

# Ethiopia | Education, Health and WASH Service Capability Assessment in Central Tigray Zone

June, 2024

## Background and Rationale

Multiple overlapping crises in Ethiopia are affecting the population and driving humanitarian need. Ongoing conflict, as well as climatic events such as flood and drought, are creating crisis-level food insecurity, driving displacement and accelerating disease outbreaks. An estimated 21.4 million people are in need of humanitarian assistance, 3.4 million of whom are in Tigray. Displacement is also driving humanitarian need, with an estimated 4.4 million people internally displaced in Ethiopia and Tigray is hosting the largest caseload of conflict-displaced people nationwide.

Issues of security and humanitarian access are limiting access to and functioning of basic services, including health and nutrition, education and WASH services. It is estimated that 16.4 million people are in need of health assistance, 15.2 million people are in need of water, sanitation and hygiene (WASH) assistance, and 10.6 million children and adults are in need of education assistance.

To address these challenges, comprehensive information on the location, function, and capability of basic services is essential for effective humanitarian intervention and development planning. In response, FCDO's Ethiopia Crisis to Resilience (EC2R) program has funded a service capability assessment to map and evaluate health, water, and education services. This assessment aims to provide updated data for humanitarian and development actors, enabling coordinated responses to meet the population's needs.

This pilot phase of the capability assessment has been conducted in partnership with the Ethiopian Red Cross. Selection of the pilot zone was done based on consultations with regional stakeholders and clusters, and the presence of Ethiopian Red Cross teams. The central zone of Tigray was selected for the pilot study as it was identified to be affected by a number of recent shocks including drought and conflict which causes damage to infrastructure, drives displacement and limits capacity, access to and functioning of basic services, including health and nutrition, education and WASH services. Limited humanitarian access over recent years also suggested that the capability assessment is essential for effective humanitarian intervention and development planning in the study area.

## Assessment Coverage Location Map, By Woreda



## KEY MESSAGES

- Structural damage was reported to be one of the most prevalent challenges across all three sectors, with almost all of the facilities reporting this either as a reason for service closure, interruption or as a challenge they faced to provide service.
- Very poor WASH conditions were reported in health and education facilities while around half of the water points assessed were reported to be situated close to a source of pollution.
- Access for people with disabilities was also found to be a significant issue in all sectors, with schools (98%), health facilities (87%) and water points (43%) reported to have no provisions to facilitate access to people with physical disabilities.

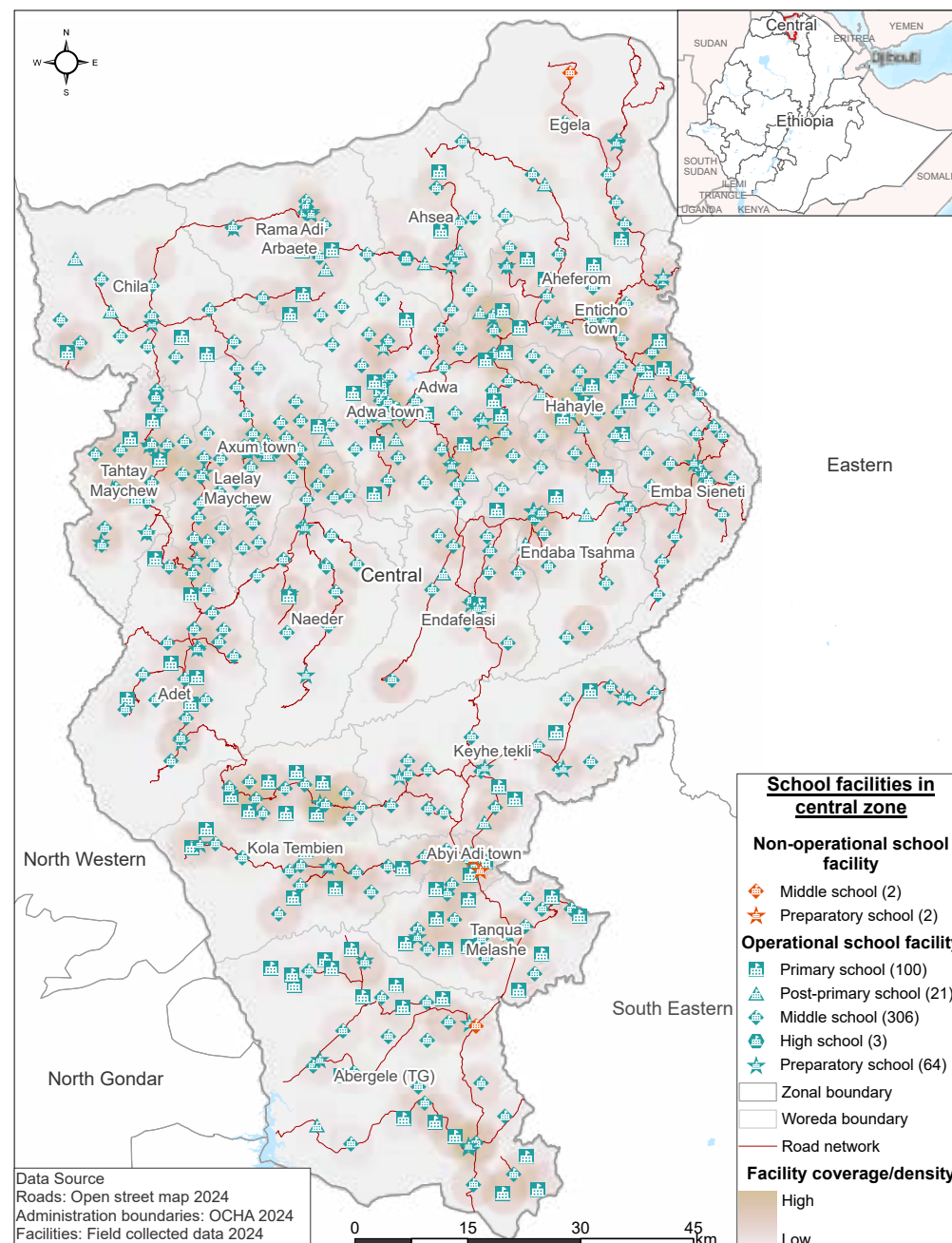
# Education Services

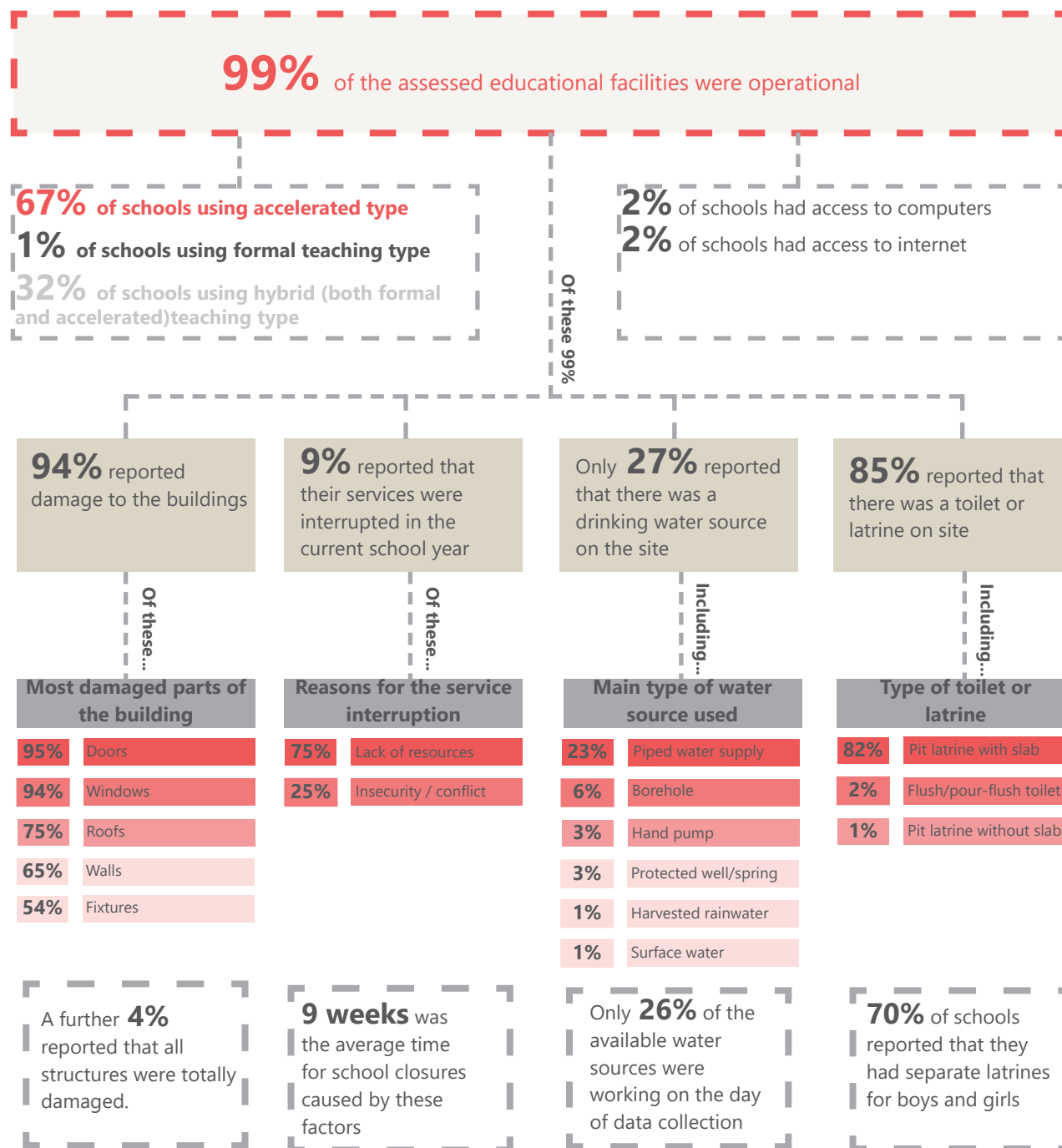
This section addresses educational facilities functionality in the central zone of Tigray region, Ethiopia. This has been checked by using key indicators such as availability of school services, level of schooling, school dropouts, and adequacy of learning materials. The assessment covered all primary and secondary schools in central zone of Tigray. The findings for each indicator have been discussed in the following sub-sections.

## Key Findings

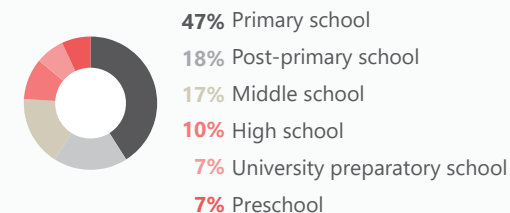
- Even though almost all of the facilities assessed (99%) were operational during the data collection period, major challenges were reported. In particular, WASH provision in schools was found to be very poor. Only 27% of facilities reported that they had a drinking water source and, out of these, nearly three quarters were not working on the day of data collection. Other challenges included damage to school structures (98%), lack of provisions to help children with disabilities (98%), lack of electricity (85%) and lack of ability to pay teachers (31%).
- Psychosocial support in schools was found to be limited. Psychological first aid was reported to be the highest priority training need for teachers and only 10% of schools had specialised staff or programs for children needing psychosocial support or other counselling.
- The effective delivery of accelerated teaching may be another significant gap. Almost all schools (99%) reported either accelerated or hybrid (including accelerated) teaching and, at the same time, almost all schools (97%) reported that this type of teaching was a training need for teachers. This suggests that teachers may be teaching with limited capacity. Accelerated teaching was introduced by most schools in the region to help students catch up with the years of backlog in education that happened due to the total cessation of education services first during covid and then the conflict.
- Access to learning materials was another major barrier to quality education, with most schools (70%) having reported that none or almost none of the students have adequate learning materials.
- Affordability of learning materials was also found to be the main cause of drop outs. Although current dropout rates were not found to be particularly high (3% of enrolled students dropped out in the data collection year), over ten thousand children who passed the previous school year were found to have not enrolled for the current one. This also does not account for school-aged children who may not have been enrolled at all.
- Proximity to education facilities may also present a barrier for some families, with well over half (62%) of schools reporting that children travel outside of their kebele to reach them. This is likely to disproportionately affect lower-income households or those with disabilities, who are less able to make longer journeys.

## Health Facilities Location Map

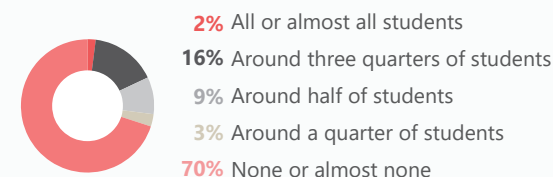




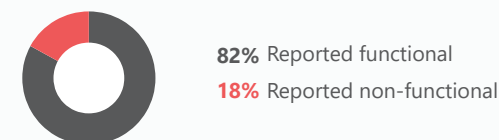
## Educational level, by % of schools



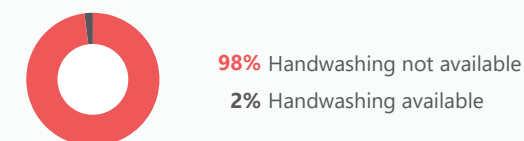
## Proportion of students with adequate learning materials, by % of schools



## Reported functionality of classrooms, by % of schools



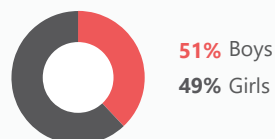
## Availability of handwashing facilities, by % of schools



## Attendance

**78%** of the children enrolled were reported to be attending on the day of data collection

Proportion of boys and girls enrolled in schools, by % of students



Schools that reported children traveling outside their kebele to attend, by % of schools



Schools reporting safety issues for children in their area, by % of schools

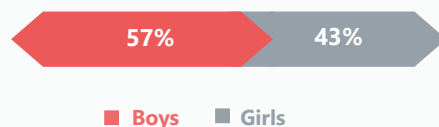


## Drop outs

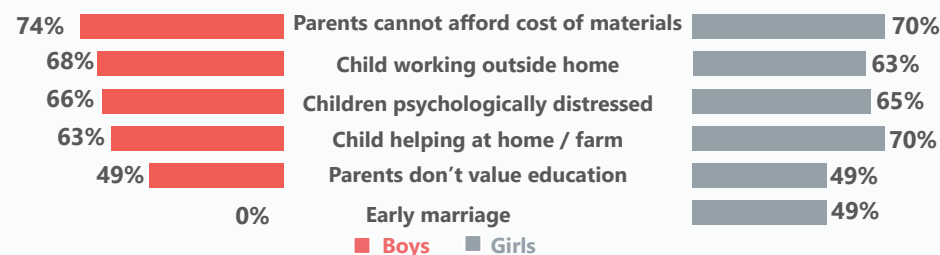
**3%** of students were reported to have dropped out in the year of data collection.

**10,060** students who passed the previous school year failed to enrol for the current school year.

Proportion of boys and girls dropped out of schools, by % students (out of the 3% dropped out students in the year of data collection)



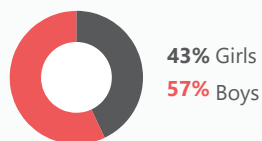
Top five reasons for **boys** and **girls** to have dropped out of school, by % of schools



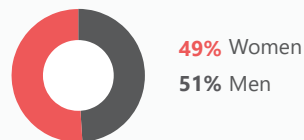
## Disability

**98%** of schools reported no provisions to help children with disabilities attend

Gender of students with a disability (2% of student population)

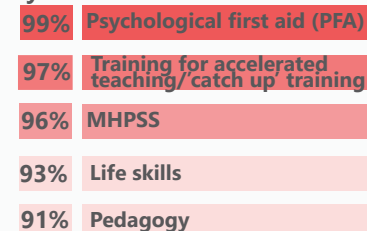


Gender of teaching staff, by % of teachers



only **10%** of schools had specialised staff to support students needing psychosocial support, social emotional learning, or other counselling

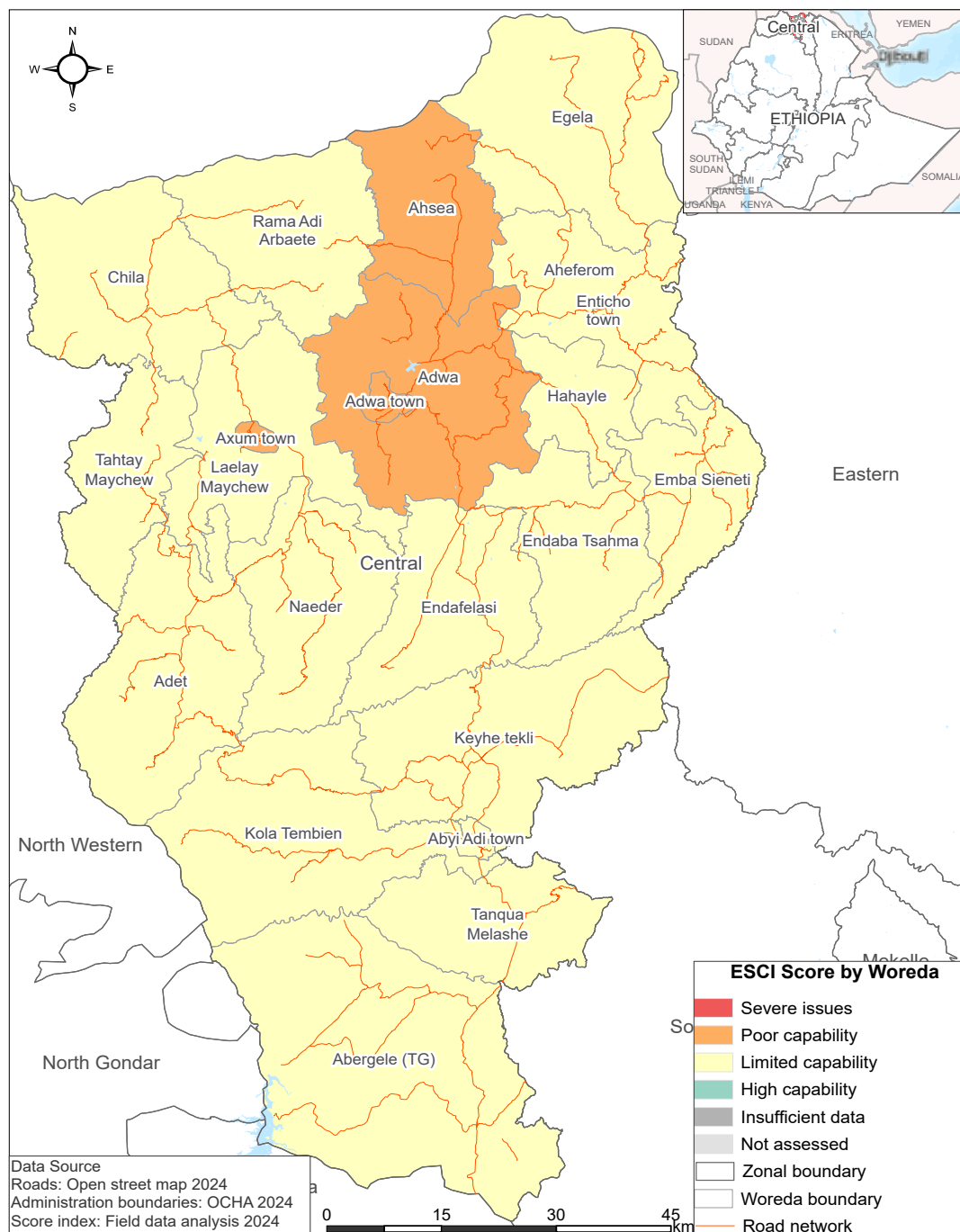
Teacher training needs, by % of schools



**31%** of schools were reported to not pay or pay late salary for teachers.



# EDUCATION SERVICE CAPABILITY INDEX



**4**  
out of  
**22**  
woredas in Central Tigray zone  
had **poor education service**  
**capability**

**18**  
out of  
**22**  
woredas in Central Tigray zone  
had **limited education service**  
**capability**

The Education Service Capability Score (ESCS) is a method of classifying woredas based on the level of capability of their education services, helping aid and development actors understand which woredas are better able to provide education services and which ones may require more support. ESCS is divided into four dimensions:

- Teaching and learning (25%): Availability of adequate teachers, learning materials and regularity of salary for teachers
- Equal access (25%): Ability to serve all students regardless of disability, having MHPSS services, reliability of school services
- Facilities and Infrastructure (25%): Availability of basic sanitation and hygiene, adequate classrooms and presence of damage on structures
- Protection and wellbeing (25%): Ability to protect students from risk, sexual and gender-based violence and provide psychosocial first aid support

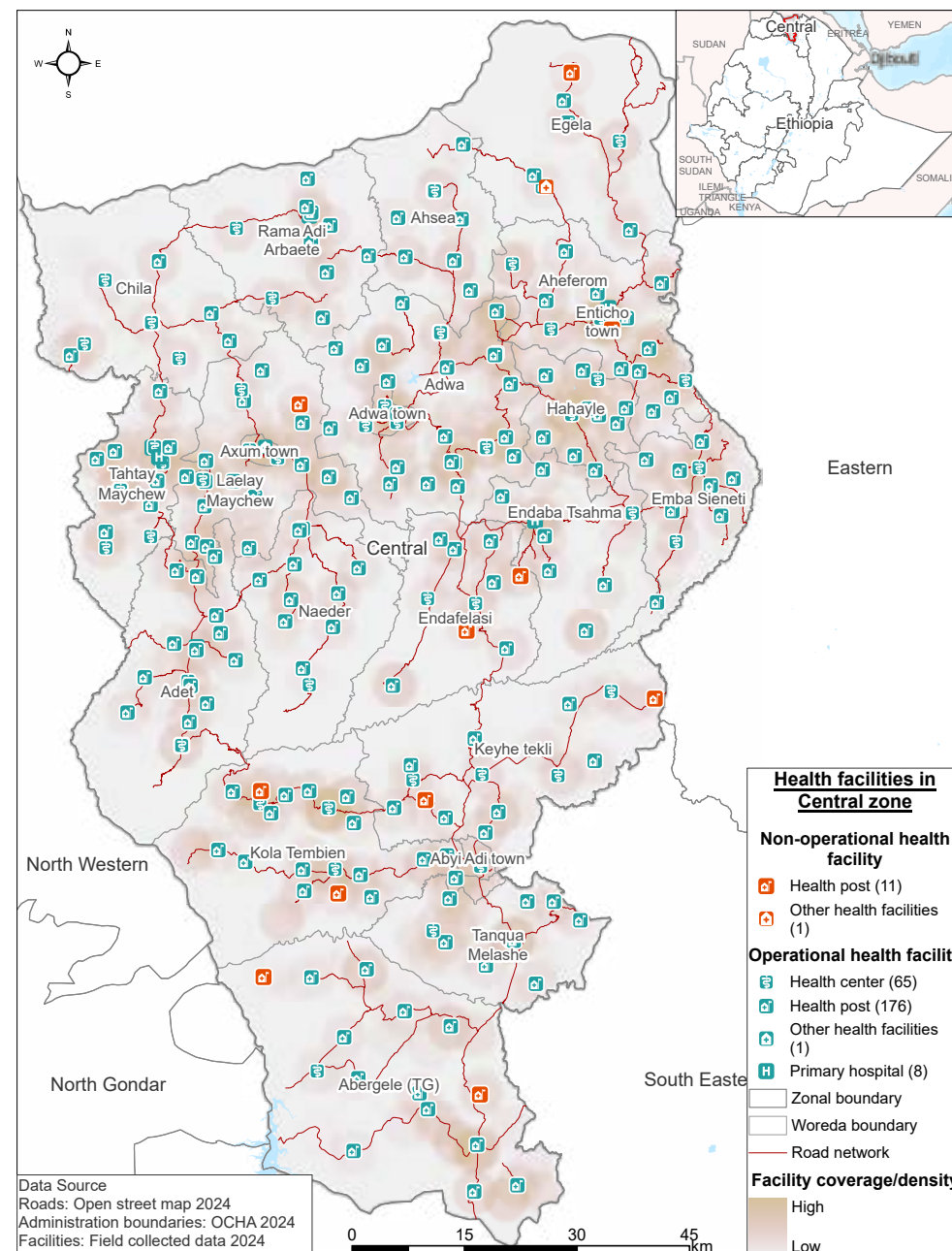
# Health Services

This section presents the findings of the health facility assessment. With this assessment, the proportion of the different types of health facilities, available resources (including human resources), the state of infrastructure and the challenges faced by service providers have been assessed. Most notably, the capacity of health service providers was assessed at the woreda level, considering availability, accessibility, and infrastructure dimensions. Standalone nutrition services were not assessed, but health facilities were asked about nutrition services provided at their sites.

## Key Findings

- Out of the total health facilities assessed, the majority of them (72%) were health posts, a quarter (25%) were health centres and only 3% were primary hospitals. At least some health services were reported to be available in 95% of the assessed facilities, with 5% closed or not providing any service. Out of the non-operational facilities, 83% reported it was due to structural damage, 50% reported it was due to lack of adequate medical equipment to offer services, 42% reported it was due to lack of adequate medicines to offer services and other reasons.
- Of the operational facilities, most faced several critical challenges, with the top three being damaged structures (86%), the facility being under construction (70%), and lack of personnel to provide the services (67%). In addition, almost half (40%) of assessed facilities reported to have no functional power source.
- Very poor WASH conditions were also reported in most of the health facilities, with 69% of health facilities reported to have no drinking water supply, 53% of facilities reported to have insufficient water and 89% reported to have no handwashing facility.
- A large proportion (80%) of facilities reported serving users from other woredas or kebeles, indicating that many health sites are likely overburdened. This is especially significant for health posts, which account for almost three quarters of facilities in the area and are designed to serve a catchment area as wide as a kebele. Absorbing additional caseload is likely to be particularly difficult for these facilities.
- Access to general practitioner doctors (GPs) was found to be low, with GPs accounting for only 5% of health workers in the zone.
- Access to community based health insurance was also found to be low, with only 1% of facilities reporting enrolment. This indicates that the enrollment of community for CBHI has dramatically decreased as compared to the 57.9% enrollment rate that was reported in 2019.<sup>1</sup>

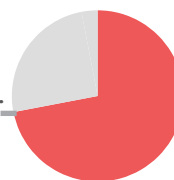
## Health Facilities Location Map



<sup>1</sup> Current challenges and future prospects of Community Based Health Insurance (CBHI) in Tigray

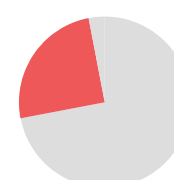
**262** health facilities were assessed

Of these...



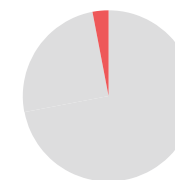
**72%**

Health posts



**25%**

Health centres



**3%**

Primary hospitals

Of these...

**94%** reported damage to the buildings

Of these...

#### Extent of damage reported by facility

<b>91%</b>	Usable but needs repair
<b>4%</b>	Not usable and needs repair
<b>4%</b>	Completely destroyed (not usable)
<b>1%</b>	Usable and no need for repair

Main reported damages were to windows, doors, roofs and walls, as well as foundations and fixtures (electricity, water pipes)

**5%** reported that they were totally non-operational

Of these...

#### Reasons for no health services at facility

<b>83%</b>	Structural damage
<b>50%</b>	Lack of equipment
<b>42%</b>	Lack of medicine
<b>8%</b>	Lack of personnel
<b>8%</b>	Insecurity / conflict

Operational facilities experienced the same challenges, but with lack of medical equipment the most prominently reported (91% of facilities)

Only **54%** reported that there was a power source

Including...

#### Main type of power source used

<b>36%</b>	National power grid
<b>18%</b>	Solar power

**55%** of these power sources were not working on the day of data collection

Only **30%** reported that there was a drinking water source on the site

Including...

#### Main type of water source used

<b>22%</b>	Piped water supply
<b>5%</b>	Borehole
<b>2%</b>	Handpump
<b>1%</b>	Tanker-truck or cart

**22%** of the available water sources were not working on the day of data collection

**88%** reported that there was a toilet or latrine on site

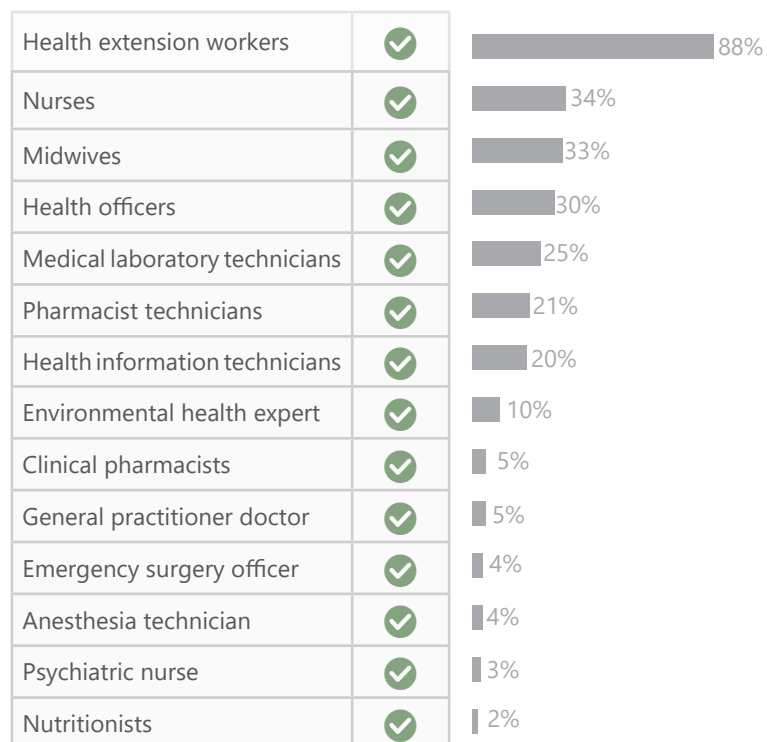
Including...

#### Type of toilet or latrine

<b>79%</b>	Pit latrine with slab
<b>8%</b>	Flush/pour-flush toilet
<b>1%</b>	Composting toilets

Only **12%** of the toilets or latrines were separated for use by men and women

### Types of healthcare workers providing care, by % facilities

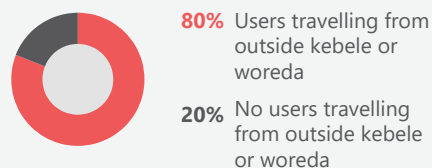


**96%** of facilities reported offering nutrition services

### Nutrition services available, by % facilities offering nutrition services



### % of health facilities reporting users from other woreda or kebele:



**76%**

of the assessed facilities reported to have less than 10% of users from outside the kebele

**1%**

of the assessed facilities reported use of community health insurance (CBHI).

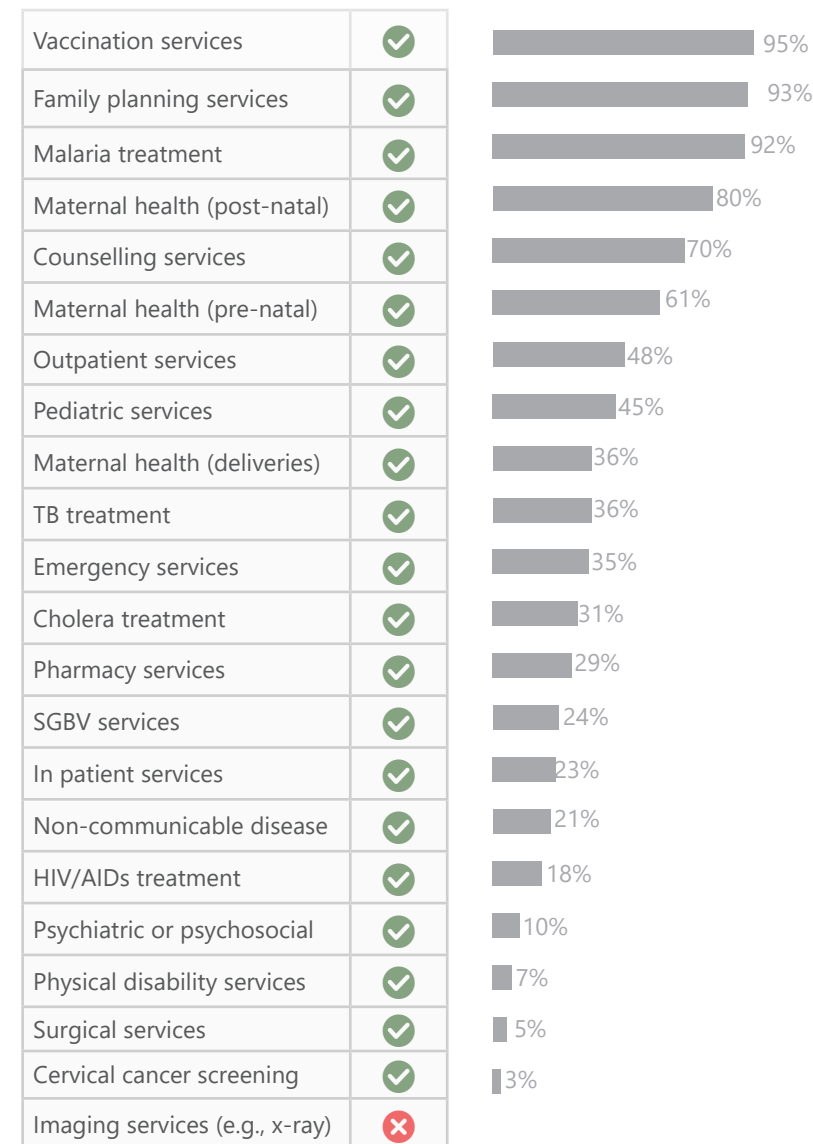


**89%** of health facilities reported that they did not have hand washing facilities



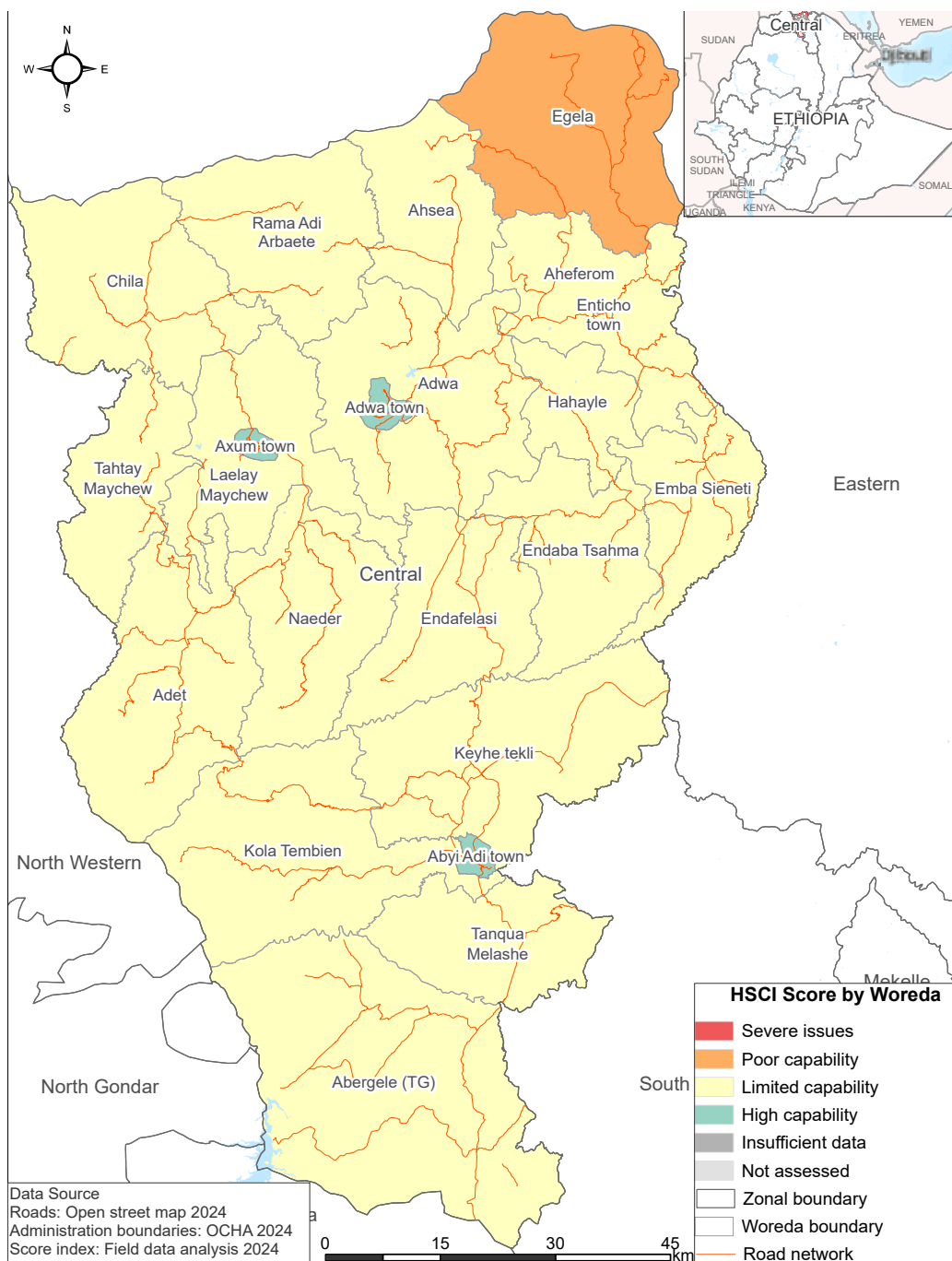
Only **13%** of health facilities had observable equipment or infrastructure to facilitate access for people with disabilities

### Healthcare services available and not available, by % facilities





# HEALTH SERVICE CAPABILITY INDEX



**1**  
out of  
**22**  
woredas in Central Tigray zone had **poor health service capability**

**18**  
out of  
**22**  
woredas in Central Tigray zone had **limited health service capability**

**3**  
out of  
**22**  
woredas in Central Tigray zone had **high health service capability**

The Health Service Capability Score (HSCS) is a method of classifying woredas based on the level of capability of their health services, helping aid and development actors understand which woredas are better able to provide health services and which ones may require more support. HSCS is divided into three dimensions:

- Availability (33%): Availability of basic health services, its regularity and having adequate workforce and support system
- Accessibility (33%): Ability to provide basic health services which is physically and financially accessible
- Facilities/Infrastructure (33%): Availability of basic sanitation and hygiene facilities, power and presence of damage to structures

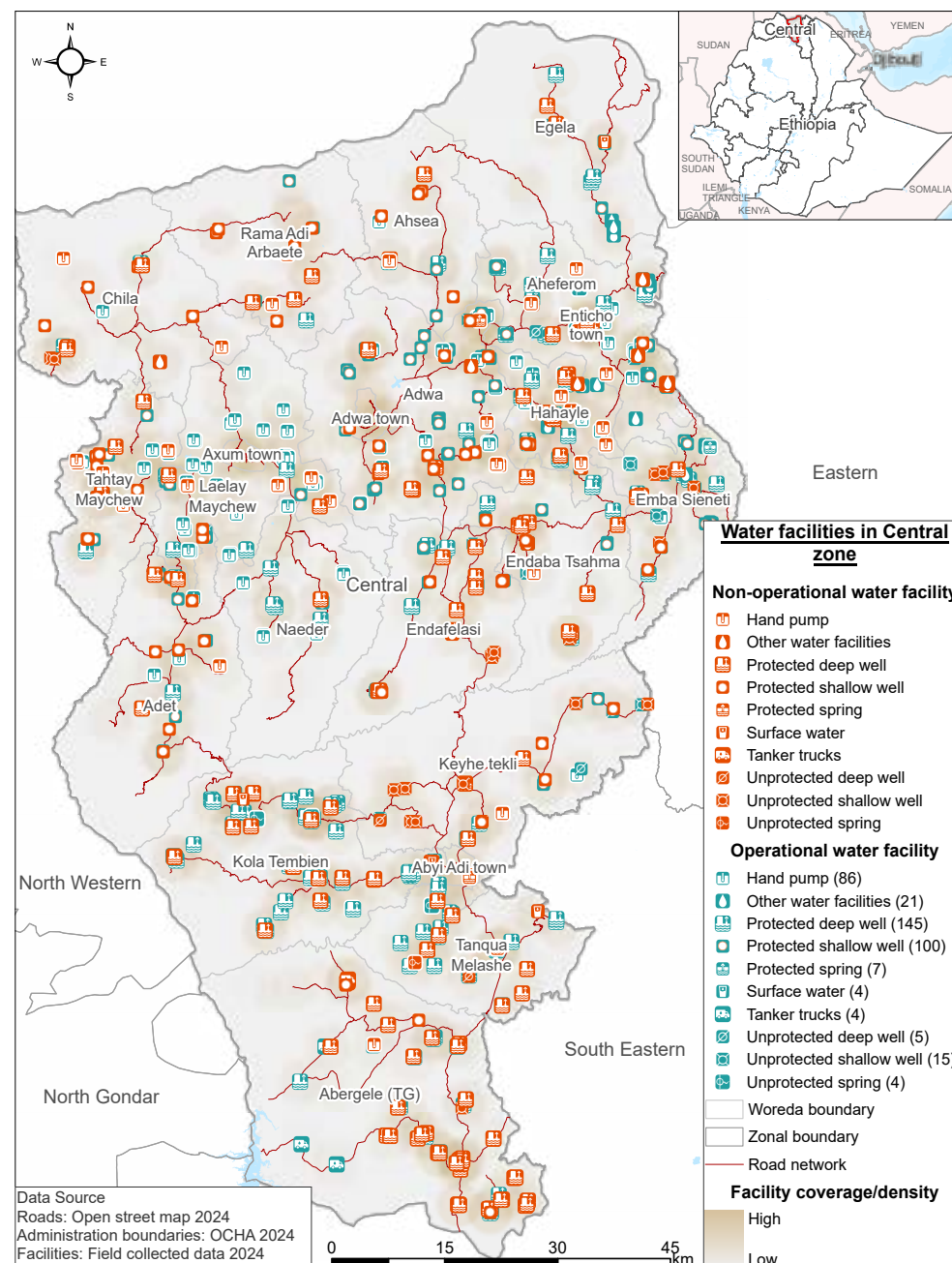
# Water Services

The findings of the water facilities assessment are presented using a capability index framework. This framework focuses on four key aspects: availability, accessibility, infrastructure, and safety. By organising the findings around these core elements, the report provides a clear picture of the strengths and weaknesses of water services in the Central Tigray zone.

## Key Findings

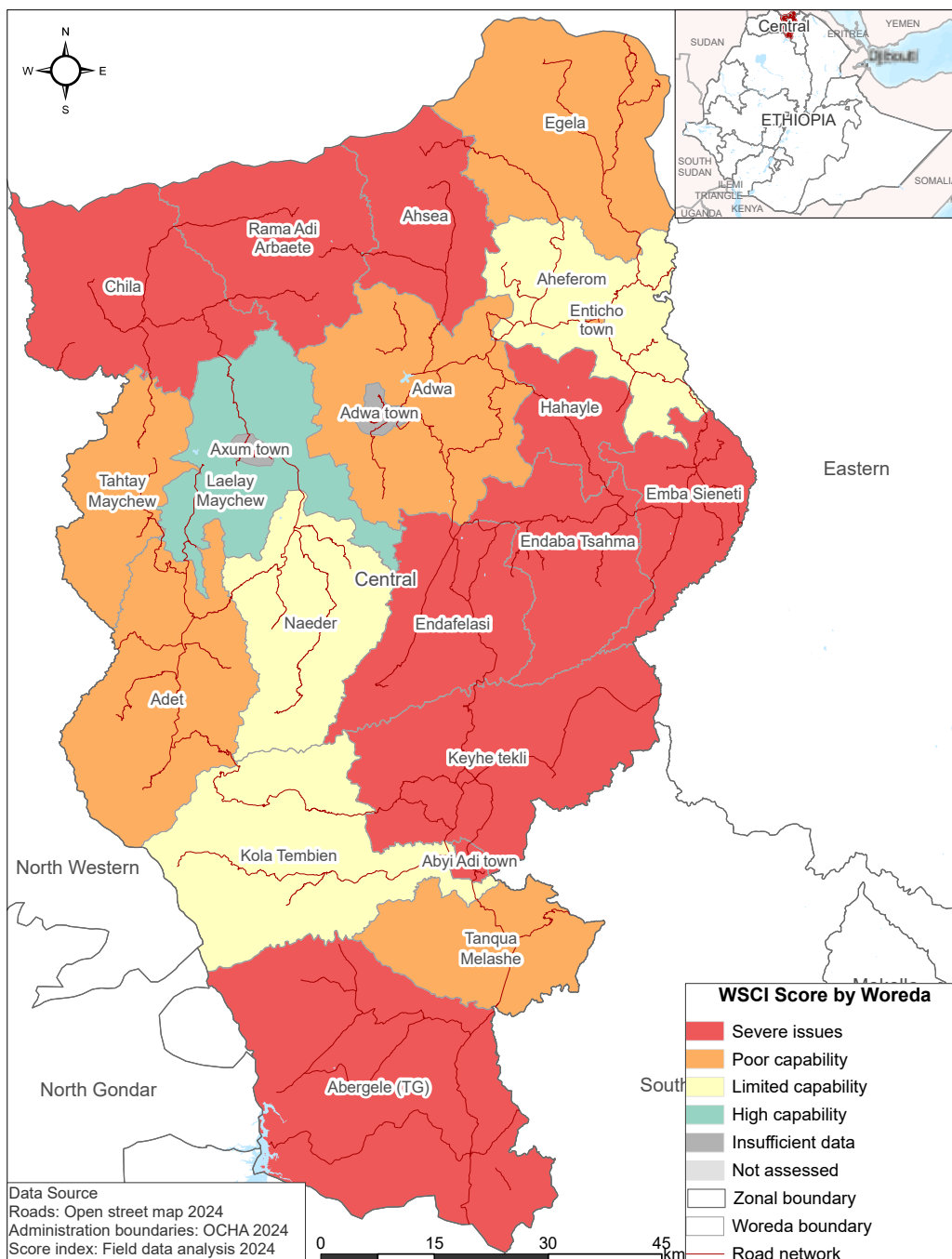
- Lack of water provision and regular service interruptions is likely to result in significant access challenges for households in the zone. A significant proportion (41%) of the water points were not providing services during data collection and around a fifth (18%) experienced daily service interruptions.
- Intermittent or lack of water supply is likely to be, in part, due to poor water service governance. Around two thirds (69%) of the water points were reported to have sustained damage, while more than a fifth (21%) of the water points were reported to have visible leakage. Despite the high degree of damage to facilities and the prevalence of service interruptions, only 64% of water points were reported to receive some degree of maintenance. Out of these, 63% were reported to be serviced upon request or when damage occurs rather than with any degree of regularity.
- Although most (41%) of the assessed water points were protected deep well, poor or compromised water quality is a concern. Around a fifth (18%) of the water points were reported to produce water with unacceptable taste, 16% with unacceptable odour and 13% with unacceptable colour. Roughly half of the water points were also reported to be situated close to source of pollution.
- Financial barriers may exist for lower-income households, with users required to pay to cover administrative and minor maintenance costs.
- Proximity to water points may also present a challenge, especially for lower-income households or those with disabilities who may not have the means or ability to make longer journeys. Over a quarter (27%) of the water points were not accessible in a 30 minute walk, while close to half (43%) were reported not to be accessible to all (regardless of wealth, gender, and disability).

## Water Facilities Location Map





# WATER SERVICE CAPABILITY INDEX



**10**  
out of  
**22**  
woredas in Central Tigray zone  
had **severe issues with water  
service capability**

**6**  
out of  
**22**  
woredas in Central Tigray  
zone had **poor water service  
capability**

**3**  
out of  
**22**  
woredas in Central Tigray zone  
had **limited water service  
capability**

**1**  
out of  
**22**  
woredas in Central Tigray  
zone had **high water service  
capability**

The water service capability score (WSCI) is a method of classifying woredas based on the level of capability of their water services, helping aid and development actors understand which woredas are better able to provide water services and which may require more support. WSCI is divided into three dimensions:

- Safety (25%): Improved drinking water sources which are protected from contaminants and acceptable to drink by users.
- Availability/reliability (25%): Availability of water when needed and without interruptions.
- Accessibility (25%): Accessible to all without disparity by wealth, gender and disability.
- Facility/ Infrastructure (25%): Physical condition of the water points, damage on structures and having regular maintenance



## Methodology

To assess and improve the condition and services of health, nutrition, education, and water facilities, a comprehensive methodology was used.

Primary data collection targeted all publicly managed facilities across the sectors of health and education, using a census approach. For education, all primary and secondary education facilities were sampled, and for health all primary hospitals, health centres and health posts were sampled. Specific water facilities were sampled using a cluster sampling approach whereby a sample of water points around the sampled health and education facilities were assessed. These water facilities were identified through existing GPS data and were sampled against distance (30m) from health centres and schools.

A short form quantitative key informant questionnaire was administered. For health and education services, school and health facility administrators or lead health facility staff or head teachers were engaged to complete the questionnaire. For water facilities, water committee members or water users from the community were engaged. This questionnaire evaluated the physical conditions and capabilities of services through direct observation of infrastructure, and detailed questions assessing the status of services offered, and identifying gaps by comparing current services with community needs.

Additionally, facility locations were recorded using GPS points, subsequently using geospatial mapping tools to visualise service coverage.

Research design and secondary data review was undertaken by REACH between September and December 2023. Data collection was undertaken in February 2024 by the Ethiopian Red Cross in collaboration with REACH, due to their expansive operational presence in and across Ethiopia, including in the selected study sites. Data cleaning, analysis and output development was completed by REACH.

## Service capability scoring thresholds

**High capability:** > 80% of the maximum total score and no dimension falls beneath 50% of its maximum score

**Limited capability:** No more than one dimension falls beneath 50% of its maximum score

**Poor capability:** Exactly two dimensions fall beneath 50% of their maximum scores

**Severe issues:** < 25% of the maximum total score or at least three dimensions fall beneath 50% of their maximum scores

**Insufficient data:** one or more entire dimensions could not be collected, making it impossible to calculate a score

## Limitations

Purposive sampling was used to select water points instead of census approach. The large number of water points in the zone made census approach unfeasible, which could have impacted the representativeness of the water service results.

Few facilities located in topographically remote areas were not assessed due to resource and physical capacity limitations. Despite assessing more facilities than initially planned, this limitation may affect our ability to accurately identify the service capability of facilities in such remote areas.

## About REACH

REACH Initiative facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT).