Ethiopia | Education, Health and WASH Service Capability Assessment in the Shabelle Zone of Somali Region

June, 2024

Background and Rationale

Multiple overlapping crises in Ethiopia are affecting the population and driving humanitarian needs. 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 as a result, 2.6 million of whom are in Somali. Displacement is also driving humanitarian needs, with an estimated 4.4 million people internally displaced in Ethiopia and Somali region is hosting the largest caseload of drought-displaced people nationwide. [1]

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. The Shabelle zone of Somali region was selected based on its exposure to climate shocks, including flooding and drought, which causes damage to infrastructure, drives displacement and creates additional burden for service providers. Limited humanitarian access over recent years also suggested that the capability 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.

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Assessed Area

Legend
- Shabelle zone
- Region boundary
- Zonal boundary
- Woreda boundary
- Road network
- Rivers
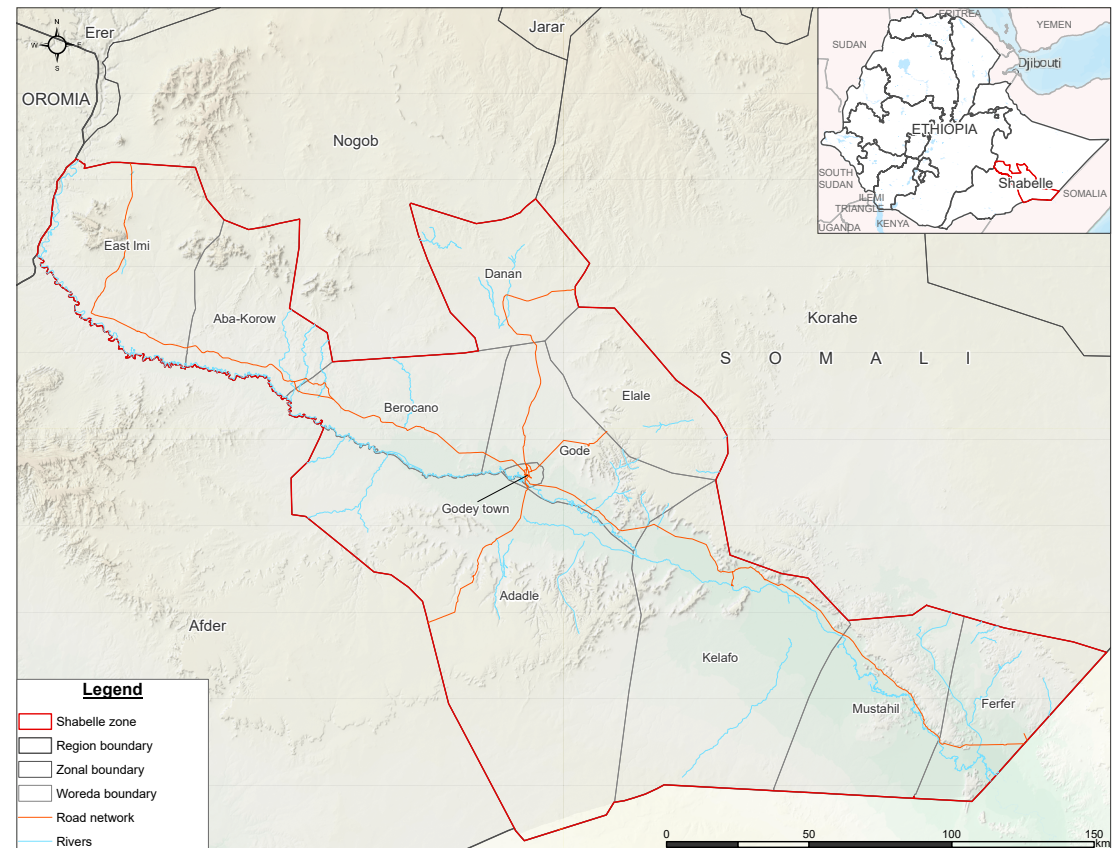
Key Messages

- Almost all of the education and health facilities assessed were providing some services during the data collection period (92% and 89% respectively), but with significant challenges, hindering their capabilities.
- Around half (51%) of assessed water points were producing water on the day of data collection. The comparatively low operational status of water points compared to the other sectors may be due to the intermittent nature of water supply and the frequency of mechanical issues.
- Physical damage from winds, floods and landslides, exacerbated by lack of maintenance, was widely reported. This was affecting service delivery in all sectors.
- Provision for people with disabilities (PwD) was a significant gap, with almost all schools and health facilities assessed (93% and 91% respectively) found to have no infrastructure to enable access for those with disabilities.
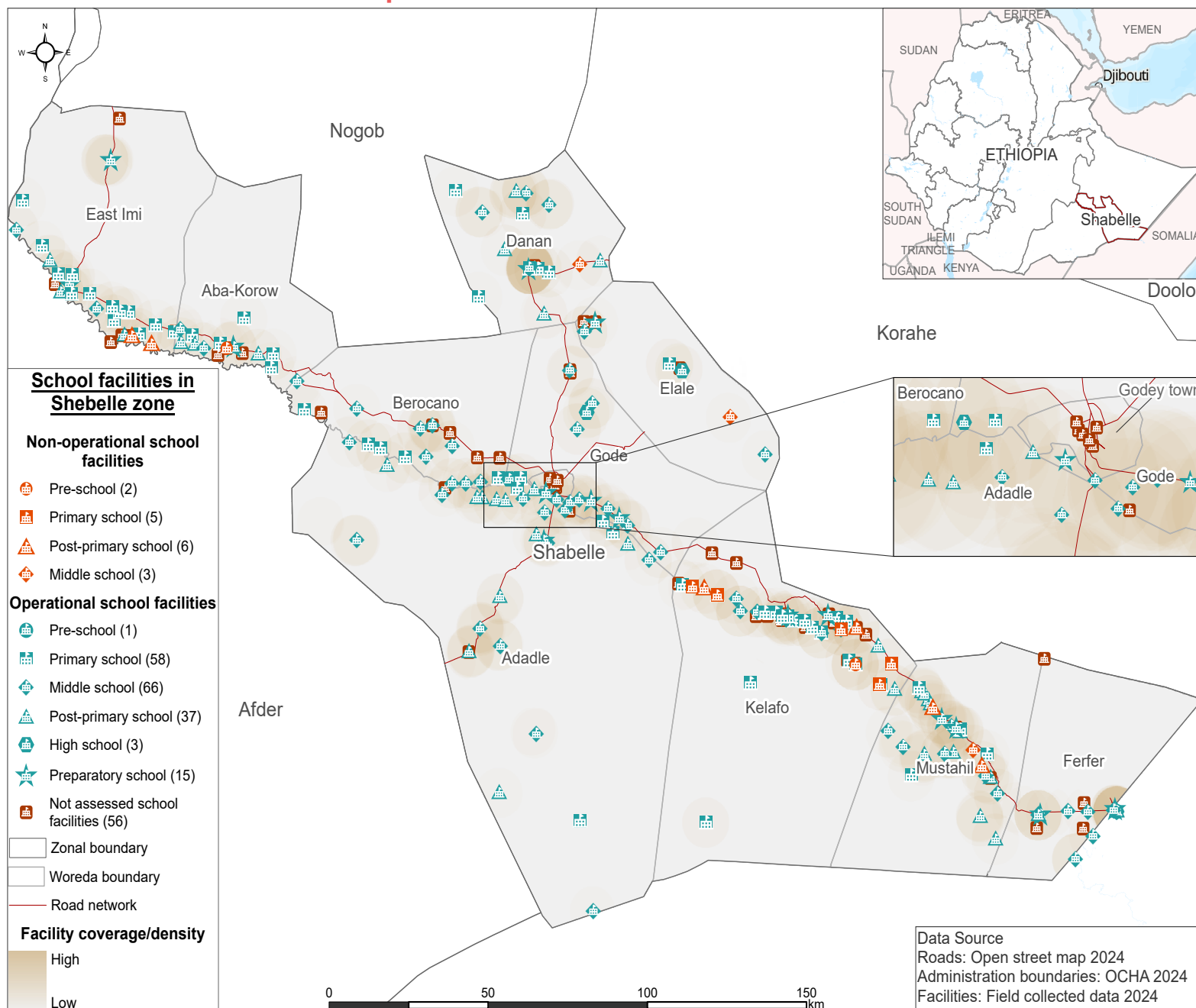
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Education Services

This section addresses educational facilities functionality. 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 84% of the primary and secondary schools in the zonal administration.

Key Findings

- Almost all (92%) educational facilities assessed were providing some services during the data collection period, with various challenges affecting their capabilities. The relatively small number of schools that were closed (8%) were not operating due to structural damage, lack of personnel and lack of equipment.

- The majority (84%) of schools assessed reported physical damage to infrastructure, mainly to doors, windows and roofs. Close to a fifth (19%) of the schools reported nonfunctional classrooms.

- WASH conditions in schools were poor, with the majority (78%) without a drinking water source, around half (47%) without a latrine and almost all (98%) without handwashing facilities.

- Only six of the 195 assessed schools were found to have electricity.

- Over half (57%) of schools estimated that around a quarter of students had adequate learning materials, with 11% estimating none or almost none did.

- Provision for disabled students was particularly poor, with 93% of schools reporting no provision.

Education Facilities Location Map

School facilities in Shebelle zone

Non-operational school facilities
- Pre-school (2)
- Primary school (5)
- Post-primary school (6)
- Middle school (3)

Operational school facilities
- Pre-school (1)
- Primary school (58)
- Middle school (66)
- Post-primary school (37)
- High school (3)
- Preparatory school (15)
- Not assessed school facilities (56)
- Zonal boundary
- Woreda boundary
- Road network

Facility coverage/density
High
Low

Data Source
Roads: Open street map 2024
Administration boundaries: OCHA 2024
Facilities: Field collected data 2024

92% of the **195** assessed educational facilities were operational

3% of schools had access to computers
1% of schools had access to internet

Of these 92%

Educational level, by % of schools

61% Primary school
42% Post-primary school
40% Middle school
16% Preschool
8% High school
8% University preparatory school

84% reported damage to the buildings

8% reported that their services were interrupted in the current school year

Only **22%** reported that there was a drinking water source on the site

53% reported that there was a toilet or latrine on site
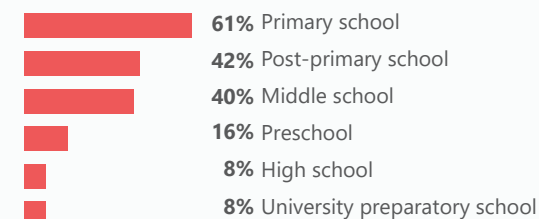
Proportion of students with adequate learning materials, by % of schools

12% All or almost all students
6% Around three quarters of students
15% Around half of students
57% Around half of students
10% Around a quarter of students
None or almost none

Of these...

Of these...

Including...

Including...

Most damaged parts of the building		Reasons for the service interruption		Main type of water source used		Type of toilet or latrine	
90%	Windows	40%	Natural disaster	11%	Harvested rain	38%	Pit latrine with slab
88%	Doors	27%	Lack of resources	4%	Tanker-truck or cart	9%	Flush/pour-flush toilet
67%	Roofs	13%	Insecurity / conflict	3%	Surface water (e.g., lake)	5%	Pit latrine without slab
54%	Walls			3%	Unprotected well/spring	1%	Hanging latrine

Reported functionality of classrooms, by % of schools

81% Reported functional
19% Reported non-functional

A further **10%** reported that all structures were totally damaged

10 weeks was the average time for school closures caused by these factors

Only **7%** of the available water sources were working on the day of data collection

52% of all schools reported that they had separate latrines for boys and girls
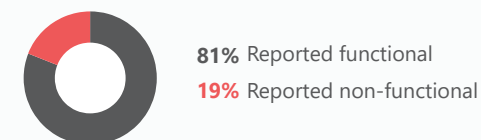
Availability of handwashing facilities, by % of schools

96% Handwashing not available
4% Handwashing available

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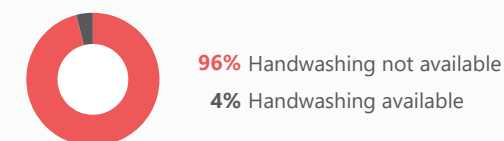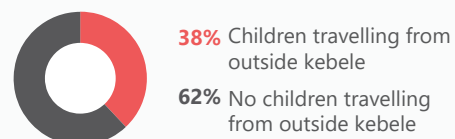
Attendance

71% were reported to be attending on the day of data collection

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

60% Boys
40% Girls
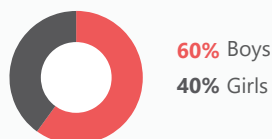
Schools that reported children travelling outside their kebele to attend, by % of schools

38% Children travelling from outside kebele
62% No children travelling from outside kebele

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

1% Reported safety issues
99% Reported no safety issues
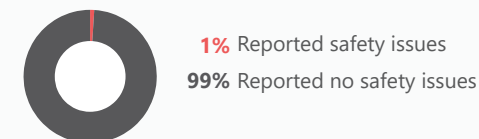
Drop outs

7% of students were reported to have dropped out in the year of data collection

Proportion of boys and girls dropped out of school, by % students

57%   **43%**

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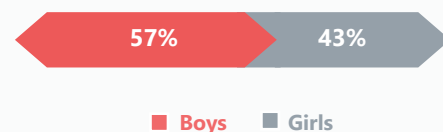
Top five reasons for boys and girls to have dropped out of school, by % of schools

	Boys	Girls
Child helping at home/farm	78%	81%
Early marriage	10%	35%
Child working outside of home	42%	29%
Distance to school too far	20%	12%
Child psychologically distressed	11%	8%

■ **Boys**   ■ **Girls**
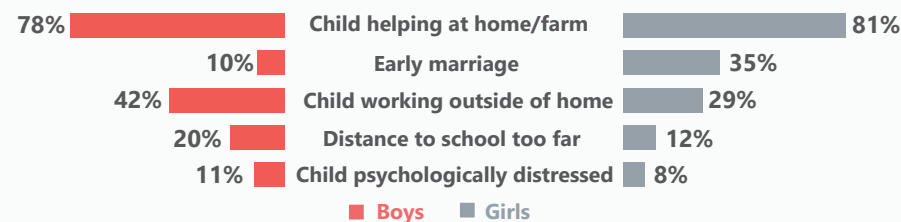
Disability

93% of schools reported no provisions to help children with disabilities attend

Gender of disabled students (1.7% of student population)

62% Girls
38% Boys
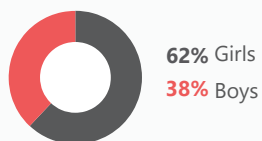
Teachers

Gender of teaching staff, by % of teachers

83% Men
17% Women
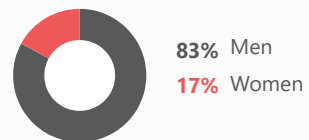
17% of schools had specialised staff to support students needing psychosocial support, social emotional learning, or other counselling

Teacher training needs, by % of schools

69% Accelerated or 'catch up' teaching
30% Child centred methodology
29% Classroom management
27% Referral mechanism
24% Psychological first aid
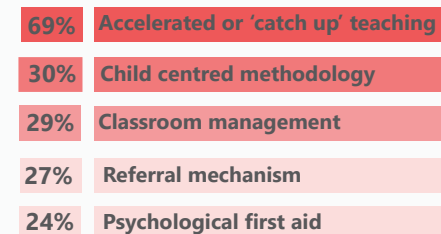
Education Service Capability Index

The Education Service Capability Score (ESCS) is a method of classifying woredas based on the level of capability of their education services, helping aid actors understand which woreda is well capable to provide educational services and which may require 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

Education Service Capability Scoring Map

ESCI Score by Woreda

- 🟥 Severe issues
- 🟧 Poor capability
- 🟨 Limited capability
- 🟩 High capability
- ⬛ Insufficient data
- ⬜ Not assessed
- ▢ Zonal boundary
- ▢ Woreda boundary
- — Road network

Data Source
Roads: Open street map 2024
Administration boundaries: OCHA 2024
Score index: Field data analysis 2024
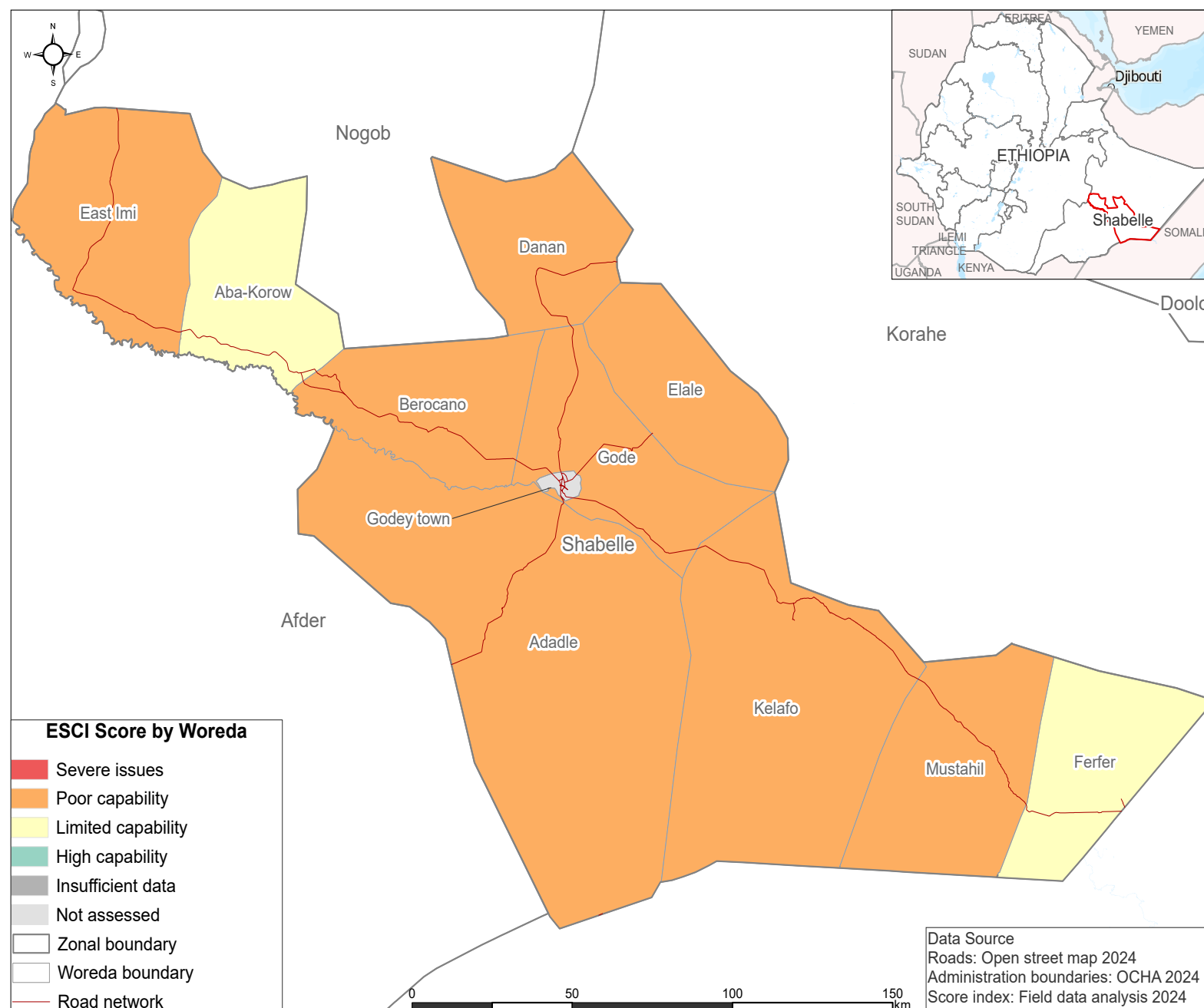
Health Services

This section presents the findings of the health facility assessment. In order to assess the capability of health sites, information was collected about available resources (including human resources), the state of infrastructure and the challenges faced by service providers. Standalone nutrition services were not assessed, but health facilities were asked whether nutrition services were provided at their sites.

Key Findings

- Although the majority (89%) of health facilities were operational during data collection, a significant number (86%) reported some kind of structural damage and 21% had no power source.

- Health facilities faced several critical challenges, with the top three being lack of adequate medical equipment (61%), lack of adequate medicine (49%), and structural damage (47%).

- WASH provision at health sites was also a particular concern, with over half of facilities lacking access to drinking water and more than a third reporting no access to water at all.

- Proximity to health services was found to be an issue. Close to one third (29%) of health centres reported that more than half of their users came from outside the kebele. At the health post level, 40% of facilities indicated that 10-25% of people accessed services outside the Kebele.

- The majority (81%) of facilities reported that at least some of their users used community-based health insurance (CBHI). Note that the prevalence of use by the population has not been assessed.

Health Facilities Location Map

Health facilities in Shebelle zone

Non-operational health facilities
- Health center (3)
- Health post (16)

Operational health facilities
- Health center (35)
- Health post (108)
- Other health facilities (5)
- Not assessed health facilities (57)

- Zonal boundary
- Woreda boundary
- Road network

Facility coverage/density
- High
- Low

Data Source
Roads: Open street map 2024
Administration boundaries: OCHA 2024
Facilities: Field collected data 2024

Health posts

77%

167 health facilities were assessed

Health centres

23%

Of these...

86% reported damage to the buildings

11% reported that they were totally non-operational

78% reported that there was a power source

Only **42%** reported that there was a drinking water source on the site

64% reported that there was a toilet or latrine on site

Of these...

Of these...

Including...

Including...

Including...

Extent of damage reported by facility

12%	Completely destroyed (not usable)
19%	Not usable and needs repair
58%	Usable but needs repair
10%	Usable and no need for repair

Reasons for no health services at facility

68%	Structural damage
42%	Lack of personnel
42%	Lack of equipment
42%	Lack of medicine
11%	Insecurity / conflict

Main type of power source used

68%	Solar power
5%	Wind power
4%	National power grid
2%	Generator

Main type of water source used

16%	Harvested rain water
10%	Tanker-truck or cart
6%	Piped water supply
5%	Unprotected well/spring

Type of toilet or latrine

38%	Pit latrine with slab
13%	Flush/pour-flush toilet
7%	Hanging latrine
5%	Pit latrine without slab

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

Operational facilities experienced the same challenges, but with lack of medical equipment the most prominently reported (61% of facilities)

Only **61%** of these power sources were working on the day of data collection

Only **63%** of the available water sources were working on the day of data collection

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

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Types of healthcare workers providing care, by % facilities

Health extension workers	✓	68%
Nurses	✓	30%
Midwives	✓	22%
Pharmacist technicians	✓	22%
Medical laboratory technicians	✓	15%
Clinical pharmacists	✓	13%
Health officers	✓	11%
Nutritionists	✓	9%
Health information technicians	✓	8%
General practitioner doctor	✓	4%
Emergency surgery officer	✓	3%
Environmental health expert	✓	2%
Anesthesia technician	✓	1%
Psychiatric nurse	✗	

87% of facilities reported offering nutrition services

Nutrition services available, by % facilities

Nutrition assessment and growth monitoring	✓	75%
Nutrition education and counselling	✓	68%
Nutrition in pregnancy services	✓	51%
Age-specific nutrition services	✓	12%

Payment methods, by % of facilities

81% CBHI in place with unsubscribed HHs charged

14% All HHs charged

2% No charges and no CBHI

1% All payment through CBHI

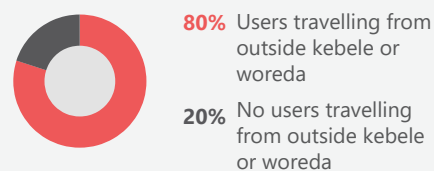**1%** Free services given to those with letters of exemption from kebele or woreda administration

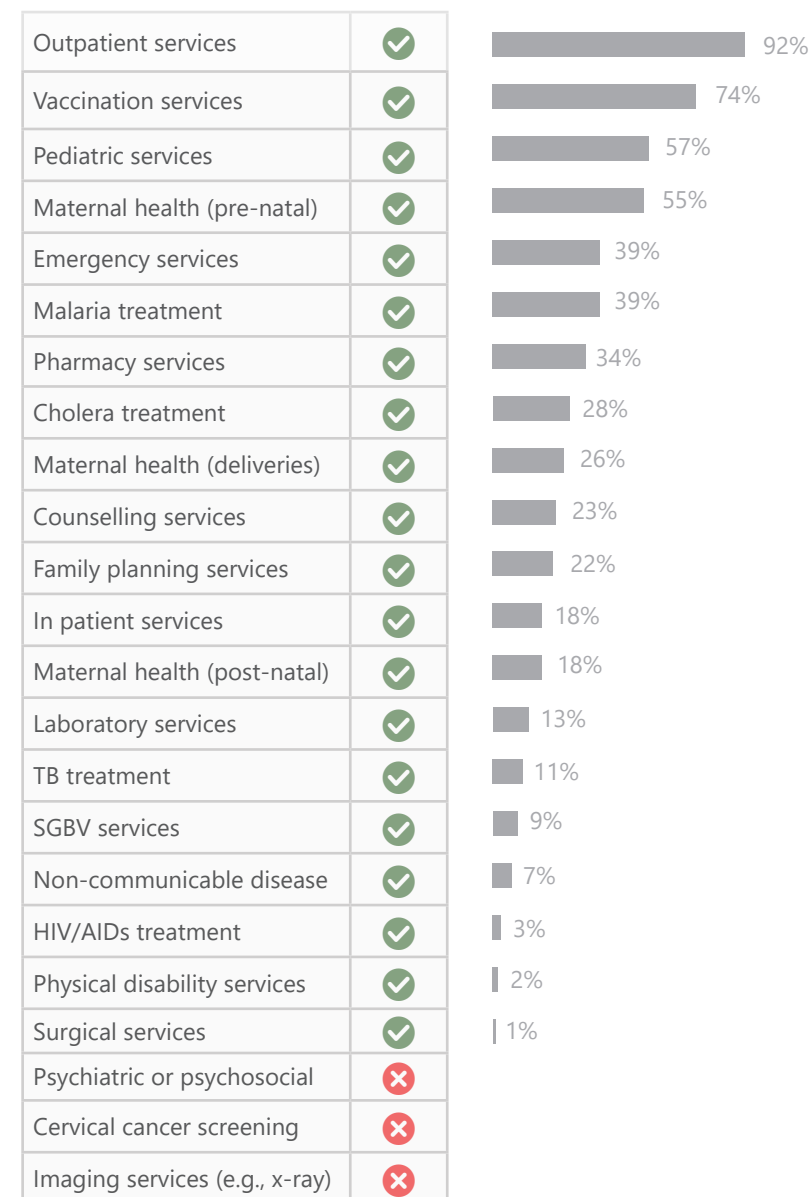**68%** of health facilities reported that they did not have hand washing facilities

Only **9%** of health facilities had observable equipment or infrastructure to facilitate access for people with disabilities

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

80% Users travelling from outside kebele or woreda

20% No users travelling from outside kebele or woreda

Healthcare services available and not available, by % facilities

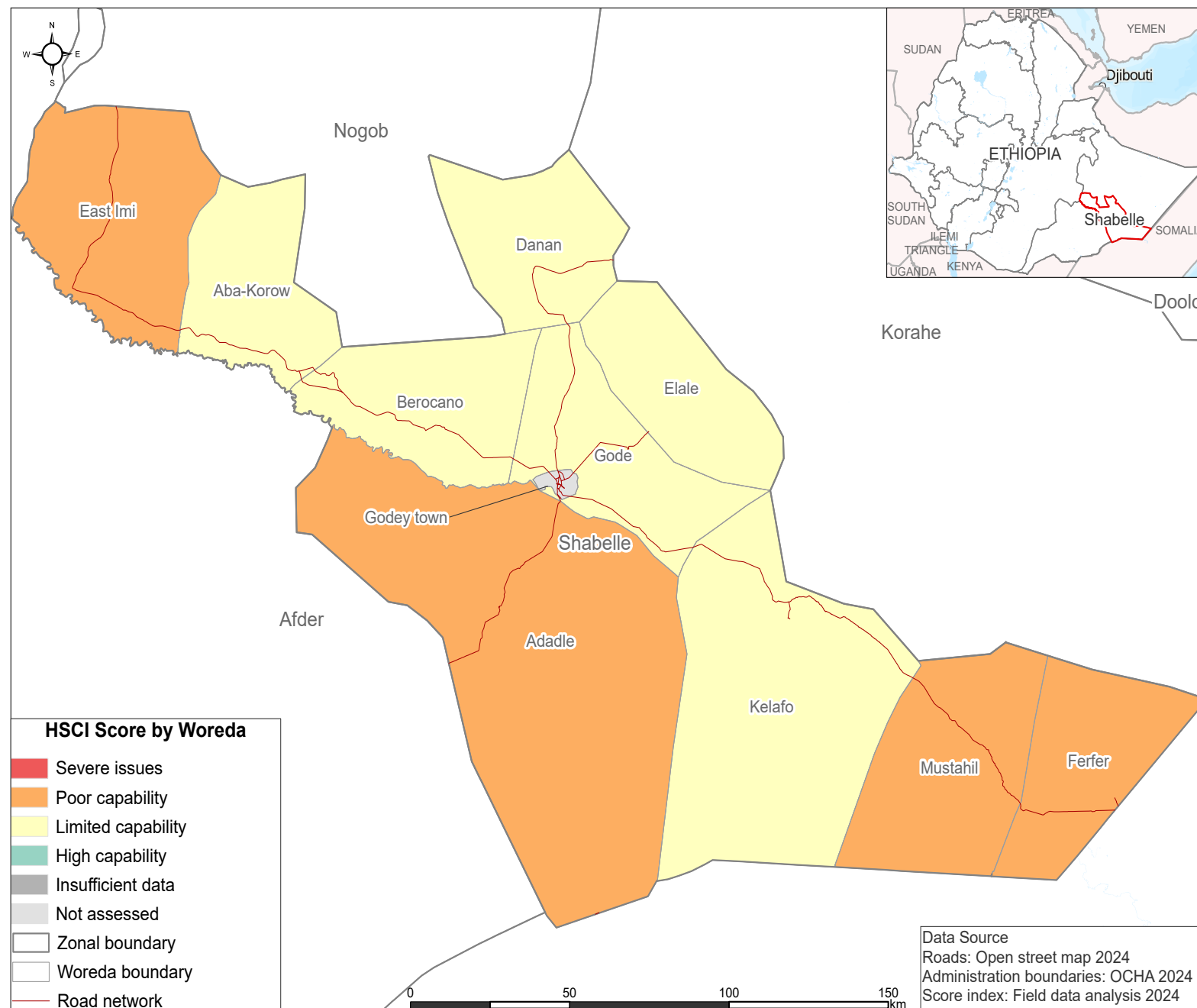|		
Outpatient services	✓	92%
Vaccination services	✓	74%
Pediatric services	✓	57%
Maternal health (pre-natal)	✓	55%
Emergency services	✓	39%
Malaria treatment	✓	39%
Pharmacy services	✓	34%
Cholera treatment	✓	28%
Maternal health (deliveries)	✓	26%
Counselling services	✓	23%
Family planning services	✓	22%
In patient services	✓	18%
Maternal health (post-natal)	✓	18%
Laboratory services	✓	13%
TB treatment	✓	11%
SGBV services	✓	9%
Non-communicable disease	✓	7%
HIV/AIDs treatment	✓	3%
Physical disability services	✓	2%
Surgical services	✓	1%
Psychiatric or psychosocial	✗	
Cervical cancer screening	✗	
Imaging services (e.g., x-ray)	✗	

Health Service Capability Scoring Map

Health Service Capability Index

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 woreda is well capable of providing health services and which may require 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

HSCI Score by Woreda

- Severe issues
- Poor capability
- Limited capability
- High capability
- Insufficient data
- Not assessed
- Zonal boundary
- Woreda boundary
- Road network

Data Source
Roads: Open street map 2024
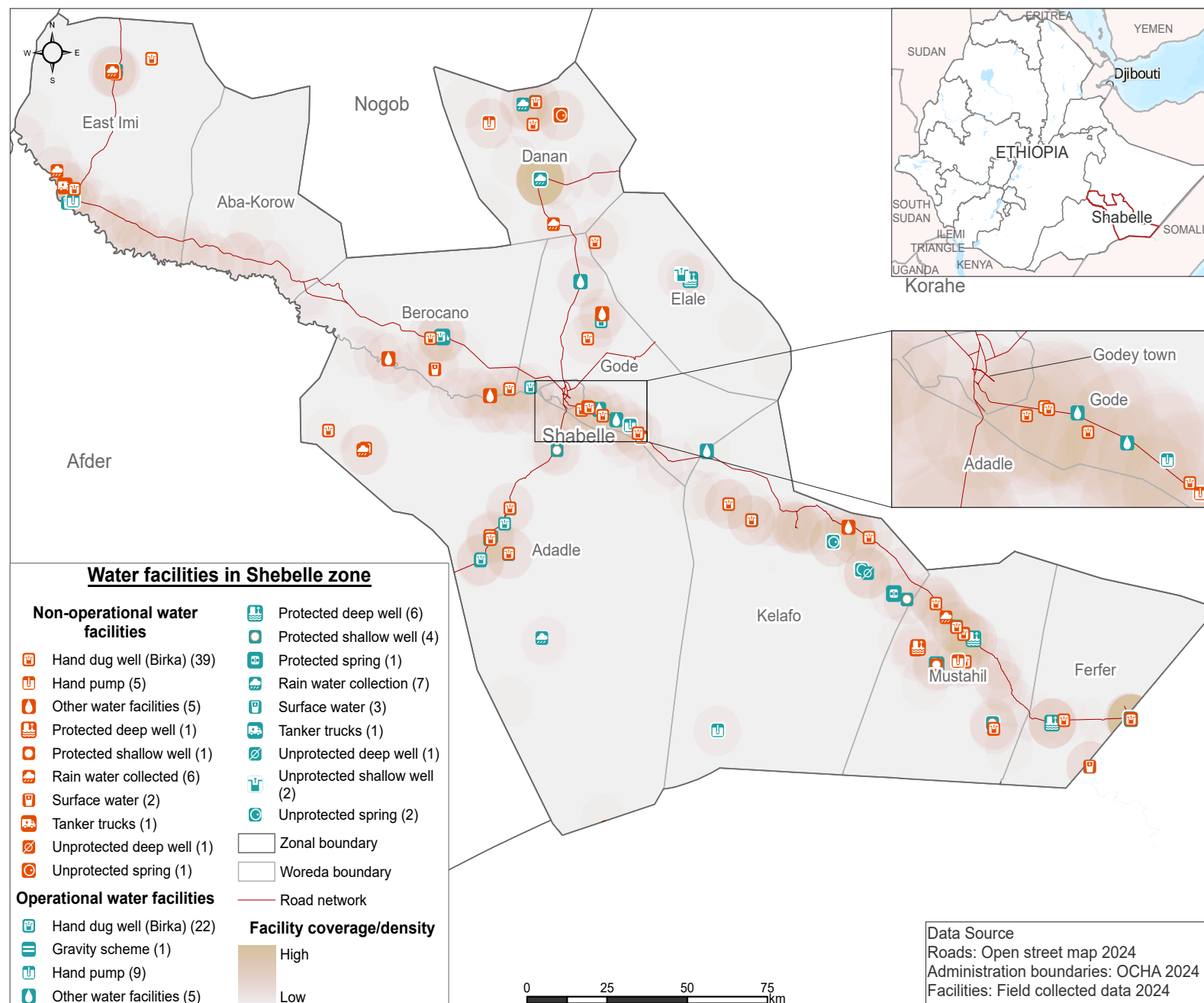Administration boundaries: OCHA 2024
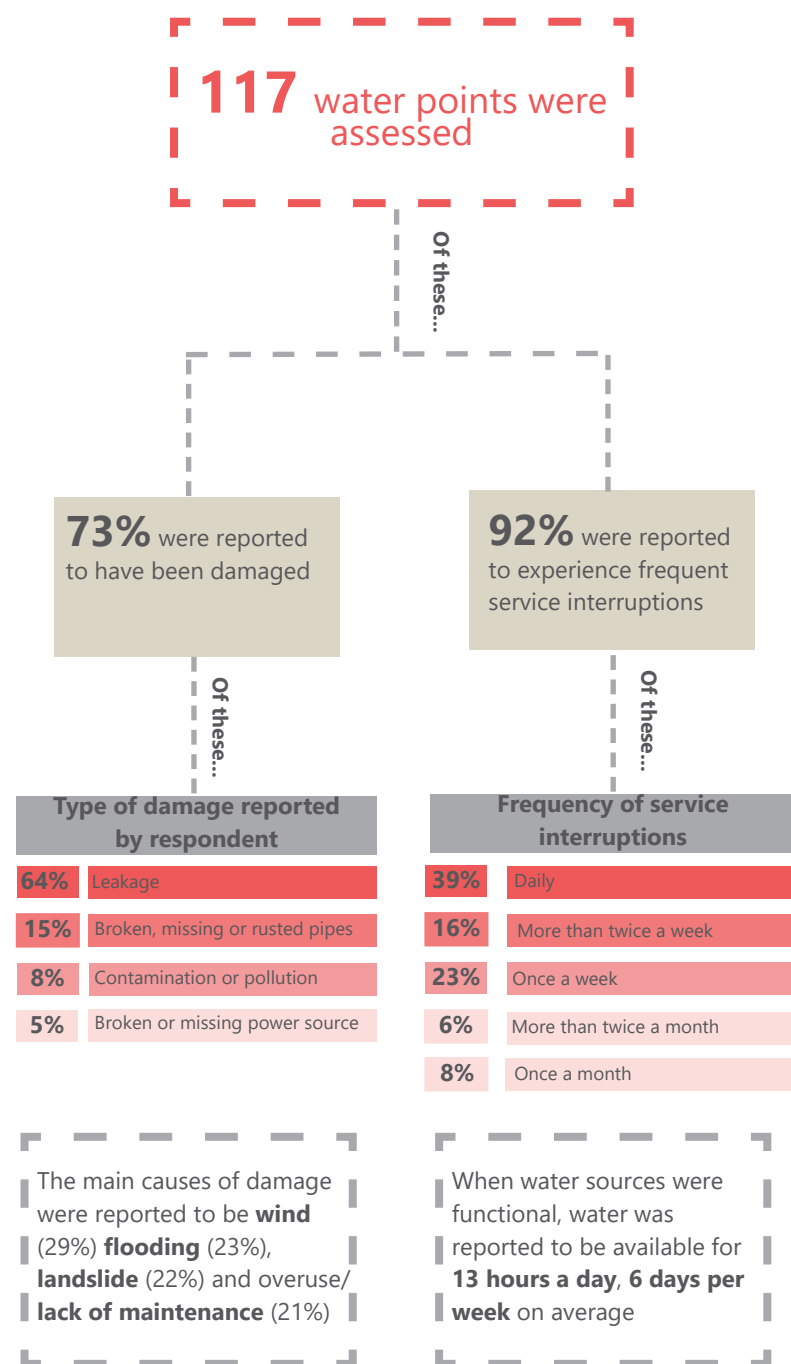Score index: Field data analysis 2024

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. All water points that were within 300 metres of any of the assessed education or health facilities were surveyed, using direct observation and interviewing passers-by (users).

Key Findings

- Around half (51%) of the assessed water points were producing water on the day of data collection. This result is likely influenced by the intermittent nature of water supply in the zone, with 39% of water points found to have daily service interruptions.

- Interruptions to service were likely due to the high degree of physical damage to water points, with damage reported at 73% of assessed sites. The damage was mainly due to strong winds, flooding and landslides.

- Lack of maintenance was likely preventing improved water access, with 84% of water points found to have no regular maintenance.

- Water quality was found to be a concern, with unacceptable colour, taste and odour reported at 20%, 22% and 33% of water points respectively.

- Shared use of water sources between humans and animals was reported, as well as proximity of water sources to livestock and latrines, increasing the risk of public health issues caused by water contamination

- Proximity of the population to water points is a concern, with more than a fifth of the water points not accessible within a 30 minute walk.
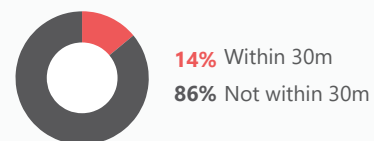
WASH Facilities Location Map

Water facilities in Shebelle zone

Non-operational water facilities

- Hand dug well (Birka) (39)
- Hand pump (5)
- Other water facilities (5)
- Protected deep well (1)
- Protected shallow well (1)
- Rain water collected (6)
- Surface water (2)
- Tanker trucks (1)
- Unprotected deep well (1)
- Unprotected spring (1)

- Protected deep well (6)
- Protected shallow well (4)
- Protected spring (1)
- Rain water collection (7)
- Surface water (3)
- Tanker trucks (1)
- Unprotected deep well (1)
- Unprotected shallow well (2)
- Unprotected spring (2)

- Zonal boundary
- Woreda boundary
- Road network

Facility coverage/density

- High
- Low

Operational water facilities

- Hand dug well (Birka) (22)
- Gravity scheme (1)
- Hand pump (9)
- Other water facilities (5)

Data Source
Roads: Open street map 2024
Administration boundaries: OCHA 2024
Facilities: Field collected data 2024

0   25   50   75 km

10

117 water points were assessed

Of these...

73% were reported to have been damaged

92% were reported to experience frequent service interruptions

Of these...

Type of damage reported by respondent

64%	Leakage
15%	Broken, missing or rusted pipes
8%	Contamination or pollution
5%	Broken or missing power source

Of these...

Frequency of service interruptions

39%	Daily
16%	More than twice a week
23%	Once a week
6%	More than twice a month
8%	Once a month

The main causes of damage were reported to be **wind** (29%) **flooding** (23%), **landslide** (22%) and overuse/ **lack of maintenance** (21%)

When water sources were functional, water was reported to be available for **13 hours a day**, **6 days per week** on average

Safety

Water points with a source of pollution within 30 metres, by % water points:

14% Within 30m
86% Not within 30m

Perceived quality of water, by % of water points

Odour	67%	**33%**
Taste	78%	**22%**
Colour	80%	**20%**
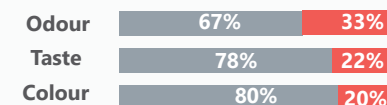
Acceptable ■   **Unacceptable** ■

28% of the water points were reported to having animals or livestock sharing, using, or standing nearby the water point.
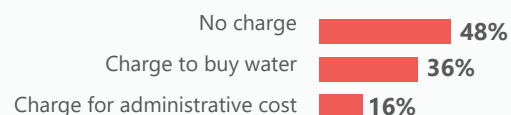
11% of the water points were reported to having observable latrine within 30 metres to the water point.

Accessibility

Charges for water access, by % of water points

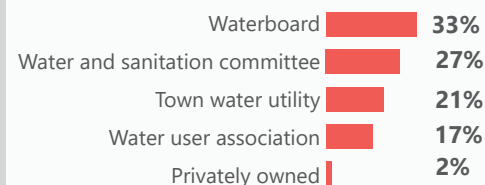|	
No charge	**48%**
Charge to buy water	**36%**
Charge for administrative cost	**16%**

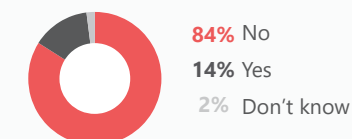**22%** of the water points were reported to not be accessible in 30 minutes to most households.

While **12%** of the water points were reported to not be accessible to households regardless of wealth, gender, and disability.

Ownership & maintenance

Reported ownership of water points, by % of water points

Waterboard	**33%**
Water and sanitation committee	**27%**
Town water utility	**21%**
Water user association	**17%**
Privately owned	**2%**

Maintenance of water points, by % of waterpoints

84% No
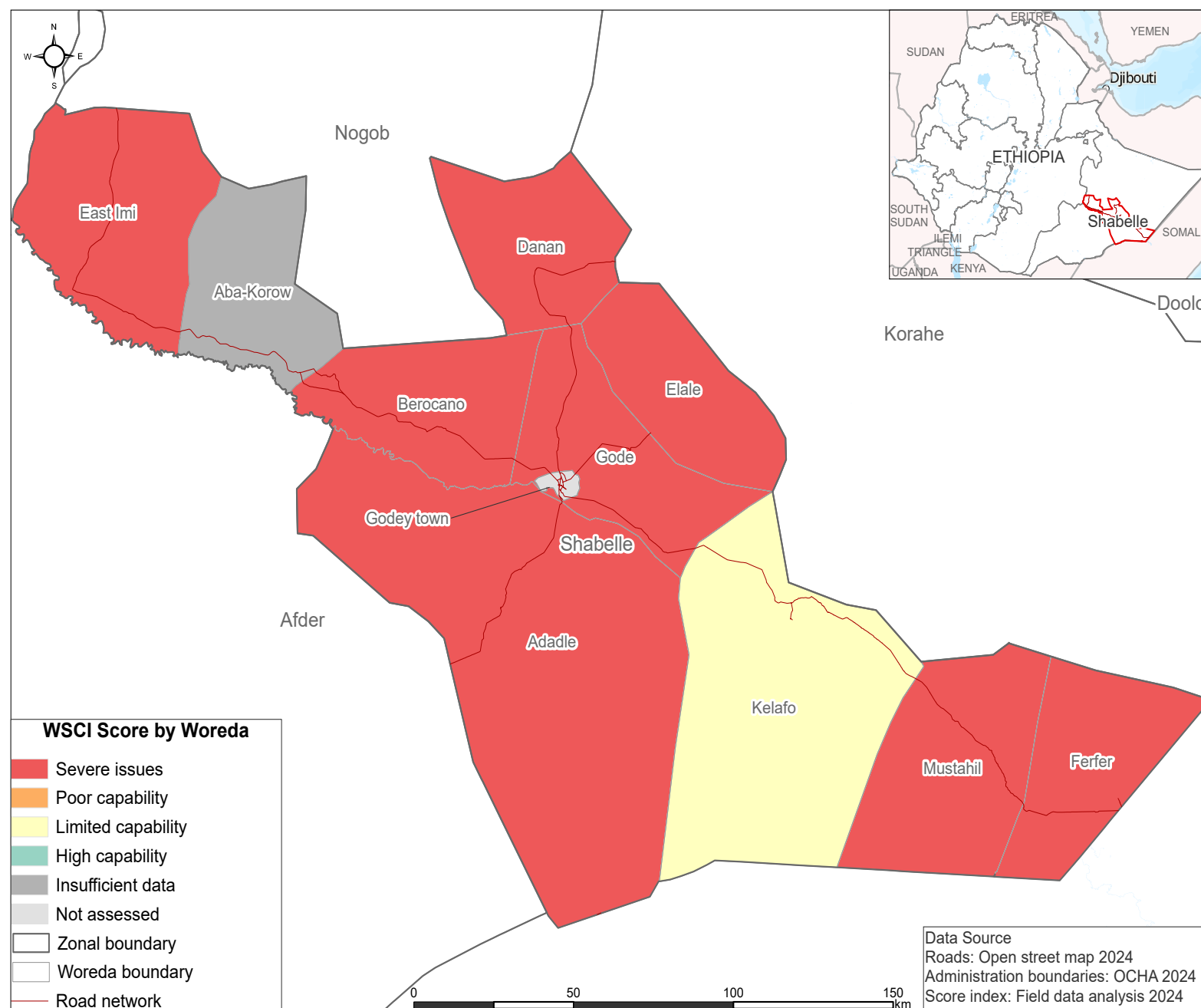**14%** Yes
2% Don't know

Of the total water points that had some maintenance, **50%** were serviced upon request or when damage occurs, rather than with a degree of regularity.

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WASH Service Capability Index

The WASH Service Capability Score (WSCS) is a method of classifying woredas based on the level of capability of their WASH services, helping aid and development actors understand which woreda is well capable to provide adequate WASH services and which may require support. WSCS 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

WASH Service Capability Scoring Map

WSCI Score by Woreda

- Severe issues
- Poor capability
- Limited capability
- High capability
- Insufficient data
- Not assessed
- Zonal boundary
- Woreda boundary
- Road network

Data Source
Roads: Open street map 2024
Administration boundaries: OCHA 2024
Score index: Field data analysis 2024

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

The research faced several limitations. Although the aim was to undertake a comprehensive census of health, education and WASH facilities, this was not possible due to access challenges. Security concerns and flooding prevented data collection teams from reaching some areas in the zone. As a result, in 10 of the 11 woredas, health and education facilities were only partially sampled. Additionally, Gode town was not assessed. Overall, 80% of all facilities in the initial sample were assessed. Specifically:

• Health facility coverage: 83%

• Education facility coverage: 84%

• Water facility coverage: 70 %

These limitations should be considered when interpreting our findings.

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).

Endnotes

1 Humanitarian Needs Overview (HNO) February 2024, OCHA