

Module 3

Borehole Siting and Drilling Supervision Consultancy



DISCLAIMER:

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder provided proper acknowledgement of the source is made. UNICEF and Skat Foundation would appreciate receiving a copy of any publication that uses this publication as a source. No use of this publication may be made for resale or for any other commercial purpose without prior permission in writing from UNICEF. The designation of geographical entities in this report, and the presentation of the material herein, do not imply the expression of any opinion whatsoever on the part of the publisher or the participating organisations concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

FOR MORE INFORMATION:

For more information, comments and feedback please contact UNICEF New York headquarters www.unicef.org or Skat Foundation www.skat.ch

AUTHORS:

Dotun Adekile & Kerstin Danert, Skat Foundation, St Gallen, Switzerland; Jose Gesti Canuto, UNICEF, New York, USA; Djani Zadi, Peter Harvey, and Anne Cabrera-Clerget, UNICEF, Copenhagen, Denmark

CONTRIBUTORS:

Fiorella Polo, WASH Specialist, Water and Sanitation Section, UNICEF New York Headquarters, USA
Sue Cavill, Consultant

COVER PHOTO:

Kerstin Danert

HOW TO CITE:

UNICEF/Skat Foundation (2018) Module 5 Agreement for Borehole Siting and Drilling Supervision Consultancy
In UNICEF/Skat Foundation (2018) Borehole Drilling – Planning, Contracting and Management: A UNICEF
toolkit Cost Effective Boreholes Partnership of the Rural Water Supply Network (RWSN) by UNICEF and Skat
Foundation, Available from www.unicef.org and www.rural-water-supply.net

DOI: 10.13140/RG.2.2.19604.76166

ISBN: 978-3-908156-62-8

skat_foundation

Toolkit Orientation Table

	Introduction to the Toolkit <ul style="list-style-type: none"> ■ Definition of terms ■ Background to the Toolkit ■ Overview of the five modules
Module 1	UNICEF Principles for the Planning, Contracting and Management of Borehole Drilling Projects <ul style="list-style-type: none"> ■ Clarifies stakeholder responsibilities ■ Presents eight principles for the professionalization of borehole drilling ■ Defines minimum standards and recommends procedures ■ Explains different levels of drilling supervision
Module 2	Procurement Considerations for Borehole Drilling Works <ul style="list-style-type: none"> ■ Defines procurement process and responsibilities ■ Provides guidance for risk management ■ Compares two solicitation methods: ITB and RFPS ■ Highlights key considerations during the pre-contractual, contracting and contract administration phases including the evaluation of technical and financial proposals and the payment schedule
Module 3	Borehole Siting and Drilling Supervision Consultancy <ul style="list-style-type: none"> ■ Provides template of Terms of Reference which includes: <ul style="list-style-type: none"> ▪ Description of the assignment ▪ Supervisor's checklist ▪ Deliverables and reporting requirements ▪ Suggested Bill of Quantities for the consultancy services ▪ Completion certificate templates ■ Includes template for UNICEF Agreement for Borehole Siting and Drilling Supervision Consultancy Services
Module 4	Terms of Reference for Borehole Drilling Works and Pump Supply and Installation <ul style="list-style-type: none"> ■ Includes overview of how to select and specify handpumps and assure their quality ■ Provides templates for: <ul style="list-style-type: none"> ▪ Terms of Reference for Borehole Drilling Construction and Development of the Borehole ▪ Terms of Reference for the Supply and Installation of Pumps ■ Provides Technical Specifications for the borehole and a suggested format for the borehole completion record
Module 5	UNICEF Request for Proposal for Services for Borehole Drilling Works <ul style="list-style-type: none"> ■ Follows the UNICEF frame of Request for Proposal for Services in VISION and advises on options and elements ■ Includes template Bill of Quantities for borehole drilling works

Module 3 - Contents

Abbreviations and Acronyms	5
Introduction	6
Module Formatting	6
Key Issues for Consideration	6
Terms of Reference for Siting and Drilling Supervision – Template	8
1. Project Background	8
2. Description of the Assignment.....	8
2.1 Scope of Work	8
2.2 Operation Modality	8
2.2 Roles and Responsibilities	8
2.3 Specific Activities	9
3. Supervisor’s Checklist	20
4. Deliverables and Reporting Requirements	23
5. Locations and Duration.....	24
6. Evaluation Process and Methods.....	24
7. Project Management.....	25
8. Payment.....	25
Annexes – Toolkit Module 3	27
Annex 3.1 Suggested Bill of Quantities for Consultancy Services for Siting.....	27
Annex 3.2 Suggested Bill of Quantities for Consultancy Services for Supervision	28
Annex 3.3 Personnel & Sub-Consultants and Organogram	29
Annex 3.4 Performance Guarantee/Advance Payment Guarantee Form.....	30
Annex 3.5 Community Agreement Form	31
Annex 3.6 Certificate of Substantial Completion	32
Annex 3.7 Certificate of Final Completion	33
Annex 3.8 Template – UNICEF Agreement for Borehole Siting and Drilling Supervision Consultancy Services.....	34

List of Tables

Table 3.1	Contents of siting report for each location.....	10
Table 3.2	Recommendations for geophysical surveys	11
Table 3.3	Borehole siting considerations	11
Table 3.4	Information to be collected by community drilling monitors (daily report)	15
Table 3.5	Supervisors’ Checklists.....	20
Table 3.6	Example of Milestones for Borehole Siting and Drilling Supervision Consultancy – Option for Small Contracts	26
Table 3.7	Example of Milestones for Borehole Siting and Drilling Supervision Consultancy – Options for Larger Contracts	26

Abbreviations and Acronyms

EM	Electromagnetic
RFP	Request for Proposal
VES	Vertical electrical sounding
WASHCOM	Water and Sanitation Committee

Introduction

The **UNICEF Toolkit for Borehole Drilling – Planning, Contracting and Management** (subsequently referred to as the **Toolkit**) has been developed to bring uniformity to practices and to guide UNICEF staff involved in borehole procurement and the supply of equipment, as well as contracting consultancy services for borehole siting and supervision. The Toolkit comprises five modules (see cover page).

Module 3 – Borehole Siting and Drilling Supervision Consultancy provides guidance and advice for the preparation of an agreement for borehole siting and supervision consultancy. The module includes a template for the Terms of Reference (ToR), a UNICEF standard structure of Agreement and templates for other key documents that should be annexed to the contract. Note that the Terms of Reference and Agreement assume that UNICEF is the Client, i.e. that borehole construction, as well as the siting and supervision, is directly contracted by the UNICEF Country Office.

This module is in line with the UNICEF Toolkit Principle 3, which stipulates community involvement in siting and siting practices, including clarification of land ownership, as well as Principle 4 on supervision.

Module Formatting

Text which describes what should be written is in *italics*. Possibilities for modification to some clauses to suit particular situations are shown with notes made in ***[bold italics highlighted in grey]***.

For ease of referencing across the **Toolkit** contents, Annexes in Module 3 are referred to as Annexes 3.1 to 3.8.

Key Issues for Consideration

Boreholes need to be properly sited by experienced and qualified personnel using scientific methods and established good practices. On projects where more than five boreholes are drilled, and those in difficult groundwater terrains, a hydrogeologist/groundwater specialist should be engaged to carry out the siting. On small projects (i.e. where up to five boreholes are drilled) which are located in areas where the groundwater is easily accessible, the responsibility for siting may be given to the Drilling Contractor.

In order to ensure that boreholes are drilled according to the technical specification, borehole drilling needs to be supervised by competent persons or firms. Experienced hydrogeologists/groundwater specialists shall be engaged to carry out the supervision of borehole drilling. The siting and supervision of a particular borehole should be carried out by the same person or firm.

The Consultants should be selected through an evaluation process with clearly defined evaluation criteria. Suggested bills of quantities for siting and supervision consultancy are given in Annexes 3.1 and 3.2 respectively. Hydrogeologists and groundwater Consultants engaged for siting, supervision and monitoring of boreholes should be licensed by the national government and/or be members of the relevant national association. All Consultants should be proven to have the requisite knowledge, skills and experience. Where there is no licensing of Drilling Contractors, UNICEF should work with the Government to establish such licensing system.

The Terms of Reference template in this module covers both the siting of the boreholes and the supervision of borehole construction. For quality assurance and the avoidance of dispute, the same party should be responsible for the siting and supervision of a particular project. However in instances where the Drilling Contractor is responsible for the siting¹, the Supervisor shall oversee it and ensure that it is carried out as specified.

¹ The **Toolkit** – Module 1, principle 3 infers that on projects of less than five boreholes in areas where groundwater is easily accessible the responsibility for siting may be given to the Drilling Contractor. In all other cases, siting should be undertaken by competent and experienced groundwater Consultants.

Levels of Drilling Supervision

Competent groundwater Consultants who could be either a firm or an individual are to be employed to carry out the supervision of siting, drilling, pad construction and installation of pumps. In cases where such Consultants are not available, UNICEF Country Office will request the deployment of counterpart government staff to the project who would have been trained in drilling supervision to carry out the supervision. The expected level of supervision should be stated clearly in the consultancy agreement, i.e. whether it shall be full-time supervision or part-time/milestone supervision (described below). On completion of the borehole construction and related activities, the Supervisor will carry out a final borehole inspection.

The Supervisor is expected to be totally independent of the Drilling Contractor. In other words, the Supervisor will have his/her own transport and other basic equipment such as a GPS, dip meter, measuring tape, stop watch, magnifying glass, and borehole camera.

Full-time supervision is preferable and should be used where the resources are available. In full-time supervision, the Supervisor is involved and present throughout the drilling process, from the early stages of the procurement process through the pre-tender meeting, pre-contract inspection to siting, mobilisation, drilling, demobilisation and handing over.

Part-time/Milestone Supervision may be used where the resources for full-time supervision are not available. In this case, the Supervisor is present at the procurement stage, pre-tender meeting and pre-contract inspection. Thereafter, he/she will be present at critical stages of the borehole construction which shall be defined in the consultancy agreement. The critical stages are as follows:

- mobilisation
- site selection
- termination of drilling
- lining of the borehole
- borehole development
- pumping test
- pad construction and pump installation
- demobilisation

Some literate community members, recommended by the Water and Sanitation Committee (WASHCOM), should be trained and encouraged to monitor and report on the drilling activity at the times the Supervisor will not be available on site.

Final Borehole Inspection

An inspection is an official visit to the works in order to verify that all specifications have been adhered to and that the works are in their proper condition. On completion of the Works by the Drilling Contractor, the Supervisor will inspect the boreholes, pads, pumps and surroundings and identify any defects that need to be corrected during the defects liability period. The defects will be listed in the Certificate of Substantial Completion which is issued at this stage. The Supervisor will monitor the correction of the defects. When satisfied that the defects have been corrected, the Supervisor, along with UNICEF Designated Representative, will issue a Certificate of Final Completion.

Terms of Reference for Siting and Drilling Supervision – Template

1. Project Background

The general information must describe the background of the requested services, in particular:

- Rationale and key aspects of the overall context of the assignment
- History of activities to date
- Project/assignment related data, e.g. relevant studies, geographical data, target groups, category of services to be rendered and basic documents.

2. Description of the Assignment

2.1 Scope of Work

In order to assist with the implementation of the **[Insert project brief description]**, UNICEF requires the professional services of a qualified firm of groundwater specialists to provide siting and supervision support for up to **[Insert number of boreholes]** boreholes in **[insert the locations]**.

The selected firm (the “Consultant”) will be expected to give attention to the activities as specified. The activities complement community mobilisation, training and preparing stakeholders to operate and maintain the facilities, and the drilling, construction and development of **[Insert number of boreholes]** boreholes in **[insert the locations]** in collaboration with **[insert district local governments]**.

2.2 Operation Modality

The **[insert project title]** shall be under the control of the Designated Representative appointed by UNICEF. The Consultant will collaborate with the Designated Representative in the siting and supervision of the borehole construction and ancillary works, ensuring a common understanding between the Consultant and the UNICEF staff of the preferred construction techniques, materials and quality standards.

The Contract Agreement(s) for Drilling, Construction and Development will be directly between UNICEF and the selected Drilling Contractor.

The Consultant’s Supervisor is nominated as UNICEF’s site representative. The Consultant shall be responsible for the management and direction of the project on site and shall approve all materials supplied, works and measurements carried out by the Drilling Contractor and his/her team of workers on the project.

The Consultant shall be availed of the signed contract between UNICEF and the Drilling Contractor, including all Annexes and a copy of the contractor’s approved comprehensive work schedule. The Consultant will also be expected to work in collaboration with the local community **[insert district local governments]** and other concerned stakeholders as specified.

The Consultant shall have competent staff and equipment and software for carrying out hydrogeological and geophysical surveys and interpreting the data.

2.2 Roles and Responsibilities

The roles and responsibilities with respect to the borehole siting, construction and supervision are:

- The **Community** members are the end users of the water supply. The benefiting communities will be identified by the responsible government agency and UNICEF. **Community representatives** to engage in siting and support supervision should be identified and communicated to the Consultant before he/she undertakes field reconnaissance. The communities will be introduced to the Consultant to commence the

borehole siting.

The community must be involved in the process of siting and design so that the finished water point can meet their needs. The Community can support supervision, by tracking the drilling process and recoding select information, but cannot be responsible for technical or contractual details. If the community is to support drilling supervision, at least two literate individuals should be appointed as **Drilling Monitors** and be given guidance on what to track by the Supervisor. Should any problems arise during the mobilisation or drilling construction phases, the community should inform the site Supervisor. In case the problem concerns the site Supervisor, the community should inform the Consultant or the UNICEF Designated Representative.

- **UNICEF** is the **Client** that is contracting out the siting, supervision and borehole construction. The client is responsible for: selecting the locations **[e.g. specific communities]** of the boreholes; ensuring that community mobilisation and training activities have been completed; identification of the community representatives for the siting, drilling and pump installation activities; clarifying community and other stakeholder roles and responsibilities to operate and maintain the facilities and supporting the establishment of appropriate structures. The client is responsible for ensuring that all regulatory requirements for the borehole are met.
- The relevant **local government** authority should attend the pre-mobilisation meeting as well as the **[hand over]** of the completed works to the community.
- The **regulator** issues permits or licences for drilling or abstraction. Legal requirements should be established by the Client early on to avoid delays.
- The **Consultants'** responsibility is to ensure that the **Drilling Contractor** adheres to the technical specification, makes all the required measurements, keeps all records accurately, including a daily record and makes sure that health and safety procedures are adhered to.
- The Consultant's **Supervisor** is the nominated representative of the Consultant on site.
- The **Drilling Contractor** is the organisation that undertakes the drilling works. The contractor's responsibility is to drill and complete the borehole as specified in the contract with UNICEF.
- The **Pump Supplier** is the organisation that supplies and installs the pump.

2.3 Specific Activities

The work to be undertaken includes all necessary inputs to ensure completion of the drilling and construction of **[Insert number of boreholes]** in **[Insert the locations]** and for the development of the same to be equipped with handpumps and fully finished water abstraction points for the purpose of drinking water supplies. The following activities are expected as part of implementation of this project **[delete activities as required]**:

- Activity 1 Borehole siting and borehole design at **[Insert number of locations]** locations
- Activity 2 Assist UNICEF in the procurement and contract award of the Drilling Contractor
- Activity 3 **[Full-time supervision of mobilisation and borehole construction]** OR **[Milestone supervision of mobilisation and borehole construction]** at **[Insert number of sites] sites**
- Activity 4 Supervision of the supply and installation of the pump at **[Insert number of sites] sites**.
- Activity 5 Final inspection at completed sites **[Insert number of sites] sites**

The specific activities to be undertaken are detailed below: **[Note that these may be modified to reflect the project, or the strategy adopted by the consulting firm(s) awarded the contract].**

Activity 1 Borehole siting and borehole design

Deliverables

- Siting report including borehole design including the contents in Table 1 for each **[Insert number of locations]** locations.
- A summary of the work carried out with recommendations is to be included in the monthly progress report.

Table 3.1 Contents of siting report for each location

<p>For all locations:</p> <ul style="list-style-type: none"> ■ Name and date of the survey ■ Results of the desk study, including <ul style="list-style-type: none"> ■ a description of the topography and geology of the areas and ■ a description of the groundwater potential ■ Results of the hydrogeological reconnaissance including <ul style="list-style-type: none"> ■ an assessment of the access to the community for drilling equipment ■ a route map to the community and sites ■ a description of the survey methods used ■ if geophysical techniques have been used: <ul style="list-style-type: none"> - a map showing the lines of traverses and clearly indicating the VES points for the three probable sites - Interpretation of the VESs in terms of the geological layers, estimated thickness of the layers and probable drilling depth. ■ Geophysical data shall be presented in an Excel spread sheet which should list the locations and GPS coordinates for the three places siting was carried out. ■ A recommendation as to whether borehole drilling should be undertaken <p>For locations with sufficient groundwater potential for a borehole to be installed with a handpump:</p> <ul style="list-style-type: none"> ■ The GPS coordinates and elevations, and description of the locations for: <ul style="list-style-type: none"> A – the priority site B – the second priority site C – the back-up site ■ Borehole design including details of the lining material and the drilling diameter, the probable drilling depth ■ Any concerns with the groundwater quality ■ Recommendations for pump materials given the water quality

Description of tasks

The siting of the boreholes shall be carried out in the following stages:

- **Desk study:** review of existing data and information on the geology and hydrogeology of the locations, interpretation of remote sensing data collated from aerial photographs, satellite imagery, topographical and geological maps.
- **Reconnaissance survey:** determination of the rock types underlying the locations, their structural disposition, the weathering products and water-bearing potential, an assessment of whether geophysical survey is needed or not. If it is considered necessary to carry out geophysical survey, areas suitable for the geophysical survey shall be identified. The Consultant shall jointly carry out a reconnaissance survey with the community representatives and identify potential areas and preferred locations for the borehole in each community. The community preference shall be given first priority. Only when the site indicated by the community is not feasible shall another one be selected. If a geophysical survey is required, the

Consultant shall carry out geophysical measurements in the areas agreed by the community and the Consultant.

- **Geophysical survey:** The above two stages may or may not be followed by a geophysical survey (Table 2). The Consultant will determine those areas where geophysics will be useful. It is not everywhere that geophysics will be required. In well understood regional unconsolidated aquifers without concerns about salinity or saline intrusion, geophysics should be dispensed with. In compacted sediments and crystalline areas, geophysics will be useful. Geophysical surveys should only be undertaken where the likelihood and costs of drilling an unsuccessful borehole justifies the expense.

Table 3.2 Recommendations for geophysical surveys

In the geophysical survey, electromagnetic (EM) conductivity metering followed by vertical electrical depth soundings (VES) is recommended. Where the recommended method is used, at least two perpendicular EM traverses shall be carried out across the settlement and across observed lineaments. Locations for conducting vertical electrical soundings (VES) shall depend on anomalies detected or readings obtained on the electromagnetic (EM) traverses.

If the Consultant deems that an alternative geophysical technique or strategy will be more appropriate in a particular context, this should be presented to the Designated Representative for prior approval before commencing the survey. All data will be analysed by appropriate software.

[In some localities, the EM technique may not be available. Then the geophysical survey will only consist of resistivity constant separation traversing and VES measurements. The Consultant may have to carry out a minimum of 6VESs in a community from which the most promising 3 shall be selected].

- **Assessment of drilling equipment accessibility:** the accessibility of drilling equipment to the drill sites is to be determined, including the preparation of a route map to the community sites.
- **Locate probable sites:** The Consultant is required to locate at least three probable sites in each community and number them in order of priority, based on the confidence of drilling a successful borehole at that location and siting considerations (Table 3), i.e.
 - A – the priority site,
 - B – the second priority site
 - C – the back-up site

Table 3.3 Borehole siting considerations *[use national standards/guidelines if they have been defined]*

The borehole shall not be sited where it could be flooded or in depressions with poor drainage. The site shall not be liable to erosion. The siting of the borehole shall also follow the recommended minimum distances from potential sources of contamination and other existing water points in line with national standards or guidelines, or as presented below ***[delete as appropriate]***.

Existing structures	Minimum distance from proposed borehole site (m)
Water supply boreholes	50
Hand dug well	30
Latrines/septic tank/soakaway	30
Streams, canals, irrigation ditches	20
Buildings	3
Approved or informal solid waste dump, burial ground, lubricant depot	500
Coastline	100

- **Mark the sites:** Before leaving the community, the siting crew shall clearly mark the sites, show the selected locations to the community members and sign a prepared community agreement form **[Annex 3.5]**.
- **Borehole design:** The Consultant shall design the borehole based on the following parameters:
 - the purpose of the borehole
 - the expected yield from the borehole
 - the probable drilling depth
 - the likely drilling technique
 - the chemistry of the groundwater
 - the pump type

The borehole design will give the details of the lining material and the diameter, the probable drilling depth and any concerns with the groundwater quality. The borehole design shall accompany the siting report.

Where no feasible sites are found in a particular community for a borehole, this shall be stated in the siting report. The Consultant shall report this to the Designated Representative, who will make a decision on whether the community should be taken out of the borehole programme and alternative water supplies recommended.

Activity 2 Assist UNICEF in the procurement and contract award of the Drilling Contractor

Deliverables

[Amend as appropriate]

- Terms of Reference for Borehole Drilling Works for **[Insert number of location]** locations.
- Bills of Quantities for **[Insert number of location]** locations.
- Confidential bill of quantities/engineers estimate for **[Insert number of location]** locations.
- A summary of the work carried out with recommendations is to be included in the monthly progress report.

Description of tasks

The Consultant shall assist UNICEF to **[prepare]** the **[Terms of Reference for Borehole Drilling Works]** based on **[the national standards or guidelines for borehole construction]**, **[UNICEF Principles of Borehole Construction]**² and the **[Template for Terms of Reference for Borehole Drilling Works]**³.

The Consultant shall be available at the:

- Pre-tender meeting – to go through the contract documents with the bidders, explain the geology and the reasons for particular specifications and prepare the minutes of the meeting.
- Bid evaluation, following the procedure as stated in the Request for Proposals (RFPs).

² See Module 1 of *Borehole Drilling – Planning, Contracting and Management: A UNICEF Toolkit*

³ See Module 3 of *Borehole Drilling – Planning, Contracting and Management: A UNICEF Toolkit*

Activity 3 Supervision of mobilisation and borehole construction

Deliverables

- File with copies of all communications on the project in respective folders
- Copies of sketch of the proposed assemblage of casing and screen for each completed location
- Copies of signed borehole completion record for each completed location as submitted by the Drilling Contractor to the **[Insert appropriate authority]**.
- A summary of the work carried out with recommendations is to be included in the monthly progress report.

Description of tasks

The Consultant shall be responsible for the supervision of the drilling contract. The Consultant shall undertake the following tasks:

1. Develop filing system
2. Project meetings for **[Insert number of sites]** sites
3. Supervision (including approval of schedule; checking drilling equipment; checking drilling materials; engaging community to track drilling process, safety, drilling, final borehole design, installation of casing and screen, borehole development and site completion, sanitary seal, pumping test, water quality testing and borehole disinfection).
4. Issue certificate of Substantial Completion for all boreholes that have been substantially completed **[Annex 3.7]**.

The duties are further detailed below:

Activity 3.1 Filing system

The Consultant shall develop a filing system for all communication on the project. For ease of retrieval it shall include separate folders for:

- Correspondence with the client
- Correspondence with the Drilling Contractor (including regular updates of programme of works)
- Community liaison data which shall include minutes of meetings with each community, training provided for the community, siting data, supervision checklists, borehole construction, pump testing and pump installation records.
- Notice and minutes of meetings
- Invoices and payments

And any other folders that the contract may require.

Activity 3.2 Project meetings

The Consultant shall develop a schedule of project meetings and give timely notice to the Drilling Contractor and all expected participants. At each site, the meetings shall include:

- **Pre-mobilisation meeting:** the Consultant shall hold a meeting with the Drilling Contractor and the UNICEF **[Designated Representative]** before the Contractor mobilises to the **[basecamp/site]** to go over the technical specifications and procedures for each step in the contract, so that there is a common understanding of all the issues among all the parties. The roles and responsibilities of all parties will be

made clear at this meeting. The format to be used by the driller for data collection, as set out in the Contract between UNICEF and the Drilling Contractor, shall be verified⁴.

- **Introduction meeting with community:** to introduce the Supervisor and the Drilling Contractor's representatives to the community representative and inform the community of the start date of the project in the community. Explain that should any problems arise, the community should inform the Supervisor. The Consultant should complete Supervision Checklist Part 1 as set out in Section 3 of the [Toolkit Module 3] Terms of Reference.
- **Site meetings:** where the progress of the works will be reviewed.

Activity 3.3 Supervision [select full-time or part-time/milestone supervision as appropriate]

Full-time supervision

The Consultant's Supervisor shall be present on the drill site and stay with the drill team throughout the drilling. The main responsibilities of the Supervisor are:

- ensure that the borehole construction and completion work is carried out as specified in the contract between the contractor and UNICEF
- ensure that all measurements and observations are systematically and accurately taken, recorded and submitted to the appropriate authority according to the contract between the contractor and UNICEF,
- ensure that safety standards are maintained at all times during the execution of the project.

The tasks to be executed by the Supervisor at the different stages of the project are as follows:

a) Approve programme for completion of works

Prior to mobilisation to the base camp or first drilling site, the Drilling Contractor shall be required to submit the programme for the completion of the works in a Gantt chart of weekly activities as specified in the drilling contract. The Consultant is tasked with checking and approving the programme of works and ensuring that it is updated at least monthly.

b) Check drilling equipment

Prior to mobilisation to the base camp, or first drilling site, the Consultant shall check the drilling equipment and ensure that it is adequate for the project and in good working condition. The Consultant should complete Supervision Checklist Part 2 as set out in Section 3 of the [Toolkit Module 3] Terms of Reference.

c) Check drilling materials

The Drilling Contractor is required to submit samples of all the materials to be used on the project (i.e. casings, screens, drilling fluids, gravel pack, aggregate cement, formwork, steel reinforcement) to the Supervisor. The Supervisor shall check the sample materials and ensure that they are adequate for the project. The Supervisor shall ensure that the casings and screens supplied are new, there is no discolouration due to prolonged exposure to sunlight and conform to the specification. If in doubt, the diameter and the wall thickness shall be measured with callipers. The Supervisor should complete Supervision Checklist Part 3 as set out in Section 3.

d) Engaging community to track of drilling process

⁴ [Module 4 – Annex 4.3 of the Toolkit provides a suggested format for the borehole completion record].

The Supervisor should try to involve the community to track the drilling process by providing guidance to two community **drilling monitors** regarding the stages that they should observe and record. The drilling monitors must both be literate, be able to do basic arithmetic and have a watch. It should be noted that the community drilling monitors are no substitute for the record keeper of the Drilling Contractor, or record keeping by the Supervisor, but can provide a check on data recorded. Table 4 sets out the type of information that can be tracked and recorded by the community.

Part-time/Milestone Supervision

Where Part-time or Milestone Supervision is employed the Supervisor will also carry out the functions labelled a), b), c) and d) under full-time supervision above.

Table 3.4 Information to be collected by community drilling monitors (daily report)

	Start of Drilling
Date & Time	Drilling Observations
	1 st drill pipe inserted
	2 nd drill pipe
	3 rd drill pipe
	4 th drill pipe
	5 th drill pipe
	<i>[add as required]</i>
Date & Time	Borehole development Observations
	Borehole development started
	Borehole development completed
	<i>[add as required]</i>
Date & Time	Pumping test Observations
	Date and time pumping test started:
	Date and time pumping test completed:
	<i>[add as required]</i>
Date & Time	Pump Platform, Drainage and Soakaway Observations
Date & Time	Pump Installation Observations

e) Safety

The Supervisor shall ensure that the Drilling Contractor takes all precautions for the safety of the personnel, the public and the equipment on the drill site. The Supervisor shall check and ensure that the Drilling Contractor has a properly equipped first aid kit on site and has adequate preparation for dealing with emergencies. All personnel on the site, both the Supervisor and the drilling crew shall put on protective clothing, proper boots, hard hats and gloves. The Supervisor shall be constantly vigilant to prevent accidents, and to minimise injuries should accidents occur. Spectators must be kept behind a clearly defined barrier and prevented from staring at the welding arc where welding is carried out.

f) Drilling

Rig position: The Supervisor shall ensure that the rig is positioned exactly over the pegged site and away from any potential hazards such as overhead electrical cables.

Monitoring drilling depth, penetration rate and drill cutting samples: The Supervisor shall constantly monitor the drilling depth, the depth penetration rate and the collection of drill samples. The Supervisor shall ensure that the Drilling Contractor complies with the depth interval for collection of samples as specified in the Drilling Contract or agreed otherwise. A photograph of the samples will be taken as a permanent record. The Supervisor shall prepare a graphic strata log of the borehole which will form part of the final borehole report.

The Supervisor shall instruct the Drilling Contractor to stop drilling when the appropriate depth is reached. The decision to end drilling will depend on the information gathered in the course of drilling which will include:

- the depth specified in the Contract
- depth of the aquifer
- static water levels
- the estimated yield from the borehole

The Supervisor should complete Supervision Checklist Part 4 as set out in Section 3 of the [Toolkit Module 3] Terms of Reference.

Where the risks of drilling a dry borehole becomes apparent during the drilling, particularly from the output during hammer drilling, and the recommended depth has been attained and possibly surpassed, the Supervisor may elect to stop the drilling and declare the borehole unacceptable without installing casing and screens in the borehole. In such circumstances, the driller should be paid for items of work expended until the borehole was declared unacceptable, based on the bill of quantities.

g) Final borehole design

The Supervisor shall instruct the Drilling Contractor on the final borehole design, i.e. the depth interval to be screened, the slot size of the screen, the gravel pack depth interval and grain size of the material.

Installation of casing and screen

Once the depth of the borehole and the depth interval for screening are decided, the Supervisor shall make a sketch of the proposed assemblage of casing and screen. The casings and screens will be laid out according to the sketch and measured individually, totalled and checked that they conform to the sketch. The Supervisor will take a photograph of the layout for the record.

The Supervisor shall ensure that joints between lengths of casings are strong enough to support the entire weight of the casing during installation. Threads should be intact. Both male and female threads will be properly cleaned with a wire brush and cloth before they are joined. Where non-threaded couplings are used, they should be cleaned and joined together by the solvent cement or glue recommended by the manufacturer, and time

recommended for it to set should be observed. Where steel casings and screens have to be welded, the Supervisor shall ensure that the welding is fully penetrating and continuous.

h) Borehole development and site completion

The Supervisor shall ensure that borehole development is undertaken according to the specifications in the drilling contract. At the end of the development the water coming out from the borehole is clear of mud and is sand-free. Samples of the water shall be collected in a clear container and checked to see that there are no sediments collecting at the bottom of the container.

i) Sanitary seal

The Supervisor shall ensure that a sanitary seal is placed in the top **[6m]** to prevent surface water which may be polluted from flowing down the borehole annulus into the aquifer. **[The sanitary seal will be cement slurry in the mixture of 25l of water to 50kg of neat cement, or bentonite].**

j) Pumping test

The Supervisor shall ensure that the Drilling Contractor conducts the pumping test as specified in the drilling contract, whether it is only a constant discharge rate test or step test followed by constant rate test and the recovery rate measurement.

The Supervisor shall analyse the data collected from the Pumping Test for the specific capacity of the borehole. The Supervisor shall determine whether or not the specific capacity is sufficient for the borehole to serve as a potable water supply based on the requirements specified in the Drilling Contract. The Supervisor will make recommendations on the pumping regime of the borehole.

k) Water quality testing

The Supervisor shall ensure that the Drilling Contractor conducts collects samples and undertakes water quality testing as specified in the drilling contract. The water quality testing form to be completed by the drilling contractor shall be approved by the Supervisor. The Supervisor shall ensure that the Drilling Contractor uses a portable test kit to measure the pH, conductivity and temperature of the water sample on site. The samples sent to the laboratory shall be tested for the parameters as set out in the Drilling Contract.

From the results of the water quality analysis, the Supervisor shall determine whether or not the chemical and bacteriological quality of the water is adequate to serve as a potable water supply based on the National Drinking Water Quality Standards or the WHO Guidelines where there are no national standards.

In the case of corrosive water (i.e. pH < 6.5), specific measures need to be taken. Galvanised iron (GI) riser pipes and pump rods are not to be installed in water where the pH is less than 6.5. The Supervisor shall ensure that appropriate materials, as specified in the pump supply contract and installation contract, are installed. **[amend as necessary]**.

l) Borehole disinfection

The Supervisor shall ensure that the completed borehole is disinfected by the Drilling Contractor as specified in the Drilling Contract.

m) Demobilisation

On completion of the works, the Drilling Contractor shall submit all the required documentation as specified to the client, restore the site back to its former state and demobilise from the site.

Part-time or Milestone Supervision

Where part-time supervision is employed, the Supervisor shall ensure that activities e) to l) in 3.3 above are carried out either directly by him/herself at the stages that have been specified that he/she must be on site, or by community members that have been trained to support him/her whilst not on site.

Activity 3.4 Verify borehole completion report

The Supervisor shall verify that the drillers' borehole completion report complies with the Drilling Contract for each borehole drilled (including boreholes that were aborted).

In the case of (an) abortive borehole(s), the Supervisor shall submit to the Designated Representative in writing the account of the steps in the drilling process up to the point of the borehole(s) being declared unacceptable and abortive and the particular reason for the borehole(s) being so declared abortive. The Designated Representative shall determine if this is due to an action or inaction of the Drilling Contractor or due to the failure or incompetence of the Supervisor. If it is due to the Drilling Contractor, the Drilling Contractor shall be instructed to re-drill the borehole at his own cost. If it is due to the Supervisor, the responsibility lies with him/her to undertake corrective measures if possible. If it is the fault of the Supervisor, the individual consultant/company is responsible, which could ultimately result in termination of the contract or withholding of payment.

Activity 3.5 Inspection and issue of certificate of substantial completion

On being satisfied that the works have been completed and all the required data and documentation have been completed, a certificate of substantial completion shall be issued by the Supervisor **[Annex 3.7]**.

Activity 4 Supervision of the pad construction, and the supply and installation of the pump

Deliverables

- Signed certificates of Substantial Completion for all boreholes that have been substantially completed.
- A summary of the work carried out with recommendations is to be included in the monthly progress report.

Description of tasks

Activity 4.1 Inspection of materials for pad construction

Samples of all materials to be used for the concrete pad, i.e. the aggregates, cement, water, formwork; steel reinforcement shall be approved by the Supervisor before delivery to the site.

Activity 4.2 Supervision of pad construction

The Supervisor shall ensure that the pad construction is as specified in the contract. The concrete mix shall be in the right ratio and allowed to cure for the specified period. The construction of the concrete pad, drainage and soakaway shall be coordinated with the installation of the handpump stand.

The Supervisor shall ensure that the data about the borehole are either inscribed in the wet concrete or installed on a brass plate **[delete as appropriate]** as specified in the drilling construction contract.

Activity 4.3 Pump inspection

The above ground and below ground pump components of the handpump (i.e. pump head assembly, handle assembly, rod hanger assembly, stand assembly, cylinder assembly, plunger and foot valve, rising main pipes with centralisers) to be installed on the borehole shall be inspected by the Supervisor to verify that they are as specified, new, and have been procured from the approved supplier as per specifications validated by UNICEF.

Activity 4.4 Supervision of pump installation

The Supervisor shall instruct the **[Contractor/Pump Mechanic]** on the depths at which to install the pump. The installation shall be carried out in accordance with the standard installation instructions provided by the manufacturer. All components introduced into the borehole shall be disinfected using a chlorine solution. After installation, the pump will be subjected to a one-hour continuous pumping.

On occasions when the pump installation is the responsibility of the community pump mechanics/minders, the Supervisor shall similarly instruct them on the depths at which to install the pump and that the installation is carried out in accordance with the standard installations provided by the manufacturer. The disinfection and continuous pumping will be carried out as stated in the preceding paragraph.

Activity 4.5 Inspection and issue of certificate of substantial completion

On being satisfied that the works and all the required data and documentation have been completed, a certificate of substantial completion shall be issued by the Supervisor **[Annex 3.7]**.

Activity 5 Defects liability and final Inspection

Deliverables

- Condition report for each borehole
- Signed Certificates of Final Completion for all boreholes that have met all of the final inspection criteria as specified in the Drilling Contract.

Description of tasks

The Supervisor shall check and monitor the performance of the items of work completed by the Drilling Contractor during the defects liability period. The Supervisor will notify the Drilling Contractor of any defects found and instruct they be put right. If they are not put right within the defects liability period, the Drilling Contractor shall forfeit the amount retained for that borehole.

A final inspection of the works shall be carried out by the Supervisor **[and UNICEF]** in the presence of the Drilling Contractor's representative. The final inspection is to ensure that all the Drilling Contractor's obligations are complete. Final inspection will be conducted when the Defects Liability Period is over, i.e. **[Insert the period]** months after Substantial Completion. The Consultant will:

- Undertake an inspection of the borehole, pad, drainage, soakaway and handpump for each site and prepare a condition report for each site.
- Inform the contractor of the defects that are to be rectified.
- Issue a Certificate of Final Completion for the sites that meet the specifications as set out in the Drilling Contract.
- Set aside a date for the handing over.

3. Supervisor's Checklist

The table below provides a checklist for the drilling Supervisor and should be available in hard copy for each drill site. The checklist should be used on site, and as a reference when preparing the reports for the Client. Hard copies of these checklists should be kept by the individual/firm undertaking the supervision for a minimum of five years from the date of contract completion.

Table 3.5 Supervisors' Checklists

General – for each borehole		
Water Well/Borehole Reference No:		Use: <input type="checkbox"/> Community <input type="checkbox"/> Household/Private Compound <input type="checkbox"/> Health Facility <input type="checkbox"/> Education Facility <input type="checkbox"/> Company Premises <input type="checkbox"/> Test Well <input type="checkbox"/> Other
Location:		Owner Name:
Coordinates/ GPS Reference:		Owner Address:
Grid Ref: Long. E Lat. N		
Financing Programme/Project/Private:		
Well Permit No:	Date Issued:	Issuing Authority:
Name of Drilling Enterprise:		Driller's License No:
Address of Drilling Enterprise:		

Part 1 - Roles and responsibilities, contracts and logistics clarified	
Activity	Checklist
<input type="checkbox"/> 1. Contracts	<input type="checkbox"/> Contract between UNICEF and Drilling Contractor Signed <input type="checkbox"/> Contract between UNICEF and Consultant Signed
<input type="checkbox"/> 2. Data collection forms	<input type="checkbox"/> Format of data entry forms agreed (should be in Drilling Contract)
<input type="checkbox"/> 3. Programme of work	<input type="checkbox"/> Programme of work submitted and approved
<input type="checkbox"/> 4. Community liaison	<input type="checkbox"/> Explain details of drilling process.
	<input type="checkbox"/> Community member roles, contributions and responsibilities explained
	<input type="checkbox"/> Exchange details of main contact persons or community representatives.
	<input type="checkbox"/> Driller's representative introduced to the Community
	<input type="checkbox"/> Supervisor introduced to the Community

Supervisor's Checklist Part 2 – Drilling Equipment	
Activity	Checklist
<input type="checkbox"/> Drilling rig	Year of Manufacture:
	Manufacturer:
	Lifting capacity:
	<input type="checkbox"/> Raise mast.
	<input type="checkbox"/> Start and run for an hour without problem.
	<input type="checkbox"/> Check for oil leaks and get any fixed before giving approval.
<input type="checkbox"/> Compressor	Year of Manufacture:
	Manufacturer:
	<input type="checkbox"/> Start and run for an hour without problem.
<input type="checkbox"/> Mud pump and generator	<input type="checkbox"/> Check rating against estimated borehole depths.
	<input type="checkbox"/> Test pumps and generator.
<input type="checkbox"/> Water tanker	<input type="checkbox"/> Check for leaks.
<input type="checkbox"/> Support trucks	<input type="checkbox"/> Check that the Driller has the necessary working support vehicles.
<input type="checkbox"/> Drill pipes appropriate and in working condition	<input type="checkbox"/> Drill rods are adequate.
	<input type="checkbox"/> Check that there are adequate lengths of drill pipes to drill the deepest hole.
<input type="checkbox"/> Drill bits (and hammer depending on the type of drill rig)	<input type="checkbox"/> Correct diameter.
	<input type="checkbox"/> Right drill bits available for likely ground conditions.
	<input type="checkbox"/> Check condition.
	<input type="checkbox"/> Hammers and bits are of the right diameter (measure).
<input type="checkbox"/> Temporary casing	<input type="checkbox"/> Temporary casing diameter is correct.
Supervisor's Checklist Part 3 – Materials	
Activity	Checklist
<input type="checkbox"/> 1. Samples of materials meet with technical specifications	<input type="checkbox"/> Drilling fluid
	<input type="checkbox"/> Sample box
	<input type="checkbox"/> Casing and screen (measure length and diameter)
	<input type="checkbox"/> Filter pack and gravel materials
	<input type="checkbox"/> Screen
Supervisor's Checklist Part 4 – Drilling	
Activity	Checklist
<input type="checkbox"/> 1. Health and safety	<input type="checkbox"/> Rig set up away from traffic hazards and power transmission lines.
	<input type="checkbox"/> Rig and support vehicle not positioned on a steep slope.
	<input type="checkbox"/> Public safety barrier (bright-coloured tape).
	<input type="checkbox"/> Drilling team wearing personal protective clothing: boiler suits, hard hats, boots, eye protection and gloves.
	<input type="checkbox"/> Inflammable items such as petrol or chlorine, etc., should be kept in approved containers, properly marked and stored away from sources of heat.
	<input type="checkbox"/> Mast not raised during thunderstorm (lightning strike risk).

	<input type="checkbox"/> Lifting of very heavy or bulky loads which could lead to back strain should be avoided. Lifting should be done using the legs and not with the back.
	<input type="checkbox"/> Equipment should be kept in good working order.
	<input type="checkbox"/> Area around the drilling rig is kept tidy.
	<input type="checkbox"/> Borehole should be securely capped on completion to prevent tools and other debris falling into the hole and children throwing stones and corn stalks into it, which could render it useless.
	<input type="checkbox"/> On completion, the site should be restored as far as possible to what it was before the drilling, with mud pits filled in and compacted.
	<input type="checkbox"/> Drill crew should regularly drink plenty of fluid to prevent dehydration, which can lead to poor judgement.
	<input type="checkbox"/> First Aid kit checked.
	<input type="checkbox"/> Emergency procedure in case of major injury and need for hospitalisation.
<input type="checkbox"/> 2. Rig position	<input type="checkbox"/> Rig positioned over pegged site.
	<input type="checkbox"/> Rig drill mast vertical (checked with spirit level).
	<input type="checkbox"/> Check ground stability for softness that could entrap the rig or cause it to tilt during drilling.
<input type="checkbox"/> 3. Drilling depth	<input type="checkbox"/> Depth measurements being conducted and logged properly.
<input type="checkbox"/> 4. Penetration rate	<input type="checkbox"/> Penetration rates being measured properly.
<input type="checkbox"/> 5. Drilling fluid	<input type="checkbox"/> Type of drilling fluid being used:
	<input type="checkbox"/> Driller using Marsh funnel to measure drilling fluid viscosity.
<input type="checkbox"/> 6. Drill cutting samples	<input type="checkbox"/> For Rotary mud-flush drilling, check that the circulation mud pits (or portable tanks) have a volume that is at least three times the volume of the borehole.
	<input type="checkbox"/> Ensure that the Driller prevents sample contamination due to poor circulation, borehole erosion or caving.
	<input type="checkbox"/> Ensure that mud pits are kept clean to prevent re-circulation of cuttings.
	<input type="checkbox"/> Samples taken at regular intervals and properly washed, bagged, labelled, logged and stored in sample box.
	<input type="checkbox"/> Photograph samples
<input type="checkbox"/> 7. Strata Log	<input type="checkbox"/> Use samples to prepare a Strata Log.
<input type="checkbox"/> 8. Final borehole depth	<input type="checkbox"/> Water table depth (m):
	<input type="checkbox"/> Final borehole depth (m):
<input type="checkbox"/> 9. Drill Report	<input type="checkbox"/> Daily drilling log signed by rig operator and Supervisor.
	<input type="checkbox"/> Record necessary data and information required to complete a Casing and Well Completion Form .
Supervisor's Checklist Part 5 – Drill Camp	
Activity	Checklist
<input type="checkbox"/> <i>Drill Camp / Satellite Fly Camp layout</i>	<input type="checkbox"/> Location of vehicle and rig parking <input type="checkbox"/> Maintenance garage <input type="checkbox"/> Site office and living accommodation <input type="checkbox"/> Fuel storage and spillage control measures <input type="checkbox"/> Water supply source <input type="checkbox"/> Sanitation facilities <input type="checkbox"/> PVC casing and screens protected from direct sunlight

Supervisor's Checklist Part 6 – Drilling Contractor	
Personnel	Checklist
<input type="checkbox"/> Drilling manager	Years of experience:
	Experience of similar assignments:
<input type="checkbox"/> Hydrogeologist	Qualifications:
	Years of experience:
	Experience of similar assignments:
<input type="checkbox"/> Rig operator	Years of experience:
<input type="checkbox"/> Driver	Years of experience:
<input type="checkbox"/> Mechanic	Years of experience:
<input type="checkbox"/> Rig assistants	Number of assistants:
	Years of experience:
<input type="checkbox"/> Record Taker	Years of experience:

4. Deliverables and Reporting Requirements

Payment for services will be based on deliverables and reports acceptable to the client given set out below and in line with the payment schedule in Section 8. A summary of the work carried out with recommendations is to be included in the monthly progress report to UNICEF, which requires approval to go ahead to the next stage. The progress reports shall provide details of the staff and equipment input and reimbursable consumables for the particular period and the signed timesheets of all the staff members. The rates on the invoice shall be the same as in the Consultancy agreement.

Report/Deliverables	Format	Due
Inception report including initial understanding of the tasks to be carried out, work plan and any problems and challenges that are anticipated.	2 hardcopy Email or Flash Drive softcopy	Within 2 weeks of signing contract
Monthly progress report including summary of all administrative and field activities carried out, progress on siting, meetings held, progress on drilling activities, updated work plan and recommendations and any changes to staffing.	2 hardcopy, Email or Flash Drive softcopy	End of each month
End of Project report including summary of all administrative and field activities carried out, siting, meetings held, drilling activities, lessons learned and records and summary of any changes to staffing.	2 hardcopy, Email or Flash Drive softcopy	2 weeks after last Final Completion Certificate is issued
Activity 1 – Borehole Siting and Borehole Design: <ul style="list-style-type: none"> ■ Siting report including borehole design for [Insert number of locations] locations. 	Annexed to monthly reports and end of project report	

Report/Deliverables	Format	Due
<p>Activity 2 – Assist UNICEF in the procurement and contract award of the Drilling Contractor:</p> <ul style="list-style-type: none"> ■ Terms of Reference for Borehole Drilling Works for [Insert number of location] locations. ■ Bills of Quantities for boreholes in [Insert number of location] locations. ■ Confidential bill of quantities/engineers estimate for [Insert number of location] locations. 	Annexed to monthly reports and end of project report	
<p>Activity 3 – Supervision of mobilisation and borehole construction:</p> <ul style="list-style-type: none"> ■ File with copies of all communications on the project in respective folders. ■ Sketch of the proposed assemblage of casing and screen for each completed location. ■ Copy of borehole completion report for each borehole drilled (including boreholes that were aborted). 	Annexed to monthly reports and end of project report	
<p>Activity – 4 Supervision of the pad construction, and the supply and installation of the pump</p> <ul style="list-style-type: none"> ■ Signed certificates of Substantial Completion for all boreholes that have been substantially completed. 	2 hardcopy, Email or Flash Drive softcopy And annexed to end of project report.	One (1) week after substantial completion of the borehole
<p>Activity 5 – Defects liability and final inspection</p> <ul style="list-style-type: none"> ■ Condition report for each borehole. ■ Signed Certificates of Final Completion for all boreholes that have meet all of the final inspection criteria as specified in the Drilling Contract. 	2 hardcopy, Email or Flash Drive softcopy, and annexed to end of project report.	Two (2) weeks after final completion of the borehole

Provision should also be made for regular meetings with the UNICEF Designated Representative and a monthly Project Coordination Meeting to be held at UNICEF’s office, throughout the project.

5. Locations and Duration

The consultancy Agreement is expected to be awarded on _____ **[e.g. 30 December 2018]**, and all work under the Agreement, including Final Inspections, will need to be concluded by _____ **[e.g. 30 December 2019]**.

6. Evaluation Process and Methods

This section of the ToRs should be prepared by programme staff working in collaboration with supply staff. It needs to include the following:

- *Solicitation method (i.e. ITB or RFP)*
- *Description of flow of the evaluation process and sequence of key stages*
- *Description of the overall evaluation approach*
- *Technical proposal*
- *Financial proposal*
- *(For RFPS) the weighting allocated between the technical and financial proposal*
- *Detailed evaluation assessment criteria*
- *Final evaluation*

Note that no financial/price information should be contained in the technical proposal. Presentation, details and clarity of the proposals will influence the final assessment.

7. Project Management

Instructions

The Consultant shall carry out instructions of the Designated Representative of the Client which comply with the applicable law where the project is located.

Designated Representative Decision

Except otherwise specifically stated, the Designated Representative shall decide contractual matters between the Client and the Consultant in the role of representing the Client.

Delegation

The Designated Representative may delegate any of her/his duties and responsibilities to other persons, particularly the Consultant after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

Communication

Communication between parties in the contract shall be in writing and is only effective when delivered.

Management meetings

Either the Designated Representative or the Consultant may require the other to attend a management meeting. The business of the management shall be to review progress of the work and review plans for the remaining work and to deal with matters raised in accordance with early warning.

8. Payment

UNICEF shall make periodic payments upon completion of the deliverables set out in the Terms of Reference. The Consultant shall be paid ***[Insert monthly or quarterly or milestone achievement]*** on submission of the invoice and ***[Insert monthly or quarterly]*** report. The price for the works shall become payable to the Consultant in accordance with the chosen payment schedule ***[examples in Table 3.6 and Table 3.7 below – noting that milestones may be adjusted to take the size of the contract into consideration with provisions for monthly or quarterly payments for boreholes sited, supervised and inspected. Where a number of sites are involved, payments may be split among the number of sites delivered or half completed to facilitate cash flow payment.]***

Table 3.6 Example of Milestones for Borehole Siting and Drilling Supervision Consultancy – Option for Small Contracts

Milestone No.	Milestone Description
1.	Inception Report
2.	Monthly/Quarterly payments as agreed
3.	End of Project Report

Table 3.7 Example of Milestones for Borehole Siting and Drilling Supervision Consultancy – Options for Larger Contracts

Milestone No.	Milestone Description
1.	Inception Report
2.	Activity 1 – Submission of siting reports for <i>[insert number of boreholes]</i> boreholes
3.	Activity 1 – Submission of siting reports for <i>[insert number of boreholes]</i> boreholes
4.	Activity 2 – Completion of procurement and contract award process
5.	Activities 3 & 4 – Submission of borehole completion reports for <i>[insert number of boreholes]</i> boreholes and certificates of substantial completion
6.	Activities 3 & 4 – Submission of borehole completion reports for <i>[insert number of boreholes]</i> boreholes and certificates of substantial completion
7.	Activity 5 – Condition reports and final completion certificates for <i>[insert number of boreholes]</i> boreholes
8.	End of project report

Annexes – Toolkit Module 3

Annex 3.1 Suggested Bill of Quantities for Consultancy Services for Siting

Item	Description	Unit	Quantity	Rate	Amount
1	Staff Cost				
1.1	Project Management (include provision for reporting and regular meetings with UNICEF Designated Representative, monthly project coordination meetings at UNICEF's office as well as scheduled and ad-hoc meetings with stakeholders)				
1.2	Siting Crew Leader 1	Day			
1.3	Siting Crew Leader 2	Day			
1.4	Field assistant 1	Day			
1.5	Field assistant 2	Day			
	<i>Add as required</i>				
1.6	Office support staff	Day			
2	Equipment Cost				
2.1	Resistivity meter	Day			
2.2	Electromagnetic conductivity meter	Day			
2.3	GPS, dip meter, conductivity meter, pH meter, callipers, camera	Day			
3	Travel, accommodation & allowance				
3.1	International travel and visas (if applicable)	Unit			
3.2	Vehicle rental (inclusive of driver, insurance)	Day			
3.3	Fuel and lubricants	Km			
3.4	Field accommodation for staff	Day			
3.5	Field allowance for staff	Day			
4	Office support				
4.1	Rental of functional office including laptops and printers as required	Day			
4.2	Access and collation of hydrogeological data and information	Unit			
4.3	Communication – email, internet, courier	Unit			
4.4	Office consumables – paper, toner, binding comb	Day			
	Total				

Notes

1. Staff listed may not be required on every project; this depends on the size of the project.
2. The Consultant will keep a time sheet of all personnel deployed and details of equipment used which shall be submitted in the monthly and final reports.

Annex 3.2 Suggested Bill of Quantities for Consultancy Services for Supervision

Item	Description	Unit	Quantity	Rate	Amount
1	Staff				
1.1	Team Leader/Project manager/Supervisor 1 (include provision for reporting and regular meetings with UNICEF Designated Representative, monthly project coordination meetings at UNICEF's office as well as scheduled and ad-hoc meetings with stakeholders)	Day			
1.2	Assistant/Team Leader/Project manager/Supervisor 2	Day			
1.3	Supervisor 3	Day			
1.4	<i>Add as required</i>	Day			
1.5	Pump/pad inspector	Day			
1.6	Office support staff	Day			
2	Equipment				
2.1	Hard hat	Day			
	Dip meter				
	Measuring tape				
	GPS				
	Conductivity meter				
	Spirit level				
	pH meter				
	Calliper				
	Digital camera				
	Mobile phone				
	Stop watch				
	First aid kit				
2.2	Borehole camera	Day			
3	Travel, accommodation & allowance				
3.1	International travel and visas (if applicable)	Unit			
3.2	Vehicle rental (inclusive of driver and insurance)	Day			
3.3	Fuel and lubricants	Km			
3.4	Field accommodation for staff	Day			
3.5	Field allowance for staff	Day			
4	Office support and communication				
4.1	Rental of fully furnished functional office including laptops and printers as required	Day			
4.2	Access and collation of hydrogeological data and information	Unit			
4.2	Communication – email, internet, courier	Lump sum			
4.3	Office consumables – paper, toner, binding comb	Lump sum			
	Total				

Annex 3.3 Personnel & Sub-Consultants and Organogram

Position	Name of Allocated Person	State whether staff of firm or sub-contractor
Siting		
Project Manager – Siting		
Siting Crew Leader 1		
Siting Crew Leader 2		
Field assistant 1		
Field assistant 2		
<i>Add as required</i>		
Office support staff		
Supervision		
Project Manager – Supervision		
Assistant Team Leader/ Supervisor 2		
Supervisor 3		
<i>Add as required</i>		
Pump/pad inspector 1		
Pump/pad inspector 2		
Office support staff		

Note: Changes in nominated staff will only be accepted on the basis of a similar, or better, qualified & experienced person for the role and function. The Consultant is to submit CVs of proposed replacements for the approval of UNICEF prior to field placement. All staff changes are to be reported in the monthly report and summarised in the end of project report.

Annex 3.4 Performance Guarantee/Advance Payment Guarantee Form

**Performance Guarantee/Advance Payment Guarantee
(BANK GUARANTEE)**

To: _____ (Name of Employer)

_____ (Address of Employer)

WHEREAS _____ (name and address of Contractor) (hereinafter called “[XX]”) has undertaken in pursuance of Contract No. _____ dated _____ to execute _____ (name of Contract and brief description of works) (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with its obligations in accordance with Contract.

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor up to a total of _____ [amount of guarantee] _____ [in words], such sum being payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and [XX] shall in any way release us from any liability under the guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the date of issue of the Certificate of Substantial Completion.

No change on content or validity of this Bank Guarantee shall be undertaken by the bank without UNICEF permission.

Signature and Seal of the Guarantor _____

Name of Bank _____

Address _____

Date _____

Annex 3.5 Community Agreement Form

Agreement between UNICEF and the Community for the Release and Preservation of the Borehole Site

[Insert title of the project]

THIS AGREEMENT is made this _____ day _____ *[Insert month and year]*

BETWEEN

UNICEF *[Insert address]*

AND

Representatives of *[Insert community name and address]*

UNICEF is supporting *[Insert community name]* with the provision of a borehole for safe water supply and has appointed a Consultant to carry out the siting and supervision of construction of the borehole. possible sites have been located for the construction of the borehole within the community jointly by the Consultant and representatives of the Community.

The Community hereby agrees that

1. It shall release the located sites for the drilling of the borehole for the use of the community into perpetuity
2. It shall preserve the locations and the markings of the locations from this day until the borehole is drilled
3. It shall allow access to the sites by the Drilling Contractor and all the workers
4. It shall allow access to the completed borehole site by all the community members
5. The content of this agreement has been discussed with the entire community and is understood by all

Signed by

The Community

Representative 1 Name _____
Signature and date _____

Representative 2 Name _____
Signature and date _____

UNICEF Representative

Name _____
Signature and date _____

Consultant

Name _____
Signature and date _____

Annex 3.6 Certificate of Substantial Completion

Date:

Contract No.:

Project Name:

Contractor:

Location:

This is to advise that in accordance with ClauseofContract, the above project has reached the stage of substantial completion.

Thehas been inspected and all works specified in the scope of works have been completed to this stage.

Please find attached the substantial defect list with defect liability period 1 year.

Date of 'Substantial Completion':

Certified as 'Substantial Completion'

Acceptance

Confirmed as 'Final

Supervisor

Implementing entity

Designated Representative*

***Designated Representative:** The UNICEF officer designated as representing UNICEF in the contract

Copy No 1 **To (original) Contractor**
Copy No 2 **To construction unit UNICEF**
Copy No 3 **To Programme section UNICEF**
Copy No 4 **To entity responsible for quality assurance**

Annex 3.7 Certificate of Final Completion

Date:

Contract No.:

Project Name:

Contractor:

Location:

This is to advise that the Defect Liability Period has been reached, and all defects found in the Final Inspection have been corrected. Therefore, the final payment to the Contract No. _____ can be issued in accordance with Clause _____ (Page __) of the above mentioned Contract.

Date of 'Final Completion':

Certified as 'Final Completion'

Supervisor

Acceptance

Implementing entity

Confirmed as 'Final Completion'

Designated Representative*

***Designated Representative:** The UNICEF officer designated as representing UNICEF in the contract.

Copy No 1 **To (original) Contractor**
Copy No 2 **To construction unit UNICEF**
Copy No 3 **To programme section UNICEF**
Copy No 4 **To Supervisor**

Annex 3.8 Template – UNICEF Agreement for Borehole Siting and Drilling Supervision Consultancy Services

THIS AGREEMENT FOR CONSULTANT SERVICES IN BOREHOLE SITING AND DRILLING SUPERVISION OF the drilling and construction of [Insert number of boreholes] in [insert districts] and for the development of the same to be equipped with handpump and fully finished water abstraction points for the purpose of drinking water supplies (together with the schedules and attachments hereto, this "Agreement") is made on [Insert date].

BETWEEN: UNICEF, THE UNITED NATIONS CHILDREN'S FUND ("UNICEF"), an international inter-governmental organisation established by the General Assembly of the United Nations by resolution No. 57(1) of 11 December 1946 as a subsidiary organ of the United Nations, having its headquarters at UNICEF House, Three United Nations Plaza, New York, New York, 10017, U.S.A. and having an office at [insert address].

AND: [Insert name of the Consultant] (the "Consultant"), organised and existing under the laws of [insert country] and having its principal offices at [insert address]; together with UNICEF the "Parties" and each a "Party".

WHEREAS:

- A. UNICEF works with governments, civil society organisations and other partners world-wide, including the Government of [insert country] (the "Government"), to advance children's rights to survival, protection, development and participation, and is guided by the Convention on the Rights of the Child.
- B. WHEREAS, in accordance with the Basic Cooperation Agreement between UNICEF and the Government dated [Insert date] the ("Basic Cooperation Agreement"), UNICEF has agreed to support the Government in a programme developed by the Department of [insert the name of the department] to build the physical water supply infrastructure of [insert details].
- C. By [insert bidding document number here] the ("Request for Proposal"), UNICEF invited proposals for the provision of professional services of a qualified groundwater consultancy firm to site and supervise the drilling and construction of [insert number of boreholes] in [insert the Districts] and the development of the same to be equipped with handpumps and fully finished water abstraction points for the purpose of drinking water supplies.
- D. By way of the [Insert the name of the documents, e.g. Terms of Reference and Financial Proposal dated XXXX, No, as amended by the Clarification of Proposal dated XXXX], among others, together the Consultant responded to the Request for Proposal and represented that it is qualified, capable and willing to provide the required provision of siting and supervision services and that if selected to undertake this assignment it would work in collaboration with [Insert the name of the joint venture partners if any].
- E. UNICEF wishes to engage the Consultant to undertake the work described in the Terms of Reference (Annex [Insert Annex number]) to this Agreement (the "Work"), all on the terms and conditions set forth in this Agreement; and the Consultant represents that it is qualified, ready, able and willing to carry out the work on the same terms and conditions.

NOW, THEREFORE, the Parties hereto mutually agree as follows:

1. Agreement Documents

1.1 This document and all annexes⁵hereto, together with the following named documents, which are incorporated herein by reference, constitute the entire Agreement between UNICEF and the Consultant in connection with the Work:

- (a) Terms of Reference **[Template in Module 3 of the Toolkit]**⁶
- (b) Personnel & Sub-Consultants **[Annex 3.3 in Toolkit Module 3]**
- (d) Schedule of Payment **[Section 8 in the Terms of Reference in Toolkit Module 3]**
- (e) Financial proposal **[See Annex 3.1 and 3.2 Toolkit Module 3 for guidance]**
- (f) Performance Guarantee/Advance Payment Form **[Annex 3.4 in Toolkit Module 3]**
- (g) Community Agreement Form **[Annex 3.5 in Toolkit Module 3]**
- (h) Certificate of Substantial Completion **[Annex 3.6 in Toolkit Module 3]**
- (i) Certificate of Final Completion **[Annex 3.7 in Toolkit Module 3]**
- (j) The Request for Proposal of Services; and*
- (k) The Proposal.*

[*Note: Model documents for a RFP and Proposal are not set out in this [module] document, but are still a requirement of the Agreement to be made various parts missing?!!! available at the Country or Regional level].

1.2 The Agreement documents are to be taken as complementary of one another, but in case of ambiguities, discrepancies or inconsistencies among them, the Agreement shall be interpreted on the basis of the following order of priority:

- (a) this document;
- (b) Annexes **[insert Annex numbers]**,
- (c) the Request for Proposal of Services; and
- (d) the Proposal, as clarified.

1.3 The Agreement represents the entire and integrated agreement of the Parties with regard to the subject matter hereof and supersedes all prior agreements, negotiations and representations, either written or oral.

2. Definitions

In this Agreement, the following terms shall have the following meanings:

- 2.1 **Project Authority:** : The individual who shall be responsible for the day-to-day liaison and management of the Agreement. (Note: there will be one Project Authority nominated by UNICEF, who need not be a UNICEF staff member, and one nominated by the Consultant.)
- 2.2 **Designated Representative:** The UNICEF officer designated as representing UNICEF in the contract.
- 2.3 **Authorised Representative:** Any person, whether UNICEF officer or employee of the Designated Supervising Agency, authorised by UNICEF in writing to carry out inspection, supervision, etc. of the

⁵ The agreement template refers to Annexes which will need to be numbered. For ease of referencing across the **Toolkit** contents, the Annexes are referred to with their respective Module number, i.e. Annexes 3.1 for Module 3.

⁶ Delete information in [] when amending this template for a contract.

Works. The term includes the Project Authority but can also include other representatives with written authority.

- 2.4 **UNICEF:** Means the contractual party as set out in the preamble to the General Conditions of Agreement. When used in connection with inspections, supervision, etc., the term shall include any Authorised Representative.
- 2.5 **Designated Siting and Supervising Agency:** The consultancy agency engaged by UNICEF to carry out supervision during the whole life of the project and assist in the contracting procedure and the day-to-day supervision and inspection of the Works.
- 2.6 **Consultant:** The company or person whose bid has been accepted by UNICEF to carry out the **Assignment** as set out in the Terms of Reference
- 2.7 **Sub-contractor:** Any person or company that has been named and sub-contracted by the Consultant with the consent of UNICEF to carry out a specified part of the assignment as set out in the Terms of Reference.
- 2.8 **Consultant's Representative:** The person authorised by the Consultant to make decisions on the Consultant's behalf for any one site or part of the Works. The Consultant's Representative will usually be the Supervisor.
- 2.9 **Supervisor:** The person authorised by the Consultant to act as his/her representative on the drill site, to collect all the required data and information and give instructions to the Drilling Contractor as required for the completion and handing over of the borehole.
- 3.0 **Completion date** is the time the work as defined in Annex **[insert Annex number]** is completed at the location(s) indicated for delivery.
- 3.1 **Defects Liability** is the period during which the Drilling Contractor is responsible for repairing or rectifying defects that appear in the Works. The period is named in the Contract and calculated from the Completion Date.
- 3.2 The **assignment** refers to the specified task or work that has been assigned to the consultant to undertake, as set out in the Contract Documents.
- 3.3 Works refers to the specified tasks required by the Contract Documents for drilling works and pump supply and installation.

4. **General Rights and Obligations of the Consultant**

- 4.1 The Consultant shall be responsible for completing the Work. The Consultant shall perform its obligations under this Agreement with all reasonable skill and care and in conformity with sound professional, administrative and financial practices. It is understood and agreed that the Consultant shall undertake the Work in collaboration with **[Insert the name of the joint venture partners if any]** provided however that the Consultant shall remain fully liable to UNICEF for completion of the Work in accordance with this Agreement.
- 4.2 The Consultant shall have qualified personnel and appropriate equipment and software for the collection and analysis of hydrogeological and geophysical data where appropriate for the siting of the boreholes.
- 4.3 The Consultant shall provide supervision services during all the life of the project and supervision support with involvement of the local community.
- 4.4 The Consultant shall assist UNICEF in the identification and pre-qualification of the Drilling Contractor, preparing bidding documents and tender procedures for UNICEF's approval.
- 4.5 The Consultant shall ensure full-time supervision through a resident Supervisor.

- 4.6 The Consultant ensures that all materials used in the course of these Works shall be new and proper for their use. No reusable materials coming from the Site shall be used unless permitted by UNICEF. Other materials shall be stored on Site until the end of the Works. All materials, equipment and products shall be installed in accordance with the written recommendations of the manufacturer.
- 4.7 The Consultant shall have the right to review samples of construction materials and fixtures. The Drilling Contractor shall submit such samples, and relevant information, in sufficient time for the Consultant to complete review of samples. Each sample shall be labelled as to origin and intended use in the Works.
- 4.8 The Consultant ensures the completion of the Works in accordance with the schedule of works as provided by the Drilling Contractor and approved by UNICEF and the technical specifications of the drilling contract.

5. General Rights and Obligations of UNICEF

- 5.1 UNICEF shall make periodic payments upon completion of the deliverables as set out in the Terms of Reference.
- 5.2 The Consultant must allow unlimited access to the Designated Representative, or to her/his authorised representatives, to monitor the Works. The Representative is entitled to review the type, quantity and quality of materials and workmanship used in the Works to ensure compliance with the Agreement Documents and the standards defined by these.
- 5.3 UNICEF will issue all certificates upon satisfaction of conditions necessary for the issuance of such certificates and supply all necessary information and written instructions for the Consultant to carry out the siting and supervision of the Works properly.
- 5.4 To the extent it is able, UNICEF shall give to the Consultant right of access to, and possession of, the Site within such times as is required to enable the Consultant to proceed in accordance with this Agreement.
- 5.5 UNICEF shall have the right to issue, and the Consultant shall comply with, additional instructions. Such additional instructions shall complement and/or clarify the Agreement Documents and shall have no effect on the definition of the Works, the Prices and/or the Substantial Completion Dates. Such instructions may take the form of technical specifications, drawings, samples, models or instructions. All such instructions shall be issued in writing.

6. Term of Agreement

- 6.1 From the Effective Date of the Agreement, specified in Article 53, the Agreement shall remain in force for a period of **[Insert duration e.g. 12 months]** by the end of which period the Consultant shall have fulfilled all of its obligations under the Agreement, unless earlier terminated in accordance with the terms of the Agreement.

7. Project Authority

- 7.1 UNICEF and the Consultant shall each nominate a Project Authority who shall be responsible for the day-to-day liaison and management of the Agreement.

8. Schedule for Completion of the Work

- 8.1 The Consultant shall commence and complete the assignment to UNICEF's satisfaction in accordance with the schedule of works as provided by the Drilling Contractor and approved by UNICEF and in any event no later than **[Insert duration e.g. twelve 12]** months period from the effective date of this Agreement.
- 8.2 The Consultant shall keep a work diary at the Site and maintain it daily. This diary shall describe all works started and completed each day and shall be checked periodically by UNICEF.

9. Substantial and Final Completion

- 9.1 The Works will be deemed substantially completed when they are completed in accordance with the Agreement Documents and the standards defined by this Agreement or when they are effectively used for the purpose for which they are intended.
- 9.2 UNICEF and the Consultant shall inspect the Works at the Site on the date they are substantially completed, and UNICEF will issue a certificate of substantial completion (the "Certificate of Substantial Completion") provided that the Works are satisfactory according to the Agreement Documents and the standards defined by this Agreement. The Certificate of Substantial Completion shall list all Defects that must be remedied by the Drilling Contractor within 20 days.
- 9.3 After issued Certificate of Substantial Completion and within the Defects Liability Period, UNICEF, the Consultant and the Drilling Contractor shall perform quarterly joint inspections to each site to verify any defects resulting from "defective materials or poor workmanship". The Consultant shall consolidate a report of defects, if any. The parties shall agree on the period for remedial of all defects described in the report.
- 9.4 UNICEF will carry out a final inspection at each Site (the "Final Inspection") **[Insert duration e.g. six (6) months]** after the issuance of the Certificate of Substantial Completion for the Site. The Works shall be deemed to be completed when all Defects listed on the Certificate of Substantial Completion, and all Defects that have become apparent after the issuance of the Certificate of Substantial Completion, have been remedied by the Drilling Contractor and UNICEF considers the Works to be satisfactory according to the Agreement Documents and the standards defined by this Agreement. UNICEF will then issue a Certificate of Final Completion.
- 9.5 Upon signing of the Certificate of Final Completion at each Site, the Site and Works shall be taken over by the local authorities and beneficiaries.

10. Agreement Price

- 10.1 The total price for the Assignment (for activities 1 to 5 inclusive) as set forth in **Annex [insert Annex number]** to the Agreement is **[Insert the price]** (the "Price"). The schedule of payment is set out in the Terms of Reference.
- 10.2 The Consultant shall not perform any work or services or provide equipment, products, materials or supplies which may result in the Price being exceeded without a prior written agreement by both Parties.
- 10.3 The price is not subject to any adjustment or revision because of price or currency fluctuations, the actual costs incurred by the Consultant in the performance of its obligations hereunder or modifications to this Agreement or the Contract Documents. Price adjustment or revision shall be agreed by duly signed amendment in accordance with Article 33.1 of this Agreement.

11. Inspection and Acceptance

- 11.1 UNICEF shall have a reasonable time after completion of the Works or part of the Works, and before issuance of the Certificate of Substantial Completion, to inspect the Works and to reject and refuse acceptance of Works not conforming to the Agreement. Inspection prior to completion of Works does not relieve the Consultant from any of its obligations under this Agreement.
- 11.2. Payment for services pursuant to this Agreement shall not be deemed an acceptance of the services.

12. Invoicing Instructions

- 12.1 Invoices must refer to the Agreement and clearly indicate prices for each Agreement item number. The Consultant shall submit the original invoice to the following address:

United Nations Children’s Fund (UNICEF) Office at

[Insert address]

13. Payment

- 13.1 Payment shall be made in accordance with this Agreement upon acceptance of an invoice. Invoices and supporting documents shall be submitted upon completion of the activities and are due no later than five (5) working days in line with the schedule of payments in the Terms of Reference.
- 13.2 Subject to clause 10 of this Agreement, UNICEF shall, on fulfilment of the delivery terms, make payment within thirty (30) days of receipt of the invoice.
- 13.3 UNICEF shall make the payments in accordance with the schedule of payments in the Terms of Reference.
- 13.4 UNICEF shall within two (2) weeks notify the Consultant of any dispute or discrepancy in the content or form of the invoice. The value of such disputed items as per the Agreement shall be deducted from the invoice(s) in which they appear, and the balance will be processed for payment. UNICEF and the Consultant shall consult in good faith to promptly resolve any dispute with respect to any invoice or portion thereof.
- 13.5 All payments made by UNICEF into the bank account specified in the Agreement will have liberating effect and be considered as effectively made.
- 13.6 The total amount of the interim payments shall be **[Insert percentage of total price applicable]** of the value of the Agreement of the Remuneration Only. The cost of services under Defect Liability related to the construction work on sites is included in the Agreement price.
- 13.7 UNICEF shall not be liable for any payment exceeding the Agreement price which has not been agreed by UNICEF in writing prior to the expenditure.
- 13.8 UNICEF may make an advance payment for mobilisation when the Consultant submits a guarantee as established in Article 13.

14. Advance Payment Guarantee

- 14.1 The Consultant shall, no later than five (5) working days following the effective date of this Agreement, at its own expense furnish an Advance Payment Guarantee for the advanced amount in the form set forth in Annex **[inset Annex number]** – Performance Guarantee, and with such Surety or Sureties as shall be approved by UNICEF.
- 14.2 The Consultant shall ensure that the Guarantee is valid and enforceable until the advance payment has been repaid. The advance payment shall be repaid through percentage deductions in the invoices. Advance payment shall be deducted as follows:
 - a. UNICEF shall commence deducting advance payment from the first accepted invoice in accordance with the Payment Schedule.
 - b. Deduction shall be made at the amortisation rate of one quarter (25%) of the amount of each invoice (excluding the advance payment and deductions and repayment of retention) until such time as the advance payment has been repaid.
- 14.3 Any remaining balance from the advance payment shall be repaid prior to the Certificate of Substantial Completion or prior to termination as established in Article 43 or Force Majeure as established in Article 42.

15. Site Inspection by The Consultant

15.1 The Consultant shall have inspected and examined the Site, its surroundings, data on geological, hydrogeological and hydrological conditions and other environmental aspects. The Consultant shall ensure that the Contractor performs the works in accordance with the drawings and technical specifications.

16. Tax Exemption

16.1 Section 7 of the Convention of the Privileges and Immunities of the United Nations provides inter-alia that the United Nations, including its subsidiary organs, is exempt from all direct taxes, except charges for utilities services, and is exempt from customs duties and charges of a similar nature in respect of articles imported or exported for its official use. In the event any governmental authority refuses to recognise UNICEF's exemption from such taxes, duties or charges, the Consultant shall immediately consult with UNICEF to determine a mutually acceptable procedure.

16.2 Accordingly, the Consultant authorises UNICEF to deduct from the Consultant's invoice any amount representing such taxes, duties or charges, unless the Consultant has consulted with UNICEF before the payment thereof and UNICEF has, in each instance, specifically authorised the Consultant to pay such taxes, duties or charges under protest. In that event, the Consultant shall provide UNICEF with written evidence that payment of such taxes, duties or charges has been made and appropriately authorised.

17. Legal Status

17.1 The Consultant shall be considered as having the legal status of an independent Consultant vis-à-vis UNICEF. The Consultant's personnel and sub-contractors shall not be considered in any respect as being the employees or agents of UNICEF.

18. Consultant's Personnel

18.1 The Consultant shall be fully responsible for all work performed by its employees, agents, servants and sub-contractors under the Agreement and shall only select individuals who are professionally and technically competent to perform the work, with appropriate training as may be required. The Consultant shall take all reasonable measures to ensure that all personnel conform to the highest standards of moral and ethical conduct and that they respect local customs which are not otherwise inconsistent with the Consultant's responsibilities under the Agreement.

18.2 The Consultant shall have a team of experienced groundwater personnel who will be led by a team leader with ideally 10 years' experience in borehole siting and supervision and preferably with a Master's degree in hydrogeology. The rest of the team shall be geologists and engineers trained in borehole siting and supervision.

18.3 The Consultant shall not assign any replacement person to perform any managerial or Supervisory function under this Agreement unless UNICEF has given its prior written approval to the selection of such person. The Consultant shall ensure that all personnel engaged to perform work under this Agreement are medically fit to perform the work and adequately covered by insurance for any work related illness, injury, disability or death. The Consultant shall submit proof of such insurance satisfactory to UNICEF before commencing any work under this Agreement.

18.4 UNICEF shall not be liable for any action, omission, negligence or misconduct of the Consultant's employees, officers, agents, servants and sub-contractors, nor for any insurance coverage which may be necessary or desirable for the purpose of this Agreement, nor for any costs, expenses or claims associated with any illness, injury, disability or death of such personnel performing work under this Agreement.

19. Replacement of Consultant's Personnel

- 19.1 UNICEF may request at any time the replacement of any person assigned by the Consultant to perform any work under this Agreement if that person has in UNICEF's view breached the UNICEF Code of Conduct, a copy of which has been provided to the Consultant. Any such request by UNICEF shall not be deemed a termination of this Agreement. The Consultant shall, at its own expense, replace such person forthwith, subject to UNICEF's prior written approval of the replacement if the replacement is for a managerial or Supervisory position.
- 19.2 If key personnel become unavailable, for any reason, for work under the Agreement, the Consultant shall (i) notify the UNICEF Project Authority at least fourteen (14) days in advance, and (ii) obtain the UNICEF Project Authority's approval prior to making any substitution of key personnel. Key personnel are designated as follows:
- (a) Personnel identified in the proposal as key individuals (as a minimum, senior geologists, engineers and managers) to be assigned for participation in the performance of the Agreement; and
 - (b) Individuals who are designated as key personnel in Annex **[insert Annex number]** – Personnel & sub-Consultants organogram.
- 19.3 In notifying the project authority, the Consultant shall provide an explanation of circumstances necessitating the proposed replacement(s) and submit a justification for and the qualifications of the replacement personnel in sufficient detail to permit evaluation of the impact on the Agreement.
- 19.4 Acceptance of a replacement person by the UNICEF Project Authority shall not relieve the Consultant from responsibility for failure to meet the requirements of the Agreement.

20. Sub-Contracting

- 20.1 In the event the Consultant requires the services of additional sub-Consultants, the Consultant shall obtain the prior written approval and clearance of UNICEF for all sub-Consultants. The approval of UNICEF of a sub-Agreement shall not relieve the Consultant of any of its obligations under this Agreement. The terms of any sub-Agreement shall be subject to and in conformity with the provisions of this Agreement.

21. Source of Instructions

- 21.1 The Consultant shall neither seek nor accept instructions from any authority external to UNICEF in connection with the performance of its services under this Agreement. The Consultant shall refrain from any action that may adversely affect UNICEF or the United Nations and shall fulfil its commitments with the fullest regard to the interests of UNICEF.

22. Confidential Nature of Documents

- 22.1 All records, maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Consultant under this Agreement shall be the property of UNICEF, shall be treated as confidential and shall be delivered only to the UNICEF-authorized officials on completion of work under this Agreement. Unless specified otherwise in national regulations, UNICEF has the responsibility of ensuring that the relevant documents are also handed over to government.
- 22.2 The Consultant may not communicate at any time to any other person, Government or authority external to UNICEF any information known to it by reason of its association with UNICEF which has not been made public except with the authorisation of UNICEF; nor shall the Consultant at any time use such information to private advantage. These obligations do not lapse upon termination of this Agreement with UNICEF.

23. Title to Equipment

23.1 Title to any equipment and supplies which may be furnished by UNICEF shall rest with UNICEF, and any such equipment shall be returned to UNICEF at the conclusion of this Agreement or when no longer needed by the Consultant. Such equipment when returned to UNICEF shall be in the same condition as when delivered to the Consultant, subject to normal wear and tear.

24. Copyright, Patents and Other Proprietary Rights

24.1 UNICEF shall be entitled to all intellectual property and other proprietary rights including but not limited to patents, copyrights and trademarks, with regard to documents and other materials which bear a direct relation to or are prepared or collected in consequence or in the course of the execution of this Agreement. At UNICEF's request, the Consultant shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring them to the UNICEF in compliance with the requirements of the applicable law.

25. Encumbrances/Liens

25.1 The Consultant shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with UNICEF against any monies due or to become due for any work done or materials furnished under this Agreement, or by reason of any other claim or demand against the Consultant.

26. Indemnification

26.1 The Consultant shall indemnify, hold and save harmless and defend, at its own expense, UNICEF, its officials, agents, servants and employees, from and against all suits, claims, demands and liability of any nature or kind, including their costs and expenses, arising out of the acts or omissions of the Consultant or its employees, officers, agents, servants and sub-contractors in the performance of this Agreement.

26.2 This provision shall extend, inter alia, to claims and liability in the nature of workmen's compensation, product liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the Consultant, its employees, officers, agents, servants or sub-Consultants.

26.3 The obligations under this Article do not lapse upon termination of this Agreement.

27. Insurance and Liabilities to Third Parties

27.1 The Consultant shall provide and thereafter maintain insurance against all risks in respect of its property and any equipment used for the execution of this Agreement.

27.2 The Consultant shall provide and thereafter maintain all appropriate worker compensation and liability insurance, or its equivalent, with respect to its employees to cover claims for death, bodily injury or damage to property arising from the execution of this Agreement. The Consultant represents that the liability insurance includes sub-contractors.

27.3 The Consultant shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of work under this Agreement or the operation of any vehicles, boats, airplanes or other equipment owned or leased by the Consultant or its agents, servants, employees or sub-contractors performing work or services in connection with this Agreement.

27.4 Except for the workmen's compensation insurance, the insurance policies under this Article shall:

- a) Include a waiver of subrogation of the Consultant's rights to the insurance carrier against UNICEF.

- b) The Consultant shall, upon request, provide UNICEF with satisfactory evidence of the insurance required under this Article.

28. Late Delivery

- 28.1 Without limiting any other rights or obligations of the parties hereunder, if the Consultant will be unable to perform its work by the delivery date stipulated in the Agreement and subject to the reason for the delay is not caused by UNICEF or its contractors or a third party outside the reasonable control of the Consultant, the Consultant shall (i) immediately consult with UNICEF to determine the most expeditious means for completing its works and (ii) use an expedited means of delivery, at the Consultant's cost, if reasonably so requested by UNICEF.
- 28.2 No grant of time to the Consultant to cure a default hereunder, nor any delay or failure by the United Nations to exercise any other right or remedy available to the United Nations under this Agreement, shall be deemed to prejudice any rights or remedies available to the United Nations under this Agreement or constitute a waiver thereof.

29. Rate Progress

- 29.1 If, at any time:
 - a) actual progress is too slow to complete within Time for Completion, and/or
 - b) progress has fallen (or will fall) behind the proposed schedule.
- 29.2 The Consultant shall inform UNICEF and propose a revised schedule as well as a report describing the revised methods which the Consultant proposes to adopt in order to expedite the progress and complete within the time of completion. Additional cost shall be approved by UNICEF in addition to the delay damages provided that justifications are deemed acceptable for UNICEF.

30. Supply of information

- 30.1 UNICEF shall supply the Consultant promptly with any information and/or documentation at its disposal which may be relevant to the performance of the Agreement.
- 30.2 UNICEF shall as far as possible cooperate with the Consultant to provide information that the latter may reasonably request in order to perform the Agreement.

31. Modifications and Amendments

- 31.1 Modification of the terms and conditions of this Agreement, including but not limited to any modification of the scope of the Services and/or of the Agreement Price, may only be made by means of an addendum in writing, which shall be mutually agreed and signed by the Parties.
- 31.2 If the request for an amendment comes from the Consultant, it must submit such a request to UNICEF at least thirty (30) days before the amendment is intended to enter into force, except in cases which are duly substantiated by the Consultant and accepted by UNICEF.
- 31.3 Any modification to the Agreement which has not been made in the form of an addendum shall be considered null and void.

32. Variations

- 32.1 Prior to any instructions by UNICEF for variation in the Services (the "Variation"), the Project Authority shall notify the Consultant of the nature and form of such Variation. As soon as possible, after receiving such notice, the Consultant shall submit to the Project Authority a written document containing a

description of the activities and tasks to be performed and/or the measures to be taken and a programme for execution of the Variation; and

- 32.2 Where a Variation is necessitated by a proven default or breach of Agreement by the Consultant, any additional cost attributable to such Variation shall be borne by the Consultant.
- 32.3 Following the receipt of the Consultant's proposal, the Project Authority shall decide as soon as possible whether or not the Variation shall be carried out. If the Project Authority decides that the Variation shall be carried out, the Project Authority shall issue the instructions in writing to the Consultant stating that the Variation shall be carried out under the conditions given in the Consultant's proposal or as modified by the Project Authority.
- 32.4 On receipt of the instructions requesting the Variation, the Consultant shall proceed to carry out such Variation according to the terms and conditions of the Agreement.

33. Conflict of interest

- 33.1 The Consultant shall take all necessary measures to prevent or end any situation that could compromise the impartial and objective performance of the Agreement. Such conflict of interests could arise in particular as a result of economic interest, political or national affinity, family or emotional ties, or any other relevant connection or shared interest. Any conflict of interests which could arise during the performance of the Agreement must be notified in writing to UNICEF without delay.
- 33.2 UNICEF reserves the right to verify that such measures are adequate and may require additional measures to be taken if necessary. The Consultant shall ensure that its staff, including its management, are not placed in a situation which could give rise to conflict of interests. The Consultant shall replace, immediately and without compensation from UNICEF, any member of its staff exposed to such a situation.
- 33.3 The Consultant shall refrain from any contact which would compromise its independence or that of its personnel. If the Consultant fails to maintain such independence, UNICEF may, without prejudice to compensation for any damage which it may have suffered on this account, terminate the Agreement forthwith, after due notification and prove thereof.
- 33.4 The Consultant shall, after the conclusion or termination of the Agreement, limit its role in connection with the project to the provision of the Services. Except with the written permission of UNICEF, the Consultant and any other sub-Consultant with whom the Consultant is associated or affiliated shall be disqualified from the execution of works, supplies or other services for the project in any capacity, including tendering for any part of the project.
- 33.5 Civil servants and other agents of the public administration of the beneficiary country, regardless of their administrative situation, shall not be recruited as experts in contracts financed by UNICEF in the beneficiary country unless the prior written approval has been granted by UNICEF.
- 33.6 The Consultant and anyone working under its authority or control in the performance of the Agreement or on any other activity shall be excluded from access to UNICEF financing available under the same project.

34. Code of conduct

- 34.1 The Consultant shall at all times act loyally and impartially and as a faithful adviser to UNICEF in accordance with the rules and/or code of conduct of its profession as well as with appropriate discretion. It shall, in particular, refrain from making any public statements concerning the project or the services without the prior approval of UNICEF, and from engaging in any activity which conflicts with its

obligations towards UNICEF under the Agreement. It shall not commit UNICEF in any way whatsoever without its prior written consent, and shall, where appropriate, make this obligation clear to third parties.

- 34.2 For the period of execution of the Agreement, the Consultant and its personnel shall respect human rights and undertake not to offend the political, cultural and religious practices prevailing in the beneficiary country.
- 34.3 If the Consultant or any of its sub-Consultants, personnel, agents or servants offers to give or agrees to offer or to give or gives to any person, any bribe, gift, gratuity or commission as an inducement or reward for doing or forbearing to do any act in relation to the Agreement or any other Agreement with UNICEF, or for showing favour or disfavour to any person in relation to the Agreement or any other Agreement with other organisations of the United Nations, then UNICEF may terminate the Agreement, without prejudice to any accrued rights of the Consultant under the Agreement.
- 34.4 The payments to the Consultant under the Agreement shall constitute the only income or benefit it may derive in connection with the Agreement and neither it nor its personnel shall accept any commission, discount, allowance, indirect payment or other consideration in connection with, or in relation to, or in discharge of, its obligations under the Agreement.
- 34.5 The Consultant shall not have the benefit, whether directly or indirectly, of any royalty, gratuity or commission in respect of any patented or protected article or process used in or for the purposes of the Agreement or the project, without the prior written approval of UNICEF.
- 34.6 The Consultant and its staff shall maintain professional secrecy for the duration of the Agreement and after completion thereof. In this connection, except with the prior written consent of UNICEF, neither the Consultant nor the personnel employed or engaged by it shall at any time communicate to any person or entity any confidential information disclosed to them or discovered by them, or make public any information as to the recommendations formulated in the course of or as a result of the services. Furthermore, they shall not make any use prejudicial to UNICEF of information supplied to them and of the results of studies, tests and research carried out in the course and for the purpose of performing the Agreement.
- 34.7 The execution of the Agreement shall not give rise to unusual commercial expenses. If such unusual commercial expenses emerge, the Agreement will be terminated. Unusual commercial expenses are commissions not mentioned in the Agreement or not stemming from a properly concluded Agreement referring to the Agreement, commissions not paid in return for any actual and legitimate service, commissions remitted to a tax haven, commissions paid to a recipient who is not clearly identified or commission paid to a company which has every appearance of being a front company.
- 34.8 The Consultant shall supply to UNICEF on request supporting evidence regarding the conditions in which the Agreement is being executed. UNICEF may carry out whatever documentary or on-the-spot checks it deems necessary to find evidence in case of suspected unusual commercial expenses.

35. Verification by UNICEF bodies

- 35.1 The Consultant will allow UNICEF and UNICEF's auditors to verify, by examining the documents by means of on-the-spot checks of original / copies documents, the implementation of the project and conduct a full audit, if necessary, on the basis of supporting documents for the accounts, accounting documents and any other document relevant to the financing of the project. These inspections may take place up to one (1) year after the final payment.
- 35.2 Documents must be easily accessible and filed so as to facilitate their examination. The Consultant must inform UNICEF of their precise location.

36. Records

- 36.1 The Consultant shall keep full accurate and systematic records and accounts in respect of the services in such form and detail as is sufficient to establish accurately that the number of working days and the actual incidental expenditure identified in the Consultant's invoice(s) have been duly incurred for the performance of the Services.
- 36.2 Being a fee-based Agreement, timesheets recording the days worked by the Consultant's personnel must be maintained by the Consultant. If required, the Project Authority or any person authorised by UNICEF may examine the timesheets at any given time. The amounts invoiced by the Consultant must correspond to these timesheets. In the case of long-term experts, these timesheets must record the number of working days worked. In the case of short-term experts, these timesheets must record the number of days worked. Time spent traveling exclusively and necessarily for the purpose of the Agreement may be included in the numbers of working days, as appropriate, recorded in these timesheets.
- 36.3 Such records must be kept for a one (1) year period after the final payment made under the Agreement. Keeping of soft copies by scanning documents is allowed, but the Consultant should keep the original documents for verification purposes. These documents comprise any documentation concerning income and expenditure and any inventory, necessary for the checking of supporting documents, including timesheets, plane and transport tickets, pay slips for the remuneration paid to the experts and invoices or receipts for incidental expenditure. Failure to maintain such records constitutes a breach of Agreement and will result in the termination of the Agreement.

37. Interim and final reports

- 37.1 The Consultant must draw up interim reports and a final report during the period of execution of the Agreement. These reports shall consist of a narrative section and a financial section. For the sequence of such reports see the Terms of Reference.
- 37.2 All invoices must be accompanied by an interim or final report. All invoices must also be accompanied by an up-to-date financial report. The structure of the interim or final financial report shall be the same as that of the contractually approved budget according to the Payment Schedule (see Terms of Reference). This financial report shall indicate, at a minimum, the expenditure of the reporting period, the cumulative expenditure and the balance available
- 37.3 Immediately prior to the end of the period of execution of the Agreement, the Consultant shall draw up a Final End of Project Report which must include, if appropriate, a critical study of any major problems which may have arisen during the performance of the Agreement.
- 37.4 This Final End of Project Report shall be forwarded to the Project Authority not later than thirty (30) days after the end of the period of execution of the Agreement. Such report shall not bind UNICEF.
- 37.5 Where the Agreement is performed in phases, the execution of each phase shall give rise to the preparation of a Final End of Project Report by the Consultant. Such report shall not bind UNICEF.

38. Approval of reports and documents

- 38.1 Where applicable, the approval by the Project Authority of reports and documents drawn up and forwarded by the Consultant shall certify that they comply with the terms of the Agreement.
- 38.2 Where applicable, UNICEF shall, within thirty (30) days of receipt, notify the Consultant of its decision concerning the documents or reports received by it, giving reasons should it reject the reports or documents, or request amendments. If UNICEF does not give any comments on the documents or reports within the time limit, the Consultant may request written acceptance of them. The documents or reports

shall be deemed to have been approved by UNICEF if it does not expressly inform the Consultant of any comments within thirty (30) days of the receipt of this written request.

38.3 Where applicable, where a report or document is approved by UNICEF subject to amendments to be made by the Consultant, UNICEF shall prescribe a period for making the amendments requested.

38.4 Where applicable, where the Agreement is performed in phases, the execution of each phase shall be subject to the approval, by UNICEF, of the preceding phase except where the phases are carried out incrementally.

39. Recovery of debts from the Consultant

39.1 The Consultant shall repay any amounts paid in excess of the final certified value due to UNICEF within forty five (45) days of receiving a request to do so.

39.2 Should the Consultant fail to make repayment as shown in 40.1 above, UNICEF may increase the amounts due by adding interest at the rediscount rate applied by the **[Insert the name of the national bank]**, on the first day of the month in which the deadline expired, plus seven percentage points. The late-payment interest shall apply to the time which elapses between the date of the payment deadline (exclusive), and the date on which the Consultant's account is debited (inclusive). Any partial payments shall cover the interest thus established.

39.3 Amounts to be repaid to UNICEF may be offset against amounts of any kind due to the Consultant.

39.4 Bank charges arising from the repayment of amounts due to UNICEF shall be borne entirely by the Consultant.

40. Assignment and Insolvency

40.1 The Consultant shall not, except after obtaining the written consent of UNICEF, assign, transfer, pledge or make other dispositions of the Agreement, or any part thereof, of the Consultant's rights or obligations under the Agreement.

40.2 Should the Consultant become insolvent or should control of the Consultant change by virtue of insolvency, UNICEF may, without prejudice to any other rights or remedies, terminate the Agreement by giving the Consultant written notice of termination.

41. Force Majeure, Other Changes in Conditions

41.1 In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Consultant shall give notice and full particulars in writing to UNICEF of such occurrence or change if the Consultant is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Agreement. The Consultant shall also notify UNICEF of any other changes in conditions or the occurrence of any event that interferes or threatens to interfere with its performance of the Agreement. On receipt of the notice required under this Article, UNICEF shall take such action as, in its sole discretion, it considers as appropriate or necessary in the circumstances, including the granting to the Consultant of a reasonable extension of time in which to perform its obligations under the Agreement.

41.2 If the Consultant is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities under this Agreement, UNICEF shall have the right to suspend or terminate this Agreement on the same terms and conditions as are provided in the provisions below under the heading "Termination", except that the period of notice shall be seven (7) days instead of thirty (30) days.

41.3 Force majeure as used in this Article means acts of God, war (whether declared or not), invasion, revolution, insurrection or other acts of a similar nature or force.

42. Termination

42.1 If the Consultant fails to deliver any or all of the deliverables within the time period(s) specified in the Agreement, or fails to perform any of the terms, conditions, or obligations of the Agreement, and following an agreed period required to rectify the failure, or should the Consultant be adjudged bankrupt, or be liquidated or become insolvent, or should the Consultant make an assignment for the benefit of its creditors, or should a Receiver be appointed on account of the insolvency of the Consultant, UNICEF may, without prejudice to any other right or remedy it may have under the terms of these conditions, terminate the Agreement, forthwith, in whole or in part, upon thirty (30) days' notice to the Consultant.

42.2 UNICEF reserves the right to terminate without cause this Agreement at any time upon thirty (30) days prior written notice to the Consultant, in which case UNICEF shall reimburse the Consultant for all reasonable costs incurred by the Consultant and prior to receipt of the notice of termination.

42.3 In the event of any termination, no payment shall be due from UNICEF to the Consultant except for work and services satisfactorily performed in conformity with the express terms of this Agreement.

42.4 Upon the giving of such notice, the Consultant shall have no claim for any further payment, but shall remain liable to UNICEF for reasonable loss or damage that may be suffered by UNICEF for reason of the default. The Consultant shall not be liable for any loss or damage if the failure to perform the Agreement arises out of force majeure.

42.5 Upon termination of the Agreement, UNICEF may require the Consultant to deliver any finished work which has not been delivered and accepted, prior to such termination and any materials, or work-in-process related specifically to this Agreement. Subject to the deduction of any claim UNICEF may have arising out of this Agreement or termination, UNICEF will pay the value of all such finished work delivered and accepted by UNICEF.

42.6 The initiation of arbitral proceedings in accordance with Clause 50 "Settlement of Disputes" below shall not be deemed a termination of this Agreement.

43. Child Labour

43.1 The Consultant represents and warrants that neither it nor any of its affiliates is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Clause 35 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.

43.2 Any breach of this representation and warranty shall entitle UNICEF to terminate the Agreement immediately upon notice to the Consultant, without any liability for termination charges or any other liability of any kind of UNICEF.

44. Mines

44.1 The Consultant represents and warrants that neither the Consultant's company, nor any of its affiliates, nor any subsidiaries controlled by its company, is engaged in the sale or manufacture of antipersonnel mines or of components utilised in the manufacture of anti-personnel mines. The Consultant recognises that a breach of this provision will entitle UNICEF to terminate this Agreement.

45. Use of United Nations and UNICEF Name and Emblem

45.1 The Consultant shall not use the name, emblem or official seal of the United Nations or UNICEF or any abbreviation of these names for any purpose.

46. Officials Not to Benefit

46.1 The Consultant warrants that no official of UNICEF or the United Nations has received or will be offered by the Consultant any direct or indirect benefit arising from this Agreement or the award thereof. The Consultant agrees that breach of this provision is a breach of an essential term of the Agreement.

47. Prohibition on Advertising

47.1 The Consultant shall not advertise or otherwise make public that the Consultant is furnishing goods or services to UNICEF without specific permission of UNICEF.

48. Privileges and Immunities

48.1 Nothing in or related to the Agreement shall be deemed a waiver of any of the privileges and immunities of the United Nations, including its subsidiary organs.

49. Settlement of Disputes

49.1 The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of, or relating to the Agreement or the breach, termination or invalidity thereof. Where the Parties wish to seek such an amicable settlement through conciliation, the conciliation shall take place in accordance with the UNCITRAL Conciliation Rules then in force, or according to such other procedure as may be agreed between the Parties.

50. Arbitration

50.1 Unless any such dispute, controversy or claim between the Parties arising out of or relating to the Agreement or the breach, termination or invalidity thereof is settled amicably under the preceding paragraph of this Section within sixty (60) days after receipt by one Party of the other Party's request for such amicable settlement, such dispute, controversy or claim shall be referred by either Party to arbitration in accordance with the UNCITRAL Arbitration Rules then in force. The Parties shall be bound by an arbitration award rendered as a result of such arbitration as the final adjudication of such dispute. The costs of the procedure shall be shared equally by the Parties. In no event shall UNICEF be liable for incidental, indirect or consequential damages or for lost revenues or profits. The arbitral tribunal shall have no authority to award punitive damages. The Tribunal shall have no authority to award interest in excess of four per cent (4%), and such interest shall be simple interest only. As used herein, the term "UNCITRAL" means the United Nations Commission on International Trade Law.

51. General Provisions

51.1 Any notice, request or consent required or permitted to be given or made pursuant to this Agreement will be in writing, and addressed and sent by registered mail or confirmed facsimile transmission as follows:

If to UNICEF:

UNICEF _____

[insert address, telephone number and fax]

If to the Consultant:

[insert name, address, telephone number and fax]

- 51.2 Notices will be deemed to be effective as follows: in the case of registered mail, seven (7) days after posting; in the case of facsimiles, twenty-four (24) hours following confirmed transmission.
- 51.3 Nothing contained in the Agreement shall be construed as establishing a relation of master and servant or of principal and agent between the Parties or any of them.
- 51.4 The Agreement may be altered, modified or amended only by written instrument duly executed by all Parties in accordance with the procedure provided in Article 37 of this Agreement.

52. Effective Date

- 52.1 This Agreement shall become effective as of **[insert date]** (e.g. 17 December 2017), when both Parties have signed the Agreement.

IN WITNESS THEREOF, the Parties hereto have executed the Agreement on the day first above written.

THE CONSULTANT

UNICEF, the United Nations Children's Fund

By: _____

By: _____

President, Director

Resident Representative, UNICEF