Research Terms of Reference

WASH Infrastructure Mapping 2020/2021
SSD1909
South Sudan

May 2021
Version 5

REACH Informing more effective humanitarian action

1. Executive Summary

Country of intervention	South Sudan					
Type of Emergency	□	Natural disaster	x	Conflict	□	Other *(specify)*
Type of Crisis	□	Sudden onset	□	Slow onset	x	Protracted
Mandating Body/ Agency	*UNICEF; the German Corporation for International Development (GIZ)*					
IMPACT Project Code	*32 EGU/APF (UNICEF), 32 ECS/AMJ (GIZ)*					
Overall Research Timeframe	01/12/2020 to 31/11/2021					
Research Timeframe	1. Pilot/ training: 07/12/2020			6. Preliminary presentation: NA		
	2. Start collect data: 09/12/2020			7. Outputs sent for validation: 30/09/2021		
	3. Data collected: 16/04/2021[1]			8. Outputs published: 15/09/2021		
	4. Data analysed: 16/04/2021			9. Final presentation: NA		
	5. Data sent for validation: 22/04/2021					
Number of assessments	□	Single assessment (one cycle)				
	x	Multi assessment (more than one cycle) *Five assessments will take place, with the exact timing of the assessments to be based on team capacity and donor/partner priorities. A one-time secondary data analysiss will be conducted to accompany these assessments.*				
Humanitarian milestones *Specify **what** will the assessment inform and **when*** *e.g. The shelter cluster will use this data to draft its Revised Flash Appeal;*	**Milestone**			**Deadline**		
	x	Donor plan/strategy		31/08/2021		
	□	Inter-cluster plan/strategy		_ _/_ _/_ _ _ _		
	□	Cluster plan/strategy		_ _/_ _/_ _ _ _		
	□	NGO platform plan/strategy		_ _/_ _/_ _ _ _		
	□	Other (Specify):		_ _/_ _/_ _ _ _		
	Audience type			**Dissemination**		

[1] Multiple rounds of data collection will take place, and data will be cleaned and submitted for review in batches. The exact timing of each assessment is to be confirmed. Factsheets for all assessed locations will be published at the same time, after all data collection has been completed.

Audience Type & Dissemination	□ Strategic x Programmatic □ Operational □ [Other, Specify]	**x** General Product Mailing (e.g. mail to NGO consortium; HCT participants; Donors) □ Cluster Mailing (Education, Shelter and WASH) and presentation of findings at next cluster meeting □ Presentation of findings (e.g. at HCT meeting; Cluster meeting) □ Website Dissemination (Relief Web & REACH Resource Centre) □ [Other, Specify]
Detailed dissemination plan required	□ Yes	x No
General Objective	To support evidence-based WASH partner interventions in South Sudan by mapping water and sanitation infrastructure, providing information on the functionality of this infrastructure, and reviewing secondary data on WASH conditions in select locations.	
Specific Objective(s)	1. To map the locations of WASH infrastructure (water points and latrines) in select (peri-) urban and rural areas in South Sudan 2. To inform partners on the type, functionality, and material make-up of the mapped WASH infrastructure points 3. To inform partners of overall WASH needs in their areas of operation, through a review of available secondary data.	
Research Questions	1. What are the locations of key WASH infrastructure (water points and latrines) in select areas of South Sudan? 2. What is the functionality of existing WASH infrastructure in select areas of South Sudan? 3. Which locations (areas/neighbourhoods/settlements) are relatively underserved by functional WASH infrastructure? 4. What are the ownership and maintenance structures in place for existing WASH infrastructure? 5. What are the overall WASH needs in 11 counties specified by UNICEF to be of interest, and how do counties compare among each other? a. What is the level of access to water in the counties of interest? b. What is the level of access to sanitation in the counties of interest? c. What are the health coutcomes in the counties of interest, specifically as they relate to water-borne diseases? d. What is the level of access to WASH non-food items in the counties of interest?	
Geographic Coverage	Primary counties/locations of interest: Yambio County, Ezo County, Nzara County, Ikotos County, Torit County, Lafon County, Magwi County, Rumbek North County, Rumbek East County, Rumbek Centre County, Wulu County, Bor Town, Yambio Town, Torit Town Additional infrastructure mapping assessments may take place in other locations identified by the WASH cluster or other relevant partners.	
Secondary data sources	• GRID3 World Population Dataset • REACH Area of Knowledge (AoK) key informant data • Food Security and Nutrition Monitoring System (FSNMS) household level data	

	• International Organisation for Migration (IOM) Displacement Tracking Matrix (DTM) key informant data					
Population(s) *Select all that apply*	x	IDPs in camp		□	IDPs in informal sites	
	x	IDPs in host communities		□	IDPs [Other, Specify]	
	□	Refugees in camp		□	Refugees in informal sites	
	x	Refugees in host communities		□	Refugees [Other, Specify]	
	x	Host communities		□	[Other, Specify]	
Data collection tool(s)	x	Structured (Quantitative)		□	Semi-structured (Qualitative)	
	Sampling method			**Data collection method**		
Structured data collection tool # 1 Infrastructure mapping tool	□ Purposive □ Probability / Simple random □ Probability / Stratified simple random □ Probability / Cluster sampling □ Probability / Stratified cluster sampling x Census			□ Key informant interview (Target #):_ _ _ _ _ □ Group discussion (Target #):_ _ _ _ _ □ Household interview (Target #):_ _ _ _ _ □ Individual interview (Target #):_ _ _ _ _ x Direct observations (Target #): all □ [Other, Specify] (Target #):_ _ _ _ _		
Structured data collection tool # 2 Key Informant Interview tool	X Purposive □ Probability / Simple random □ Probability / Stratified simple random □ Probability / Cluster sampling □ Probability / Stratified cluster sampling □ [Other, Specify]			x Key informant interview (Target #): 3 □ Group discussion (Target #):_ _ _ _ _ □ Household interview (Target #):_ _ _ _ _ □ Individual interview (Target #):_ _ _ _ _ □ Direct observations (Target #):_ _ _ _ _ □ [Other, Specify] (Target #):_ _ _ _ _		
Data management platform(s)	x	IMPACT		□	UNHCR	
	□	[Other, Specify]				
Expected ouput type(s)[2]	□	Situation overview #: 1	x	Report #: 1	□	Profile #: _ _
	□	Presentation (Preliminary findings) #: _ _	□	Presentation (Final) #: _ _	x	Factsheet #: 5
	□	Interactive dashboard #:_	□	Webmap #: _ _	x	Map #: 5
	□	[Other, Specify] #: _ _				
Access	x	Public (available on REACH resource center and other humanitarian platforms)				
	□	Restricted (bilateral dissemination only upon agreed dissemination list, no publication on REACH or other platforms)				
Visibility	***REACH***					
	Donor: *UNICEF, GIZ*					
	Coordination Framework: *WASH Cluster*					
	Partners: *Mentor Initiative, CEDS, IAS*					

2. Rationale

2.1 Background

[2] Outputs will include one report on the secondary data review, and five sets of factsheets and maps presenting the data from the infrastructure mapping assessments.

The dynamic and multi-faceted nature of the South Sudanese displacement crisis has created significant challenges for the delivery of humanitarian aid. Accessibility and security issues within South Sudan have impeded a systematic understanding of WASH needs in many areas of the country. This has created difficulties in establishing a clear and unambiguous system for prioritising the delivery of aid, thereby limiting the effectiveness of humanitarian planning and limiting the potential impact of donor funding. As this crisis continues to expand, evolve and spill into neighbouring countries, it has become increasingly important to fill information gaps in a systematic and comprehensive manner to inform a more effective humanitarian response and planning for immediate life-saving WASH activities and contingency planning for durable solutions. REACH has previously conducted WASH infrastructure mapping exercises in order to meet these aims, and will continue to do so under the current project.

2.2 Intended impact

UNICEF has requested REACH's support in laying the evidence base for its new programme, called "Sustainable WASH for Resilience", which will focus on 11 counties (Yambio County, Ezo County, Nzara County, Ikotos County, Torit County, Lafon County, Magwi County, Rumbek North County, Rumbek East County, Rumbek Centre County, Wulu County) as well as Bor Town. REACH's support for this programme will consist of four infrastructure mapping exercises: one each in Eastern Equatoria, Western Equatoria, and Lakes States, and one in Bor Town. WASH infrastructure mapping is conducted by enumerators, who use direct observation to record the functionality and other key characteristics of all water points and latrines in a defined area. Additionally, Key Informant Interviews are conducted with individuals who have good knowledge of WASH conditions in the local area, such as staff working for humanitarian organisations and local authorities. Through these assessments, REACH will also train three partner organisations in the use of the infrastructure mapping tools. REACH will subsequently provide remote support to these partners to enable them to carry out their own assessments. The data from these assessments will be used by the implementing partners to inform their infrastructure programming under the Sustainable WASH for Resilience programme. Specifically, it will allow them to identify which locations are particularly underserved with (functional) WASH facilities, and prioritise areas for infrastructure construction and rehabilitation accordingly. Finally, REACH will analyse existing data on WASH needs across the 11 counties of interest, including from its own Area of Knowledge (AoK) project, and from other partners and organisations, in order to identify specific WASH-related needs at the county level. This information may then be used by partners to further inform their programming, in addition to the infrastructure mapping data. Further infrastructure mapping assessments will take place with GIZ funding in locations to be identified in coordination with the WASH Cluster or other relevant partners.

3. Methodology

3.1 Methodology overview

The primary activity under this project is infrastructure mapping. Enumerators will use smartphones with the KoboCollect and Maps.me apps installed in order to find the area they should be mapping, and to complete a questionnaire about every infrastructure point they encounter in this area. Prior to each assessment, REACH's GIS team surveys satellite imagery of the area to be mapped. Where this area contains (peri-) urban locations or settlements that have more than one major street, they will create a grid of 250m² squares. These grids are loaded into Maps.me on each enumerator's phone. Every day, enumerators are then given a list of squares to complete. They are instructed to traverse each square until they are confident that they have covered all WASH infrastructure within it. When they encounter a WASH infrastructure point, they will use the KoboCollect tool to collect information such as GPS coordinates, functionality, materials, cost, ownership, etc. (Please see the Data Analysis Plan for all indicators.) On a daily basis, supervisors will monitor which squared have been completed, and they will reassign squares where necessary to ensure that all inhabited squares in the area of interest are covered. Additionally, supervisors will complete key informant interviews with individuals who are expected to have good knowledge of local WASH conditions, such as staff working for NGOs or local authorities. These key informants will be selected purposively, including through a snowballing approach. The interviewers will use a structured tool, which is available in KoboCollect. Finally, this project will include a review of available secondary data; for more information, please see section 3.3.

3.2 Population of interest

Populations residing in in select payams in Yambio, Nzara, Ezo, Torit, Ikotos, Magwi, Lafon, Wulu, Rumbek North, Rumbek Centre, and Rumbek East Counties, as well as in Bor Town. Locations for the initial infrastructure mapping assessments will be selected in coordination between REACH and data collection partners, with priority given to (semi-) urban locations due to ease of access and the practicality of REACH supporting with the implementation of the grid system for mapping these areas. Data collection partners will then proceed to assess additional locations as per their own priorities, with remote support from REACH.

3.3 Secondary data review

Primary data collected with the infrastructure mapping tool will be in part analysed with the use of secondary data. Using the GRID3 World Population Dataset, REACH will calculate the approximate number of people living more than 250 metres 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 underserved. Implementing partners can then use this information to plan their programming.

This project will also include a review of existing, publicly available secondary data, to provide UNICEF's implementing partners with a comparison of overall WASH needs in their areas of operation. For this analysis, three sources of secondary data will be used:

- REACH Area of Knowledge (AoK) key informant data
- Food Security and Nutrition Monitoring System (FSNMS) household level data
- International Organisation for Migration (IOM) Displacement Tracking Matrix (DTM) key informant data for areas hosting internally displaced persons (IDPs) or refugees

The analysis will be separated into three sections: access to water, access to sanitation, and access to Health and WASH non-food items. For each section, REACH will select the most relevant indicators from the three data sources (please see the Data Analysis Plan for an overview). Then, REACH will generate summary statistics for each indicator at the county level in R. Finally, these summary statistics will be used to compare counties' performance in the identified areas. In the final situation overview report, each section will conclude with findings on the relative level of needs in the counties of interest, and the report will end with a summary of WASH needs across the entire area of interest.

3.4 Primary Data Collection

Data will be collected by enumerators hired by REACH or data collection partners, with supervision by REACH and partner staff. Following two days of training and a data collection pilot, enumerators will be assigned a list of 250m² squares on a daily basis. Using the maps.me app, enumerators will locate their squares and traverse them in a zig-zag fashion in order to find all relevant WASH infrastructure (water points and latrines) located within them. Once enumerators have found a WASH infrastructure point, they will open the KoboCollect 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 cannot use it, the materials used to construct it, and whether payment is required to use it. When assessing improved water sources, enumerators will also be asked to conduct a rapid bacteriological test. Instructions on how to conduct such tests will be included in the training process.

Questions and indicators have been developed in collaboration with the WASH Cluster and donors, please see the Data Analysis Plan for the full list. 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. Enumerators are encouraged to speak with local residents about the WASH infrastructure, but are instructed to only enter private premises with explicit informed consent. If

there is no infrastructure in one of their grids, or it is located in an insecure area, enumerators can also report this in the KoboCollect tool, and proceed to the next square. On a daily basis, supervisors will check the progress made and reassign squares where necessary.

Supervisors will also conduct key informant interviews with local actors who are considered to have good knowledge of WASH conditions in their community. These key informants will be selected purposively and in part through a snowballing process whereby one key informant recommends others to talk to. The key informant tool is a structured interview, available in KoboCollect. At least one key informant interview should be conducted in each payam where data collection takes place. Questions include what the available sources of water are in the area of interest, what the main source of water is, whether people use water purification methods, whether the local population has access to latrines, and whether they have to pay to use WASH facilities.

The first three assessments under this project will be conducted directly by REACH, in collaboration with UNICEF's implementing partners. During these assessments, REACH will train the partners on the methodology, so they can proceed with conducting follow-up assessments in additional locations by themselves. REACH will provide technical support for two of these follow-up assessments for each partner (six in total). This support may consist of providing maps.me grids, remote training, data checking and cleaning, and answering ad hoc questions. REACH will also process the data collected during these assessments, and incorporate it into its factsheets.

3.5 Data Processing & Analysis

Collected data will be checked and cleaned, and full data cleaning logs will be kept. The data checking process will include a review of internal logic, comparing individual records to identify potential data entry errors, and standardising answers. After cleaning, the data will be analysed in order to obtain key statistics that will support implementing partners in planning their programming. Analysis will include generating key summary statistics, such as the number of infrastructure point per settlement, and the ratio of functional versus non-functional water points and latrines. As laid out in section 3.3, findings will also be combined with population data in order to compare conditions to international humanitarian standards. The initial analysis will be shared with implementing partners and donors, along with maps that show the locations of the mapped infrastructure points. Finally, summary statistics, maps, and findings from key informant interviews will be incorporated into factsheets that will be made available publicly on the REACH Resource Centre.

4. Key ethical considerations and related risks

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

The proposed research design…	***Yes/ No***	***Details if no (including mitigation)***
… Has been coordinated with relevant stakeholders to **avoid unnecessary duplication** of data collection efforts?	Yes	
… **Respects respondents, their rights and dignity** (*specifically by: seeking informed consent, designing length of survey/ discussion while being considerate of participants' time, ensuring accurate reporting of information provided*)?	Yes	
… Does not **expose data collectors to any risks as a direct result** of participation in data collection?	No	Enumerators will be traversing communities and may encounter common risks in doing so. In order to

		prevent this from happening, enumerators will be instructed to move in pairs and not to move into areas that are considered to be associated with safety risks or national security (enumerators will be recruited locally).
… Does not **expose respondents / their communities to any risks as a direct result** of participation in data collection?	Yes	
… Does not involve **collecting information on specific topics which may be stressful and/ or re-traumatising** for research participants (both respondents and data collectors)?	Yes	
… Does not involve **data collection with minors** i.e. anyone less than 18 years old?	Yes	
… Does not involve **data collection with other vulnerable groups** e.g. persons with disabilities, victims/ survivors of protection incidents, etc.?	Yes	
… Follows IMPACT SOPs for management of **personally identifiable information**?	Yes	

5. Roles and responsibilities

Table 3: Description of roles and responsibilities

Task Description	*Responsible*	*Accountable*	*Consulted*	*Informed*
Research design	Assessment Officer	Research Manager	GIS Manager, Research Unit (HQ), WASH Specialist (HQ), WASH Cluster, Donors	Data collection partners, Country Coordinator
Supervising data collection	Assessment Officer, GIS Officer, Data collection partners	Research Manager	Country Coordinator	Donors, Research Unit (HQ), WASH Cluster
Data processing (checking, cleaning)	Assessment Officer, GIS Officer	Research Manager	GIS Manager, Research Unit (HQ), Data collection partners	Donors, Country Coordinator
Data analysis	Assessment Officer, GIS Officer	Research Manager	GIS Manager, Research Unit (HQ), Data collection partners	Donors, Country Coordinator

Output production	Assessment Officer, GIS Officer	Research Manager	GIS Manager, Research Unit (HQ), WASH Specialist (HQ)	Data collection partners, Donors, Country Coordinator
Dissemination	Assessment Officer	Research Manager	Country Coordinator	Data collection partners, Donors, WASH Cluster
Monitoring & Evaluation	Assessment Officer	Research Manager	Country Coordinator, WASH Cluster	Donors
Lessons learned	Assessment Officer, GIS Officer	Research Nabager	GIS Manager, Country Coordinator, Data colleciton partners, Donors	WASH Cluster, Research Unit (HQ)

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

- *Please complete the Data Analysis Plan matrix (see full Excel file including "README" sheet for instructions) and copy the columns with grey headings as per examples below.*

INFRASTRUCTURE MAPPING TOOL

Research questions	IN #	Data collection method	Indicator group / sector	Indicator / Variable	Questionnaire Question	Instructions	Questionnaire Responses	Data collection level
	A.1.1.	Infrastructure Mapping	Key characteristics	Enumerator ID	What is the enumerator's code?	Enter enumerator code		Infrastructure point
	A.1.2.	Infrastructure Mapping	Key characteristics	Grid number	What grid are you assessing?	Text		Infrastructure point
	A.1.3.	Infrastructure Mapping	Key characteristics	Settlement	Neighbourhood / Settlement name	Select one	List of neighbourhood and settlement names	Infrastructure point
	A.1.4.	Infrastructure Mapping	Key characteristics	Boma	Boma name	Text		Infrastructure point
	A.1.6.	Infrastructure Mapping	Key characteristics	Area status	What is this area like?	Select one	Commercial, More than 10 compounds, 5 to 9 compounds, Less than 5 compounds, It is not populated, This area cannot be assessed (insecure, bushy/forested, river/lake/pond, private property)	Infrastructure point
	A.1.7.	Infrastructure Mapping	Key characteristics	No mapping access	Can you confirm you have assessed the entire grid and cannot access any part of the grid?	Select one	Yes, No	Infrastructure point

N/A	**A.1.8.**	Infrastructure Mapping	Key characteristics	Infrastructure type	What are you mapping?	Select one	Water point, Latrine, There is no WASH infrastructure here	Infrastructure point
	A.1.9.	Infrastructure Mapping	Key characteristics	No water points	Can you confirm you have assessed the entire grid and cannot locate any WASH infrastructure within the grid?	Select one	Yes, No	Infrastructure point
What are the locations of key WASH infrastructure (water points and latrines) in select areas of South Sudan?	**B.1.1**	Infrastructure Mapping	Water point	Type of water source	Type of water source	Select one	Borehole manual, Borehole motorized extraction, Water kiosk, Stand pipe, Piped system (fixed to distribution line), Water trucking, Storage tank (related to distribution point), Protected well (sealed, not only covered in sticks), Unprotected well, Other (specify)	Infrastructure point
	B.1.2	Infrastructure Mapping	Water point	Water come from	Where does the water come from?	Select one	Ground water, River, Swamp, Other (specify), I don't know/I am unable to confirm	Infrastructure point
What is the functionality of existing WASH infrastructure in select areas of South Sudan?	**B.1.3**	Infrastructure Mapping	Water point	Water point functionality	Is the water point functional?	Select one	Yes, No, Decommissioned, I am unable to confirm	Infrastructure point
	B.1.4	Infrastructure Mapping	Water point	Water point access	Can everyone access the water point?	Select one	Yes, No, I am unable to confirm	Infrastructure point
	B.1.5	Infrastructure Mapping	Water point	Who cannot access water point	Who cannot access the water point?	Select multiple	All are affected equally, Boys, Girls, Men, Women, Elderly people, People with	Infrastructure point

							disabilities, Other (please specify)	
	B.1.6	Infrastructure Mapping	Water point	Water point why not accessible	Why is it not accessible to everyone?	Select multiple	Belongs to a private house, Belongs to an institution (school, hospital, clinic etc), Requires payment/ membership, Difficult to reach (disabled people unable to reach), Fear of safety/security, Other (specify)	Infrastructure point
	B.1.7	Infrastructure Mapping	Water point	Water point access time	From the time a person arrives at the water point, on average how long do they have to wait to access the water?	Select one	There is no wait, Less than 30 minutes, 30 minutes to 1 hour, 1 to 2 hours, 2 to 4 hours, 4 to 6 hours, 6 to 12 hours, More than 12 hours	Infrastructure point
What are the ownership and maintenance structures in place for existing WASH infrastructure?	**B.1.8**	Infrastructure Mapping	Water point	Water point ownership	Who owns this water point?	Select one	Community, Private owner, Institution (school, hospital, clinic), Formalised water provider (SSUWC, TUWSS, YTWSS, YUWASCO, etc), Other (specify), I am unable to confirm, Heath facility, School, Market place, Other (please specify)	Infrastructure point
	B.1.9	Infrastructure Mapping	Water point	Water point institution	Which institutional facility are you mapping?	Select one	Heath facility, School, Market place, Other (please specify)	Infrastructure point
	B.1.10	Infrastructure Mapping	Water point	Water point name	What is the name of the facility you are mapping?	Text		Infrastructure point

	B.1.11	Infrastructure Mapping	Water point	Water point repair	Who is responsible for repairing this water point?	Select multiple	Community, Private owner, Institution (school, hospital, clinic), Formalised water provider (SSUWC, TUWSS, YTWSS, YUWASCO, etc), Government, Non-government organisation, Other (specify), I am unable to confirm	Infrastructure point
	B.1.12	Infrastructure Mapping	Water point	Water point repair main	Who has the *main* responsibility for repairing this water point?	Select one	Community, Private owner, Institution (school, hospital, clinic), Formalised water provider (SSUWC, TUWSS, YTWSS, YUWASCO, etc), Government, Non-government organisation, Other (specify), I am unable to confirm	Infrastructure point
What is the functionality of existing WASH infrastructure in select areas of South Sudan?	**B.1.13**	Infrastructure Mapping	Water point	Water point payment	Do users pay for water?	Select one	Yes, No, I am unable to confirm	Infrastructure point
	B.1.14	Infrastructure Mapping	Water point	Water point month SSP	In the last month, how did you pay for access for water?	Select one	Per jerry-can, Per-week, Per month	Infrastructure point
	B.1.15	Infrastructure Mapping	Water point	Water point jerrycan SSP	How much did you spend per jerrycan/unit of time (in SSP)?	Integer		Infrastructure point
	B.1.16	Infrastructure Mapping	Water point	Water point broken SSP	How much SSP do you pay when water point breaks down?	Integer		Infrastructure point
	B.1.17	Infrastructure Mapping	Water point	Water test	Water testing and put the ID	Text		Infrastructure point

What are the locations of key WASH infrastructure (water points and latrines) in select areas of South Sudan?	**C.2.1**	Infrastructure Mapping	Latrine	Latrine type	Type of latrine	Select one	Family latrine, Communal/institutional latrine (in marketplace, school, etc.), Shared latrine (between neighbouring HHs), I am unable to confirm	Infrastructure point
	C.2.2	Infrastructure Mapping	Latrine	Latrine number	How many stalls/latrines are there?	Integer		Infrastructure point
What is the functionality of existing WASH infrastructure in select areas of South Sudan?	**C.2.3**	Infrastructure Mapping	Latrine	Latrine payment	Do you have to pay to use the latrine?	Select one	Yes, No, I am unable to confirm	Infrastructure point
	C.2.4	Infrastructure Mapping	Latrine	Latrine payment type	In the last month, how did you pay for access for latrine?	Select one	Per day, Per week, Per month	Infrastructure point
	C.2.5	Infrastructure Mapping	Latrine	Latrine payment SSP	How much did you spend per unit of time (in SSP)?	Integer		Infrastructure point
	C.2.6	Infrastructure Mapping	Latrine	Hand washing	Is there a functional hand washing station (with water and soap/ash)?	Select one	Yes (with water and soap/ash), Yes (with water only), Yes (with soap/ash only), No, I am unable to confirm	Infrastructure point
	C.2.7	Infrastructure Mapping	Latrine	Latrine access	Can everyone access the latrine?	Select one	Yes, No, I am unable to confirm	Infrastructure point
	C.2.8	Infrastructure Mapping	Latrine	Who cannot access latrine	Who cannot access the latrine?	Select one	All are affected equally, Boys, Girls, Men, Women, Elderly people, People with disabilities, Other (please specify)	Infrastructure point

	C.2.9	Infrastructure Mapping	Latrine	Latrine why not accessible	Why is it not accessible to everyone?	Select multiple	Belongs to a private house, Belongs to an institution (school, hospital, clinic etc), Requires payment/ membership, Difficult to reach (disabled people unable to reach), Fear of safety/security, Other (specify)	Infrastructure point
What are the ownership and maintenance structures in place for existing WASH infrastructure?	**C.2.10**	Infrastructure Mapping	Latrine	Latrine ownership	Who owns this latrine point?	Select one	Community, Private owner, Institution (school, hospital, clinic), Formalised water provider (SSUWC, TUWSS, YTWSS, YUWASCO, etc), Other (specify)	Infrastructure point
	C.2.11	Infrastructure Mapping	Latrine	Latrine institution	Which institutional facility are you mapping?	Select one	Heath facility, School, Market place, Other (please specify)	Infrastructure point
	C.2.12	Infrastructure Mapping	Latrine	Latrine name	What is the name of the facility you are mapping?	Text		Infrastructure point
	C.2.13	Infrastructure Mapping	Latrine	Latrine repair	Who is responsible for repairing this latrine?	Select multiple	Community, Private owner, Institution (school, hospital, clinic), Formalised water provider (SSUWC, TUWSS, YTWSS, YUWASCO, etc), Government, Non-government organisation, Other (specify), I am unable to confirm	Infrastructure point

	C.2.14	Infrastructure Mapping	Latrine	Latrine repair main	Who has the *main* responsibility for repairing this latrine?	Select one	Community, Private owner, Institution (school, hospital, clinic), Formalised water provider (SSUWC, TUWSS, YTWSS, YUWASCO, etc), Government, Non-government organisation, Other (specify), I am unable to confirm	Infrastructure point
What is the functionality of existing WASH infrastructure in select areas of South Sudan?	**C.2.15**	Infrastructure Mapping	Latrine	Latrine roof material	What material is the roof of latrine made out of?	Select one	Iron sheet, Grass, Plastic Sheet, No roof, Other (specify)	Infrastructure point
	C.2.16	Infrastructure Mapping	Latrine	Latrine floor material	What material is the floor of latrine made out of?	Select one	Plastic, Concrete, Wood, Dirt, Other (specify)	Infrastructure point
	C.2.17	Infrastructure Mapping	Latrine	Latrine wall material	What material are the walls of latrine made out of?	Select one	Plastic Sheet, Grass or local materials, Tin/other metal sheeting, Sanitation Corridor (curtain wall), Other (specify), Clean, Slightly clean, Unclean, I am unable to confirm, Full (100%), Almost full (75%), Less full (50%) or less, I am unable to confirm, Water point, Latrine, All are affected equally	Infrastructure point

What is the functionality of existing WASH infrastructure in select areas of Sout Sudan?	**D.2.1**	Infrastructure Mapping	Latrine loop	Latrine intact	Is the structure of this latrine intact?	Select one	Yes, No, I am unable to confirm	Individual latrine
	D.2.2	Infrastructure Mapping	Latrine loop	Latrine hole	Can you see into this latrine from the outside?	Select one	Yes, No, I am unable to confirm	Individual latrine
	D2.3	Infrastructure Mapping	Latrine loop	Latrine functional	Is this latrine functional?	Select one	Yes, No, I am unable to confirm	Individual latrine
	D.2.3	Infrastructure Mapping	Latrine loop	Latrine dirt outside	Is there trash/dirt/faeces in the latrine stall, outside the latrine?	Select one	Yes, No, I am unable to confirm	Individual latrine
	D2.4	Infrastructure Mapping	Latrine loop	Latrine dirt surroundings	Is there trash/dirt/faeces in the area surrounding the latrine?	Select one	Yes, No, I am unable to confirm	Individual latrine
	D.2.4	Infrastructure Mapping	Latrine loop	Latrine full	How full is the latrine?	Select one	Full (100%), Almost full (75%), Less full (50%) or less, I am unable to confirm	Individual latrine
	D2.5	Infrastructure Mapping	Latrine loop	Latrine lock	Is the latrine able to be locked from the inside?	Select one	Yes, No, I am unable to confirm	Individual latrine

	D.2.5	Infrastructure Mapping	Latrine loop	Latrine light	Does the latrine have a functional light?	Select one	Yes, No, I am unable to confirm	Individual latrine
	D2.6	Infrastructure Mapping	Latrine loop	Latrine light outside	Does the area surrounding the latrine have functional lighting?	Select one	Yes, No, I am unable to confirm	Individual latrine
What are the locations of key WASH infrastructure (water points and latrines) in select areas of South Sudan?	**E2.1**	Infrastructure Mapping	Key characteristics	Mapping confirmation	Can you confirm you have walked through the entire grid and mapped all the existing WASH infrastructure?	Select one	Yes, I have walked through the whole grid and there are no more water points or latrines to be mapped, No, this is just one of the infrastructures being mapped and I will continue mapping the rest	Infrastructure point
	E2.2	Infrastructure Mapping	Key characteristics	Comments	Add comments	Text		Infrastructure point
	E2.3	Infrastructure Mapping	Key characteristics	GPS	Record GPS location of the infrastructure	Geopoint		Infrastructure point

KEY INFORMANT INTERVIEW TOOL

Research questions	IN #	Data collection method	Indicator group / sector	Indicator / Variable	Questionnaire Question	Instructions	Questionnaire Responses	Data collection level
	A.1.1.	Key Informant Interview	Key characteristics	Enumerator ID	What is the enumerator's code?	Enter enumerator code		Neighbourhood/settlement/area
	A.1.2.	Key Informant Interview	Key characteristics	Consent	Consent	Note		Neighbourhood/settlement/area
	A.1.3.	Key Informant Interview	Key characteristics	Settlement	Please enter the name of the neighbourhood or settlement that the KI can provide reliable information about.	Text		Neighbourhood/settlement/area
	A.1.4.	Key Informant Interview	Key characteristics	KI gender	What is the Key Informant's gender?	Select one	Female, Male	Neighbourhood/settlement/area
	A.1.6.	Key Informant Interview	Key characteristics	KI age	What is the Key Informant's age?	Integer		Neighbourhood/settlement/area
	A.1.7.	Key Informant Interview	Key characteristics	KI position	What is the Key Informant's position?	Select one	Village/town chief, Other local authority, RRC staff, NGO staff, WASH engineer, Water Management Committee member, Ministry of water, Religious leader, Other (please specify)	Neighbourhood/settlement/area
What are the locations of key WASH infrastructure (water points and latrines) in	**B.1.1**	Key Informant Interview	Access to water	Water sources	In the last month, were any of the following water sources available and functional in this settlement?	Select multiple	Borehole manual, Borehole motorized extraction, Water kiosk, Water truck, Stand pipe, Piped system (fixed to distribution line), Protected well (sealed, not only covered in sticks),	Neighbourhood/settlement/area

select areas of South Sudan?							Unprotected well, Other (specify)	
	B.1.2	Key Informant Interview	Access to water	Improved water problem	In the last month, did any of the following problems occur with drinking water from improved water sources in this settlement?	Select multiple	Water tasted bad, Water smelled bad, Water was a bad colour, People got sick after drinking the water, Not sure, No issues (cannot be selected with any other option), Other (please specify)	Neighbourhood/settlement/area
	B.1.3	Key Informant Interview	Access to water	Water source main	In the last month, what was the MAIN source of drinking water (clean or unclean) for MOST people in this settlement?	Select one	Borehole, Tap stand, Water yard, Well (protected), Well (unprotected), Water truck, Donkey cart, Swamp, Pond/haffir/toich, River/stream, Other (please specify)	Neighbourhood/settlement/area
What is the functionality of existing WASH infrastructure in select areas of South Sudan?	**B.1.4**	Key Informant Interview	Access to water	Main water problem	In the last month, did any of the following problems occur with the MAIN source of drinking water (clean or unclean) for MOST people in this settlement?	Select multiple	Water tasted bad, Water smelled bad, Water was a bad colour, People got sick after drinking the water, Not sure, No issues (cannot be selected with any other option), Other (please specify)	Neighbourhood/settlement/area
	B.1.5	Key Informant Interview	Access to water	Water collection time	In the last month, how long did it take MOST people to reach, access, and return from collecting water in the settlement?	Select one	Under 30 minutes, 30 minutes to less than 1 hour, Between 1 hour and 2 hours, Between 2 hours and 5 hours, More than 5 hours, More than one day, I don't know or don't want to answer	Neighbourhood/settlement/area
	B.1.6	Key Informant Interview	Access to water	Water collection safety	In the last month, has ANY person in this settlement not been able to access their preferred water point because they feared for their safety?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area

	B.1.7	Key Informant Interview	Access to water	Water collection safety concern	In the last month, what was the MOST common safety concern for people trying to access water?	Select one	None (cannot be selected with any other option), Serious threat from snakes or other wildlife, Theft, Harassment/sexual violange, I don't know or don't want to answer, Other (please specify)	Neighbourhood/settlement/area
	B.1.8	Key Informant Interview	Access to water	Water collection safety groups	Which groups of people are most affected by these safety concerns?	Select multiple	All are affected equally, Boys, Girls, Men, Women, Elderly people, People with disabilities, Other (please specify), None (cannot be selected with any other option)	Neighbourhood/settlement/area
	B.1.9	Key Informant Interview	Access to water	Water payment	Do most people in this settlement pay to access drinking water?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B.1.10	Key Informant Interview	Access to water	Water treatment	In the last month, did MOST households treat their drinking water before consumption?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B.1.11	Key Informant Interview	Access to water	Water treatment methods	What were the most common water treatment methods?	Select multiple	None (cannot be selected with any other option), Boiling the water, Using chlorine tablets, powder, or liquid, Putting the water in the sun, Filtering the water, Other (please specify)	Neighbourhood/settlement/area
	B.1.12	Key Informant Interview	Access to water	Water treatment supplies	In the last month, were supplies for water treatment available in the local market?	Select one	Yes, the supplies are available locally (for instance with a mechanic), Yes, the supplies are available at UN core supply pipeline, Yes, the supplies are available at NGOs, The supplies are usually available locally, but not always, No, but the supplies can be ordered to	Neighbourhood/settlement/area

							arrive within 7 days, No, the supplies are not available and cannot be accessed elsewhere, I don't know or don't want to answer, Other (please specify)	
What are the ownership and maintenance structures in place for existing WASH infrastructure?	**B.1.13**	Key Informant Interview	Access to water	Water Management Committee	Are any of the water sources in this settlement managed by a Water Management Committee?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B.1.14	Key Informant Interview	Access to water	Water point consultation	Was the community consulted on the location for the construction of any of the stand pipes or boreholes?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B.1.15	Key Informant Interview	Access to water	Water point consultation details	Please provide details (what infrastructure involved consultation, who was consulted)?	Text		Neighbourhood/settlement/area
	B.1.16	Key Informant Interview	Access to water	Water use conflict	In the last year, has there been any conflict among residents or with other communities around the use of the stand pipes or boreholes?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
What are the locations of key WASH infrastructure (water points and latrines) in select areas of South Sudan?	**B.1.17**	Key Informant Interview	Access to water	School presence	Are there are schools within the area you are reporting on?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B.1.18	Key Informant Interview	Access to water	School water source	What is the MAIN water source for the schools within this area?	Select one	Borehole, Tap stand, Water yard, Well (protected), Well (unprotected), Water truck, Donkey cart, Swamp, Pond/haffir/toich, River/stream, Other (please specify)	Neighbourhood/settlement/area
	B.1.19	Key Informant Interview	Access to water	Health facility presence	Are there are health facilities within the area you are reporting on?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area

	B.1.20	Key Informant Interview	Access to water	Health facility water source	What is the MAIN water source for the health facilities within this area?	Select one	Borehole, Tap stand, Water yard, Well (protected), Well (unprotected), Water truck, Donkey cart, Swamp, Pond/haffir/toich, River/stream, Other (please specify)	Neighbourhood/settlement/area
What are the ownership and maintenance structures in place for existing WASH infrastructure?	**B2.1**	Key Informant Interview	Water source repair	Water point mechanic presence	If the [water point] breaks, is there a local mechanic who can repair it?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B2.2	Key Informant Interview	Water source repair	Water point mechanic payment	Who pays the mechanic?	Select multiple	Commuity, Government, NGOs, Mechanic association, Water-management committees, Other (please specify)	Neighbourhood/settlement/area
	B2.3	Key Informant Interview	Water source repair	Water point tools	If the [water point] breaks, are the tools and supplies needed to fix it available locally?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B2.4	Key Informant Interview	Water source repair	Water point supply issue	To your knowledge, has the mechanic had an issues with access to supplies in the last month?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B2.5	Key Informant Interview	Water source repair	Water point supply issue types	What are the issues with access to supplies?	Select multiple	Issue with accessibility, Issue with money, Issue with information/communication, Other (specify)	Neighbourhood/settlement/area
	B2.6	Key Informant Interview	Water source repair	Water point breakdown	In the last month, did a [water point] break in this settlement?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	B2.7	Key Informant Interview	Water source repair	Water point repair duration	How long did it take for the [water point] to be repaired?	Select one	Less than a day, 1 to 2 days, 3 days to 1 week, Between 1 and 2 weeks, More than 2 weeks, The	Neighbourhood/settlement/area

							issue has not been resolved yet	
What is the functionality of existing WASH infrastructure in select areas of Sout Sudan?	**C1.1**	Key Informant Interview	Latrine use	Latrine presence	In the last month, were there any latrines in this neighbourhood/settlement?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.2	Key Informant Interview	Latrine use	Latrine types	What is the most common type of latrine in this neighbourhood/settlement?	Select one	Family latrine, Communal/institutional latrine (in marketplace, school, etc.), Shared latrine (between neighbouring HHs), Other (please specify), I don't know	Neighbourhood/settlement/area
	C1.3	Key Informant Interview	Latrine use	Public latrine presence	In the last month, were there any PUBLIC latrines in this neighbourhood/settlement?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.4	Key Informant Interview	Latrine use	Latrine use proportion	In the last month, what proportion of people were using ANY latrines in this settlement?	Select one	None, Less than half (few or some), Around half, More than half, All, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.5	Key Informant Interview	Latrine use	Private latrine proportion	In the last month, what proportion of households had a PRIVATE latrine?	Select one	None, Less than half (few or some), Around half, More than half, All, I don't know or don't want to answer	Neighbourhood/settlement/area

What is the functionality of existing WASH infrastructure in select areas of South Sudan?	**C1.6**	Key Informant Interview	Latrine use	Public latrine damage	In the last month, what proportion of PUBLIC latrines in this settlement was damaged?	Select one	None, Less than half (few or some), Around half, More than half, All, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.7	Key Informant Interview	Latrine use	Public latrine locks	In the last month, what proportion of PUBLIC latrines in this settlement had a functioning lock?	Select one	None, Less than half (few or some), Around half, More than half, All, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.8	Key Informant Interview	Latrine use	Public latrine light	In the last month, what proportion of PUBLIC latrines in this settlement had functioning lights?	Select one	None, Less than half (few or some), Around half, More than half, All, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.9	Key Informant Interview	Latrine use	Public latrine desludging	In the last month, what proportion of PUBLIC latrines in this settlement was emptied in a timely manner?	Select one	None, Less than half (few or some), Around half, More than half, All, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.10	Key Informant Interview	Latrine use	Public latrine handwashing	In the last month, what proportion of PUBLIC latrines had functioning handwashing stations (with water and soap)?	Select one	None, Less than half (few or some), Around half, More than half, All, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.11	Key Informant Interview	Latrine use	Public latrine maintenance	In the last month, who was in charge of maintaining/emptying the public latrines?	Select multiple	Local authorities, An NGO, A committee of community members, A private person or company, An institution (e.g. school, hospital), Other	Neighbourhood/settlement/area

	C1.12	Key Informant Interview	Latrine use	Reasons no latrine use	In the last month, what was the MAIN reason why people were not using latrines in this settlement?	Select one	There are no latrines, Not enough latrines/overcrowded, Latrines are too dirty/full, Latrines are too far away, Cultural reasons/shame, Latrines are not safe to walk to or use, Latrines are damaged, Fees are too high, Other (please specify), I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.13	Key Informant Interview	Latrine use	Latrine safety issue	In the last month, has ANY person faced safety issues when accessing a latrine?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	C1.14	Key Informant Interview	Latrine use	Latrine safety issue types	In the last month, what was the MOST common safety concern for people trying to access latrines?	Select one	None (cannot be selected with any other option), Serious threat from snakes or other wildlife, Theft, Harassment/sexual violange, I don't know or don't want to answer, Other (please specify)	Neighbourhood/settlement/area
	C1.15	Key Informant Interview	Latrine use	Latrine safety issue groups	Which groups of people are most affected by these safety concerns?	Select multiple	All are affected equally, Boys, Girls, Men, Women, Elderly people, People with disabilities, Other (please specify)	Neighbourhood/settlement/area

	C1.16	Key Informant Interview	Latrine use	School latrines	What are the status of the latrines within the schools?	Select one	Functional, Collapsed, Under construction, Dirty and cannot be used, Other (please specify)	Neighbourhood/settlement/area
	C1.17	Key Informant Interview	Latrine use	Health facility latrines	What are the status of the latrines within the health facilities	Select one	Functional, Collapsed, Under construction, Dirty and cannot be used, Other (please specify)	Neighbourhood/settlement/area
What are the ownership and maintenance structures in place for existing WASH infrastructure?	**C2.1**	Key Informant Interview	Latrine repair	Latrine mechanic presence	If a latrine breaks, is there a local mechanic who can repair it?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	C2.2	Key Informant Interview	Latrine repair	Latrine repair supply presence	If a latrine breaks, are the tools and supplies needed to fix it available locally?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	C2.3	Key Informant Interview	Latrine repair	Latrine repair supply issues	To your knowledge, has the mechanic had an issue with access to supplies in the last month?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
What is the functionality of existing WASH infrastructure in select areas of South Sudan?	**D1.1**	Key Informant Interview	Handwashing	Handwashing use	In the last month, what, if anything, were MOST people using to wash their hands in this settlement?	Select one	Yes, No, I don't know or don't want to answer	Neighbourhood/settlement/area
	E1.1	Key Informant Interview	Comments	Comments	Is there anything you would like to add about the state of the WASH infrastructure in this settlement?	Text		Neighbourhood/settlement/area

SECONDARY DATA REVIEW

Research questions	IN #	Data collection method	Indicator group / sector	Indicator / Variable	Questionnaire Question	Instructions	Questionnaire Responses	Data collection level
What is the level of access to water in the counties of interest?	**A1.1**	FSNMS (secondary data)	Access to water	Proportion of households accessing improved water sources as their main source of drinking water	What is your household's main source of drinking water?	Select one	Borehole, Hand dug well, I don't want to answer, Puddle/stagnant water, River/stream, Swamp, Tap stand, Unprotected well	Household
	A1.2	FSNMS (secondary data)	Access to water	Time needed to collect water	How long does it take for you to collect water (walking from your household to your main water drinking collection point, waiting there, filling the container and returning home)?	Select one	Under 30 minutes, 30 minutes to less than 1 hour, 2 hour to half a day, half a day, more than half a day, I don't know, water available inside the compound	Household
	A1.3	FSNMS (secondary data)	Access to water	Proportion of households where a member felt unsafe during data collection	In the last two weeks, have you or any member of your household ever felt unsafe while collecting water from your main water source?	Select one	Yes, No, I don't know or want to answer, We don't collect water	Household
What is the level of access to sanitation in the counties of interest?	**A2.1**	FSNMS (secondary data)	Access to sanitation	Latrine availability	Is there a family, shared or communal latrine in your settlement?	Select one	Communal latrine, family latrine, shared latrine, I don't know or don't want to answer, No	Household
	A2.2	FSNMS (secondary data)	Access to sanitation	Proportion of households using latrines	In the last two weeks, where did you usually go to the toilet (Defecate)?	Select one	Dig a shallow hole and fill in (also known as the cat method), I always use a latrine, I don't know or don't want to answer, In the bush, Others (specify)	Household
What are the health coutcomes in the	**A3.1**	FSNMS (secondary data)	Health and access to	Proportion of households with	Has anyone in your household been sick in the past two weeks?	Select one	Yes, No, I don't know or want to answer	Household

counties of interest, specifically as they relate to water-borne diseases?			WASH NFIs	reported illness				
	A3.2	FSNMS (secondary data)	Health and access to WASH NFIs	Child illness type	What sickness did children have?	Select multiple	Malaria, Acute watery diarrhea, Cholera, Eye infection, Flu, Fever, Typhoid, Stomach pain, Skin disease	Household
What is the level of access to WASH non-food items in the counties of interest?	**A4.1**	FSNMS (secondary data)	Health and access to WASH NFIs	Proportion of households with soap	Do you have soap in the home (ask to see soap, to see if it appears in a minute)?	Select one	I don't know or don't want to answer, No, Yes (and you see the soap), Yes (but you do not see the soap)	Household
	A4.2	FSNMS (secondary data)	Health and access to WASH NFIs	Proportion of households where all members sleep under a mosquito net	In the last two weeks, did every member of your household sleep under a mosquito net?	Select one	Yes, No	Household
	A4.3	FSNMS (secondary data)	Health and access to WASH NFIs	Number of jerrycans for water storage	How many jerrycans with lids, and no holes of any kind, do you have for water collection and storage?	Integer		Household
What is the level of access to water in the counties of interest?	**B1.1**	REACH Area of Knowledge	Access to water	Proportion of settlements with boreholes present	In the last month, were ANY boreholes present in the settlement?	Select one	Yes, No, I don't know or want to answer	Settlement
	B1.2	REACH Area of Knowledge	Access to water	Proportion of settlements with functional boreholes present	In the last month, were ANY boreholes functional (not broken) in the settlement?	Select one	Yes, No, I don't know or want to answer	Settlement
	B1.3	REACH Area of Knowledge	Access to water	Main source of drinking water	In the last month, what was the MAIN source of drinking water (clean or unclean) for people in the settlement?	Select one	Borehole, Water yard, Well, Water truck, 22, Swamp, Pond / haffir / toich, River / stream, Other, I don't know or don't want to answer	Settlement
What is the level of access to sanitation in	**B2.1**	REACH Area of Knowledge	Access to sanitation	Proportion of settlements where	In the last month, were ANY people using latrines?	Select one	Yes, No, I don't know or want to answer	Settlement

the counties of interest?				anyone uses a latrine				
	B2.2	REACH Area of Knowledge	Access to sanitation	Proportion of people using latrines	In the last month, what proportion of people were using latrines in?	Select one	Less than half (few or some), Around half, More than half (most or all), I don't know or don't want to answer, None	Settlement
	B3.1	IOM Displacement Tracking Matrix (secondary data)	Access to sanitation	Proportion of IDP population living in IDP settlements with evidence of open defecation	Unknown	Unknown	Unknown	Settlement
	B3.2	IOM Displacement Tracking Matrix (secondary data)	Access to sanitation	Proportion of returnee population living in returnee settlements with evidence of open defecation	Unknown	Unknown	Unknown	Settlement

7. 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		□ Yes
		# of page clicks on x product from REACH global newsletter	Country request to HQ		□ 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		□ 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	UNICEF project reports
		# 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_Feedback *and* Usage_Survey template	National REACH usage survey
		Perceived usefulness and influence of IMPACT outputs			
		Recommendations to strengthen IMPACT programs			
		Perceived capacity of IMPACT staff			
		Perceived quality of outputs/programs			

	Number of humanitarian documents (HNO, HRP, cluster/agency strategic plans, etc.) directly informed by IMPACT products	Recommendations to strengthen IMPACT programs			
Humanitarian stakeholders are engaged in IMPACT programs throughout the research cycle	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;			□ Yes