

## 1. Executive Summary

<b>Country of intervention</b>	South Sudan					
<b>Type of Emergency</b>	<input type="checkbox"/>	Natural disaster	<input checked="" type="checkbox"/>	Conflict	<input type="checkbox"/>	Other ( <i>specify</i> )
<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>	BHA					
<b>IMPACT Project Code</b>	32FOD					
<b>Overall Research Timeframe</b>	15/03/2024 to 30/06/2024					
<b>Research Timeframe</b>	1. Pilot/ training: 15/04/2024			6. Outputs sent for validation: 20/05/2024		
	2. Start collect data: 16/04/2024			7. Outputs published: 30/05/2024		
	3. Data collected:26/04/2024			8.Final presentation: 5/06/2024		
	4. Data analysed: 1/05/2024					
	5. Data sent for validation: 2/05/2024					
<b>Number of assessments</b>	<input checked="" type="checkbox"/>	Single assessment (one cycle)				
	<input type="checkbox"/>	Multi assessment (more than one cycle)				
<b>Humanitarian milestones</b>	<b>Milestone</b>		<b>Deadline</b>			
	<input type="checkbox"/>	Donor plan/strategy				
	<input checked="" type="checkbox"/>	Inter-cluster plan/strategy				
	<input checked="" type="checkbox"/>	Cluster plan/strategy				
	<input type="checkbox"/>	NGO platform plan/strategy				
	<input type="checkbox"/>	Other (Specify):				
<b>Audience Type &amp; Dissemination</b>	<b>Audience type</b>			<b>Dissemination</b>		
	<input checked="" type="checkbox"/>	Strategic		x General Product Mailing (e.g. mail to NGO consortium; HCT participants; Donors)		
	<input checked="" type="checkbox"/>	Programmatic		x Cluster Mailing (Education, Shelter and WASH) and presentation of findings at next cluster meeting		
	<input type="checkbox"/>	Operational		x Presentation of findings (e.g. at HCT meeting; Cluster meeting)		
	<input type="checkbox"/>	[Other, Specify]		x Website Dissemination (Relief Web & REACH Resource Centre)		

		<input type="checkbox"/> [Other, Specify]
<b>Stakeholder mapping</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<b>General Objective</b>	To better inform on the availability and accessibility of health facilities, water, sanitation, and hygiene (WASH) services, markets, educational resources, and information for the host community, returnees, and internally displaced persons (IDPs) in Malakal Town and the Malakal Protection of Civilian (PoC) site, located in Malakal County, Upper Nile State, South Sudan.	
<b>Specific Objective(s)</b>	<ol style="list-style-type: none"> <li>To map out community boundaries and the locations of key infrastructure, for WASH, health, markets, and education used by all population groups in Malakal Town and Malakal PoC as we inform on their functionality.</li> <li>To inform on the availability and accessibility of the key infrastructure in the sectors of WASH, health, markets and education used by all population groups in Malakal Town and Malakal PoC.</li> </ol>	
<b>Research Questions</b>	<ol style="list-style-type: none"> <li>What are the main community boundaries in Malakal Town? And in the Malakal PoC site?</li> <li>Where are the key health, education, WASH, and market infrastructure located in Malakal Town and in the Malakal PoC site? <ol style="list-style-type: none"> <li>What is the functionality level of existing health, education, WASH, and market infrastructure?</li> <li>What are the ownership and maintenance structures in place for existing health, WASH, education, and market infrastructure?</li> <li>Which humanitarian actors (non-governmental organisations (NGOs) and international non-governmental organisations (INGOs), if any are supporting the existing health, education, and WASH service provision?</li> </ol> </li> <li>How accessible are the key infrastructure in the sectors of health, WASH, education and markets to people of various population groups present in the territorial unit?</li> </ol>	
<b>Geographic Coverage</b>	This area based assessment (ABA) will be conducted in Malakal Town and Malakal PoC site in Malakal County, Upper Nile State, South Sudan.	
<b>Secondary data sources</b>	<p>Various secondary data sources have been reviewed:</p> <p><b>Malakal</b></p> <ul style="list-style-type: none"> <li>REACH Initiative, <a href="#">Emergency Situation Overview: Sudan- South Sudan Cross Border Displacement</a>, June 2023</li> <li>United Nations Office for the coordination of Humanitarian Affairs (UN OCHA), <a href="#">Situation Report: Malakal Conflict Induced Displacement due to violent clashes in Malakal PoC (as of 23 June 2023)</a>, 26 June 2023</li> <li>The Guardian, <a href="#">SouthSudan: a level of human suffering I have never seen anywhere else</a> , April 26, 2016</li> <li>Small Arm Survey, <a href="#">Upper Nile Prepares to Return to War</a>, March 2023</li> <li>BBC News, <a href="#">South Sudan ceasefire 'ends' amid Malakal fighting</a>, 18 February 2014</li> <li>The Law, ICRC, <a href="#">South Sudan, Attack in Malakal UN Protection Site</a>,</li> <li>PAX, <a href="#">Voices on the Conflict in Malakal</a>, 1 February 2022</li> </ul> <p><b>Sudan Conflict</b></p> <ul style="list-style-type: none"> <li>IMPACT Initiatives, <a href="#">Sudan Crisis Thread</a> (regularly updated).</li> </ul>	

	<ul style="list-style-type: none"> <li>REACH Initiative, <a href="#">South Sudan displacement crisis: Critical conditions in areas of transit and return threaten health, wellbeing and sustainable integration</a>, September 2023</li> <li>REACH Initiative, <a href="#">Emergency situation overview: Sudan-South Sudan cross border displacement</a>, June 2023</li> </ul> <p><b>Intersectoral</b></p> <ul style="list-style-type: none"> <li>Integrated Food Security Phase Classification (IPC) 2022, <a href="#">Malakal population figures</a></li> <li>REACH Initiative, South Sudan Cash Working Group, <a href="#">Joint Market Monitoring Initiative</a></li> </ul>			
<b>Population(s)</b>	<input checked="" type="checkbox"/>	Host communities <sup>1</sup>	<input type="checkbox"/>	Refugees
	<input checked="" type="checkbox"/>	Returnees <sup>2</sup>	<input checked="" type="checkbox"/>	IDPs <sup>3</sup>
	<input checked="" type="checkbox"/>	Returnees in collective centers	<input type="checkbox"/>	[Other, Specify] #:
	<input checked="" type="checkbox"/>	Returnees in host communities		
<b>Stratification</b> <i>Select type(s) and enter number of strata</i>	<input type="checkbox"/>	Geographical # Population size per strata is known? <input type="checkbox"/> Yes X No	<input type="checkbox"/>	Group #: Population size per strata is known? <input type="checkbox"/> Yes X No
	<input type="checkbox"/>	Gender #: Population size per strata is known? <input type="checkbox"/> Yes X No	<input type="checkbox"/>	Type of settlement #: Population size per strata is known? <input type="checkbox"/> Yes X No
<b>Data collection tool(s)</b>	<input checked="" type="checkbox"/>	Structured (Quantitative)	<input checked="" type="checkbox"/>	Semi-structured (Qualitative)
	<b>Sampling method</b>		<b>Data collection method</b>	
<b>Semi structured data collection tool # 1</b> Mapping Focus Group Discussion	<input checked="" type="checkbox"/> Purposive		<input checked="" type="checkbox"/> Mapping Focus Group Discussion (MFGD) (Target #): 4 Malakal Town: 2 MFGDs (1 male, 1 female) Malakal PoC: 2 MFGDs (1 male, 1 female)	
<b>Structured data collection tool # 2</b> Facilities assessment tool	<input checked="" type="checkbox"/> Purposive		<input checked="" type="checkbox"/> Direct observation and key informant interviews (KIs) (Target #): All infrastructure in Malakal Town and Malakal PoC related to health, education, markets and WASH.	
<b>Disaggregation by gender and age</b>	Gender		Age	
	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	Yes

<sup>1</sup> Host communities are non-displaced persons, meaning South Sudanese people that have never been displaced from their habitual residence since the [onset of the conflict in December 2013](#).

<sup>2</sup> A returnee is the term used by the international community to identify a person who was a refugee but who has recently returned to his/her country of origin. Defining a returnee is thus applicable on a person's prior refugee status. [Returnees are therefore refugees who have re-entered their country but who have not yet re-integrated into their homes and communities](#).

<sup>3</sup> Internally displaced persons (IDPs) according to the United Nations Guiding Principles on Internal Displacement are persons of groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural human-made disasters, and who have not crossed an internationally recognized state border.

	<input checked="" type="checkbox"/>	No	<input checked="" type="checkbox"/>	No		
<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 #: 1	<input type="checkbox"/>	Report #: __	<input type="checkbox"/>	Profile #: __
	<input type="checkbox"/>	Presentation (Preliminary findings) #:	<input checked="" type="checkbox"/>	Presentation (Final) #: 2	<input checked="" type="checkbox"/>	Factsheet #: 2
	<input type="checkbox"/>	Interactive dashboard #:_	<input type="checkbox"/>	Webmap #: __	<input checked="" type="checkbox"/>	Map #: 10
<b>Access</b>	<input checked="" type="checkbox"/>	Public (available on REACH resource center 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> Specify which logos should be on outputs	<b>REACH</b>					
	<b>Donor:</b> BHA					
	<b>Partners:</b> None					
	<b>Coordination Framework:</b> Camp Coordination and Camp management Working Group (CCCM)					

## 2. Rationale

### 2.1 BACKGROUND

Malakal County, located in Upper Nile State, hosts the state capital in the city of Malakal. The fighting in and around Malakal town, following the outbreak of civil war in December 2013, resulted in the destruction of key infrastructure and institutions, including healthcare facilities, churches, and mosques. The county is yet to recover from the destruction caused by this conflict. It is classified as the Northern sorghum and livestock livelihoods zone, and communities in the county are mostly agropastoralists. The White Nile River runs through Malakal and is a key resource for transportation, connecting Malakal to Renk and Sudan.<sup>4</sup>

Malakal County hosts the Malakal Protection of Civilians (PoC) site, which is home to thousands of internally Displaced Persons (IDPs). The Malakal PoC is the last IDP camp under the protection of the UN Mission in South Sudan (UNMISS) and one the UN Mission has long sought to close. The Malakal PoC site was born out of the civil war that started in South Sudan on December 15, 2013. At the time, civilians were fleeing from attacks, and their only place of refuge was the UNMISS Base in Malakal.<sup>5</sup> Currently, the PoC site shelters around 35,000 IDPs<sup>6</sup>, with the prevailing perception that the external security landscape remains volatile. Recently a conflict broke out between two communities in the PoC in June 2023<sup>7</sup> resulting in the loss of life. Collaborative efforts between the South Sudanese government, UNMISS, and community leaders endeavour to reinstate tranquillity even if the situation within the PoC site remains volatile.<sup>8</sup>

Furthermore, since the outbreak of the Sudan conflict in April 2023, Malakal has borne the brunt of the crisis repercussions, emerging as a primary destination for newly arriving returnees coming in from Sudan. Many of these returnees, upon arrival at the Renk Sudan border, express intentions to either settle in Malakal or temporarily reside before continuing their journey

<sup>4</sup> Conflict Sensitivity Resource Facility (CSRf), [Malakal County, Upper Nile State](#)

<sup>5</sup> International Organization of Migration (IOM), [Malakal PoC Brief](#), 15 September 2021

<sup>6</sup> United Nations Childrens Fund (UNICEF), [Exploring the Struggles of Children Living in a Displaced Camp](#), 13 October 2023

<sup>7</sup> United Nations, [Influx of Returnees, Escalating Violence Thwarting Progress in Implementing South Sudan's Peace Accord, Special Representative Tells Security Council](#), 20 June 2023

<sup>8</sup> United Nations Mission in South Sudan, [UNMISS urges Malakal POC community leaders to address root causes of violence](#), 11 June 2023

to their respective areas of origin.<sup>9</sup> Adding to Malakal's responsibilities, the Bulukat Transit Center accommodates returnees from Sudan, providing a temporary haven as they await transportation to their final destinations.<sup>10</sup>

Malakal not only grapples with internal displacement issues but also shoulders the weight of aiding returnees amidst the backdrop of regional conflicts. Given the context there is important pressure put on infrastructures of Malakal. It is therefore important to map out infrastructure in the sectors of health, WASH, markets, and education. In the sectors of health, cholera outbreaks have been prevalent over the years.<sup>11</sup> Thus, it is important for partners to ascertain the number of health and sanitation facilities available in Malakal town and the Malakal PoC site. Concerning markets, factors such as currency depreciation<sup>12</sup> in South Sudan, coupled with high transport costs, have contributed to an increase in the prices of food and non-food items in both Malakal town and the Malakal PoC.<sup>13</sup> Consequently, communities in these areas face challenges in meeting their daily needs.

There are multiple humanitarian organizations offering services in Malakal Town and Malakal PoC. Malakal is marked by a chronic gap in the availability and functioning of public services even if there are multiple humanitarian organizations offering services in Malakal Town and Malakal PoC. Assessments by other humanitarian actors in the past have highlighted the limited availability of education facilities, and communities have also expressed their dissatisfaction with the quality of available services. In line with the above-highlighted concerns, this assessment aims to establish the capacities of existing WASH, market, health, and education facilities in Malakal through mapping the facilities and noting their functionality. Findings from this assessment will help humanitarian actors and government bodies in Malakal determine how they can support the stronger delivery of basic services.

## 2.1 INTENDED IMPACT

Malakal is still one of the major transit towns for returnees coming in from Renk as they flee Sudan. Of note is that a majority of this new arrivals are choosing to remain in Malakal and settle and join the host community. Some returnees from Sudan also have Malakal as their area of origin and are looking to build a life themselves in Malakal. Therefore, the existing infrastructure in Malakal Town is expected to serve more people than it did before April 2023. Through mapping the accessibility and availability of existing infrastructure in the sectors of health, WASH, education and markets, REACH aims to improve the ability of humanitarian actors, local government, and donors to plan how best to support the new arrivals and the local population in Malakal Town and its surrounding areas. This information when availed to government and humanitarian actors will inform their planning for service delivery in both Malakal Town and Malakal PoC.

## 3. Methodology

### 3.1 METHODOLOGY OVERVIEW

This ABA will be based on a mixed method approach. A qualitative participatory mapping exercise will be conducted by carrying out mapping focus group discussions (MFGDs) with community leaders, experts, and some host community members to identify the boundaries of Malakal Town and Malakal PoC and their infrastructures in the health, markets, WASH and education sectors. On completion of the MFGDs, REACH will hire enumerators to conduct a quantitative facilities assessment, during which REACH will conduct key informant interviews (KIIs) with subject matter experts using a GPS tracking Kobo tool, to map infrastructure. The assessment will be conducted in Malakal Town and Malakal PoC to allow for a better understanding of the capacity of existing infrastructure, and service providers to support both the host community and new arrivals from Sudan. Overall, this assessment will use the following tools:

#### Mapping focus group discussions

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<sup>9</sup> United Nations Office for the coordination of Humanitarian Affairs (UN OCHA), [Situation Report: Malakal Conflict Induced Displacement due to violent clashes in Malakal PoC \(as of 23 June 2023\)](#), 26 June 2023

<sup>10</sup> Internews, [Malakal Humanitarian Information Needs: Community Voices Bulletin](#), January 2024/Issue #7

<sup>11</sup> Government of South Sudan, [Ministry of Health Statement on Declaration of Cholera Outbreak in Malakal Upper Nile State](#), 8 March 2023

<sup>12</sup> Eye Radio, [South Sudan Pound Plunges to Record Low Against US Dollar](#), March 2024

<sup>13</sup> REACH Initiative, [South Sudan Joint Market Monitoring Initiative](#), February 2024

The mapping focus group discussions (MFGDs) will be conducted in a face-to-face setting using physical maps prepared by the REACH GIS Officer. The participants of the MFGDs in the two territorial units will be as follows:

### **MFGDs in Malakal Town**

MFGDs in Malakal Town will be conducted with participants who are community leaders, host community members, returnees and IDPs living in Malakal Town and experts in the sectors of WASH, markets, education and health where necessary. The aim of the MFGD will be to map Malakal Town community boundaries and to map infrastructure in the sectors of health, education, markets and WASH available and accessible to the various population groups in Malakal town and number them. Two MFGDs will be conducted in Malakal Town one with female participants and another will male participants. Each MFGD will have four to eight participants.

### **MFGDs in Malakal PoC**

Other MFGDs will be conducted in Malakal PoC with select community leaders in the PoC and IDPs who are knowledgeable about the community boundaries of Malakal PoC and to map infrastructure in the sectors of health, education, markets and WASH available and accessible to the various population groups in Malakal PoC and number them. 2 MFGDs will be conducted at the Malakal PoC one with female participants and another will male participants. Each MFGD will have four to eight participants.

### **Facilities assessment**

After the MFGDs are completed, the REACH team will proceed to conduct a quantitative facilities assessment. During the facilities assessment data collection, enumerators will use smartphones with the Kobo collect and Maps.me applications installed to complete an infrastructure questionnaire by interviewing key informants who will be subject matter experts such as market vendors, water point vendors, health: doctors, nurses or facility managers, and education: head teacher, school director or professors at the relevant infrastructure point. Infrastructure to be mapped will have been pre-identified during the MFGDs. To ensure all of the infrastructures are mapped during the facilities assessment, the REACH GIS team will survey the satellite imagery of the area to be mapped and create grids of 250 m by 250 m in areas for both Malakal Town and Malakal PoC. These grids will then be loaded into Maps.me on each enumerators' phone. Enumerators will then be given a list of squares to complete on a daily basis after having been trained and advised to ensure they traverse each square until they have covered all the infrastructure in health, WASH, education, and markets. When encountering an infrastructure point within the square, they will use the Kobo collect tool to collect information such as GPS coordinates and the functionality of the facility. Supervisors will monitor which squares have been completed and they will reassign squares where necessary to ensure that all inhabited squares in the area of interest are covered.

### **Key definitions**

#### **Territorial unit:**

A territorial unit is a geographically defined space. The boundaries of an area can be administrative or defined by natural geography such as waterways.<sup>14</sup> Humanitarian agencies usually use the term area to refer to their territory of intervention for multisector programming, which can vary widely in size from a single neighborhood to an entire region or governorate. It is usually aligned with existing administrative boundaries. For this assessment we will have two separate territorial units as follows:

1. Malakal Town
2. Malakal PoC site

Malakal Town has been selected as the territorial unit as it is considered as the most impactful scale for localized humanitarian or humanitarian development interventions with regards to the returnees' response as tens of thousands of people fleeing the war in Sudan transit through Malakal.<sup>15</sup> The second territorial unit is Malakal PoC. The PoC has been

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<sup>14</sup> Global Shelter Cluster, [Settlement Approaches in Urban Areas Working Group](#), 24 April, 2018

<sup>15</sup> UN OCHA, [South Sudan: Response to the Sudan Crisis Situation Report No. 27 \(As of 16 February 2024\)](#), February 2024

selected as a territorial unit because the presence of IDPs in the camp impacts service delivery both within the Malakal PoC itself and in Malakal Town. Service delivery and management in the POC is largely done by humanitarian actors in the PoC and IDPs can access most services within the PoC. The findings of the MFGDs and facilities assessment will be representative at the territorial unit level.

**Community:** A group of people with common characteristics and a shared identity (cultural/social) and/or shared resources that unite a larger society. For this assessment, community refers to the various population groups in Malakal that include the host community, returnees and IDPs in the Malakal PoC and IDPs in the Daniel Comboni IDP site.

**Host community:** Host communities, i.e., non-displaced persons, include South Sudanese people that have never been displaced from their habitual residence.

**Returnee:** The term used by the international community to identify a person who was a refugee but who has recently returned to his/her country of origin. Defining a returnee is thus applicable on a person's prior refugee status. Returnees are therefore individuals who have re-entered their country<sup>16</sup>. For this assessment, returnees refer to South Sudan nationals who were refugees in Sudan and are now returning to South Sudan due to the ongoing conflict in Sudan.

**IDPs:** Internally displaced persons (IDPs) according to the United Nations Guiding Principles on Internal Displacement are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural human-made disasters, and who have not crossed an internationally recognized state border.<sup>17</sup> In the case of Malakal IDPs reside within the Malakal PoC site and in the Daniel Comboni IDP site located in Malakal Town.

**New arrivals:** The term new arrivals refer to South Sudanese returnees and Sudanese refugees who have recently arrived in South Sudan after crossing the border from Sudan and are either currently living in the Bulukat Transit Center run by humanitarian actors or have settled in the host community in Malakal Town.

### **WASH definitions**

**Water services and infrastructure:** Water services and infrastructure relate to available services to make water accessible for the territorial unit population. These include water supply services such as water stations and water trucking initiatives, water treatment services and water resource management. This term also includes water-based transportation systems such as pipelines for irrigation.

**Sanitation infrastructure:** For this assessment, sanitation infrastructure is related to public latrines used by the community for defecation purposes.

**Water Governance and Management:** This refers to the political, social, economic, and administrative systems in place that can influence water use and management. It determines the equity and efficiency in water resource and services allocation and distribution and balanced water use between socio economic activities and ecosystems.

**Water Network:** Water networks are a system of pipes and trenches providing the appropriate quality and quantity of water to a community.

**Water point:** The water point in this assessment refers to all waters of the state where people access water for agricultural, recreational, commercial, public, domestic and consumption purposes. These could be surface water in natural or artificial channels, lakes, reservoirs, rivers, public and private wells, public taps, public handpumps and public boreholes.

### **Health definitions**

**Health infrastructure:** This refers to any physical facilities that make health care accessible. For this assessment, health care infrastructure includes the number of beds, physical buildings hosting the health facilities and a reliable supply of pharmaceuticals such as medicine.

**Health facility:** For this assessment a health facility refers to any infrastructure where healthcare is provided and may include hospitals, healthcare centers, pharmacies and drug stores and medical laboratories and research centers. The term will include both privately and publicly owned health facilities. The health facilities must be licensed to operate in the area.

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<sup>16</sup> United Nations Human Rights Office, [Monitoring and protecting the human rights of returnees and internally displaced persons](#)

<sup>17</sup> UNHCR, [About internally displaced persons](#)

**Health workers:** Health workers in this assessment will be considered as either health professionals, health associate professionals, and health management in hospitals or public health centers.

### Education definitions

**Education infrastructure:** This refers to any infrastructure in school that helps to provide students with a learning atmosphere. For this assessment education infrastructure includes classrooms in schools, school kitchen, administration blocks in the school compound and latrines within the school compound.

## 3.1 POPULATION OF INTEREST

### 3.1.1 Geographic areas assessed

Data collection will be conducted in Malakal Town and Malakal PoC site. The main criteria for the selection of our study areas, Malakal Town and the Malakal PoC site is that they are serving as a safety net to returnees coming in from Sudan by acting as a transit area for people coming in from Sudan while some chose to resettle. This assessment will map infrastructure related to health, markets, WASH and education located in the geographical boundaries of Malakal Town and Malakal PoC site.<sup>18</sup> All of Malakal Town and all of the Malakal PoC site will be assessed.

### 3.1.2 Population groups assessed

The population of interest will be the returnees, IDPs and host community living in Malakal Town. The ABA will focus on South Sudanese returnees in Malakal Town who have arrived from Sudan since the beginning of the Sudan crisis in April 2023, and the host community in Malakal Town. In the Malakal PoC the population of interest will be IDPs living within the PoC.

## 3.1 SECONDARY DATA REVIEW

Primary data collected with the infrastructure mapping tool will be partly analyzed with the use of secondary data. Using the [GRID3](#) World Population Dataset, REACH will calculate the approximate number of people living more than 250 meters from WASH infrastructure and the approximate number of people sharing each infrastructure point, to test the adherence to international norms such as the sphere standards and to identify locations that are relatively undeserved.

The main secondary data sources for this assessment include:

### Malakal

- REACH Initiative, [Emergency Situation Overview: Sudan- South Sudan Cross Border Displacement](#), June 2023
- The Guardian, [South Sudan: a level of human suffering I have never seen anywhere else](#), April 26, 2016
- Small Arms Survey, [Upper Nile Prepares to Return to War](#), March 2023
- BBC News, [South Sudan ceasefire 'ends' amid Malakal fighting](#), 18 February 2014
- The Law, ICRC, [South Sudan, Attack in Malakal UN Protection Site](#),
- PAX, [Voices on the Conflict in Malakal](#), 1 February 2022
- United Nations Office for the coordination of Humanitarian Affairs (UN OCHA), [Situation Report: Malakal Conflict Induced Displacement due to violent clashes in Malakal PoC \(as of 23 June 2023\)](#), 26 June 2023

### Sudan Conflict

- The International Organization for Migration (IOM), [Sudan Crisis: Displacement Tracking Matrix](#).
- IMPACT Initiatives, [Sudan Crisis Thread](#) (regularly updated).
- Internews, DEMAC, [Elevating communication and engagement in Sudan's growing humanitarian crisis: Priority actions for decision makers and practitioners](#), August 2023.

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<sup>18</sup> Internews, [Information needs, preferences and barriers for displaced communities in Malakal, South Sudan](#), January 2024



## Intersectoral

- Intergrated Food Security Phase Classification (IPC) 2022, [Malakal population figures](#)
- REACH Initiative, South Sudan Cash Working Group, [Joint Market Monitoring Initiative](#)

## 3.1 PRIMARY DATA COLLECTION

### 3.1.1 Method

This assessment will use a mixed method approach. Qualitative data will be collected by conducting MFGDs while quantitative data will be collected by use of the facilities assessment tool on KOBO. Data collection for the assessment will be conducted in Malakal Town and Malakal PoC, Malakal County, South Sudan in April 2024. Malakal Town and Malakal PoC site were selected as the area of assessment after discussions with humanitarian actors in Malakal County and the camp coordination and camp management lead in Malakal it was agreed that there was a need for more up-to-date information on the sectors of WASH, education, health, and markets for current and future programming.<sup>19</sup>

### Mapping Focus Group Discussions

Data for the two MFGDs will be collected by REACH enumerators and will be supervised by the REACH GIS Officer and the Assessment Officer (AO). A set of maps will be prepared prior to the start of the mapping and will be used for the exercise. The MFGDs are focused on area delineation by identifying area and community boundaries that may define the community in Malakal because we are interested in understanding the geographical boundaries of the city as well as mapping the main roads in and out of the areas. The MFGD facilitator will orient the participants on the map of the area and point out the pre-identified landmarks and make sure the participants have familiarized themselves with the map before starting the exercise. A tool for use during the MFGDs will be developed for use, the tool includes questions on delineation of community boundaries and questions on the locations of infrastructure in the sectors of health, markets, WASH, and education. Participants will also be asked about the location of the various population groups in Malakal Town.

### Facilities assessment

The facilities assessment will only begin after the MFGDs have been completed. The MFGDs will provide information on the delineation of community boundaries in Malakal Town and Malakal PoC. For the infrastructure pre-identified during the MFGD, the facilities assessment tool will be used to assign them their precise GPS locations. Data will be collected by enumerators hired by REACH; the enumerators will be supervised by the GIS officer and the AO. Prior to data collection, a two-day data collection training will be conducted with enumerators followed by a data collection pilot. Enumerators will then be assigned a list of 250m by 250 m squares on a daily basis. Using the maps.me app, enumerators will locate their squares and traverse them in a zigzag fashion in order to find all relevant health, education, WASH, and market infrastructure located within them. Once enumerators have found any infrastructure from any of the four sectors, they will open the Kobo collect tool, record their position using the GPS function and answer a set list of questions about the point they have located. Among other things, the tool includes questions about the type of infrastructure, the functionality of the infrastructure point, who can and who cannot use it, and whether payment is required to use it. In order to be more operational, data on damages and challenges should be quite detailed to allow partners tailor interventions. Some of the required information may need to be gathered from people nearby, such as any individuals collecting water, or households who use a particular latrine. For the health, school and education infrastructure functionality questions will be asked to subject matter experts in the various sectors who include professionals at the infrastructure working in the specific fields including doctors or nurses or teachers. Questions for the WASH sectors people at the water point may be asked to people fetching water at the river or borehole. Enumerators are encouraged to speak with local residents about the WASH, health, education and market infrastructure. In instances when no one is available to answer or none of the persons at the infrastructure point are willing to answer the enumerator will end the interview and consult the REACH GIS officer who will in turn look for an alternative community leader who may have information on the public infrastructure and interview them to ensure all infrastructure in the sectors

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<sup>19</sup> OXFAM: Fresh surge in returnees is “worrying” as funding continues to dry on Sudan crisis response.

of interest is mapped. If there is no infrastructure in one of the grids or if it's located in an insecure area enumerator can also report this in the Kobo collect tool and proceed to the next square. The supervisors will check the progress made by enumerators on a daily basis and reassign squares where necessary.

### 3.1.2 Sampling

#### Mapping Focus Group Discussions

A semi structured questionnaire and reference maps produced by REACH will be used for the territorial unit mapping exercise with host community members, community leaders and /or IDPs. The participants of the MFGDs will be identified through purposive sampling by relying on the local knowledge and the connections of the Relief Rehabilitation Commission (RRC) in Malakal. A total of two MFGDs will be conducted in the territorial unit, one with participants knowledgeable about Malakal Town and another with participants knowledgeable about Malakal PoC. Each MFGD will have a total of 4 to 8 participants in each session. The themes that will be covered during the MFGDs include mapping of Malakal Town and Malakal PoC boundaries, identifying the population groups residing in each territorial unit, and mapping of the locations water points, sanitation, health facilities, education facilities and markets.

#### Facilities assessment

Using the mapping boundaries identified during the participatory mapping sessions, Malakal Town and Malakal PoC will be divided into polygons and further subdivided into grids squares of 250 meters of side length. Data will then be collected on the health, WASH, education, and market infrastructure available in each of the grid squares. Once data collection is complete REACH will be able to count and share with partners the total number of infrastructure available in both territorial units.

### 3.1.3 Tool

#### Mapping Focus Group Discussions

The participatory mapping exercise will use a semi structured tool to map out Malakal Town and Malakal PoC boundaries and the important health, market education and WASH services and infrastructure. The REACH team will conduct MFGDs with community leaders in Malakal. Prior to the assessment the REACH GIS Officer will produce maps that include points of the territorial unit for familiarization. These points characteristics include landmarks such as mosques, schools, health centers, roads as well as geographical characteristics like rivers, lakes, and mountain areas that are visible through satellite imagery to help MFGD participants situate themselves on the map. The maps will be on different scales and levels. Two MFGDs will be conducted, one in Malakal Town and another in Malakal PoC, to ensure that data on all parts of the town is collected. The MFGDs will be disaggregated by gender to ensure that the voice of women and men is represented due to the community context in Malakal. REACH will have community leaders with knowledge on the various parts of Malakal Town and Malakal PoC present during the MFGDs. MFGD participants will cover the health, education, markets and WASH sectors and participants will be asked to provide the approximate locations of the schools, health centers, water points. During the MFGDs, REACH use two maps as follows:

Reference map 1 will aim to cover:

- **Map familiarization:** to help participants read the map.
- **Territorial unit delineation:** identifying the boundaries of Malakal Town.
- **Main Roads:** main roads in and out of the territorial unit and what the road is used for.

Reference map 2 will aim to cover:

- **Water points:** covering the type of water points that are present in the area, who is responsible for the maintenance or management of the water point, how available the water point is to the population, and whether the water is safe to drink or not.
- **Sanitation facilities:** covering the type of latrine (public latrine or place for open defecation), who is responsible for the sanitation facility and how available it is to the population.

- **Markets:** Covering the type of market that is present in the area, if there is any damage to the market, market availability and how often the market is open.
- **Health facilities:** covering the type of health facilities and who is responsible for these health facilities.
- **Education facilities:** covering the public and private school facilities and where they are located in the town and highlighting whether they are damaged or not.

These MFGDs will contribute to a baseline understanding of the territorial unit services and infrastructure. Questions around availability and challenges the population faces with the infrastructure in the sectors of health, WASH, education and markets in the territorial unit. The participants' perception of ownership and responsibility for maintenance or management will also be noted. During the discussions the enumerators will note down any disagreements that arise during the discussion on infrastructure in the four sectors. The MFGDs will be carried out in the community with key informants potentially including service providers and community representatives. The participants will be purposively sampled and identified by REACH with the help of the RRC in Malakal County. The interviewer will use the questioning route as prepared by the REACH South Sudan assessment team and listed in the detailed data analysis plan supported by a note taker taking the notes. After each session the enumerator and note taker will complete the debrief form and will focus in whether the participants understood the questions and flagging any missed points.

### **Facilities assessment**

After the MFGDs are complete, the REACH team will use a quantitative tool developed by the AO and the GIS Officer to collect further precise information on the location of infrastructure in our sectors of interest. The specific questions to be included in the tool will be spelt out in the data analysis plan. The tool will then be deployed on kobo collect for use during data collection.

#### **3.1.4 Briefing/Training of enumerators**

### **Facilities assessment**

A two-day enumerator training will be conducted to train enumerators on how to use smartphones to conduct primary data collection for the facilities assessment exercise in the designated urban or peri-urban setting. Enumerators will be trained on how to record the location and condition of basic infrastructure of all infrastructure in the area. Prior to the start of the assessment, the GIS Officer will collate information collected from the MFGDs on community boundaries and the location of infrastructure in Malakal Town before dividing Malakal Town into square grids of 250 by 250 m each. During the training, enumerators will be trained on how to use Maps.me to navigate their assigned grid, for places where no facility is reportedly present, enumerator will fill "empty place" inside the middle the grid. Once an enumerator has covered a grid, the grids colour will be changed to distinguish them from those yet to be assessed, this will be counter verified during data cleaning by spatially verifying the covered grids through the collected points. In the ODK mapping tool, enumerators will be prompted twice to confirm that they have checked their assigned grid and found no extra WASH, health, education, or market infrastructure within. To avoid overlap, each enumerator will be advised during the training to only visit the grids they are assigned.

During the enumerator training the AO focal person will ensure the following:

- Ensure a work plan distributing the grids to be covered per enumerator by date is shared with the enumerators. The work plan should be reflected in the Kobo collect form so that only the grids an enumerator is assigned to appears when the enumerator code is inputted.
- Share with enumerators a memo on best practices to be followed which will be part of training manual that can be referred to whenever any clarification is needed. For example, security places shouldn't be mapped as these are sensitive areas that might get REACH staff into trouble.
- Advice enumerators to ensure daily logging of the challenges faced during data collection for future considerations and planning.

At the end of each day of data collection, the GIS Officer will produce a progress map showing the covered grids and those that are still empty. This map will then be used to advise enumerators on progress during the daily briefing. Action points from the day based on lessons learnt from the previous days data collection will also be shared with enumerators during the daily briefings.

**Table 2: Description of tools and sampling methods used for data collection.**

Label	Method	Objective	Structure	# of surveys	Population of interest	Sampling
Mapping Focus Group Discussions	Mapping Focus Group Discussions	Delineation of the Malakal Town and Malakal PoC site and identification of key infrastructure.	Semi-structured participatory mapping tool	4 MFGDs in the territorial units (2 in Malakal Town, 2 Malakal PoC).	Community members with a knowledge of the territorial unit boundaries and the location of WASH, education, health, and market infrastructure location.	Purposive
Facilities assessment	Structured interview	On completion of the MFGDs REACH will deploy the facilities assessment tool to collect data on the precise location of infrastructure in the territorial unit by getting the GPS points and collecting data on the functionality of the mapped infrastructure.	Structured	Dependent on the number of infrastructures in each of the sectors in the territorial unit	Key informants: community leaders, service providers, local authorities, and local experts	Purposive

### 3.1 DATA PROCESSING AND ANALYSIS

#### 3.1.1 Data entry and cleaning process

##### Mapping Focus Group Discussions

On completion of the MFGDs, the REACH GIS Officer will photograph the maps produced during the MFGD session and upload the data into GIS software. If there is sufficient data saturation and the GIS officer has collected almost all the information required according to the MFGD questionnaire, they will proceed with mapping out the territorial unit in GIS software. If there is insufficient data saturation, the GIS officer will triangulate available data with secondary sources and

data collected using the facilities assessment tool. The area delineation product from this exercise will then be used during the infrastructure mapping and facilities assessment as REACH engages enumerators to collect data on the precise location of all the infrastructure identified during the MFGDs and any other public infrastructure that may have been missed during the MFGDs.

### Facilities assessment

All data from the facilities assessment surveys will be entered into KOBO collect and uploaded daily onto the KOBO server. Daily data cleaning will be conducted by the GIS officer to identify potential errors and anomalies as established in [IMPACT's Data Cleaning Minimum Standards Checklist](#). The data checking process will include a review of internal logic and comparing individual records to identify potential data entry errors and standardise answers. Daily spatial verifications will be done by the GIS officer to check on the GPS points, facility types and names and to check that all areas within Malakal Town. The outcomes of the data quality checks will form a basis for retraining the enumerators before further data collection the next day.

### 3.1.2 Data analysis process

The data analysis for the infrastructure mapping will be conducted by the GIS Officer and the Assessment Officer. On finalization of data cleaning, the facilities assessment data will be analysed through R statistical software and MS Excel and will include descriptive statistics using quantitative analysis and more advanced statistical analysis where appropriate. The analysis will include generating key summary statistics such as the number of infrastructure points per settlement and the ratio of functional versus non-functional infrastructure such as water points and latrines. The findings from this analysis will then be combined with population data in order to compare conditions to international humanitarian standards. Once data analysis is complete, the findings will be discussed, and a report developed.

## 4. Key ethical considerations and related risks

The proposed research design meets / does not meet the following criteria:

<b>The proposed research design...</b>	<b>Yes/ No</b>	<b>Details if no (including mitigation)</b>
... Has been coordinated with relevant stakeholders to <b>avoid unnecessary duplication</b> of data collection efforts?	Yes	
... <b>Respects respondents, their rights and dignity</b> ( <i>specifically by: seeking informed consent, designing length of survey/ discussion while being considerate of participants' time, ensuring accurate reporting of information provided</i> )?	Yes	
... Does not <b>expose data collectors to any risks as a direct result</b> of participation in data collection?	No	Enumerators will be traversing communities and may face security risks doing so. In order to prevent any security incident from happening enumerators will move in pairs and not move into areas that are considered to be associated with safety risks or national security. The enumerators will be recruited locally.

... Does not <b>expose respondents / their communities to any risks as a direct result</b> of participation in data collection?	Yes	
... Does not involve <b>collecting information on specific topics which may be stressful and/ or re-traumatising</b> for research participants (both respondents and data collectors)?	No	Indicators on social cohesion will be designed to, as much as possible, avoid re-traumatization. This is because returnees from Sudan have recently witnessed a war and some questions on social cohesion could be sensitive in such a context. Tools will be closely vetted to ensure they are sensitive to the context. Respondents are also free to stop the interview if they feel uncomfortable or do not wish to continue and will be clearly informed about their rights.
... Does not involve <b>data collection with minors</b> i.e., anyone less than 18 years old?	Yes	
... Does not involve <b>data collection with other vulnerable groups</b> e.g., persons with disabilities, victims/ survivors of protection incidents, etc.?	No	Even though we do not plan to specifically target vulnerable groups as part of this assessment they might be randomly or purposively sampled as part of the MFGDs. Our enumerators will therefore be trained to treat all participants respectfully and with dignity.
... Follows IMPACT SOPs for management of <b>personally identifiable information</b> ?	Yes	

## 5. 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>	Assessment Officer	Research Manager	IMPACT-HQ Research Department (Africa and Europe unit) , REACH Deputy Country Coordinator (Programs)	REACH Country Coordinator
<i>Supervising data collection</i>	GIS Officer	Research Manager	REACH Country Coordinator and REACH Deputy Country Coordinator (Programs)	IMPACT-HQ RDDU U
<i>Data processing (checking, cleaning)</i>	GIS Officer	Research Manager	Senior GIS Officer, Research Manager	IMPACT-HQ RDDU , REACH Country Coordinator
<i>Data analysis</i>	Research Manager, GIS Officer	Research Manager	Senior GIS Officer, REACH Deputy Country Coordinator (Programs) and IMPACT-HQ RDDU	Donors, REACH Country Coordinator,

Output production	Assessment Officer/Research Manager, GIS Officer	Research Manager	Senior GIS Officer, REACH Deputy Country Coordinator (Programs), IMPACT-HQ Research Reporting Unit (RRU) and ABA Specialist (HQ)	REACH Country Coordinator, FCDO (Donor)
Dissemination	Research Manager	Coordination	Cluster/Working Group Coordinators, REACH Country Coordinator	IMPACT-HQ RRU, ICCG, Clusters/Working Groups, FCDO (Donor)
Monitoring & Evaluation	Focal Point	Research Manager	IMPACT-HQ Research Department (MEL unit)	REACH Country Coordinator, FCDO (Donor)
Lessons learned	GIS Officer	Research Manager	Senior GIS Officer, REACH Country Coordinator	IMPACT-HQ RDDU, IMPACT-HQ RRU

**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

**NB: Only one person can be Accountable; the only scenario when the same person is listed twice for a task is when the same person is both Responsible and Accountable.**

#### 4. Data Analysis Plan

- Kindly find the link to the [data analysis plan](#) for the facilities assessment and the participatory mapping surveys.

#### 5. 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	# 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		
	Number of individuals accessing IMPACT services/products	# 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		<input type="checkbox"/> Yes
<b>IMPACT activities contribute to better program implementation and coordination of the humanitarian response</b>	Number of humanitarian organisations utilizing IMPACT services/products	# references in HPC documents (HNO, SRP, Flash appeals, Cluster/sector strategies)	Country team	Reference_log	2024 Humanitarian Needs Overview (HNO) 2024 Humanitarian Response Plan (HRP)
		# references in single agency documents			Cluster/Working Group response strategies.
<b>Humanitarian stakeholders are using IMPACT products</b>	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_Feedback and Usage_Survey template	Survey monkey: As part of regular dissemination email, survey monkey sent every six months to assess usage of REACH products.
		Perceived usefulness and influence of IMPACT outputs			
		Recommendations to strengthen IMPACT programs			
	Number of humanitarian documents (HNO, HRP, cluster/agency strategic plans, etc.) directly informed by IMPACT products	Perceived capacity of IMPACT staff			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 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 (providing resources, participating to presentations, etc.)	# 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