become worse/better?
4. Please mark on the map (state level) where access to resources is good and where access to resources is limited and explain why for each point.
  - **[Probing Questions]**
    - k. [Participatory Mapping] Direct participants to the map and ask participants to mark the following:
      - l. Where on the map would you say quality of life is bad? [red marker shaded]
      - m. Where on the map would you say quality of life is good? [green marker shaded]
      - n. Please explain why you think that different areas have different levels of quality of life?

### Stage 2: RISK RESILIENCE AND MITIGATION [20 minutes]

5. Please think back to a time when your family had insufficient food or a lack of resources to buy food. During this time of little food access, what were the usual activities your family adopted to seek additional resources or change the use of existing resources to meet your family’s food needs?
  - **[Probing questions]**
    - a. Are residents in your settlement of knowledge currently able to use these strategies to cope with a lack of resources?
    - b. If not, why are they unable?
6. Have the strategies used by residents in your settlement of knowledge to cope with a lack of resources recently changed?

- **[Probing questions]**
  - a. If these strategies have recently changed, what strategies are you now using?
  - b. Why have these strategies recently become unavailable?
- 7. Do families in your settlement rely on social, family networks, neighbours and friends to share resources and receive support when facing food or resource shortages?
  - **[Probing questions]**
    - a. Could you please describe how these networks of support work?
    - b. Are these networks of support still functioning?
    - c. If not, why not?
    - d. If not, since when have these support networks ceased to function?

## ANNEX 5: SERVICE ACCESS GAPS FGD TOOL

Same intro and conclusion as Annex 4, only question route listed below

### STAGE 1: Service Access Gaps

#### Food Security and Livelihoods (FSL)

What is currently the main source of food? Which other sources of food do you use, including coping strategies?

- Is there sufficient access to food [AREA OF INTEREST]?
- If no, which are the reasons for absence/insufficient access to food?
- If insufficient access to food, what are the main coping strategies being used?
  - o How often do people use them?

Is there a functioning market in the area?

- If yes, are all items available that were available previously? If not, why not?
- If yes, did the prices change?

Are people currently engaging in livelihood activities?

- If no, why?
- If yes, what are the main livelihood activities in [AREA OF INTEREST]?
- Do you have access to land for cultivation? If no, why?
- Did you cultivate during the last cultivation season? (Note to FC: please follow up if access to land and cultivation activity have contradicting statements)
  - o If no, why?
  - o If yes, did you cultivate more or less than the previous years? Explain reasons.
- Do people in the settlement possess livestock?
  - o Which is the main livestock (e.g. goats, cattle etc.)?
  - o Where is the livestock currently?
  - o Is anyone taking care/ looking after the livestock currently?
  - o Have there been any incidents of killing or stealing/raiding of livestock? If so, when?
- Are people in the settlement engaged in casual or contracted labour? If yes, what type of work are they engaging in?

#### HEALTH AND WASH

To what extent is there access to health care in the [AREA OF INTEREST]?

- If yes, what facilities are there?
- If yes, is there enough medical staff? Why or why not?
- If yes, are there enough drugs available? Why or why not?
- If no access, which are the reasons for absence? (e.g. destroyed, never there etc.)
- If no access, how do people cope with lack of health services? (e.g. carry the patient-how far, traditional medicine- which one?)

What are the main causes of morbidity (e.g. sickness or injury?) Please specify.

To what extent is there clean/safe drinking water in the [AREA OF INTEREST]?

- If yes, what is the source of safe drinking water?
- If no, what are the reasons for lack of clean/safe drinking water? (e.g. borehole was never there, borehole lacks maintenance, borehole has been destroyed, borehole has not enough water?)
- If no, which sources do people use alternatively?
  - o What are the side effects of drinking from those sources?

Do people use latrines regularly? If no, why?

## EDUCATION

To what extent are education services available in the [AREA OF INTEREST]?

- If not, what are the main reasons for no access to education ?
- If yes, does the school have enough teachers?
- How are the teachers supported? (e.g. NGOs, government, informal school fees?)
- If yes, do all boys attend school? If no, which are the main barriers?
- If yes, do all girls attend school? If no, which are the main barriers?

## SHELTER

Is everyone sleeping under a shelter [AREA OF INTEREST]? If not, why?

- Which is the main shelter type for local communities?
- Which is the main shelter type for IDPs?
- Have any shelters been burned/destroyed?
  - o If so, how many? And when?
  - o If so, how many have been rebuilt?
- Do people have access to NFIs?
  - o If not, which items are most needed



## ANNEX 6: SAMPLING

	base1	base2	state	master_county	Payam	Target KIs
1	Pariang	NA	unity	abiemnhom	Aworpiny	5
2	Pariang	NA	unity	abiemnhom	Manjonga	4
3	Pariang	NA	unity	abiemnhom	Panyang	9
4	Pariang	NA	unity	abiemnhom	Abiemnhom	7
5	Akobo	NA	jonglei	akobo	DengJok	4
6	Akobo	NA	jonglei	akobo	Nyandid	3
7	Akobo	NA	jonglei	akobo	Walgak	1
8	Akobo	NA	jonglei	akobo	Bilkey	9
9	Akobo	NA	jonglei	akobo	Diror	2
10	Akobo	NA	jonglei	akobo	Alali	1
11	Akobo	NA	jonglei	akobo	Barmach	3
12	Akobo	NA	jonglei	akobo	Buong	2
13	Aweil	NA	nbeg	aweilcentre	Abul	2
14	Aweil	NA	nbeg	aweilcentre	Achana	1
15	Aweil	NA	nbeg	aweilcentre	Nyalath	3
16	Aweil	NA	nbeg	aweilcentre	Aroyo	2
17	Aweil	NA	nbeg	aweilcentre	Bhar Mayen	12
18	Aweil	NA	nbeg	aweilcentre	Chel South	5
19	Aweil	NA	nbeg	aweileast	Mangok	6
20	Aweil	NA	nbeg	aweileast	Mayom-wel	2
21	Aweil	NA	nbeg	aweileast	Wounlang	8
22	Aweil	NA	nbeg	aweileast	Yargok	6
23	Aweil	NA	nbeg	aweileast	Mangar-tong I	3
24	Aweil	NA	nbeg	aweilnorth	Baach	7
25	Aweil	NA	nbeg	aweilnorth	Malual-bai	4
26	Aweil	NA	nbeg	aweilnorth	Malual East	4
27	Aweil	NA	nbeg	aweilnorth	Malual North	3
28	Aweil	NA	nbeg	aweilnorth	Madhol	5
29	Aweil	NA	nbeg	aweilnorth	Malual West	2
30	Aweil	NA	nbeg	aweilsouth	Tar-weng	2
31	Aweil	NA	nbeg	aweilsouth	Tiar-alei	4
32	Aweil	NA	nbeg	aweilsouth	Wathmuok	4
33	Aweil	NA	nbeg	aweilsouth	Panthou	4
34	Aweil	NA	nbeg	aweilsouth	Ayai	3
35	Aweil	NA	nbeg	aweilsouth	Gakorl	3
36	Aweil	NA	nbeg	aweilsouth	Nyieth	2
37	Aweil	NA	nbeg	aweilsouth	Nyocawany I	3
38	Aweil	NA	nbeg	aweilwest	Ayat Centre	1
39	Aweil	NA	nbeg	aweilwest	Ayat East	2
40	Aweil	NA	nbeg	aweilwest	Ayat West	1
41	Aweil	NA	nbeg	aweilwest	Aweil Town	9
42	Aweil	NA	nbeg	aweilwest	Gomjuer Centre	3
43	Aweil	NA	nbeg	aweilwest	Gomjuer East	2
44	Aweil	NA	nbeg	aweilwest	Gomjuer West	2

45	Aweil	NA	nbeg	aweilwest	Mariem East	2
46	Aweil	NA	nbeg	aweilwest	Mariem West	3
47	Mingkaman	NA	lakes	awerial	Magok	1
48	Mingkaman	NA	lakes	awerial	Alal II	1
49	Mingkaman	NA	lakes	awerial	Bunagok	3
50	Mingkaman	NA	lakes	awerial	Dor	6
51	Mingkaman	NA	lakes	awerial	Abuyong	5
52	Mingkaman	NA	lakes	awerial	Nile	1
53	Mingkaman	NA	lakes	awerial	Puluk	5
54	Mingkaman	NA	lakes	awerial	Alal I	3
55	Bor	NA	jonglei	ayod	Ayod	3
56	Bor	NA	jonglei	ayod	Kurwai	2
57	Bor	NA	jonglei	ayod	Mogok	2
58	Bor	NA	jonglei	ayod	Pagil	5
59	Bor	NA	jonglei	ayod	Kuach-deng	2
60	Bor	NA	jonglei	ayod	Pajiek	5
61	Bor	NA	jonglei	ayod	Wau	6
62	Malakal	Renk	upper Nile	baliet	Adong	8
63	Malakal	Renk	upper Nile	baliet	Akoka	3
64	Malakal	Renk	upper Nile	baliet	Bianthiang	1
65	Malakal	Renk	upper Nile	baliet	Gel Achel	2
66	Malakal	Renk	upper Nile	baliet	Rom	5
67	Malakal	Renk	upper Nile	baliet	Wunthow	2
68	Malakal	Renk	upper Nile	baliet	Abwong	4
69	Bor	NA	jonglei	borsouth	Makuach	1
70	Bor	NA	jonglei	borsouth	Baidit	1
71	Bor	NA	jonglei	borsouth	Jalle	1
72	Bor	NA	jonglei	borsouth	Kolnyang	8
73	Bor	NA	jonglei	borsouth	Anyidi	2
74	Bor	NA	jonglei	borsouth	Bor	12
75	Kapoeta	NA	eastern_equatoria	budi	Nagishot	1
76	Kapoeta	NA	eastern_equatoria	budi	Napak	3
77	Kapoeta	NA	eastern_equatoria	budi	Nauro	4
78	Kapoeta	NA	eastern_equatoria	budi	Loudo	3
79	Kapoeta	NA	eastern_equatoria	budi	Kimotong	4
80	Kapoeta	NA	eastern_equatoria	budi	Komori	5
81	Kapoeta	NA	eastern_equatoria	budi	Loriyok	2
82	Kapoeta	NA	eastern_equatoria	budi	Lotukei	3
83	Bor	Malakal	jonglei	canal	Alam	1
84	Bor	Malakal	jonglei	canal	Belewach	2
85	Bor	Malakal	jonglei	canal	Kaldak	2
86	Bor	Malakal	jonglei	canal	Korwach	5
87	Bor	Malakal	jonglei	canal	Atar	6
88	Bor	Malakal	jonglei	canal	Mareng	3
89	Bor	Malakal	jonglei	canal	Nyainthokmalual	4
90	Bor	Malakal	jonglei	canal	Wunlem	2
91	Rumbek	NA	lakes	cueibet	Abiru	6

92	Rumbek	NA	lakes	cueibet	Citcok	3
93	Rumbek	NA	lakes	cueibet	Pagor	2
94	Rumbek	NA	lakes	cueibet	Duony	2
95	Rumbek	NA	lakes	cueibet	Malou	9
96	Rumbek	NA	lakes	cueibet	Ngap	3
97	Bor	NA	jonglei	duk	Payuel	2
98	Bor	NA	jonglei	duk	Padiek	7
99	Bor	NA	jonglei	duk	Pagak	2
100	Bor	NA	jonglei	duk	Panyang	6
101	Bor	NA	jonglei	duk	Ageer	4
102	Bor	NA	jonglei	duk	Dongchak	4
103	Yambio	NA	western_equatoria	ezo	Andari	4
104	Yambio	NA	western_equatoria	ezo	Bagidi	2
105	Yambio	NA	western_equatoria	ezo	Bariguna	1
106	Yambio	NA	western_equatoria	ezo	Centre	9
107	Yambio	NA	western_equatoria	ezo	Naandi	4
108	Yambio	NA	western_equatoria	ezo	Yangiri	5
109	Bor	NA	jonglei	fangak	Mareang	5
110	Bor	NA	jonglei	fangak	Old Fangak	4
111	Bor	NA	jonglei	fangak	Paguir	5
112	Bor	NA	jonglei	fangak	Manajang	8
113	Bor	NA	jonglei	fangak	Phom	3
114	Malakal	NA	upper Nile	fashoda	Dethok	4
115	Malakal	NA	upper Nile	fashoda	Kodok	6
116	Malakal	NA	upper Nile	fashoda	Kodok Town	5
117	Malakal	NA	upper Nile	fashoda	Lul	10
118	Wau	NA	warrap	gogrial east	Nyang	1
119	Wau	NA	warrap	gogrial east	Pathuon East	5
120	Wau	NA	warrap	gogrial east	Pathuon West	6
121	Wau	NA	warrap	gogrial east	Toch East	6
122	Wau	NA	warrap	gogrial east	Toch North	5
123	Wau	NA	warrap	gogrial east	Toch West	2
124	Wau	NA	warrap	gogrial west	Akon North	2
125	Wau	NA	warrap	gogrial west	Akon South	4
126	Wau	NA	warrap	gogrial west	Alek North	2
127	Wau	NA	warrap	gogrial west	Alek South	4
128	Wau	NA	warrap	gogrial west	Alek West	1
129	Wau	NA	warrap	gogrial west	Gogrial West	3
130	Wau	NA	warrap	gogrial west	Kuac North	5
131	Wau	NA	warrap	gogrial west	Kuac South	2
132	Wau	NA	warrap	gogrial west	Riau	2
133	Bentiu	NA	unity	guit	Kedad	3
134	Bentiu	NA	unity	guit	Kuach	8
135	Bentiu	NA	unity	guit	Kuerguini	4
136	Bentiu	NA	unity	guit	Guit	5
137	Bentiu	NA	unity	guit	Wathnyona	2
138	Bentiu	NA	unity	guit	Niemni	1

139	Bentiu	NA	unity	guit	Nyathoar	2
140	Maridi	NA	western_equatoria	ibba	Ibba Centre	7
141	Maridi	NA	western_equatoria	ibba	Madebe	7
142	Maridi	NA	western_equatoria	ibba	Maniakakara	3
143	Maridi	NA	western_equatoria	ibba	Maruko	3
144	Maridi	NA	western_equatoria	ibba	Nabanga	5
145	Juba	NA	eastern_equatoria	ikotos	Ikotos	6
146	Juba	NA	eastern_equatoria	ikotos	Imotong	3
147	Juba	NA	eastern_equatoria	ikotos	Lomohidang North	4
148	Juba	NA	eastern_equatoria	ikotos	Hatire	2
149	Juba	NA	eastern_equatoria	ikotos	Lomohidang South	5
150	Juba	NA	eastern_equatoria	ikotos	Losite	5
151	Juba	NA	central_equatoria	juba	Lokiliri	1
152	Juba	NA	central_equatoria	juba	Mangala South	1
153	Juba	NA	central_equatoria	juba	Munuki	6
154	Juba	NA	central_equatoria	juba	Lobonok	1
155	Juba	NA	central_equatoria	juba	Rejaf	1
156	Juba	NA	central_equatoria	juba	Wonduruba	1
157	Juba	NA	central_equatoria	juba	Juba Town	5
158	Juba	NA	central_equatoria	juba	Northern Bari	3
159	Juba	NA	central_equatoria	juba	Dolo	1
160	Juba	NA	central_equatoria	juba	Gondokoro	1
161	Juba	NA	central_equatoria	juba	Kator	4
162	Wau	NA	wbeg	jurriver	Kangi	5
163	Wau	NA	wbeg	jurriver	Kuajena	5
164	Wau	NA	wbeg	jurriver	Marial-bai	6
165	Wau	NA	wbeg	jurriver	Rocrocdong	2
166	Wau	NA	wbeg	jurriver	Udici	4
167	Wau	NA	wbeg	jurriver	Wau Bai	3
168	Juba	NA	central_equatoria	kajo-keji	Kangapo I	6
169	Juba	NA	central_equatoria	kajo-keji	Nyepo	3
170	Juba	NA	central_equatoria	kajo-keji	Kangapo II	7
171	Juba	NA	central_equatoria	kajo-keji	Lire	4
172	Juba	NA	central_equatoria	kajo-keji	Liwolo	5
173	Kapoeta	NA	eastern_equatoria	kapoetaeast	Lotimor	2
174	Kapoeta	NA	eastern_equatoria	kapoetaeast	Natinga	1
175	Kapoeta	NA	eastern_equatoria	kapoetaeast	Katodori	4
176	Kapoeta	NA	eastern_equatoria	kapoetaeast	Mogos	5
177	Kapoeta	NA	eastern_equatoria	kapoetaeast	Narus	4
178	Kapoeta	NA	eastern_equatoria	kapoetaeast	Jie	1
179	Kapoeta	NA	eastern_equatoria	kapoetaeast	Kauto	8
180	Kapoeta	NA	eastern_equatoria	kapoetanorth	Chumakori	3
181	Kapoeta	NA	eastern_equatoria	kapoetanorth	Lomeyen	4
182	Kapoeta	NA	eastern_equatoria	kapoetanorth	Mosingo	3
183	Kapoeta	NA	eastern_equatoria	kapoetanorth	Najie	3
184	Kapoeta	NA	eastern_equatoria	kapoetanorth	Karukomuge	6

185	Kapoeta	NA	eastern_equatoria	kapoetanorth	Paringa	6
186	Kapoeta	NA	eastern_equatoria	kapoetasouth	Kapoeta Town	5
187	Kapoeta	NA	eastern_equatoria	kapoetasouth	Longeleya	4
188	Kapoeta	NA	eastern_equatoria	kapoetasouth	Machi One	6
189	Kapoeta	NA	eastern_equatoria	kapoetasouth	Pwata	6
190	Kapoeta	NA	eastern_equatoria	kapoetasouth	Machi Two	4
191	Bentiu	NA	unity	koch	Kuachlual	3
192	Bentiu	NA	unity	koch	Jaak	5
193	Bentiu	NA	unity	koch	Boaw	6
194	Bentiu	NA	unity	koch	Ngony	7
195	Bentiu	NA	unity	koch	Norbor	1
196	Bentiu	NA	unity	koch	Pakur	2
197	Bentiu	NA	unity	koch	Gany	1
198	NA	NA	eastern_equatoria	lafon	Arihilo	4
199	NA	NA	eastern_equatoria	lafon	Burgilo	3
200	NA	NA	eastern_equatoria	lafon	Imehejek	3
201	NA	NA	eastern_equatoria	lafon	Lohutok	7
202	NA	NA	eastern_equatoria	lafon	Longiro	2
203	NA	NA	eastern_equatoria	lafon	Marguna	2
204	NA	NA	eastern_equatoria	lafon	Kurumi	2
205	NA	NA	eastern_equatoria	lafon	Pachidi	2
206	NA	NA	central_equatoria	lainya	Lainya	8
207	NA	NA	central_equatoria	lainya	Kupera	6
208	NA	NA	central_equatoria	lainya	Mukaya	3
209	NA	NA	central_equatoria	lainya	Wuji	3
210	NA	NA	central_equatoria	lainya	Kenyi	5
211	Nyal	Bentiu	unity	leer	Adok	5
212	Nyal	Bentiu	unity	leer	Guat	2
213	Nyal	Bentiu	unity	leer	Juong Kang	2
214	Nyal	Bentiu	unity	leer	Leet	8
215	Nyal	Bentiu	unity	leer	Bou	2
216	Nyal	Bentiu	unity	leer	Padeah	2
217	Nyal	Bentiu	unity	leer	Pilieny	3
218	Nyal	Bentiu	unity	leer	Yang	1
219	NA	NA	upper Nile	longochuk	Wudier	4
220	NA	NA	upper Nile	longochuk	Guelguk	5
221	NA	NA	upper Nile	longochuk	Malual	5
222	NA	NA	upper Nile	longochuk	Pamach	5
223	NA	NA	upper Nile	longochuk	Dajo	3
224	NA	NA	upper Nile	longochuk	Longuchuk	3
225	Akobo	NA	upper Nile	luakpiny	Dingkar	2
226	Akobo	NA	upper Nile	luakpiny	Kiech Kuon	4
227	Akobo	NA	upper Nile	luakpiny	Kuerenge-Ke	2
228	Akobo	NA	upper Nile	luakpiny	Mading	4
229	Akobo	NA	upper Nile	luakpiny	Jikmir	4
230	Akobo	NA	upper Nile	luakpiny	Maker	2
231	Akobo	NA	upper Nile	luakpiny	Nasir	5

232	Akobo	NA	upper Nile	luakpiny	Roam	2
233	Renk	NA	upper Nile	maban	Jinmakdo	5
234	Renk	NA	upper Nile	maban	Banashowa	6
235	Renk	NA	upper Nile	maban	Junkuata	4
236	Renk	NA	upper Nile	maban	Khor El Amer	4
237	Renk	NA	upper Nile	maban	Boung	6
238	Juba	NA	eastern equatoria	magwi	Pajok	3
239	Juba	NA	eastern equatoria	magwi	Magwi	6
240	Juba	NA	eastern equatoria	magwi	Mugali	3
241	Juba	NA	eastern equatoria	magwi	Pageri	5
242	Juba	NA	eastern equatoria	magwi	Lobone	2
243	Juba	NA	eastern equatoria	magwi	Nimule	6
244	NA	NA	upper Nile	mai wut	Jotoma	6
245	NA	NA	upper Nile	mai wut	Kigila	1
246	NA	NA	upper Nile	mai wut	Olang	6
247	NA	NA	upper Nile	mai wut	Pagak	7
248	NA	NA	upper Nile	mai wut	Mai wut	5
249	Malakal	NA	upper Nile	malakal	Central Malakal	3
250	Malakal	NA	upper Nile	malakal	Lelo	2
251	Malakal	NA	upper Nile	malakal	Northern Malakal	8
252	Malakal	NA	upper Nile	malakal	Ogot	2
253	Malakal	NA	upper Nile	malakal	Southern Malakal	10
254	Malakal	Renk	upper Nile	manyong	Magenist	4
255	Malakal	Renk	upper Nile	manyong	Wedakona	14
256	Malakal	Renk	upper Nile	manyong	Kaka	7
257	Maridi	NA	western equatoria	maridi	Kozi	2
258	Maridi	NA	western equatoria	maridi	Landili	1
259	Maridi	NA	western equatoria	maridi	Mambe	2
260	Maridi	NA	western equatoria	maridi	Maridi	17
261	Maridi	NA	western equatoria	maridi	Ngamunde	3
262	Nyal	Bentiu	unity	mayendit	Thaker	5
263	Nyal	Bentiu	unity	mayendit	Maal	1
264	Nyal	Bentiu	unity	mayendit	Mayendit	3
265	Nyal	Bentiu	unity	mayendit	Rubkuay	7
266	Nyal	Bentiu	unity	mayendit	Bor	2
267	Nyal	Bentiu	unity	mayendit	Tharjiath	2
268	Nyal	Bentiu	unity	mayendit	Tutnyang	2
269	Nyal	Bentiu	unity	mayendit	Luom	3
270	Bentiu	NA	unity	mayom	Bieh	1
271	Bentiu	NA	unity	mayom	Kuerbuone	4
272	Bentiu	NA	unity	mayom	Ruathnyibuol	3
273	Bentiu	NA	unity	mayom	Wangbuor-3	1
274	Bentiu	NA	unity	mayom	Wangkei	4
275	Bentiu	NA	unity	mayom	Pup	1
276	Bentiu	NA	unity	mayom	Kueryiek	1
277	Bentiu	NA	unity	mayom	Mankien	5

278	Bentiu	NA	unity	mayom	Ngop	1
279	Bentiu	NA	unity	mayom	Riak	4
280	Renk	NA	upper Nile	melut	Bimachuk	2
281	Renk	NA	upper Nile	melut	Galdora	4
282	Renk	NA	upper Nile	melut	Paloch	8
283	Renk	NA	upper Nile	melut	Panhomdit	3
284	Renk	NA	upper Nile	melut	Melut	8
285	Juba	NA	central equatoria	morobo	Gulumbi	8
286	Juba	NA	central equatoria	morobo	Kimba	8
287	Juba	NA	central equatoria	morobo	Panyume	2
288	Juba	NA	central equatoria	morobo	Wudabi	3
289	Juba	NA	central equatoria	morobo	Lujulo	4
290	Maridi	NA	western equatoria	mundrieast	Kedi ba	7
291	Maridi	NA	western equatoria	mundrieast	Lakamadi	3
292	Maridi	NA	western equatoria	mundrieast	Lozoh	7
293	Maridi	NA	western equatoria	mundrieast	Ming	3
294	Maridi	NA	western equatoria	mundrieast	Witto	5
295	Maridi	NA	western equatoria	mundriwest	Amadi	2
296	Maridi	NA	western equatoria	mundriwest	Bangolo	4
297	Maridi	NA	western equatoria	mundriwest	Kotobi	8
298	Maridi	NA	western equatoria	mundriwest	Mundri	11
299	Maridi	NA	western equatoria	mvol	Bagori	2
300	Maridi	NA	western equatoria	mvol	Bahr El Grindi	5
301	Maridi	NA	western equatoria	mvol	Dari	3
302	Maridi	NA	western equatoria	mvol	Kokor	3
303	Maridi	NA	western equatoria	mvol	Lessi	2
304	Maridi	NA	western equatoria	mvol	Mvol	5
305	Maridi	NA	western equatoria	mvol	Yeri	5
306	Yambio	NA	western equatoria	nagero	Nagero	25
307	Bor	Akobo	jonglei	nyir	Thol	3
308	Bor	Akobo	jonglei	nyir	Waat	2
309	Bor	Akobo	jonglei	nyir	Chuil	1
310	Bor	Akobo	jonglei	nyir	Nyambor	2
311	Bor	Akobo	jonglei	nyir	Pading	11
312	Bor	Akobo	jonglei	nyir	Pulturuk	6
313	Yambio	NA	western equatoria	nzara	Basukangbi	2
314	Yambio	NA	western equatoria	nzara	Nzara Centre	11
315	Yambio	NA	western equatoria	nzara	Ringasi	1
316	Yambio	NA	western equatoria	nzara	Sakure	8
317	Yambio	NA	western equatoria	nzara	Sangua	3
318	Nyal	NA	unity	panyijiar	Ganyiel	3
319	Nyal	NA	unity	panyijiar	Mayom	2
320	Nyal	NA	unity	panyijiar	Nyal	7
321	Nyal	NA	unity	panyijiar	Pachaar	3
322	Nyal	NA	unity	panyijiar	Kol	2
323	Nyal	NA	unity	panyijiar	Tiap	2
324	Nyal	NA	unity	panyijiar	Pachak	2

325	Nyal	NA	unity	panyijiar	Pachienjok	1
326	Nyal	NA	unity	panyijiar	Panyijiar	1
327	Nyal	NA	unity	panyijiar	Thoarnhoum	2
328	Malakal	NA	uppernile	panyikang	Anakdiar	2
329	Malakal	NA	uppernile	panyikang	Dheteim	2
330	Malakal	NA	uppernile	panyikang	Pakang	3
331	Malakal	NA	uppernile	panyikang	Panyidwoi	7
332	Malakal	NA	uppernile	panyikang	Panyikang	5
333	Malakal	NA	uppernile	panyikang	Tonga	6
334	Pariang	NA	unity	pariang	Biu	2
335	Pariang	NA	unity	pariang	Jamjang	3
336	Pariang	NA	unity	pariang	Nyeel	1
337	Pariang	NA	unity	pariang	Pariang	16
338	Pariang	NA	unity	pariang	Werthen	2
339	Pariang	NA	unity	pariang	Aliiny	1
340	NA	NA	jonglei	pibor	Gurumukhi	2
341	NA	NA	jonglei	pibor	Lekuangle	1
342	NA	NA	jonglei	pibor	Marow	1
343	NA	NA	jonglei	pibor	Boma	2
344	NA	NA	jonglei	pibor	Pibor	16
345	NA	NA	jonglei	pibor	Mewun	3
346	NA	NA	jonglei	pochalla	Adongo	10
347	NA	NA	jonglei	pochalla	Akiela	2
348	NA	NA	jonglei	pochalla	Burator	1
349	NA	NA	jonglei	pochalla	Omiela	3
350	NA	NA	jonglei	pochalla	Pochalla	9
351	Wau	NA	wbeg	raga	Ere	4
352	Wau	NA	wbeg	raga	Raga	11
353	Wau	NA	wbeg	raga	Ringi	6
354	Wau	NA	wbeg	raga	Uyujuku	4
355	Renk	NA	uppernile	renk	Geger	7
356	Renk	NA	uppernile	renk	Jalhak	3
357	Renk	NA	uppernile	renk	North Renk	7
358	Renk	NA	uppernile	renk	Chemmedi	2
359	Renk	NA	uppernile	renk	South Renk	6
360	Bentiu	NA	unity	rubkona	Bentiu	10
361	Bentiu	NA	unity	rubkona	Budaang	2
362	Bentiu	NA	unity	rubkona	Kaljak	1
363	Bentiu	NA	unity	rubkona	Nhialdiu	5
364	Bentiu	NA	unity	rubkona	Panhiany	1
365	Bentiu	NA	unity	rubkona	Rubkotne	5
366	Bentiu	NA	unity	rubkona	Wathjaak	1
367	Rumbek	NA	lakes	rumbekcentre	Amongpiny	3
368	Rumbek	NA	lakes	rumbekcentre	Jiir	7
369	Rumbek	NA	lakes	rumbekcentre	Malek	1
370	Rumbek	NA	lakes	rumbekcentre	Matangai	12
371	Rumbek	NA	lakes	rumbekcentre	Mayom	2



372	Rumbek	NA	lakes	rumbekeast	Aduel	6
373	Rumbek	NA	lakes	rumbekeast	Akot	3
374	Rumbek	NA	lakes	rumbekeast	Cueicok	5
375	Rumbek	NA	lakes	rumbekeast	Maleng-agok	1
376	Rumbek	NA	lakes	rumbekeast	Pacong	5
377	Rumbek	NA	lakes	rumbekeast	Atiaba	3
378	Rumbek	NA	lakes	rumbekeast	Paloch	2
379	Rumbek	NA	lakes	rumbeknorth	Wun-rieng	2
380	Rumbek	NA	lakes	rumbeknorth	Madol	5
381	Rumbek	NA	lakes	rumbeknorth	Malueeth	6
382	Rumbek	NA	lakes	rumbeknorth	Mayen	7
383	Rumbek	NA	lakes	rumbeknorth	Aloor	3
384	Rumbek	NA	lakes	rumbeknorth	Maper	2
385	Yambio	NA	western_equatoria	tambura	Mupoi	2
386	Yambio	NA	western_equatoria	tambura	Namatina	5
387	Yambio	NA	western_equatoria	tambura	Source Yubu	6
388	Yambio	NA	western_equatoria	tambura	Tambura	12
389	Juba	NA	central_equatoria	terekeka	Gameiza	2
390	Juba	NA	central_equatoria	terekeka	Tali	6
391	Juba	NA	central_equatoria	terekeka	Terekeka	3
392	Juba	NA	central_equatoria	terekeka	Tindilo	3
393	Juba	NA	central_equatoria	terekeka	Tombek	1
394	Juba	NA	central_equatoria	terekeka	Mangala North	1
395	Juba	NA	central_equatoria	terekeka	Muni	3
396	Juba	NA	central_equatoria	terekeka	Nyori	2
397	Juba	NA	central_equatoria	terekeka	Reggo	3
398	Juba	NA	central_equatoria	terekeka	Rijong	1
399	Wau	NA	warrap	tonjeast	Ananatak	4
400	Wau	NA	warrap	tonjeast	Makuac	2
401	Wau	NA	warrap	tonjeast	Malual-cum	2
402	Wau	NA	warrap	tonjeast	Maparah	2
403	Wau	NA	warrap	tonjeast	Mayen	3
404	Wau	NA	warrap	tonjeast	Palal	3
405	Wau	NA	warrap	tonjeast	Paliang	2
406	Wau	NA	warrap	tonjeast	Pannhial	2
407	Wau	NA	warrap	tonjeast	Paweng	2
408	Wau	NA	warrap	tonjeast	Wunliit	3
409	Wau	NA	warrap	tonjnorth	Akop	3
410	Wau	NA	warrap	tonjnorth	Alabek	5
411	Wau	NA	warrap	tonjnorth	Aliek	3
412	Wau	NA	warrap	tonjnorth	Kirik	3
413	Wau	NA	warrap	tonjnorth	Manloor	4
414	Wau	NA	warrap	tonjnorth	Mariallou	2
415	Wau	NA	warrap	tonjnorth	Pagol	2
416	Wau	NA	warrap	tonjnorth	Rualbet	2
417	Wau	NA	warrap	tonjnorth	Warrap	1
418	Wau	NA	warrap	tonjsouth	Jak	2

419	Wau	NA	warrap	tonjsouth	Manyang-ngok	2
420	Wau	NA	warrap	tonjsouth	Thiet	6
421	Wau	NA	warrap	tonjsouth	Tonj	10
422	Wau	NA	warrap	tonjsouth	Wanhalel	5
423	Juba	NA	eastern_equatoria	torit	Bur	4
424	Juba	NA	eastern_equatoria	torit	Himodonge	2
425	Juba	NA	eastern_equatoria	torit	Ifwotu	2
426	Juba	NA	eastern_equatoria	torit	Imurok	2
427	Juba	NA	eastern_equatoria	torit	Kudo	2
428	Juba	NA	eastern_equatoria	torit	Hiyala	5
429	Juba	NA	eastern_equatoria	torit	Torit	8
430	Wau	NA	warrap	twic	Ajakkuac	2
431	Wau	NA	warrap	twic	Akoc	3
432	Wau	NA	warrap	twic	Aweeng	3
433	Wau	NA	warrap	twic	Pannyok	5
434	Wau	NA	warrap	twic	Turalei	6
435	Wau	NA	warrap	twic	Wunrok	6
436	Bor	NA	jonglei	twiceast	Ajuong	1
437	Bor	NA	jonglei	twiceast	Lith	1
438	Bor	NA	jonglei	twiceast	Nyuak	7
439	Bor	NA	jonglei	twiceast	Pakeer	1
440	Bor	NA	jonglei	twiceast	Kongor	15
441	Akobo	NA	upper Nile	ulang	Doma	9
442	Akobo	NA	upper Nile	ulang	Ulang	8
443	Akobo	NA	upper Nile	ulang	Yomding	8
444	Bor	Akobo	jonglei	uror	Karam	5
445	Bor	Akobo	jonglei	uror	Pathai	5
446	Bor	Akobo	jonglei	uror	Payai	3
447	Bor	Akobo	jonglei	uror	Pieri	2
448	Bor	Akobo	jonglei	uror	Motot	3
449	Bor	Akobo	jonglei	uror	Puolchoul	2
450	Bor	Akobo	jonglei	uror	Tiam	3
451	Bor	Akobo	jonglei	uror	Uror	2
452	Wau	NA	wbeg	wau	Bagari	2
453	Wau	NA	wbeg	wau	Besselia	1
454	Wau	NA	wbeg	wau	Kpaile	1
455	Wau	NA	wbeg	wau	Wau North	6
456	Wau	NA	wbeg	wau	Wau South	15
457	Rumbek	NA	lakes	wulu	Bargel	8
458	Rumbek	NA	lakes	wulu	Domoloto	5
459	Rumbek	NA	lakes	wulu	Wulu	7
460	Rumbek	NA	lakes	wulu	Makundi	5
461	Yambio	NA	western_equatoria	yambio	Bangasu	3
462	Yambio	NA	western_equatoria	yambio	Gangura	3
463	Yambio	NA	western_equatoria	yambio	Nadiangere	1
464	Yambio	NA	western_equatoria	yambio	Ri_Rangu	1
465	Yambio	NA	western_equatoria	yambio	Yambio Town	17

466	Juba	NA	central_equatoria	yei	Mugwo	3
467	Juba	NA	central_equatoria	yei	Otogo	4
468	Juba	NA	central_equatoria	yei	Tore	3
469	Juba	NA	central_equatoria	yei	Lasu	2
470	Juba	NA	central_equatoria	yei	Yei Town	13
471	Mingkaman	NA	lakes	yiroleast	Adior	6
472	Mingkaman	NA	lakes	yiroleast	Lekakedu	5
473	Mingkaman	NA	lakes	yiroleast	Malek	3
474	Mingkaman	NA	lakes	yiroleast	Pagarau	5
475	Mingkaman	NA	lakes	yiroleast	Tinagau	2
476	Mingkaman	NA	lakes	yiroleast	Yali	4
477	Mingkaman	NA	lakes	yirolwest	Aluakluak	3
478	Mingkaman	NA	lakes	yirolwest	Anuol	3
479	Mingkaman	NA	lakes	yirolwest	Geng-geng	4
480	Mingkaman	NA	lakes	yirolwest	Gher	1
481	Mingkaman	NA	lakes	yirolwest	Mapuordit	5
482	Mingkaman	NA	lakes	yirolwest	Yirol	3
483	Mingkaman	NA	lakes	yirolwest	Abang	6

# REACH South Sudan Data Cleaning SOP for AOK-Neighbourhoods

## Version 1

This SOP is a guide to data cleaning, including step by step how to download data, what to clean and how to record changes.

### Overview of data cleaning process

**Data cleaning is the primary responsibility of the Field Officers, with accountability by the AOs and SAOs, and management oversight by the HSM and Juba Neighbourhoods team.**

- **FOs/FAs:** Clean the data every day and collect feedback from enumerators every morning in the briefing
- **AOs:** Check the data cleaning daily to ensure cleaning is consistent and, logical; check against the HTML daily output to make sure all errors are captured
- **SAO:** weekly data review
- **HSM unit manager/Neighbourhoods team:** reviews the final week outputs

Activity	Responsible	Accountable
Daily enumerator debrief	FO/FA	AO
Daily data cleaning	FO/FA	AO
Check daily cleaning, including against HTML output	AO	HSM RM
Review weekly cleaning logs	SAO	MSNA AO HSM RM

### Downloading data

In Juba, the neighbourhoods/GIS team will download the raw data from Kobo, and run an R script to produce a household level dataset. This step is necessary as the raw output from Kobo is formatted with multiple HHs reported on one row, which is difficult to interpret/clean. This will be used to produce raw and cleaned household datasets, which will be shared back to the field teams for their use in data cleaning. **Additionally, a HH\_ID will be created for each unique household in the dataset. During cleaning, this HH\_ID should be used instead of UUID in the cleaning logs.** This is so we have a separate record for each household a KI is reporting on.

This downloading and data transformation will be done at Juba level and then shared to the field bases for cleaning. The cleaned HH data will be based on the most recent cleaning logs sent by the AOs and FOs/FAs.

### Cleaning the data

Much of the process for AOK-N remains similar to AOK. The main differences are **shorter timelines for completing data cleaning** and the addition of a **HTML output** to assist in monitoring targets and identifying flagged data (likely errors). The “raw data” downloaded and transformed at Juba level will be sent directly to the FOs/FAs for data cleaning.

Since enumerators finish at 3pm every day, once they are back from the field, FOs will upload their data to the

server. Once complete, the Juba team (MSNA AO and GIS AO) will download the data, add the HHID and input this data into the cleaning log by 5pm to send back to the FOs for cleaning the next morning (the day after data collection).

Once FO/FAs receive the dataset, by the following morning (the day after data collection) they will:

1. Sort the raw data by **base** and **date** to check only relevant data
2. Check data line by line to identify any possible errors that may need follow up with the enumerators, just as is currently done for AoK (follow the guidelines below for assistance)
3. Check all the data against the HTML output to ensure the cleaning log captures any flagged records from the HTML. In some bases, AOs will do this step after receiving the cleaning log depending on the time, internet connection and capacity of the FOs/FAs. **All flagged records from the HTML should be included in the cleaning log with how they were resolved**, in addition to any extra errors spotted by the FOs. Flagged records can be resolved through communication with the enumerator and:
  - determining if the response was an ERROR and adding the correct response to the cleaning log
  - determining the response was CORRECT and noting so in the cleaning log
4. FOs/FAs will communicate with enumerators when they return from data collection by 3pm that day and incorporate all feedback about the data from the previous data.
5. Once the cleaning log is complete with feedback from enumerators, FOs/FAs will send the log to the AOs (ideally by 4pm), who will review as they currently do for AoK, and check against the HTML output.
6. AOs will then send this to the GIS officer by 5pm everyday who will merge this into the cleaned dataset. An R script will be run to create a clean dataset that will be cumulatively built on a daily basis.
7. This clean dataset can also be shared with AOs/FOs to double check that changes have been incorporated etc.

## Enumerator checking

Once the data is uploaded, first check the enumerator information to ensure no surveys are faked or rushed.

1. Check the map on the HTML page to ensure surveys are taking in the appropriate locations.
2. Check the length of time of the survey: bases can choose their own minimum survey time based on how fast is possible in their base – enumerator experience and whether there are extra questions in your base will help determine this – but the minimum should be at least **25 minutes**. 60 minutes is recommended in most bases.

If an enumerator's movements are suspicious or the survey too short, the relevant survey should be deleted.

## Data cleaning

For the daily data cleaning, each survey should be individually checked for answers that need further investigation.

### What to ask about

#### 1. Contextual questions

This is extremely important as only the team on the base can spot these issues. These questions are about answers that do not match your own knowledge of the local situation. For example:

- KI says there is no access to health care in a town where you know there is a clinic
- KI says people are planting at a time of year when people do not plant
- KI says "I don't know" to basic questions, such as "do you and your neighbours have access to enough food?"

## 2. Vertical questions

This is when an enumerator keeps putting the same answer to the same question or for every neighbour where there may actually be differences. For example:

- For “What is the displacement status of MOST PEOPLE in your own and your neighbours households?” always putting host community, when there may actually be differences among neighbours in the household
- Always selects the combination “crops for sustenance, hunting, fishing” for livelihood activities for all neighbours

*Are other enumerators writing the same thing, particularly if they cover the same area?* If yes, it may just be that this answer is common.

*Is the enumerator always selecting an answer that saves them time?* E.g. Always selecting no to IDP presence, which means there are no follow-up questions on IDPs. If yes, then they may be deliberately selecting the answer to save work.

Similarly, some options would remain the same across neighbours logically, so if you see enumerators putting something different for everyone, they may not understand the question. For example:

- Distance to the nearest health facility should be about the same in most neighbourhoods since these are the ten geographically closest neighbours so if one neighbour is taking double the time as everyone else, follow up with the enumerator
- Same issue with distance to waterpoint, or usage of waterpoints. If they are all close, but a few are accessing completely different waterpoints than the rest, you may follow up with the enumerator to see why and whether that is a mistake
- FSL coping mechanisms--if an option is NEVER available in that location, that should hold true across all the neighbours. Check with enumerator if it doesn't!

## 3. Horizontal questions/Logic questions

This is when two answers do not make sense together. For example: KI says there are many malnourished children but there is adequate food.

For some of the most common issues, we will produce a HTML output, these issues must be copied in the cleaning log and followed up with enumerators.

For the rest, please read the questions carefully alongside the guidelines provided to make sure answers make sense. Use these for checking for logic questions because this is the official list of what should be questioned.

## 4. Incorrect use of “Other”

This is when enumerators write an answer in “other” but put an answer that is already in the options. E.g. writes “Father” in who the land dispute was with, but they would be a family member. This can then be entered under the “family members” option in the cleaning log.

## What action to take

Once you have questions you should first get feedback from the enumerator. Here is what you should do according to the enumerator feedback (and your own judgement of the enumerator's feedback).

**Scenario A - The enumerator has a plausible explanation** □ Do not change the answer

**Scenario B - The enumerator made a mistake and remembers what the KI said** □ Change to the correct answer

1. *If it was a logic question, make sure the enumerator clear which answer was a misclick.*
2. *Look out for enumerators saying ‘clicking error’ because they don’t remember. If an enumerator has more than two clicking errors for the same question, it’s probably not actually a clicking error.*

**Scenario C - The enumerator made a mistake and does not remember what the KI said** □ Delete the answer(s)

**Scenario D - The enumerator misunderstood the question** □ Delete all answers for this question for this enumerator

**Scenario E - The KI said something that cannot be true** □ Delete all answers

*Delete even if you know the right answer, e.g. the KI said no health services but you know there is a hospital. Otherwise we change the data to just be our own knowledge.*

**Scenario F - The enumerator made up the answer** □ Delete the answer and treat this as a serious disciplinary matter

*Decide whether you can trust the rest of the data collected by this enumerator*

**Scenario G - You are not sure what happened** □ Delete the answer. For logic questions delete both answers.

*This may happen if the enumerator feedback does not make sense or you are unable to contact the enumerator*

**Scenario H – incorrect use of other** □ This is when enumerators write an answer in “other” but put an answer that is already in the options. In the cleaning log, change ‘other’ to the existing option, as we do for AoK currently.

### Filling the cleaning log

Once you have made your decision, you do not need to change the data (highlight, delete, change values etc.). You can simply write it in the cleaning log. When the data comes to juba, the GIS unit will use the cleaning log to make the changes to the clean data.

Because this process uses R, **it is very important that the log is filled out accurately**. If the log is not accurate, the wrong changes will be made or the data won't be cleaned at all. Please read the following on how to fill the log. Columns used by the R-script are coloured in red below.

#### Cleaning date

Fill out the cleaning date to help everyone keep track of the cleaning process

#### HH\_ID

Copy and paste the HH\_ID. This will tell the R-script which survey to change so it is critical the HH\_ID is correct. Since one KI is reporting on 10 households, in Kobo, we will get one uuid for “10 surveys”. To clarify the surveys PER household, GIS will remove the uuid per KI, and give each neighbour a unique HH\_ID so each individual neighbour's information can be followed up on and cleaned.

#### Spotted by

Record who spotted the issue to understand who to ask later if there is any feedback

#### Enumerator\_ID

Please write the enumerator ID number associated with the issue in question.

#### Base

Please write which base the issue is from (ideally from a dropdown menu so responses are standard?)

#### Change type

Write the change you are suggesting. You can choose between “no action” (Scenario A), “change value” (scenario B), blanking the value (deleting just the answer to that one question – scenarios C,D;E;F;G;H) or remove survey (If the time or suspicious enumerator behavior means you think you should delete the **whole household**).

Note the difference between **BLANK\_RESPONSE** (delete one question) and **REMOVE SURVEY** (delete whole survey).

### Sector

Select the relevant sector from the drop-down list. This will set the options for each indicator.

### Indicator

Select the correct indicator from the drop-down list. *If you want to change two answers. E.g. deleting both answers because there was no good explanation for a logic question, make a separate line for both answers. If you investigate a logic question between two indicators, but only want to change one or none, it is ok just to have one line with one header (but make it clear in your explanation in issue what the other question was.)*

### Current value

Write the current value for the selected indicator e.g. "Yes" or "No" for G.food\_now

### Issue

Explain what issue you are investigating.

### New value

If you selected "change value" write what you want the value to change to. This can be selected from the drop down.

### Enumerator comment

Write the enumerator's explanation.

### Field Officer comments

The field officer writes their thoughts on the enumerator feedback. Do they think the explanation is plausible? Do they think the enumerator is telling the truth?

### AO comments

If the AO has additional comments they can put it here. This may be feedback on the FO's suggested action or advice on retraining for the enumerators.

### AM/GIS comments

Where Juba writes any feedback on the decisions.

## Dealing with 'other' in the log [ScenarioH]

If an enumerator has selected "other" and supplied a text response which can be grouped into an existing choice **[scenario H]**, please find the existing choice which must be changed and include it in the log (with an explanation in the issue column). If the text response falls under a pre-existing category you must then add an additional row with the same HH\_ID and find the "other" option and appropriately change the "new\_value."

uuid	potted	change_type	Sectors	indicator	Current_value	new_value	Issue
53ae69b5-87cb-4719-b1-Zack		change_response	Livelihoods	L.food_coping_livelihoods.gather_firewood	no	yes	enumerator selected other and wrote "wood" which should be regrouped into "gather_firewood"
53ae69b5-87cb-4719-b1-Zack		change_response	Livelihoods	L.food_coping_livelihoods.other	yes	no	



## What happens in Juba?

When the data is sent to Juba at the end of the day, the GIS team do the following:

1. Check the actions in the cleaning log to see if they agree with the decided action (with support from the HSM Manager)
2. Check all possible questions and errors have been addressed (with support from the HSM manager)
3. Use the cleaning logs to clean the data with R
4. Send cleaned datasets back to the AOs to follow up and track