Research Terms of Reference

Ethiopia Crisis to Resilience (EC2R) Service Capability Assessment

Research Cyle ID: ETH2306a

Ethiopia

February 2024

REACH Informing more effective humanitarian action

1. Executive Summary

Country of intervention	Ethiopia					
Type of Emergency	X	Natural disaster	X	Conflict	□	Other *(specify)*
Type of Crisis	□	Sudden onset	□	Slow onset	X	Protracted
Mandating Body/ Agency	*Foreign, Commonwealth and Development Office (FCDO)*					
IMPACT Project Code	*29BAP*					
Overall Research Timeframe *(from research design to final outputs / M&E)*	06/09/2023 to 31/05/2024					
Research Timeframe *Add planned deadlines (for first cycle if more than 1)*	1. Pilot/ training: 29/01/2024		6. Preliminary presentation: N/A			
	2. Start collect data: 05/02/2024		7. Outputs sent for validation: 22/04/2024			
	3. Data collected: 17/03/2024		8. Outputs published: 06/05/2024			
	4. Data analyzed: 01/04/2024		9. Final presentation: 06/05/2024			
	5. Data sent for validation: 08/04/2024					
Number of assessments	□	Single assessment (one cycle)				
	X	Multi assessment (more than one cycle) This assessment falls under the Ethiopia Crisis to Resilience (EC2R) programme, an FCDO humanitarian assistance programme, under which 3 phases of REACH work are funded. These 3 phases of work cover 2 separate assessments. This TOR covers the assessment for phase 1 and 2 of the work. A separate TOR will be drawn up for the phase 3 assessment.				
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 (can be tentative)**			
	X	Donor plan/strategy	Tentative			
	□	Inter-cluster plan/strategy	_ _/_ _/_ _ _ _			
	□	Cluster plan/strategy	_ _/_ _/_ _ _ _			
	□	NGO platform plan/strategy	_ _/_ _/_ _ _ _			
	□	Other (Specify):	_ _/_ _/_ _ _ _			

		Note: Under the EC2R programme[1], REACH will provide the EC2R partners, FCDO and the broader humanitarian and development community with analysis and evidence to inform the delivery of appropriate assistance to needy populations. REACH will develop its proposed activities along with five main workstreams		
Audience Type & Dissemination *Specify **who** will the assessment inform and **how** you will disseminate to inform the audience*	**Audience type** X Strategic X Programmatic X Operational □ [Other, Specify]		**Dissemination** □ General Product Mailing (e.g. mail to NGO consortium; HCT participants; Donors) X Cluster Mailing (Education, Shelter and WASH) and presentation of findings at next cluster meeting X Presentation of findings (e.g. at HCT meeting; regional and national cluster meetings) X Website Dissemination (Relief Web & REACH Resource Centre) □ Please note that website dissemination will be available on the REACH resource center, pending the sensitivity of the findings.	
Stakeholder mapping *Has a detailed stakeholder mapping been conducted during research design to identify all actors that could **contribute** to and/or **benefit from** the research?*	X	Yes, nationwide stakeholder mapping has been conducted	□	No
General Objective	To provide humanitarian and development actors operating in Ethiopia with updated information on the capability of facilities and infrastructure of health and nutrition, education and water sectors in provision of services to the communities they serve.			
Specific Objective(s)	• To understand the capability and physical condition of the assessed infrastructures (health and nutrition facilities, education facilities and water facilities) • To understand which services are offered in the assessed infrastructures, as well as service gaps. • To support operational planning by humanitarian and development actors through the identification of gaps in service delivery coverage within the specified area, and provision of maps showing the coverage. Understanding the extent to which basic			

[1] The Ethiopia Crisis to Resilience (EC2R) programme is an FCDO funded programme that provides £200 million of funding for a range of humanitarian activities in Ethiopia. The EC2R consortium included UN partners, notably UNICEF and WFP, and humanitarian NGOs including Save the Children, the Ethiopian Red Cross and Impact Initiatives under REACH. The programme aims to respond to Ethiopia's current multisectoral humanitarian needs and enable poor households to withstand disasters and shocks by applying evidence-based research and data to identify risks and respond early and cost-effectively. Various interventions will be implemented, including in health and nutrition, education WASH and cash programming. Underpinning this are a range of assessments that will focus on the mapping and assessment of the service capability of four prioritized sectors (health and nutrition, WASH and education). These assessments will be implemented by REACH, as is outlined in this TOR.

	services are functioning to meet the needs of the people they intend to serve, is a critical part of improving services.
Research Questions	• What infrastructures in health and nutrition, water and education are available in Ethiopia, and where are they located? • What is the building condition of the assessed infrastructure? • What is the level and type of service provided by the assessed infrastructure? • What if any, are the gaps in service capability of the assessed infrastructure?
Geographic Coverage	The capability assessment will be conducted in 2 regions of Ethiopia. We will pilot the methodology in this assessment in 2 zones, in the Shabelle zone of the Somali region and in the Central zone in Tigray region. Based on funding availability and partner capacity, the assessment methodology will be deployed in additional zones in each of the regions across Ethiopia. We will develop a methodology note when we expand the research approach to additional zones and regions. For reference: Ethiopia is split in to 12 administrative regions. Each region is made up of several zones. Zones are split up in to Woredas, and then in to Kebeles. Regions, Zones, Woredas and Kebeles are all adminstrative entities.
Secondary data sources	Due to the multifaceted nature of this assessment, secondary data analysis has been conducted for each specific sector (health and nutrition, education and water), as well as a review of literature on service capability. Please see a brief outline of these below. **Across all sectors:** • Actor, service and infrastructure mapping for Dadaab Refugee Camps, Kenya REACH_KEN_Dadaab_Actor-service-and-infrastructure-mapping_DAP_April-2.pdf (impact-initiatives.org) • Infrastructure and service mapping of Samburu County, Kenya (REACH, 2019) https://repository.impact-initiatives.org/document/reach/87f09bca/REACH_KEN_TOR_Samburu_County_Infrastructure_and_Service_Mapping_November-2019-2.pdf • Mini DHS survey for Ethiopia (Demographic and Health Survey, 2019) • Open street map and google maps **Health and nutrition**: • HeRAMS Tigray Baseline Report – operational status of the health system (WHO, 2023). This will be used to define health specific indicators and questions. • Health facilities assessment tool (Advancing Communities and Partners, 2012). This will be used to define health specific indicators and questions. We will draw on existing indicators in this tool. • Ministry of Health Ethiopia, Somali and Tigray regional health bureaus 2020 data on health facilities • Health and Health Related Indicators Survey for Ethiopia - Ministry of Health Ethiopia (2020) **Water:** • Multi-Agency Initial Rapid Assessment –The drought situation in Dawa Zone Somali Region (2022) • WHO and UNICEF. Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals (2018)

<table>
<tr><td></td><td colspan="6">

- WHO and UNICEF. Core questions on water, sanitation and hygiene for household surveys: WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. (2006)
- Millenium Water Alliance. Service delivery models for universal, safe and sustainable water services in Ethiopia. (2019)
- Adank et al. Looking beyond headline indicators: water and sanitation services in small towns in Ethiopia. (2016)

Education:

- Ministry of Education for Ethiopia, Education Statistics Annual abstract (2021)
- Inter Agency Network for Education in Emergencies, Ethiopia Minimum Standards for Education in Emergencies (2013)
- Inter Agency Network for Education in Emergencies (INEE) minimum standards for Education: Preparedness, Response, Recovery (2010)

</td></tr>
<tr><td rowspan="5">Population(s)
Select all that apply</td><td>□</td><td>IDPs in camp</td><td>□</td><td>IDPs in informal sites</td></tr>
<tr><td>□</td><td>IDPs in host communities</td><td>□</td><td>IDPs [Other, Specify]</td></tr>
<tr><td>□</td><td>Refugees in camp</td><td>□</td><td>Refugees in informal sites</td></tr>
<tr><td>□</td><td>Refugees in host communities</td><td>□</td><td>Refugees [Other, Specify]</td></tr>
<tr><td>□</td><td>Host communities</td><td>X</td><td>All of the above populations may be considered in this research, as we are assessing all available infrastructure</td></tr>
<tr><td>Stratification
Select type(s) and enter number of strata</td><td>X</td><td>Geographical #: 2 strata (each zone in Ethiopia that we will sample)
Population size per strata is known? □ Yes X No</td><td>□</td><td>Group #: _ _ _
Population size per strata is known?
□ Yes □ No</td><td>□</td><td>[Other Specify] #: _ _
Population size per strata is known?
□ Yes □ No</td></tr>
<tr><td>Data collection tool(s)</td><td>X</td><td>Structured (Quantitative)</td><td>□</td><td>Semi-structured (Qualitative)</td></tr>
<tr><td></td><td colspan="3">Sampling method</td><td colspan="3">Data collection method</td></tr>
<tr><td>Structured data collection tool # 1 Key Informant Interview Tool at the infrastructure</td><td colspan="3">X Purposive (for water infrastructure)
□ Probability / Simple random
□ Probability / Stratified simple random
□ Probability / Cluster sampling
□ Probability / Stratified cluster sampling
X Census approach (for health and education infrastructure)</td><td colspan="3">X Key informant interview (Target #): 1 person per health and nutrition facility/school/water facility. In the Central Zone in Tigray, there are 1000 data collection points, so we expect to have 1000 key informant interviews. We do not yet have facility number data confirmed for the selected zone in Somali region, but we are in discussion with relevant governemnt ministries to obtain this data.
□ Group discussion (Target #):_ _ _ _ _
□ Household interview (Target #):_ _ _ _ _
□ Individual interview (Target #):_ _ _ _ _
X Direct observations (Target #): Direct observation of infrastructure
□ [Other, Specify] (Target #):_ _ _ _ _</td></tr>
</table>

Target level of precision if probability sampling	Not applicable			Not applicable		
Disaggregation by gender and age *Are you planning to conduct sex/age disaggregated analysis?*	Gender			Age		
	□	Yes		□	Yes	
	X	No		X	No	
Data management platform(s)	X	IMPACT		□	UNHCR	
	□	[Other, Specify]				
Expected ouput type(s)	X	Situation overview #:2. Total. 1 situation overview report for each zone surveyed.	□	Report #:	□	Profile #: _ _
	X	Presentation (Preliminary findings) #: 2 total. 1 presentation per zone covered. Preliminary presentations will only be to funder and EC2R partners	X	Presentation (Final) #: 1 Final presentation to FCDO, EC2R members and clusters at the regional and national level	X	Factsheet #: 6 total. 3 per zone covered. 1 factsheet per sector (health and nutrition, education and water) (6 total)
	□	Interactive dashboard #:_	□	Webmap #: _ _	X	Map #: 6 total. 3 per zone covered. One capability map per sector (health and nutrition, education and water). (6 total)
	□	[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 *Specify which* ***logos*** *should be on outputs*	***REACH***					
	Donor: *FCDO*					
	Coordination Framework: *n/a*					
	Partners: *If the EC2R logo, Ethiopian Red Cross*					

2. Rationale

2.1 Background

The second most populous country in Africa, Ethiopia's 123 million people[2] are affected by a multitude of complex issues. Ongoing conflict, crisis-level food insecurity, flooding, drought and disease outbreaks are some of the multiple and often overlapping crises that continue to strain the lives of communities, refugees, internally displaced people and returnees in Ethiopia. An estimated 20 million people[3] are affected by these crises across multiple regions in Ethiopia.

[2] World Bank Ethiopia Overview, 2023 Ethiopia Overview: Development news, research, data | World Bank

[3] Ethiopia Humanitarian Response Plan, 2023, Ethiopia: Humanitarian Response Plan 2023 (February 2023) - Ethiopia | ReliefWeb

Nearly 4.6 million people are currently displaced across Ethiopia due to ongoing conflict within the country.[3] Issues of security and humanitarian access are limiting access to and functioning of basic services, including health and nutrition, education and WASH services. Ethiopia's Humanitarian Response Plan for 2023 estimates that over 17.3 million people are in need of various health interventions, 20.5 million people are in need of humanitarian WASH assistance, and 10.3 million children and adults are in need of improved education services.[3]

Understanding the extent to which basic services are functioning to meet the needs of the people they intend to serve, is a critical part of improving services. Whilst there is no comprehensive research on the capabilities of services in Ethiopia ongoing, some sector specific research has been conducted. This includes the World Health Organization Health Resources and Services Availability Monitoring System (HeRAMS), which analyses the operational status of the health systems. A HeRAMs has been conducted in Tigray and Afar, with the possibility of expansion into other regions. Several joint educational needs assessments (JENA) have been undertaken or are underway in various regions in Ethiopia. However, comprehensive mapping and analysis of the function and capability of all health, nutrition, education and water services has to date, not been conducted in Ethiopia.

With limited information on the location, function and capability of basic services, humanitarian intervention and development planning is limited. In response to de-centralised information management across the country, detailed and up-to-date infrastructure information is required to feed into the humanitarian and development programming across the country. This information will also enable the regional and national government to plan a coordinated humanitarian response to address the needs and barriers to assessing services across the country.

To respond to this need, FCDO, under its Ethiopia Crisis to Resilience (EC2R) programme, will fund a range of assessments, including a service capability assessment. The capability assessment component will map and assess the service capability of 3 sectors (health and nutrition, water, education). This assessment will provide the humanitarian and development actors operating in Ethiopia with updated data of the capability and barriers of health and nutrition, water and education infrastructure to serve the population in need.

2.2 Intended impact

REACH's capability assessment will inform stakeholders on the capability of infrastructure in the health and nutrition, education and water sectors to deliver the services they are supposed to deliver to the population they serve. We define capability as "the capability of a facility, infrastructure or service to fulfil its designed function". REACH's capability assessment will inform humanitarian and development stakeholders including international and local NGOs, donors and government agencies on infrastructure and service capability. The multi-sectoral nature of this work means that the assessment provides a comprehensive evidence base from which stakeholders can prioritize funding and intervention decisions. This will allow them to target interventions in areas where the services capability is insufficient, allowing actors to serve the populations most in need. These stakeholders could also use the REACH findings to inform their advocacy and support additional resource mobilization.

3. Methodology

Methodology overview

This capability assessment is funded under the FCDO Ethiopia Crisis to Resilience (EC2R) programme, in close collaboration with the Ethiopian Red Cross who will support with data collection. Under the programme, REACH has secured funding for 3 phases of work. This TOR covers the approach to Phase 1 and 2. A separate TOR will be developed for Phase 3 of the work. Please note that Phase 3 of the work will take place concurrently to Phase 2 research. To provide a holistic overview, we have briefly outlined all 3 phases of the work below:

- **Phase 1**: will involve a secondary data review, data collection tool and analytical framework development. Due to the census approach, the survey tools will provide a light touch assessment of the infrastructure's capability, meaning surveys will be short form and easy to administrate. We have also begun stakeholder engagement, including with national and regional government, as well as engagement with implementing partners working in the areas of interest. These engagements have informed our approach to the selection of pilot regions (within the Shabelle zone in Somali region and the Central zone in Tigray region) based on stakeholder presence and perceived need for data. Furthermore, these engagements have informed the selection of sectors of research (health, education and water) based on stakeholder data requirements.
- **Phase 2:** will involve the data collection phase, led by the Ethiopian Red Cross. We will deploy our capability surveys, including surveys to assess the capability of health and nutrition, education and water facilities. Data cleaning, analysis and reporting will be undertaken by REACH. We will pilot Phase 2 data collection in 2 zones in the first instance, Shabelle zone in Somali region and Central zone in Tigray. Data collection in Phase 2 data will then expanded one zone in each of the other regions of Ethiopia, subject to funding and partner capacity considerations.
- **Phase 3:** Simultaneously to Phase 2, we will conduct deep dive area-based assessments (ABAs) in selected Kebeles for Phase 3 of this work. Hotspot Kebeles will be selected based on existing data on service capability, severity scores, as well as consultations with regional clusters and stakeholders. Kebele selection may be based on factors such as worrying degree of service capability, humanitarian needs, capacity and presence of actors to intervene, existence of coordination mechanisms that the ABA can inform such as the Kebele or Woreda level administration, and REACH access to hotspot areas.

This TOR outlines our methodological approach to the mapping and capability assessment of infrastructure in the health and nutrition, education and water sectors in Ethiopia. The research will use a harmonized questionnaire. The methodology focuses on quantitative, structured interviews with key informants (KIs) in each infrastructure being surveyed. Primary data collection will be targeted on all facilities across the sectors of health and nutrition and education sectors. Specific water facilities will be sampled using a cluster sampling approach. All facilities will be identified using GPS data points. Direct observations will be used to answer questions on the physical condition of the infrastructure. Key informant interviews will be conducted with relevant key informants (where they will be available) in these facilities, to obtain data on service capability. Data will be collected once, for all infrastructure and facilities identified. REACH will use the Open Data Kit (ODK) tool, which ERC staff will deploy on smart phones to conduct primary data collection.

After the cleaning and analysis of the primary data, REACH will develop one factsheet and a capability map for each of the sectors (health and nutrition, education and water) per zone. REACH will share the coverage maps and factsheet with EC2R partners, FDCO relevant clusters and key partners.

Population of interest

- **Geographical area assessed**: All regions in Ethiopia will be covered during this assessment, pending budget availability from the donor for country wide data collection, and partner capacity discussions. Data collection will be piloted in the Central zone in Tigray and Shabelle zone in the Somali region, and expanded to all other regions in Ethiopia.
- **Population assessed**: the population of interest are the knowledgeable staff of service providers providing services in health and nutrition, education and water facilities, for example, health officers and head teachers.
- **Unit of measurement:** the unit of measurement will be the facility, this will include the health centre, school or borehole, for example. This level of analysis will be shared to the Kebele level (lowest administrative level in Ethiopia).

Secondary data review

Prior to collecting primary data, a review of facilities that provide basic services (defined in this study as health and nutrition, education and water facilities) will be conducted to determine, where possible, the location of each facility. We will seek to understand the location of facilities by working with regional level health, education and WASH ministries as well as local implementing partners, to ascertain if the relevant data is available. A review of the existing literature on service capability in Ethiopia, as well as methodologies for undertaking service capability assessments, will be conducted. The following data will be used to conduct the service mapping and inform our methodology.

Across all sectors:

- Actor, service and infrastructure mapping for Dadaab Refugee Camps, Kenya REACH_KEN_Dadaab_Actor-service-and-infrastructure-mapping_DAP_April-2.pdf (impact-initiatives.org) will be used to inform the design of questions in the data collection plans.
- Infrastructure and service mapping of Samburu County, Kenya (REACH, 2019) will be used to inform the design of questions in the data collection plans.
- Mini DHS survey for Ethiopia (Demographic and Health Survey, 2019)
- Open street map and google maps

Health:

As a part of this assessment, health facilities will include government run health posts, health centers and primary hospitals. Relevant literature includes:

- HeRAMS Tigray Baseline Report – operational status of the health system (WHO, 2023). This will be used to define health specific indicators and questions.
- Health facilities assessment tool (Advancing Communities and Partners, 2012). This will be used to define health specific indicators and questions. We will draw on existing indicators in this tool.
- Ministry of Health Ethiopia, Somali and Tigray regional health bureau 2020 data on health facilities
- Health and Health Related Indicators Survey for Ethiopia - Ministry of Health Ethiopia (2020)

Water:

As a part of this assessment, water facilities will include public water facilities. Relevant literature includes:

- Multi-Agency Initial Rapid Assessment –The drought situation in Dawa Zone Somali Region (2022)
- WHO and UNICEF. Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals (2018)
- WHO and UNICEF. Core questions on water, sanitation and hygiene for household surveys: WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. (2006)
- Millenium Water Alliance. Service delivery models for universal, safe and sustainable water services in Ethiopia. (2019)
- Adank et al. Looking beyond headline indicators: water and sanitation services in small towns in Ethiopia. (2016)

Education:

As a part of this assessment, education facilities will include government run primary and secondary schools. Relevant literature includes:

- Ministry of Education for Ethiopia, Education Statistics Annual abstract (2021)

- Inter-Agency Network for Education in Emergencies, Ethiopia Minimum Standards for Education in Emergencies (2013)
- Inter-Agency Network for Education in Emergencies (INEE) minimum standards for Education: Preparedness, Response, Recovery (2010)

3.1 Primary Data Collection

Method

The data collection methods for this assessment are underpinned by the agreed outputs and deliverables from the funder, FCDO, and the proposed approach agreed to in the EC2R proposal. Notably, the methodological approach is informed by the following:

- **Who**: Ethiopian Red Cross will provide enumerators to conduct the data collection, with oversight from REACH Field Officer (FO), GIS Officer (GISO), and Database Assistant. In hard-to-reach areas, or where EC2R partners are not operating, REACH enumerators may be deployed, subject to funding considerations. There will be 2 day of training of trainers on the data collection tools to the ERC staff. The ERC staff will train ERC volunteers and staff, who will be supporting with data collection.
- **How**: Data collection will be undertaken by field teams using smart phones and tablets, using the KOBO collect platform. Data collectors will be trained by the REACH team ahead of the data collection exercise. Data collectors will visit the facilities and undertake direct observation of facility conditions and undertake key informant interviews to understand elements of service delivery such as services offered, staff capacity at facility, cost of services. GPS points will be collected for each facility and is a requirement in the tool. Each data collector will have a minimum number of facilities to cover. Data collectors will be assigned team leaders who will provide oversight on the data collection.

When: The timeframe for country wide data collection is to be confirmed pending discussions with the funder and Ethiopian Red Cross, our data collection partner. Primary data collection for the pilot phase in the Central zone in Tigray and Shabelle zone in the Somali region is due to start in February 2024, and finish in March 2023, taking approximately 6 weeks. Data collection will be a one-time activity for each facility. Data collection for the two target zones in the Somali and Tigray regions will be conducted simultaneously. Data collection timeframes for other regions in Ethiopia are still to be confirmed pending discussions with the funder.

- **Where:** This TOR reflect pilot phase data collection, which will take place in 2 zones, in 2 regions of Ethiopia. This will be in one zone Tigray and one zone in Somali region. Zones have been selected based on consultation with regional stakeholders and clusters, as well as based on presence of Ethiopian Red Cross teams. The project has funding to expand data collection to additional zones and regions of Ethiopia. A methodology note will be developed to reflect the expanded scope of the research when needed.

Sampling

This assessment will use a hybrid approach, using both a census and purposive sampling approach.

Census: We will assess all government-run health and nutrition and education facilities. Additionally, a snowballing technique will also be used to ensure a greater capture of the facilities in the assessed zones. Each KI interviewed at all the listed facilities will be asked if any other facilities exist which are not on the lists provided by the regional government departments or other partners.

Upon entering the facilities, data collectors will provide an overview of the research and show our federal and regional approval letters to the facility staff. We will indicate that we would like to speak with hospital and school administrative staff, who are usually available during normal working hours during the week. When seeking to speak with a KI for a water source, we will need to approach Woreda level governance structures to identify people working in the water bureau to help us answer some of our technical questions. Data collection per woreda is planned for 2 days. If staff at one facility are not available, we will inform them that we plan to come back the following day, and to ensure that a member of staff will be available then. Additionally, we will use local guides, which should help us to facilitate access to people at facilities.

Using a census approach, REACH will target:

- All health and nutrition facilities including hospitals, health centers and health posts
- All primary and secondary schools

Please note that only government run and managed facilities will be assessed, private facilities will not be assessed. This is because of the already large number of data points for publicly run facilities, and the time and budget constraints.

Purposive: A purposive sampling approach will be used to select certain water points. The proposed approach is as follows:

- REACH will select a sample of water points around the health and education facilities which will be assessed. These water facilities have been identified through existing GPS data on water facility location, and have been mapped against school and health centers. Whilst this is not fully representative, in light of the geographical constraints, and the large number of water points, this approach will allow for timely and cost-effective water point sampling.

Tools

- **Facility mapping tool:** REACH will map health and nutrition, education and water facilities which are available to residents in the Shabelle zone in Somali and the Central zone in Tigray region of Ethiopia during the pilot phase. A list of the facilities and/or locations from the regional ministries for health, education and water will be obtained during secondary data collection will be used as a starting point. GPS locations of facilities obtained from the secondary data will be loaded into MAPinr or Maps.me application whereby enumerators will navigate to and locate the facilities. The enumerators will also assist in locating facilities as they will be selected from their NGOs with a presence in the region, of which they have a good knowledge.
- **Survey tool:** The data collection tool will centre on the KOBO platform. REACH will develop a common quantitative data collection tool, to be hosted on a centralized KoBo server owned by REACH. All data must be uploaded to the REAC central KoBo server using one of two Android apps (KoBoCollect or ODKCollect) or, alternatively, using a link that can be filled out in one's internet browser. Enumerators using either Android app will be able to complete surveys without an internet connection and save them for later submission once they return from the field. Partner organizations are responsible for providing their enumerators with all necessary equipment (smartphone/tablet, laptop, internet connection) to enable them to undertake data collection. All partners participating in the initiative are asked to submit their data using this common KoBo tool unless circumstances prevent them from doing so, in which case an individualized plan can be worked out with each participating organization.
- The survey will provide a light in touch assessment of the selected infrastructure. Due to the scale of the work and the proposed census approach, a shorter and more comprehensive questionnaire tool is more suitable in Phase 2. Drawing on other capability assessment tools such as the HeRAMS and considering global overarching indicators for facility and service capability, a short form and context specific survey will be

developed. Different survey tools will be developed for the different sectors, health and nutrition, education and water.

- Enumerators will complete the questionnaire about the physical infrastructure of facilities as well as the services offered by each facility, to assess capability. They will engage key informants at health and nutrition, education and water facilities, who will provide primary data on service provision. This will be done through structured interviews collecting data on core indicators and quantitative measures in service delivery. In addition, enumerators will assess the condition of the physical infrastructure through direct observations. Overall, this will provide data about the variation in types of facilities and services offered at each, as well as the number of facilities that are currently not capable.

Triangulation

- Review of data collected against data from other sources, for example, health data will be compared against HeRAMS findings.

3.2 Data Processing & Analysis

Data collected from infrastructure mapping using ODK tool will be uploaded daily onto the KOBO server and the Woreda and Kebele administrative boundaries reviewed to record daily progress. Daily quantitative data checks will be done at the end of the day by the Database Assistant once the field data collection teams have uploaded data in the server. Daily spatial verifications will be done by the GIS Officer who will only have access to the GPS points, facility types and names, to check that all areas have been covered. Daily data checks will also cover:

- GPS coordinates of entries collected in person (to check legitimacy of submitted data)
- Duration of surveys per entry (to check legitimacy of submitted data)
- Personally identifiable information will be removed after data cleaning to ensure only anonymized dataset is shared.
- Any illogic responses between different responses will be cleaned and in some cases, Key Informants will be re-contacted to follow up on answers, if data quality is poor and may compromise the data quality

The outcomes of the daily data quality checks will form a basis for debriefing the enumerators before further data collection the next day. Data will be uploaded and cleaned throughout the data collection period. Where necessary, KIIs will be contacted directly to ask for clarification on the datasets. All errors will be recorded in a cleaning log which will be shared upon request. The final clean dataset will be reviewed by IMPACT HQ before publication and sharing.

Data cleaning will be conducted in line with IMPACT's Data Cleaning Minimum Standards Checklist. All errors will be entered into a checking log, which will be shared to the field officer for enumerator clarification and follow up. Once data has been cleaned and anonymized, data analysis will follow using excel and R script. The final clean and analyzed dataset will be reviewed by IMPACT research design and data unit before publication and sharing. Factsheets will be produced for each zone and region by the Assessment Officer using Adobe InDesign. One capability map per sector (health and nutrition, education and water), per zone, will also be produced by the GIS Officer using ArcGIS Pro.

3.3 Limitations

The major limitations of the research are around the following matters:

- **Logistics**: the proposed census approach, whilst allowing for a comprehensive and accurate snapshot of the capability and capability of all services in each zone surveyed is a large undertaking. When considering the scope of facilities we intend to map and analyse, this presents possible limitations with regards to budget due the possible cost of such comprehensive data collection, and time limitations, as mapping all facilities can be a timely undertaking. We will work the Ethiopian Red Cross, who will support us in data collection to streamline these matters.

- **Partner availability:** this data collection relies on the ability of partners in the field, currently the Ethiopian Red Cross, to support us in data collection. Their staff capacity, availability and ability to carry out such comprehensive research will determine the timeframes of the work.
- **Limited partner presence:** relating to the above, in areas where the Ethiopian Red Cross do not have any operations or presence, and where they may not be willing to travel to for data collection, data collection may be left out. Either REACH needs to secure funding and the resources to collect data in such areas, or the scope of the research will be limited.
- **Secondary data:** secondary data on facilities location, coverage and capability in Ethiopia to date has been limited. This has made baseline assessments and tool development challenging.

4. Key ethical considerations and related risks

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

The proposed research design…	***Y/N***	***Details if no (including mitigation)***
Has been coordinated with relevant stakeholders to **avoid unnecessary duplication** of data collection efforts?	Yes	Whilst there has been coordination with stakeholders, there is potential for overlap with the ongoing HeRAMS surveys. Following discussions with the health cluster, we have updated our approach to be more complimentary and avoid duplication.
Respects respondents, their rights and dignity (*by: seeking informed consent, designing length of survey while being considerate of participants' time, ensuring accurate reporting of information provided*)?	Yes	
Does not **expose data collectors to any risks as a result** of participation in data collection?	Yes	
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	We would like to collect some personally identifiable information in case of need for follow up with KIs. We will ensure to collect consent from KIIs and delete all personally identifiable information 2 weeks after the data collection phase, allowing for some time for follow up with KIs, if needed.

5. Roles and responsibilities

Description of roles and responsibilities

Task Description	*Responsible*	*Accountable*	*Consulted*	*Informed*
Research design	REACH Senior Assessment Officer (SAO)	REACH Research Manager (RM)	REACH HQ, EC2R partners especially Ethiopian Red Cross (ERC), and relevant clusters	EC2R partners and relevant clusters (WASH, health and education)
Supervising data collection	REACH and ERC under EC2R	ERC, REACH	REACH Field Officer, AO, ERC	REACH CRM
Data processing (checking, cleaning)	REACH Database Officer (DBO)	REACH SAO, RM	REACH RM, ERC for any specific data follow up	EC2R partners and relevant clusters (WASH, health and education)
Data analysis	REACH DBO	REACH SAO, RM	REACH HQ, SRM	EC2R partners and relevant clusters (WASH, health and education)
Output production	REACH SAO, REACH RM	REACH SAO, RM	REACH HQ, RM	EC2R partners and relevant clusters (WASH, health and education)
Dissemination	REACH SAO	REACH RM	EC2R partners and relevant clusters (WASH, health and education)	REACH HQ
Monitoring & evaluation	REACH SAO	REACH SAO, RM	EC2R partners and relevant clusters (WASH, health and education)	REACH HQ, CRM
Lessons learned	REACH SAO	REACH SAO, RM	EC2R partners and relevant clusters (WASH, health and education)	REACH HQ, CRM

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*

6. Data Analysis Plan

Data analysis plans (DAPs) for the health and nutrition, education and water surveys are below. These are also available in excel format.

Health DAP

Research Question	IN #	Data collection method	Indicator group/sector	Questionnaire Question	Instructions	Question Reponses	Restrictions
Basic information							
N/A	1.1	Insert text	Basic information	Data collector name, survey date and start time, other standard questions			
	1.2	KII or direct observation	Location	In which region is the assessment being conducted?	Select one	List all regions	
	1.2.1	KII or direct observation	Location	In which zone is the assessment being conducted?	Select one	List all zones per region	
	1.2.2	KII or direct observation	Location	In which Woreda is the assessment being conducted?	Select one	List all woredas per zone	
	1.2.3	KII or direct observation	Location	In which Kebele is the assessment being conducted?	Select one	List all kebeles per woreda	
	1.3	KI interview	% of health facility where a key informant was available	Is there a Key informant available to respond to the interview?	Select one	Yes, No	If no, then ask enumerators to collect GPS coordinates of facility

							and end survey.
	1.4	KI interview	Position of the key informant	What is the position of the key informant?	Select one	Doctor in charge Nurse in charge Health officer Laboratory technician Administrative worker Other	
	1.5	KI interview	Key informant personal details	Do you consent to provide us with your contact details, in case of need for further follow up after this survey?	Select one	Yes, No	
	1.5.1	KI interview	Key informant personal details	Please provide us with your phone number	Enter number		Only answer if 1.5 is yes. This is not a mandatory field Restriction: must be 10 digits
Facility details							
What key infrastructures in health, WASH and education are available in Ethiopia, and where are they located?	2.1	KII or direct observation	Facility details	What is the name of the facility?	Enter text		
	2.2	KI interview	Facility type	What is the type of health facility?	Select one	Specialised hospital Referral hospital General hospital Primary hospital Health centre Health post Other (please specify)	
	2.3	KI interview	Facility type	Is this health post supported by a health center or hospital?	Select one	Yes, No.	Only answer if 2.2

							selection is 3
	2.3.1	KI interview	Facility type	If yes, please provide us with the name of the health center or hospital that supports this health post	Enter text		Only answer if 2.3 is yes
	2.4	KI interview	Facility ownership	Who owns and manages this health facility?	Select one	Privately managed Government managed Non for profit managed (if non for profit, please specify which organisation)	If answer is private, end survey
Facility service delivery							
Which health and nutrition services are provided at this facility?	3.1	KI interview	% of health facilities offering services at the time of data collection.	Currently, are there any services being offered in this health facility?	Select one	Yes No Other (please specify)	
	3.2	KI interview	Top reported reasons for health facilities not offering services	Why are there no services being offered at this health facility?	Select one or multiple	The structures (Buildings, furniture etc) are damaged The facility is under construction There are not enough personnel to offer services There is no adequate medical equipment to offer services There are no medicines to offer services Security issues or ongoing conflict Other (specify)	

	3.3	KI interview	Top reported services offered at health facilities	Which health services are available at this facility?	Select one or multiple	In patient services Out patient services Surgery Pharmacy Paediatric services Vaccination services Maternal health services, deliveries Maternal health services, prenatal and antenatal services Family planning services TB treatment HIV/AIDS treatment Malaria treatment Cholera treatment Psychiatric and psychosocial services Physical disability services Non communicable diseases (diabetes, asthma, hypertension) Other (please specify)	
	3.4	KI interview	Nutrition services offered	Which nutrition services are offered at this health facility?	Select one or multiple	Nutrition assessment and growth monitoring Nutrition education and counselling Nutrition in pregnancy services Age specefic nutrition services No nutrition services offered Other (please specificy)	
	3.5	KI interview	Number of days in a week when the health facility reportedly offers services	On which days of the week does this facility offer services?	Select one or multiple	Monday Tuesday Wednesday Thursday Friday Saturday Sunday I do not know	
	3.6	KI interview	Hours of operation	At what times does this health facility offer services?	Select one	During the day At night During day and night Do not know	

	3.7	KI interview	Functionality	What are the main challenges that this facility is facing to function properly?	Select one or multiple	Lack of equipment Lack of personnel Lack of medicine Damaged infrastructure Water supply Electricity supply None	
Affordability							
What is the affordability of services offered in this facility?	4.1	KI interview	% of health facilities where community members are charged for services offered.	Are community members charged to access services (including consultations, procedures and medicines) offered at this health facility, or are they accessing services using community based health insurance?	Select one	All households are accessing services through community based health insurance Community based health insurance in place, unsubscribed households charged for services All households charged for access to services No charges for services, and no insurance in place Don't know	
Accessibility							
What if any, are the accessibility barriers to the key infrastructure?	5.1	KI interview	% of service users who travel from a different Kebele/Woreda to access health facility	Do people outside this Woreda and/or Kebele come here to access health services?	Select one and enter text	Yes No	
	5.1.2	KI interview	Location of service users who travel to access health facility	What proportion of the people accessing services at this health facility have travelled from outside the Kebele to access services?	Select one	Less than 10% 10-25% 25%-50% More than 50%	Only ask if 5.1 is yes. Only ask if answer to 2.2 is Primary hospital

							, Health centre or Health post
	5.2	Direct observation	Physical accessibility infrastructure	Is there any observable equipment/ infrastructure aimed to facilitate access to people with physical disabilities	Observation. Inset text	Insert text	
Facility human resource availability							
What is the number of each type of the health workers available at the health facility?	6.1	KI interview	Type and number of staff working at health facility	Which health workers are providing care at this facility on a regular basis?	Select one or multiple	General Practitioner Doctor Nurses Midwives Health Officers Health Extension Worked (HEW) Clinical pharmacist Pharmacist technician Nutritionist Medical labratory technician Health information technician Other (please specify)	
What is the number of each type of the health workers available at the health facility?	6.2	KI interview	Type and number of staff working at health facility	How many of each health worker is providing care?	Integer	Insert number for the type of health worker	

How many health workers should be working in the facility?	6.3	KI interview	Type and number of staff working at health facility	Which health workers should be providing care at this facility on a regular basis? Note to data collectors: this question is different to the previous question. It asks how many health workers should be at the facility, according to staffing guidelines for this facilty.	Select one or multiple	General Practitioner Doctor Nurses Midwives Health Officers Health Extension Worked (HEW) Clinical pharmacist Pharmacist technician Nutritionist Medical labratory technician Health information technician Other (please specify)	
How many health workers should be working in the facility?	6.4	KI interview	Type and number of staff that should be working at the facility	How many of each health worker should be providing care?	Integer	Insert number for the type of health worker	
Facility infrastructure							
	7.1	KI interview	Types of reported power at health facility	What is the main supply of power at the facility?	Select one	Solar Wind Generator National power grid Don't know	
	7.2	KI interview	% of health facilities having supply of power/lighting	Is the power source functional? Note for data collectors: functional power is a source of power that means that electricty is available during the entire day, is safe and does not fluctuate of short ciricuit)	Select one	Yes No Don't know	

	7.3	KI interview	Types of reported water provision at health facility	What is the main supply of water available in this health facility? Note for data collector: If there is more than one source, the one used most frequently for drinking water should be selected. If children need to bring water from home because water is not provided by the school, “no water source” should be selected. "	Select one	Tap Borehole Vendor Water trucking Harvested rainwater Dam Other	
	7.4	KI interview	% of health facilities having a supply of water	Is water from the main source currently available? Note to data collector: Note for data collector: To be considered available, water should be available at the health facility at the time of the survey or questionnaire, either from the main source directly or stored water originally from the main source.	Select one	Yes No Don't know	
	7.5	KI interview	Water supply sufficient	Is the supply of water in this facility sufficient to support the facilty?	Select one	Yes No Don't know	
	7.6	KI interview	Most commonly reported type of latrine	What type of latrine/toilets are at the health facility?	Select one	Flush / Pour-flush toilets Pit latrines with slab Composting toilets Pit latrines without slab Hanging latrines	

						Bucket latrines No toilets or latrines	
What WASH facilities are available ?	7.7	KI interview	Latrine functionality	How many toilets / latrines are currently usable ? Note for data colletor: Toilets/latrines are available to health facility users (doors are unlocked or a key is available at all times), functional (the toilet is not broken, the toilet hole is not blocked, and water is available for flush/pour-flush toilets), and private (there are closable doors that lock from the inside and no large gaps in the structure) on the day of the survey or questionnaire	Number	0 to 100	Skip if answer above is No toilets or latrines
	7.8	KI interview	Latrine functionality	Are latrines seperate for men and women	Select one	Yes No Don't know	Skip if answer above is No toilets or latrines
	7.9	KI interview	Hand washing facilities	Are there functioning handwashing facilities at the school? Note for data collector: A handwashing facility is any device or infrastructure that	Select one	Yes No Dont know	

				enables people to wash their hands effectively using running water, such as a sink with tap, water tank with tap, bucket with tap, tippy tap, or other similar device. Note: a shared bucket used for dipping hands is not considered an effective hand washing facility			
	7.10	KI interview	Hand washing facilities	Do hand washing facilities have soap and water? Note for data collector: Both water and soap are available at the handwashing facilities for men and women on the day of the questionnaire or survey. Soapy water (a prepared solution of detergent suspended in water) can be considered as an alternative for soap, but not for water, as non-soapy water is needed for rinsing. Note: ash or mud may be available for hand cleansing but is not an acceptable alternative to soap	Select one	Yes, with only soap Yes, only water	
What is the building condition of the key	7.11	KI interview	% of health facilities with reported damaged	Currently, are there any structures in this health facility that are damaged?	Select one	Yes No Don't know	

infrastructure?			structures at the time of data collection.				
	7.12	KI interview	Top reported structures that are damaged	Which structures are partially or fully damaged?	Select one or multiple	Doors Windows Floors Roofs Walls All structures are totally damaged Other (specify)	Only ask if answer to 7.7 is Yes
	7.13	KI interview	Level of damage to infrastructure	If health facility is damaged, what is the extent of the damage?	Select one	Usable but needs repair Not usable and needs repair Usable and no need for repair Completely destroyed, facility non functional	Only ask if answer to 7.7 is Yes
GPS data collection							
N/A	8	GPS data point	Location of infrastructure	Please collect the GPS location of the infrastructure	Select GPS location		

Education DAP

Research questions	**IN #**	**Data collection method**	**Indicator group / sector**	**Indicator / Variable**	**Questionnaire Question**	**Instructions**	**Questionnaire answers**	**Collection level**	**Samplin g**	**Disaggregation variable**	**Restrictions**
N/A	***N/A***	*N/A*	*Key characteristics*	*Enumerator ID*	Enumerator ID	*Enter name*		*Individual*	*Purposive*	*ID*	
	N/A	*KI Interview*	*Key characteristics*	*Date*	Date of data collection	*Enter date*		*Institution level*	*Purposive*	*Date*	

	N/A	*Observation*	*School information*	*Region*	*In which region does the interview take place?*	*Select one*	*Region list*	*Institutional*	*Purposive*	*Region*	
	N/A	*Observation*	*School information*	*zone*	*In which zone does the interview take place?*	*Select one*	*zone list*	*Institutional*	*Purposive*	*Zone*	
	N/A	*Observation*	*School information*	*woreda*	*In which woreda does the interview take place?*	*Select one*	*woreda list*	*Institutional*	*Purposive*	*Woreda*	
	N/A	*Observation*	*School information*	*Kebele*	*In which kebele does the interview take place?*	*Select one*	*kebele list*	*Institutional*	*Purposive*	*Kebel*	
	N/A	*Observation*	*School information*	*Location coordinates*	*Location coordinates*	*GPS*		*Institutional*	*Purposive*	*GPS*	
	N/A	*KI Interview*	*Key characteristics*	*Key Informant Availability*	Is there a Key informant available to respond to the interview?	Select one	Select one	*Individual*	*Purposive*	*Yes/No*	
	N/A	KI interview	Key informant personal details	Key informant consent for personal details	Do you consent to provide us with your contact details, in case of need for further follow up after this survey?	Select one	Yes No	*Institution level*	*Purposive*	*Gender*	
	N/A	KI interview	Key informant personal details	Key informant personal details	Please provide us with your phone number	Enter number		*Institution level*	*Purposive*	*Gender*	

	N/A	*KI Interview*	*Key characteristics*	*Key Informant profile*	What is the key informant's position in the infrastructure being assessed?	select_one	*☐ School director ☐ Teacher ☐ Admin staff ☐ technical /support staff ☐ other ☐ Don't want to answer*	*Institution level*	*Purposive*	*Position*	
1. What key infrastructures in health and nutrition, WASH and education are available in Ethiopia, and where are they located?				**Enrollment and Drop Out**							
	1.1	*KI Interview*	*School information*	*School facility*	*Is this school a public or private school?*	select_one	*Public, private*	*Institutional*	*Purposive*	*Public or private*	*If private selected, end survey.*
	1.2	*KI Interview*	*School information*	*Name of the education facility*	What is the name of the school?	text		*Institutional*	*Purposive*	*Name*	
	1.3	*KI Interview*	*School information*	*Education grades*	What is the learning level of this school?	select_one	Primary, secondary. Pre-school Primary Post-primary/Middle Secondary	*Institutional*	*Purposive*	*Proportion Level of education*	
	1.4	*KI Interview*	*Enrollment*	*Boys enrolled to attend education facility for*	How many boys are enrolled to attend this school for the	Integer		*Institutional*	*Purposive*	*Number*	

				the current school year	current school year?						
	1.5	*KI Interview*	*Enrollment*	*Girls enrolled to attend education facility for the current school year*	How many girls are enrolled to attend this school for the current school year?	Integer		*Institutional*	*Purposive*	*Number*	
	1.6	*KI Interview*	*Enrollment*	*Children enrolled to attend education facility for the current education facility year*	How many children are enrolled to attend this school for the current school year?	Integer	Autofil based on the total number of boys and girls enrolled	*Institutional*	*Purposive*	*Number*	
	1.7	*KI Interview*	*Attendance*	*Regular attendance to school*	How many boys and girls are attending school on the day of data collection?	Integer		*Institutional*	*Purposive*	*Number*	*Note, this cannot be more than the total number of children enrolled at the school*
	1.8	*KI Interview*	*Enrollment*	*Children enrolled with IDP status*	How many children enrolled to attend this school are internally displaced	Integer		*Institutional*	*Purposive*	*IDP status*	

	1.9	*KI Interview*	*school drop out*	*Boys drop out rate*	How many boys, if any, dropped out of school in the current school year? Dropped out = child attended school at the beginning of the year (or end of the previous school year) but stopped attending at some point since then	Integer		*Institutional*	*Purposive*	*Gender*	
	1.1	*KI Interview*	*school drop out*	*Girls drop out rate*	How many girls, if any, dropped out of school in the current school year? Dropped out = child attended school at the beginning of the year (or end of the previous school year) but stopped attending at some point since then	Integer		*Institutional*	*Purposive*	*Gender*	

	1.1.1	*KI Interview*	*school drop out*	*Most commonly reported reasons for school drop out for boys*	What were the most common reasons for boys dropping out of this school?	select_multiple	Fees and/or cost of materials Parents don't value education Parents don't approve of curriculum Distance to school too far / lack transportation Insecurity on the way to school or in the area (real or perceived) Child helping at home / farm Child working outside home Children psychologically distressed Displacement due to conflict Children lack documentation needed to register Flooding / weather	*Institutional*	*Purposive*	*Gender*	*only ask if boys drop out > 0*

							events Children join/recruited by armed groups Marriage and/or pregnancy Language issues Poor school infrastructure/facilities Lack of qualified teaching staff Insufficient WASH facilities in schools Lack of male / female separation Other (specify) Not sure				
	1.1.1	*KI Interview*	*school drop out*	*Most commonly reported reasons for school drop out for girls*	What were the most common reasons for girls dropping out of this school?	select_multiple	Fees and/or cost of materials Parents don't value education Parents don't approve of curriculum Distance to school too far / lack transporta	*Institutional*	*Purposive*	*Gender*	*only ask if girls drop out > 0*

							tion Insecurity on the way to school or in the area (real or perceived) Child helping at home / farm Child working outside home Children psychologically distressed Displacement due to conflict Children lack documentation needed to register Flooding / weather events Children join/recruited by armed groups Marriage and/or pregnancy Language issues Poor school infrastructure/facilities Lack of				

							qualified teaching staff Insufficient WASH facilities in schools Lack of male / female separation Other (specify) Not sure				
What is the level and type of service provided by the key infrastructure?				**School services**							
	2.1	*KI Interview*	*school services*	*% of children with adequate learning materials*	How many children in the school have adequate learning materials (pens, notebooks, pencils)?	select_one	None or almost none Around a quarter Around half Around three quarters All or almost all Not sure	*Institutional*	*Purposive*	*Proportion*	
	2.2	*KI Interview*	*school services*	*% of education facilities with psychosocial support programs*	Does this school have specialised staff or programmes available for children needing psychosocial support, social emotional learning, or	select_one	Yes No Not sure	*Institutional*	*Purposive*	*Yes/No*	

					other counselling?						
	2.3	*KI Interview*	*Users out of the kebele*	% of education facilities which enrol children who travel from a different Kebele	Do children outside this kebele come here to access the school services?	select_one	Yes No	*Institution level*	*Purposive*	*Yes/No*	
	2.4	*KI Interview*	*Users out of the kebele*	*Kebele of service users who travel to access education facilities*	If yes, From which kebele do people come to access services?	Select multiple	kebele list	*Institution level*	*Purposive*	*Woreda*	
				Teachers information							
	3.1	*KI Interview*	*Teachers information*	*Total male teachers*	How many male teachers are currently working in this school?	integer		*Institutional*	*Purposive*	*Gender*	
	3.2	*KI Interview*	*Teachers information*	*Total female teachers*	How many female teachers are currently working in this school?	integer		*Institutional*	*Purposive*	*Gender*	*In the KOBO: add flag that male + female teachers must equal total*

											other wise edit
	3.3	*KI Interview*	*Teachers information*	*Total no of teachers*	How many teachers are currently working in this school?	integer	Autofil based on the total number of male and female teachers	*Institutional*	*Purposive*	*Number*	
	3.4	*KI Interview*	*Teachers information*	*Regularity of teachers' salary payment*	Are teachers regularly paid on time?	select_one	Always or almost always Sometimes paid on time, sometimes not No salary or salary is always late (3 months or more delay) Not sure	*Institutional*	*Purposive*	*Proportion*	
	3.5	*KI Interview*	*Teachers information*	*Trainign needs*	Which trainings do teachers in this school need to take?	select_multiple	Psychosocial First Aid (PFA) Training for accelerated teaching / 'catch up' program Life skills Classroom management MHPSS Referral mechanism Hygiene Promotion	*Institutional*	*Purposive*	*Purposive*	

							Child Protection in Emergencies Child Rights Cholera Mitigation Measures (CMM) Conflict Disaster Risk Reduction (CDRR) Gender Based Violence (GBV) Life Skills and Mine Risk Education Pedagogy Positive Discipline School Safety Plan and Management and Child Protection Child Centered Methodology Early Child Care Development (ECCD) concepts None Not sure other (specify)				

3. What if any, are the gaps in service capability of the key infrastructure?				**Safety and security**							
	4.1	*KI Interview*	*school closure*	*% of education facilities that experienced an unplanned school closure in the current school year*	Has the school stopped functioning at any time in the current school year other than for the normal school holiday?	select_one	Yes No Don't know	*Institutional*	*Purposive*	*Yes/No*	
	4.2	*KI Interview*	*school closure*	*Most commonly reported reasons for unintended school closure in the current school year*	If yes, what was the main reason for the school not functioning?	select_one	Closed due to natural disaster Closed due to insecurity/ conflict Closed due to lack of resources Other (specify)	*Institutional*	*Purposive*	*Reasons*	
	4.3	*KI Interview*	*school closure*	*Average closure time of education facilities in the current year*	If yes, how many weeks was the school closed for in the current school year?	Integer		*Institutional*	*Purposive*	*Number*	
	4.4	*KI Interview*	*school closure*	*Safety risks for children in area*	Do children face safety risks in the area?	select_one	Yes No Don't know	*Institutional*	*Purposive*	*Yes/No*	

	4.5	*KI Interview*	*safety*	*Most commonly reported safety risks for children (around education facilities)*	What are the top three safety risks for children in the area, if any? (Select up to 3)	select_multiple	No risks (cannot be selected with other options) Unexploded ordnance, mines Presence of armed groups/militia/military Natural disasters or hazards Abduction Being caught in conflict/insecurity Other (please specify in next question)	*Institutional*	*Purposive*	*Reasons*	*Only as if previous quetstion is yes*
	4.6	*KI Interview*	*safety*	*Safety rirsks for children in school*	Do children face safety risks in the school?	select_one	Yes No Don't know	*Institutional*	*Purposive*	*Yes/No*	
	4.7	*KI Interview*	*safety*	*Most commonly reported safety risks for children (inside education facilities)*	What are the top three safety issues that children face (inside the schools)? (Select up to 3)	select_multiple	No risks (cannot be selected with other options) Physical punishment from teachers Harassment at school Unexploded ordnance, mines in	*Institutional*	*Purposive*	*Reasons*	*Only as if previous quetstion is yes*

							the school Presence of armed groups/militia/military In, around or at the school gate Schools being robbed / looted Schools attacks Unsafe infrastructure at schools Other (please specify in next question)				
4. What is the building condition of the key infrastructure?				**School infrastructure**							
	5.1	*KI Interview*	*infrastructure*	*Number of classrooms*	How many total classrooms are there at this school (functioning and non functioning) Note for data collectors: functioning classrooms are used for lessons, and non functioning classrooms cannot be	Integer	Functioning (insert number) Non functioning (insert number)	*Institutional*	*Purposive*	*Number*	

					used for lessons						
	5.2	*KI Interview*	*infrastructure*	*types of classrooms at the education facility*	How many of the {X} functioning classrooms are tents, temporary structures or semi-permanent classrooms?	select_multiple and integer	Permanent (insert number) Semi-permanent (insert number) Tents (insert number) Classes are given in the open Specify if other	*Institutional*	*Purposive*	*Number*	
	5.3	*KI Interview and direct observation*	*infrastructure*	*% of education facilities with damaged structures*	Are there damages to the buildings in the school?	select_one	Yes No Not sure	*Institutional*	*Purposive*	*Yes/No*	*Only ask if answer to previous question is permanent, semi permanent or other. Skip for tents or the open.*

	5.4	*KI Interview*	*infrastructure*	*Most commonly reported structures that are damaged*	If damaged, what parts of the structure are affected?	select_multiple	Roof Walls Doors and/or windows Fixtures (electric, gas, water pipe) Foundations Other (specify) Not sure	*Institutional*	*Purposive*	*structure*	
	5.5	*KI Interview*	*infrastructure*	*Main source of drinking water at the education facility*	What is the main source of drinking water provided by the school? (check one - most frequently used) Note for data collector: If there is more than one source, the one used most frequently for drinking water should be selected. If children need to bring water from home because water is not provided by the school, "no water source"	select_one	Piped water supply Protected well/spring Rainwater Unprotected well/spring Packaged bottled water Tanker-truck or cart Surface water (lake, river, stream) No water source	*Institutional*	*Purposive*	*Source*	

					should be selected. "						
	5.6	*KI Interview and direct observation*	*infrastructure*	*Water source available*	Is drinking water from the main source currently available at the school? Note for data collector: To be considered available, water should be available at the school at the time of the survey or questionnaire, either from the main source directly or stored water originally from the main source.	Select_one	Yes No Don't know	*Institutional*	*Purposive*	*Source*	
	5.7	*KI Interview*	*infrastructure*	*Most commonly reported types of latrine at the education facility*	What type of student toilets/latrines are at the school? (check one - most common)	select_one	Flush / Pour-flush toilets Pit latrines with slab Composting toilets Pit latrines without slab Hanging latrines	*Institutional*	*Purposive*	*Type*	*If above question is 0 then skip*

							Bucket latrines No toilets or latrines				
	5.8	*KI Interview and direct observation*	*infrastructure*	*Latrines at school*	How many student toilets / latrines are currently usable ? Note for data colletor: Toilets/latrines are available to students (doors are unlocked or a key is available at all times), functional (the toilet is not broken, the toilet hole is not blocked, and water is available for flush/pour-flush toilets), and private (there are closable doors that lock from the inside and no large gaps in the structure) on the day of the survey or questionnaire	integer	0 to 100	*Institutional*	*Purposive*	*Number*	

	5.9	*KI Interview*	*infrastructure*	*% of education facilities having latrines segregated by gender*	Are the toilets/latrines separate for girls and boys?	select_one	Yes No	*Institutional*	*Purposive*	*Gender*	
	5.10	*KI Interview*	*infrastructure*	*% of education facilities that have functioning handwashing facilities at the education facility*	Are there functioning handwashing facilities at the school? Note for data collector: A handwashing facility is any device or infrastructure that enables students to wash their hands effectively using running water, such as a sink with tap, water tank with tap, bucket with tap, tippy tap, or other similar device. Note: a shared bucket used for dipping hands is not considered an effective hand washing facility	select_one	Yes No Dont know	*Institutional*	*Purposive*	*Yes/No*	

	5.1.1	*KI Interview*	*infrastructure*	*Hand washing facilities with soap and water*	Do hand washing facilities have soap and water? Note for data collector: Both water and soap are available at the handwashing facilities for girls and boys on the day of the questionnaire or survey. Soapy water (a prepared solution of detergent suspended in water) can be considered as an alternative for soap, but not for water, as non-soapy water is needed for rinsing. Note: ash or mud may be available for hand cleansing but is not an acceptable alternative to soap	select_one	Yes, with only soap Yes, only water	*Institutional*	*Purposive*	*yoe*	*Only as if previous quetstion is yes*

Water DAP

Research questions	IN #	Data collection method	Indicator group / sector	Indicator / Variable	Questionnaire Question	Instructions	Questionnaire answers	Collection level	Sampling	Disaggregation variable
Basic information	**Basic information**									
	N/A	*KI Interview*	*Key characteristics*	*Enumerator ID*	Enumerator ID	*Enter ID*		*Institution level*	*Purposive*	*ID*
	N/A	*KI Interview*	*Key characteristics*	*Date*	Date of data collection	*Enter date*		*Institution level*	*Purposive*	*Date*
	N/A	*Direct Observation*	*Water point _Location*	*Water point Region*	In which region is the water point located?	*Select one*	*Region list*	*Institution level*	*Purposive*	*Region*
	N/A	*Direct Observation*	*Water point _Location*	*zone*	In which zone is the water point located?	*Select one*	*zone list*	*Institution level*	*Purposive*	*Zone*
	N/A	*Direct Observation*	*Water point_Location*	*woreda*	In which woreda is the water point located?	*Select one*	*woreda list*	*Institution level*	*Purposive*	*Woreda*
	N/A	*Direct Observation*	*Water point_Location*	*Kebele*	In which kebele is the water point located?	*Select one*	*kebele list*	*Institution level*	*Purposive*	*Kebel*
	N/A			% of water points where a key informant was available	Is there a Key informant available to respond to the interview?	Select one	Yes No	*Institution level*		
	N/A	KI interview	Key informant	Key informant consent for	Do you consent to provide us with your	Select one	Yes No	*Institution level*	*Purposive*	*Gender*

			personal details	personal details	contact details, in case of need for further follow up after this survey?					
	N/A	KI interview	Key informant personal details	Key informant personal details	Please provide us with your phone number	Enter number		*Institution level*	*Purposive*	*Gender*
1. What key infrastructures in health and nutrition, WASH and education are available in Ethiopia, and where are they located?pe	**Water point type**									
	1.1	*KI Interview*	*Water point _type*	*Water point type*	What type of water point is it?	select_one	☐ Public tap/stand pipe ☐ Hand pump/bore hole ☐ Protected deep well ☐ Unprotected deep well ☐ Protected shallow well ☐Unprotected shallow well ☐Protected spring ☐Unprotected spring ☐ Rain water collection ☐ Surface water (river, dam, lake, pond, stream, canal, irrigation channel) ☐ Tanker trucks ☐ Bottled water ☐ Other	*Institution level*	*Purposive*	*Type*

							(please specify)			
	1.2	*KI Interview*	*Water point _ownership*	*Water point ownership*	Who owns and manages the water point?	select_one	☐ water, sanitation and hygiene committee (WASHCO) ☐ Water User Association (WUA) ☐ Water Board ☐ Town water utility ☐ Privately owned ☐ Other ☐ Don't know	*Institution level*	*Purposive*	*Owner*
	1.3	*KI Interview*	*Water scheme _type*	*Water scheme type that provides water to the water point*	What is the type of water scheme that provides water to the water point?	select_one	☐ Motorized borehole ☐ Gravity scheme ☐ Protected spring ☐ Rural piped scheme ☐Urban piped scheme ☐ Protected spring ☐ Unprotected spring ☐ Birkad ☐ Surface water (river, dam, lake,	*Institution level*	*Purposive*	*Type*

							pond, stream, canal, irrigation channel) ☐ Other (please specify)			
2. What is the level and type of service provided by the key infrastructure?	**Water service delivery**									
	2.1	*KI Interview*	*Water availability*	Water availability at the water point	Is the water point currently producing water?	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Proportion*
	2.2	*KI Interview*	*Water availability_hrs per day*	Number of hours water is available in a day	What is the number of hours per day where water is available in the water point?	integer		*Institution level*	*Purposive*	*Number of days*
	2.3	*KI Interview*	*Water availability_days per week*	Number of days water is available in a week	What is the number of days per week where water is available in the water point?	integer		*Institution level*	*Purposive*	*Number of days*
	2.4	*KI Interview*	*Water interruption*	Unplanned interruption of water supply	What is the frequency of unplanned interruption of water supply from this water point due to breakdown or other causes?	select_one	Every day Every week Every month More than twice a week More than twice a month If other, specify	*Institution level*	*Purposive*	*Frequency of days*
	Water point service Affordability									
	3.1	*KI Interview*	*Water affordability*	% of water points where community	*Is there is a charge for water?*	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*

				members are charged for services offered.						
	3.2	*KI Interview*	*Water affordability_charge in ETB*	Average cost for a 20 liter jerry can of water	*How much does it cost per a jerry can (20 liters)?*	Enter a price (in ETB)		*Institution level*	*Purposive*	*ETB*
3. What if any, are the gaps in service capability of the key infrastructure?	**Water point service Accessibility**									
	4.1	*KI Interview*	*Number of HH that use water point*	Number of households that access the water point	Approximately how many HH does this water point supply water to?	integer		*Institution level*	*Purposive*	*Proportion*
	4.2	*KI Interview*	*Travel time to water point*	Time of travel to water point	Can most households that use this water point fetch water from it within 30 minutes?	Sekect_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*
	4.3	*Observation*	*Capacity of water facility*	Average water output of facility	Using a jerry can, or watching a community member fill a jerry can of known volume, estimate how many liters is outputted within 1 minute. (E.g. enumerator times one minute and observes half a 20L jerry can is filled... the output is 10L/minute)	Insert text		*Institution level*	*Purposive*	*Volume in litres*

	4.4	*KI Interview*	*Equal access*	Equal access to water supply	*Is this water point accessible to everyone in the Community? Gender, disability, wealth etc.*	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*
	4.5	*KI Interview*	*Population sub-group_unable to access water point*	Most commonly reported groups unable to access water	*If no, Who is unable to access the water provided from this water point?*	select_multiple	☐Men ☐Women ☐IDPs ☐People with disabilities ☐People living in remote areas ☐economically disadvantaged households ☐ Don't know ☐ Other (specify)	*Institution level*	*Purposive*	*Population sub-groups*
	Water quality									
	5.1	*KI Interview*	*Water quality_color*	% of water points that were reportedly producing water with an acceptable color	*Does the water produced from this water point has acceptable color as perceived by the users from this water source?*	select_one	Yes No Don't know	*Community level*	*Purposive*	*Yes/No*
	5.2	*KI Interview*	*Water quality_taste*	% of water points that were reportedly producing water with an	*Does the water produced from this water point has*	select_one	Yes No Don't know	*Community level*	*Purposive*	*Yes/No*

				acceptable test	*acceptable taste as perceived by the users from this water source?*					
	5.3	*KI Interview*	*Water quality_odor*	% of water points that were reportedly producing water with an acceptable odor	*Does the water produced from this water point has acceptable odor as perceived by the users from this water source?*	select_one	Yes No Don't know	*Community level*	*Purposive*	*Yes/No*
	5.4	*KI Interview*	*Water quality_pollution*	Presence of any source(s) of pollution within 20 m from the water point	*Are there any source(s) of pollution (animal or human excreta, rubbish, etc.) within 20 m from the water point?*	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*
	5.5	*KI Interview*	*Water quality_nearby livestock*	Pressence of livestock close to water point	*Are there any animals or livestock sharing, using, or standing nearby the water point?*	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*
	5.6	*KI Interview*	*Water quality_nearby latrine*	Presence of latrine close to water point	*Is there any observable latrine with 30 meters to the water point?*	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*
	Water point infrastructure status									

4. What is the building condition of the key infrastructure?	*6.1*	*KI Interview*	*Water point infrastructure _damage*	% of water points with reported damaged structures at the time of data collection.	Has the structure been damaged?	select_one	Yes No	*Institution level*	*Purposive*	*Yes/No*
	6.2	*KI Interview*	*Water point infrastructure _cause of damage*	Most commonly reported causes of damage to the water point.	What has caused the damage?	select_one	conflict flooding landslide wind overuse/no maintenance vandalism or scavenging other cause	*Institution level*	*Purposive*	*Reason*
	6.3	*KI Interview*	*Water point infrastructure _cause of damage*	Most commonly reported causes of damage to the water point.	If other please specify.	text		*Institution level*	*Purposive*	*Reason*
	6.4	*KI Interview*	*Water point infrastructure _type of damage*	Most commonly type of damage at the facility	what type of damage is there?	select_one	☐ Leakage ☐ contamination/ pollution(animal or human excreta, rubbish etc) ☐ Septic backup ☐ broken/missing/rusted pipe lines ☐ broken/missing power source (solar/motor power) ☐ I don't know	*Institution level*	*Purposive*	*Yes/No*

							☐ other (specify)			
	6.5	*KI Interview*	*Water point infrastructure _leakage*	% of water points with reported leakage from the structure.	Is there any visible leakage from the structure?	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*
	6.6	*KI Interview*	*Water point infrastructure _maintenance*	% of water points that were reported to have a regular maintenance done to sustain them in a proper working condition	Is there a regular maintenance done to sustain the water supply facilities in a proper working condition?	select_one	Yes No Don't know	*Institution level*	*Purposive*	*Yes/No*
	6.7	*KI Interview*	*Water point infrastructure _maintenance regularity*	Regularity of maintenance works.	If yes, how regularly is it done?	select_one	Monthly quarterly bi-annually Anually	*Institution level*	*Purposive*	*Proportion*
N/A	**GPS**									
	7	GPS data point	Location of infrastructure	GPS location	Please collect the GPS location of the infrastructure	Select GPS location		*Institution level*	*Purposive*	*GPS location*

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		X Yes
		# of page clicks on x product from REACH global newsletter	Country request to HQ		X Yes
		# of page clicks on x product from country newsletter, sendingBlue, bit.ly	Country team		□ 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	• Ethiopia HNO 2024 • Ethiopian national cluster documents, for the health, education and WASH clusters, as well as for region specific clusters. Specifically, cluster strategy documents • National and regional government ministry documents, for the Ministries of health,

		# references in single agency documents			education and water and sanitation
Humanitarian stakeholders are using IMPACT products	Humanitarian actors use IMPACT evidence/products as a basis for decision making, aid planning and delivery Number of humanitarian documents (HNO, HRP, cluster/agency strategic plans, etc.) directly informed by IMPACT products	Perceived relevance of IMPACT country-programs Perceived usefulness and influence of IMPACT outputs Recommendations to strengthen IMPACT programs Perceived capacity of IMPACT staff Perceived quality of outputs/programs Recommendations to strengthen IMPACT programs	Country team	Usage_Feedback *and* Usage_Survey template	Decisions made and implemented on the basis of the study– to be checked with operational and donor partners to ask what actions they took on the basis of the findings and recommendations. Perceived usefulness and influence of IMPACT outputs This infrastructure and service mapping may also be included in a usage survey of partners if one is conducted in the future.
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 # of organisations/clusters inputting in research design and joint analysis # of organisations/clusters attending briefings on findings;	Country team	Engagement_log	X Yes X Yes X Yes