

TOR for Hydrogeological & Geophysical assessment Consultant in
Baidoa, Somalia.

Hydrogeological & Geophysical assessment Consultant

HA/SOM/TOR/002/2026

Prepared by:



Human Appeal –Somalia

13th January 2026

HYDROGEOLOGICAL & GEOPHYSICAL SURVEY/BAIDOA

Background:

Human Appeal Somalia is an International Humanitarian Organization that has been working in Somalia.

HA Somalia is committed to achieving its core vision of caring World where basic requirements of the needy are met. HA Somalia goal is to provide an increased access to water, sanitation, education and health facilities to IDPs and other vulnerable groups.

SCOPE OF WORK:

The contractor is required to conduct a Hydro-geological/Geophysical Survey in Baidoa in South west state, Somalia, the consultant is also required to collect the available secondary data on existing boreholes through a desk review, while primary data will be obtained by carrying out Hydro geophysical measurements within the study area using the appropriate hydro-geological surveying equipment. The outcome will be a comprehensive hydro-geological survey report giving details of the findings and recommendations identifying a site to drill a borehole which will have yield sufficient water of acceptable quality throughout the year.

Approach:

Desk study: Review of existing data related to the site including water resource trends, topographical maps, satellite images, borehole site investigations, geological reports and maps (if available), borehole and surface water records, etc.

Hydro-geological fieldwork: Detailed reconnaissance survey of project area. (GPS coordinates/P-codes, water level measurements, condition of these boreholes, usage and performance where applicable) inspection of geological, geo-morphological and structural characteristics of the investigated area; verification of existing data and findings.

Geophysical measurements: resistivity profiling and vertical electrical soundings (VES) and electromagnetic by using SAS1000 & \ WALKTEM.

Analysis and interpretation of hydro-geological/geophysical data for selection of potential drilling site Compilation, analysis, and evaluation of the gathered data and information.

Site selection Final report of results; The report shall include raw field data in appendix, interpretations and justifications, hydrogeological evaluations, conclusions and recommendations.

Presentation of the results to hydrogeologist/geologist and HA Somalia for validation of the best possible site.

The outline table of contents of the final report will be as follows:

Executive summary (1 page)

- A. Introduction, review of previous studies and hydrogeological information of the studied area, including history of groundwater depletion or known changes in quality: mineral content including unarmful –iron- and harmful – fluorides, nitrates... and toxic elements such as arsenic bacteriological pathogens.
- B. Geology and hydrogeology (incl. Inventory of positive and negative boreholes, aquifer characteristics –storage and hydraulic- and well characteristics –sustainable discharge rate- based on available data., and water quality)).
- C. Calibration of the geophysical instrument at known boreholes (yield, log) for the geophysical characterization of the geological formations, including the aquifer(s).
- D. Methods of investigations, including combination of geophysical methods.
Geophysical prospecting on different sites.

- E. Interpretation and comparison of studied sites: aquifer and borehole potentials, most suitable drilling site and justification, target aquifer(s) for drinking water production, mentioning assumptions, risks and risk management.
- F. Proposed drilling method, with equipment characteristics (incl. estimation of the casing and screen positions).
- G. Simplified Environmental and societal impact of the drilling and required risks reduction measures.
- H. Conclusion.

Deliverables:

- Primary data collection, stakeholder and key informant interview.
- Review/Analysis on data in (Somalia Water and Land Information Management Project) SWALIM and any other available data.
- Record of GPS co-ordinates, water level measurements, and condition of existing boreholes, usage and performance where applicable.
- The implementation plan and requirements for the site investigation.
- An inception report presenting the steps and methodology for the assignment against the present TOR, and justifying any difference.
- A brief note with the recommended sites selected for borehole reconnaissance and geophysical survey.
- Topographical information, geophysical information.
- Preliminary Report Presentation of the field work.
- Interpretation and conclusions.
- Final Report/Recommendations to IRS and local authorities.

HA Somalia will be available to provide necessary information including stakeholders, proposed site for the borehole drilling etc. Provide technical information to the consultant.

TIMEFRAME / SCHEDULE:	
Activity	Number of days
days Desk Study	3 days
Hydrogeological/geophysical Field Work	5 days
Analysis of Hydrogeological and Geophysical Data	3 days
Final report	2 days

Consultant Qualifications and requirement

We seek to invite qualified consultants/firms with Master's Degree or equivalent in a relevant field Experience providing Hydro-geological/Geophysical Survey who meet the following requirements to

1. Submit their detailed narrative and financial proposal on how to undertake the assignment.
2. Technical proposal on how the assignment will be conducted including methodologies, data analyses and interpretation, reports and schedules. (Provide software to be used for analysis).
3. Proven technical and field experience of consultant with a minimum of a Master's degree in geology, hydrology, engineering geology, geophysical, or in any related field and having good experience of working in this sector.
4. Consultancies performed in the last 10 years especially with reference letters for each hydrogeological surveys performed.
5. Proof of availability of all the equipment, personnel and ability to mobilize them on short notice (Include list of equipment, Brand/Manufacturer, CVs of key personnel) to perform the

survey.

6. Submit a detailed financial proposal including all professional fees, report costs and subsistence costs.

Note: All costs must be broken down into details (no lump sums, no contingencies etc.) The consultant/firm will be responsible for their own security; insurance while in the field and IRS will not take any liability for any injuries or damages incurred during the assignment.

Interested suppliers with the capacity to undertake the proposed service are invited to submit their RFP via email to the procurement team.

Channel of Bids Submission:

- a. All Interested applicants are invited to submit their bids to the following email address:

procurement.somalia@humanappeal.org.so

The email subject line must state: TOR reference: **HA/SOM/TOR/002/2026 – Hydrological & Geophysical assessment Consultant.**

- b. The deadline for submitting bids must be submitted by HA-Somalia to the email address specified above no later than 23:59:59 EAT on 24 January 2026. **Any RFP documents received after this deadline will not be considered.**