

Assessment Terms of

Reference

For

**Consultancy service for geophysical borehole log**

**At**

**Ukhiya, Cox bazar district**

May 2019

World Vision Bangladesh

1**.0 Project Background Information**

World Vision Bangladesh (WVB), a Christian humanitarian organization is dedicated to the wellbeing of children, especially the most vulnerable children, their families and communities. It is committed to serve and partner with people in need regardless of religion, ethnicity, gender and ability.

At present World Vision Bangladesh is serving around 5 million people under 31 administrative districts. With active presence in 80 locations at sub-district level, the organization is working for fulfilling its objective 'Building a better life for girls and boys in Bangladesh’.

Since 25 August 2017, an estimated 693,000 Rohingya have crossed into Bangladesh fleeing large-scale violence and human rights abuses in Northern Rakhine state, Myanmar.

Water levels in Rohingya camp situation in Ukhiya are declining and many wells have been reported to already be dry resulting in the WASH Sector instructing all agencies to ensure that they drill deep tube wells / boreholes, not shallow ones which abstract from the shallow and highly contaminated aquifer.

To provide lifesaving intervention through providing safe water, World Vision is going to construct chlorinated water network in the camp 15 block A, Jamtoli, Ukhiya upazilla of Cox’x Bazar, Bangladesh with support of Global Affairs of Canada (GAC).

**2.0 Purpose and objectives of the consultancy**

World Vision seeks the services of an external or individual consultant or firm to conduct geophysical borehole log work at camp 15 (with possibilities of other 7 production borehole in other Rohingya camp from UNICEF & DFAT funding).

The Key objective of the assignment will be to; conduct geophysical borehole logging through professional borehole logger / hydrologist for the borehole drilled by WVB BRCRP water network contractor at camp 15, Ukhiya Upazilla of Cox’s bazar Bangladesh.

**3.0 Immediate Objectives (Outputs)**

* Identify the aquifer level and provide recommended borehole design.
* Provide borehole logging soft copy and hard copy report for corresponding water network construction site.
* To provide recommendation on viability of production borehole as per expected discharge.

**4.0 Scope of Work**

Consultant will carry out borehole **gamma logging** with their standard logging instruments for 10 inch bore hole up to about 285-meter-deep for borehole well at given site to confirm the aquifer and viable layer of water availability.

1. Based on gamma logging, consultant shall provide detail report about borehole well, including final design of borehole on the basis of the description of the cuttings and the geophysical well logs.
2. Preparation of report, borehole log, Gamma, SP, resistivity logging Softcopy and Hard copy.

**5.0. Time period of the consultancy**; One month from the date of issuing purchaseorder (Start geophysical borehole logging date shall be confirmed by coordinating at WV site engineer at borehole drilling site)

**6.0 Methodology and Sampling**

Production Borehole **gamma logging** standard logging instruments for 10 inch bore hole up to about 285-meter-deep for borehole well.

**7.0 Implementation of the assessment**

To implement the assessment, the consultant will engage in the following key tasks;

* Conduct geophysical borehole logging (gamma logging) at given borehole drilling site,
* Prepare hard copy and soft copy report of borehole logging,
* Prepare borehole design drawing based on gamma logging findings,
* Finalize and submit an assessment report to WVB Cox’s Bazar office
* Provide recommendation based on assessment geophysical borehole logging,

**8.0 Consultant Deliverables:**

* Hard copy and soft copy report of borehole logging,
* Water production borehole design drawing based on gamma logging data analysis & findings,
* Submit an assessment report to WVB Cox’s Bazar office,
* Make a brief presentation on key findings and recommendations and share with WVB WASH team

**9.0 World Vision’s Responsibilities**

* + Provide the consultant with all necessary documents and reports for review
  + Pay the required consultancy fee as indicated in the signed contract within reasonable timeframe.
  + Where necessary, facilitate the making of appointments with all relevant stakeholders inside camps (government, partners, communities etc.) and provide contacts for relevant stakeholders
  + Provide security support for the consultant to access field sites to lead and supervise data collection
  + Pay for the consultancy fee at an agreed rate
  + Provide logistical support needed for the assessment; vehicle support for cox’s bazar to Borehole site at corresponding site for borehole logging date.

1. **Reporting Arrangements**

The Consultant will report technically to the WV WASH sector lead and work closely with WASH Manager and WASH engineer.

1. **Recommended documentation**

* Detail specification of production borehole.

**12.0 Expected Profile of consultant**

The Consultant should have demonstrated expertise in conducting geophysical borehole logging & should have experience on hydrological analysis of ground water study. with specific demonstrated experience in research, design and management of quantitative and qualitative research methods.

* Must have technical background on water supply, ground water study & production borehole design and construction.
* Minimum of a Bachelor’s degree in civil engineering or hydrology, preferred M.Sc. in water resource or hydrology,
* At least three years’ previous relevant experience on ground water & geophysical borehole logging, (please submit 03 previous work Order in order to represent your experience.)
* Consultants must have their own geophysical gamma logging instrument.
* Strong analytical skills and ability to clearly synthesize and present findings, draw practical conclusions, make recommendations and prepare well-written reports in a timely manner.
* Knowledge of the local context and culture of the target communities
* Fluency in English with highly professional report writing capabilities
* Strongly observes the ethical conduct of an assessment and or research including but not limited to plagiarism, quote sources, respect of respondents and confidentiality.
* Trade License (for Firm/Institution), TIN certificate, VAT certificate have to submit.

1. **Technical Requirement for geophysical borehole logging site**
2. Borehole contractor of WV will ensure that, bore hole drilled will be clear and washed before starting geophysical logging. Technical service provider vendor will coordinate with borehole contractor & WV WASH engineer to confirm the day of geophysical borehole logging.
3. In coordination with WVB borehole contractor & WV WASH Engineer, drill line will be released at the time of technical service provider vendor’s expert reaches the site.
4. Minimum Borehole diameter required is 10 inches and discussion with Drill operator/contractor has to be confirmed.
5. **Other terms and conditions**:
6. All prices must be inclusive of VAT, TAX and AIT
7. Technical service provider officials will make visits to site in Camp prior to submission of quotation in order to understand site condition.
8. Accommodation and other logistic support, local transport should be on vendor’s account while visiting.
9. Suppliers/Consultant won’t be provided with any food, accommodation or transportation from WV.
10. However, electricity or water required for electro logging should be arranged by WVB or their borehole contractor as available.
11. WV BRCRP will provide 4 days’ prior information to technical service provider, so that they could make arrangement for bringing professional borehole logger/ expert to carry the test and supervision.
12. Time line for Completion: Approximately maximum 05 days will be given after issuing Work Order to complete the work and report.
13. No partial/advance payment will be given.
14. **Summary of Consultancy Service for Geophysical borehole log Gamma-logging and price schedule.**

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| **Sl. no.** | **Description of Works** | **Unit** | **Qty.** | **Price**  **Incl. Tax, VAT & others charges** |
| 01 | Consultancy service for geophysical borehole log gamma-logging; The logs will comprise: Gamma, SP, resistivity  logging by mobilizing necessary team of professional borehole logger/ hydrologist/ experts and standard instruments, to provide well design assembly, report field, geophysical borehole log & final soft and hard copy, with mobilization and demobilization. | Borehole | 02 |  |
| 02 | Will you agree to have Frame Work Agreement (FWA) with WV for upcoming works for 01 year at your quoted price. | Yes/No | | |