

Terms of Reference

Mechanisation of Boreholes in Schools and Health Facilities in Refugee Settlements, Host Communities and Refugee Reception Centres

Summary

Title	Mechanisation of boreholes in schools and health facilities in refugee settlement, host communities and refugee reception centres
Purpose	To equip the existing boreholes with submersible pumps powered by solar panels and / or Zambia Electricity Supply Corporation (ZESCO) connections and construct distribution network with the purpose of improving water supply access in schools, health facilities and reception centres in refugee settlements and host communities.
Location	Selected schools, health centres, and reception centres in Kalumbila, Kaoma, Nchelenge, Chiengi, Kaputa and Mpulungu Districts
Duration	Five (5) months
Start Date	01 June 2021

1. Background

UNICEF, under the leadership of the Ministry of Water Development Sanitation and Environmental Protection (MWDSEP) and the Office of Commissioner for Refugees (CoR) and in collaboration with Provincial and District Authorities is supporting the Government of the Republic of Zambia (GRZ) in implementation of the “Improvement of WASH Services to Refugees from the Democratic Republic of Congo (DRC) and Host Communities in Zambia Project” (hereinafter referred to as the Project).

The objective of the Project, which is funded by the Government of the Federal Republic of Germany through KfW, is to improve access to water, sanitation and hygiene (WASH) services in refugee settlements and host communities through rehabilitation and upgradation of WASH infrastructure.

In this context, it is planned to to equip the existing boreholes with submersible pumps powered by solar panels and / or ZESCO connections and construct distribution network in selected schools, health centres, and reception centres in Kalumbila, Kaoma, Nchelenge, Chiengi, Kaputa and Mpulungu Districts. The works have been divided into three lots (as shown below). *The Contractor may bid for one or more lots.*

Lot No.	Description of Works	Location
Lot 1	Equip existing boreholes with submersible pumps, install solar panel arrays complete with stands and control boxes, install elevated water tank complete with stand, install water reticulation system complete with shared taps. The possibility of connecting to the ZESCO grid in several locations also exists.	Nchelenge District and Reception Centres in Chiengi, Kaputa, Lambwe, Nsumbu and Mpulungu Districts
Lot 2	Equip existing boreholes with submersible pumps, install solar panel arrays complete with stands and control boxes, install elevated water tank complete with stand, install water reticulation system complete with shared taps. The possibility of connecting to the ZESCO grid in several locations also exists.	Kaoma District
Lot 3	Equip existing boreholes with submersible pumps, install solar panel arrays complete with stands and control boxes, install elevated water tank complete with stand, install water reticulation system complete with shared taps. The possibility of connecting to the ZESCO grid in several locations also exists.	Kalumbila District

It should be noted that the number of facilities to be constructed under each Lot are tentative and subject to change, based on emerging priorities and subject to availability of funds.

2. Objectives

The objective of this assignment is to improve access to water supply in schools, health facilities and reception centres in refugee settlements and host communities through equipping of existing boreholes in the target districts with VDC powered submersible pumps, installation of solar panel arrays complete with stands and control boxes, installation of elevated water tanks complete with stands and installation of water reticulation systems complete with shared taps in Kalumbila, Kaoma, Nchelenge Districts and Reception Centres in Chiengi, Kaputa, Lambwe, Nsumbu and Mpulungu Districts. In several cases, subject to feasibility and cost effectiveness, the submersible pumps may be connected to the ZESCO grid instead of installation of solar systems.

3. Justification

The specialised nature of the works planned under this assignment requires the use of an experienced construction firm with adequate understanding of construction of similar infrastructure and local conditions. It is, therefore, planned to engage services of a qualified contractor having the experience, knowledge and skills for carrying out these works.

4. Description of the assignment / scope of works

The scope of work to be carried out at specified locations under this assignment is described in the Annex I (summary) and Annex II (detailed scope). In addition to the activities in Annex-I, other works to be performed will include and not limited to the following:

- (i) Conduct a preliminary site assessment to familiarise with the conditions of the area and identify foreseeable challenges that may be required to be dealt with during implementation;
- (ii) Participate in a start-up meeting with respective District Councils and Project Consultants to agree on the work schedule; environmental, social, health and safety (ESHS) requirements, supervision/certification requirements, progress reporting and site management meetings;
- (iii) Conduct detailed site assessment to reconfirm the location and number of the proposed infrastructure elements (elevated tank, solar panels, connection to ZESCO, network alignment, water taps etc);
- (iv) Conduct geotechnical investigation to confirm the soil bearing capacity for the elevated tank;
- (v) Construct solar schemes and all associated installations at the designated sites described in Annex I and according to the specification prescribed in Annex II. This will entail provision of all labour, transport, plant, tools, equipment, materials and appurtenances necessary in line with the specifications given in Annex III;
- (vi) Where directed, construct ZESCO powered schemes and all associated installations at the designated sites described in Annex I and according to the specification prescribed in Annex II. This will entail provision of all labour, transport, plant, tools, equipment, materials and appurtenances necessary in line with the specifications given in Annex III;
- (vii) Develop a site specific Environmental and Social Management Plan (ESMP) and site-specific Health and Safety Management Plan (HSMP), consistent with the framework for Contractor's ESMP (attached); and
- (viii) Ensure compliance with the approved Contractor's site specific ESMP as well as the site-specific Health and Safety Management Plans and put in place appropriate mechanism for monitoring performance, reporting, grievance redress, and taking corrective actions as appropriate.

The Contractor shall be responsible for the adequacy, stability and safety of the works, site operations and all methods of construction and will ensure that the constructed facilities are fit for purpose.

5. Expected Deliverables

The key deliverables of this assignment are as follows:

- (i) Completed and functional solar and/or ZESCO powered schemes complete with all associated installations for Lots 1, 2 and 3, all constructed as per the requirements laid out in the Scope of Works – Annex I, Technical Specifications - Annex III, Bill of Quantities - Annex IV and Drawings - Annex V. All facilities built by the Contractor must be fit for purpose.

6. Reporting requirements

- (i) The Contractor shall submit a detailed Work Programme to the Project Consultant within seven (7) days after signing of the contract. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include the order in which the Contractor intends to carry out the Works, the anticipated timing of each stage of works, procurement of

plant and materials, delivery to Site, construction, erection and testing. The Work Programme shall be accompanied by a supporting report showing the number and allocation of the Contractor's Personnel and Equipment that is required on site for each major stage of the works.

- (ii) Prior to the commencement of works, the Contractor shall submit to the Project Consultant a method statement describing the methods that the Contractor intends to adopt in the execution of the different stages of works.
- (iii) Prior to construction, the Contractor shall reconfirm the location and number of the proposed infrastructure elements (elevated tank, solar panels, network alignment, tap stands) and submit a Site Inspection Report. Any changes from the original design shall require the approval of the Project Consultant prior to construction;
- (iv) The Contractor shall provide to MWDSEP/UNICEF by the 7th of each month, through the Project Consultant, a monthly report detailing the progress of the works. The format of the report shall be mutually agreed between the Contractor and the Employer within ten (10) days after signing of the contract and shall include but not limited to the following:
 - a. Charts and detailed descriptions of progress, procurement of materials and delivery to Site, construction, erection and testing;
 - b. Photographs showing the status and progress of the works;
 - c. Records of Contractor's Personnel and Equipment;
 - d. Copies of quality assurance documents, test results and certificates of Materials;
 - e. Compliance with Environmental and Social Safeguards (safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations); and
 - f. Comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.
- (v) The Contractor shall keep records and receipts for the purchase of all materials and remuneration of labour used in the works and shall make such records and receipts available for inspection, upon request;
- (vi) The Contractor shall keep accurate and systematic records in respect of the works. The Contractor shall furnish MWDSEP/UNICEF/Districts with one copy each of all such forms/reports upon completion of the works; and
- (vii) The Contractor shall submit to UNICEF/MWDSEP/Districts a final report of the works, with detailed accounts of material utilised and other relevant technical data.

7. Project Management

The Contractor will be contracted by and report to UNICEF Zambia. The Project Consultant appointed by UNICEF will supervise the construction works undertaken by the Contractor. The MWDSEP, Provincial and District Authorities will provide oversight and will facilitate access to sites.

8. Project Duration

The project works shall be executed by the Contractor and completed within five (5) months from the commencement date. The commencement date will be issued by the Project Consultant when all the preconditions listed below have been met. The Contractor is not permitted to commence works without:

- a) Prior submission of a valid and enforceable performance security 5% of the contract value. The security shall be valid for the entire project period until the completion of the “defects liability period”
- b) Approval of the Contractor’s Environmental and Social Management Plan (CESMP) and the Contractor’s Health and Safety Management Plan (CHSMP) by the Project Consultant and UNICEF;
- c) the Project Consultant’s approval and satisfaction of appropriate measures in place to address ESHS risks and impacts;
- d) the submission and agreement to the Contractor’s Work Program, Method Statement and Site Inspection Report.

Bidders are required to propose a realistic work programme based on actual resources and available capacity in the bidding response to ensure that the planning and execution of works can be relied upon, keeping in view the rainy season and accessibility to site.

9. Payments and securities

- (i) The Contractor shall submit a Payment Application (PA) to the Project Consultant after the end of each month, in a form approved by the Project Consultant, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents, which shall include the report on the progress during this month;
- (ii) The Project Consultant shall, within 28 days after receiving a Payment Application and supporting documents, deliver to UNICEF and to the Contractor an Interim Payment Certificate (IPC) which shall state the amount which the Project Consultant fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Project Consultant on the Statement if any.
- (iii) The Project Consultant may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Project Consultant’s acceptance, approval, consent or satisfaction.
- (iv) UNICEF in principle does not pay cash advances. However, if the Contractor needs a mobilization advance, minimum of 10% to a maximum of 20% of the contract priced but not exceeding USD 60,000 may be advanced against presentation of guarantee from a bank approved by UNICEF. This advance paid will be pro-rated and recovered from each payment;
- (v) Ten percent (10%) of the total contract value will be withheld and will be deducted from each Interim Payment Certificate. This amount will be paid after one month of completion of the “12 months defect liability period”;
- (vi) As soon as, in the opinion of the Contractor, the works on at least 5 sites are completed, the Project Consultant/MWDSEP/UNICEF should be notified in writing. A taking over certificate in respect of the works will be issued after a joint inspection/certification of the facilities is carried out by the project beneficiaries and the Contractor. If any uncompleted works are observed, the Contractor will complete the outstanding works in a period of less than two weeks;
- (vii) The Contractor shall rectify any works deemed to be defective or requiring repairs during the “12 months defect liability period” of the works. If the Contractor is unable to complete the works within 28 days from the date of notification and this remedial work was to be executed at the cost of the Contractor, the Employer may carry out the work himself or by others, in a reasonable manner and the Contractor shall pay to the Employer the costs reasonably incurred in remedying the defect or damage by deducting money from the retention amount.

Alternately, the Contractor shall return to UNICEF the amount of money paid for the said works; and

- (viii) Within fifteen (15) days of the receipt of notification of award from UNICEF, the Contractor shall furnish the Performance Security in accordance with the UNICEF General Conditions of Contract using a form, and from a bank/agency, approved by UNICEF;

10. Qualification and equipment/material requirements

- (i) Legally registered to conduct business and building construction in Zambia;
- (ii) Registration with National Council for Construction (NCC) in any category. Submission of NCC certificate is not required at tendering stage, certificate will be required prior to award of contract
- (iii) Minimum of five (5) years' construction experience in Zambia including experience in borehole installation and construction of borehole solar powered schemes;
- (iv) Proven capacity to deliver. The Contractor should possess requisite equipment and adequate human resources capacity, as outlined below:

(a) Minimum required equipment:

The Bidder must demonstrate that it has access to the key equipment listed hereafter:

No.	Equipment Type and Characteristics	Lot 1	Lot 2	Lot 3
1.	Surveying Equipment (Differential GPS)	2	2	2
2.	Dewatering pumps 100mm suction diameter	2	2	2
3.	Concrete Mixer 160ltrs	2	2	2
4.	4WD Pickup Truck	2	2	2
5.	Mobile Electricity Generator 10kVA	2	2	2

The Bidder shall provide further details of proposed items of equipment using the Form EQU in Section IV

(b) Minimum staffing requirement:

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements for each lot:

Key Staff

No	Position	Number Required			Minimum Academic Qualifications	Similar Works Experience (years)
		Lot 1	Lot 2	Lot 3		
K-1	Project Manager	1			Bachelor's Degree in Engineering or a related field	10
K-2	Electromechanical Engineer	1	1	1	Diploma in Electromechanical	8

No	Position	Number Required			Minimum Academic	Similar
					Engineering or equivalent	
K-3	Construction Foreman / Site supervisor	2	2	2	Certificate in Construction or related technical field	5
K-4	Environmental, Social & Health and Safety Officer	1			Certificate in Environmental/Social and Health/Safety related field	3

Non-Key Staff:

NK-1: Plumber;
 NK-2: Steel fixer;
 NK-3: Electrician; and
 NK-4: Person in charge of logistics and dedicated record keeper.

(c) All engaged personnel on site must be able to communicate in English language.

(v) Sound financial capacity to undertake the works.

11. Application Submission – Evaluation Process and Methods

In the preparation of the bids, Contractors are required to read and comply with the requirements stipulated in the following documents:

- *Terms of Reference (TOR)*
- *Annex I: Scope of Works*
- *Annex II: Borehole Drilling Reports*
 - Annex II (a); Lot 1 Nchelenge District and Border Posts Schemes
 - Annex II (b); Lot 2 Kaoma District Schemes
 - Annex II (c); Lot 3 Kalumbila District Schemes
- *Annex III: Technical Specification (for all lots)*
- *Annex IV: Bills of Quantities (BoQs)*
 - Annex IV (a); Lot 1 Nchelenge District and Border Posts Schemes
 - Annex IV (b); Lot 2 Kaoma District Schemes
 - Annex IV (c); Lot 3 Kalumbila District Schemes
- *Annex V: Drawings*
 - Annex V (a); Lot 1 Nchelenge District and Border Posts Schemes
 - Annex V (b); Lot 2 Kaoma District Schemes
 - Annex V (c); Lot 3 Kalumbila District Schemes
- *Annex VI: Framework for Contractor's Environmental and Social Management Plan*
- *Annex VII: Code of Conduct: Sexual Exploitation and Abuse*
- *Annex VIII: Technical Proposal Submission Forms*
- *Annex IX: Financial Proposal Submission Forms*
- *Annex X: Other Bidding Forms*

Qualified Contractors are invited to submit sealed separate technical and financial bids for this assignment as presented below:

(a) Technical Proposal

The Contractor(s) shall submit a Technical Proposal in line with the forms provided in Annex-VIII Technical Proposal Submission Forms as well as the following documentation:

- (i) Description of the firm - legal status, organizational structure and names of the board of directors;
- (ii) Copy of registration certificate with GRZ (i.e. company registration and VAT registration);
- (iii) Copy of registration certificate with National Council for Construction (NCC)

*The submission should be clearly labelled/written “Request for Bids – Mechanisation of Boreholes in Schools and Health Facilities in Refugee Settlements, Host Communities and Refugee Reception Centres - Technical Proposal”. **No financial/price information should be contained in the technical proposal.***

(b) Financial Proposal

The Financial Proposal must include full costs for delivering all the works to be carried out under this assignment, including costs for insurances and compliance with labour, environmental, social, health and safety regulations. The currency of the Financial Proposal must be in USD.

The Contractors may bid for 1 (one) or all 3 (three) lots and fill in the unit rates as per the details given in Annex-IX: Financial Proposal Submission Forms. It is mandatory that Contractors submit all requested rates, failure to do so will invalidate the proposal.

Please note that payment will be made only on completion of facilities meeting the specification and terms and conditions as detailed in Annex-III: Technical Specifications. No payment will be made for works failing to comply with the specifications. Payment will be made for each completed facility as per the financial proposal.

The submission should be clearly labelled/written “Request for Bids – Mechanisation of Boreholes in Schools and Health Facilities in Refugee Settlements, Host Communities and Refugee Reception Centres - Financial Proposal”.

(c) Assessment Processes of Submitted Proposals

After the opening, each proposal will be assessed first on its technical merits and subsequently on its price. Bidders who are deemed not to meet all of the mandatory technical requirements will be considered non-compliant and rejected at this stage without further consideration of their financial proposal. Failure to comply with any of the terms and conditions contained in this ToR, including provision of all required information, may result in a response or proposal being disqualified from further consideration. Final decision on the evaluation/proposal assessment will rest with UNICEF.

(d) Technical Evaluation

The Technical Proposals will be evaluated as per the below evaluation criteria:

Technical Proposal		
No.	Criteria	Max. Points
1.0	Overall response	5
	(i) Demonstrated understanding of and responsiveness to the project requirements	2.5
	(ii) Overall clarity and completeness of the proposal	2.5
2.0	Proposed Approach, Methodology and Workplan	30
	(i) Adequacy of the proposed implementation approach/ methodology/workplan	12.5
	(ii) Structure of the team(s) to be deployed for	10.0
	(iii) Approach/methodology for compliance with labour laws, Environmental, Social, Health and Safety (ESHS) and Prevention of Sexual Exploitation and Abuse (PSEA) requirements	7.5
3.0	Organizational Capacity	35
	(i) Organizational expertise and experience in works of similar nature and complexity completed over a minimum of five (5) years	10
	(ii) Capacity – personnel resources	5
	(iii) Capacity – equipment resources	5
	(iv) Financial capacity (annual turnover, ability to finance the works upfront)	10
	(v) Litigation/arbitration history or history of non-performing contracts	5
Total		70

Note: Bidders are encouraged to undertake site visits to acquaint themselves with the locations and conditions on the ground. Such visits shall be undertaken at the Bidder's own expense and will not be given points during the evaluation of the technical proposals. No site visit certificates shall be issued.

(e) Evaluation of financial proposals

Only proposals which receive a minimum of 49 points under the technical evaluation will be considered technically compliant and be eligible for the second phase (financial review).

The total amount of points allocated for the price component is thirty [30]. The maximum number of points will be allotted to the lowest price proposal that is opened and compared among those invited firms/institutions which obtain the threshold points in the evaluation of the technical component. All other price proposals will receive points in inverse proportion to the lowest price e.g.:

Max. Score for price proposal * Price of lowest priced proposal

Score for price proposal X = -----
Price of proposal X

Note: Minimum qualifying mark for technical proposals is 49. In normal circumstances, only those offers that score minimum and above points on technical proposals will be considered for commercial evaluation. However, UNICEF reserves the right to evaluate all commercial offers and/or shortlist selected suppliers from among those who score minimum and above technical scores.

(f) Final computing of proposal score

Total proposal scores will be consolidated as follows:

Evaluation of proposal	Maximum points
Technical evaluation of proposals	70
Cost / Financial proposal	30
Total	100

The proposal with the best overall scoring, composed of technical responsiveness, merit and price, will be recommended for approval. UNICEF will notify the selected firm/institution by email when the evaluation and award process is completed.

Annex – I: Scope of Works

The works to be performed by the Contractor under the contract shall include but not be limited to the following:

- Construct 43 nos individual solar/ZESCO powered borehole schemes for the institutions indicated in the table below.
- Asses and repair existing solar installations.
- Interpret BH drilling reports and equip existing boreholes (BH data below) with 48 VDC adequate submersible pump suitable for being powered either by solar installations, standby VAC generators or ZESCO 230 VAC connections;
- Asses power requirements and install solar panel arrays complete with stands and control boxes.
- Design and install elevated water tanks complete with tank stands.
- Install water reticulation systems complete with shared water taps.

The elevated tank stand and foundation shall be designed by the Contractor who shall undertake the necessary geotechnical investigations to confirm the depth of the stable ground and its bearing capacity. The tank shall be staged on elevated structural steel stand and include internal and external access ladders (with safety cages), an access manhole and water level indicator. The tanks shall be complete with all pipe work (inlet, outlet, overflow and washout).

LOT 1 - Summary Borehole Data (detailed borehole reports contained in Annex II (a))

S.No	District	Ward/Block	Borehole site (e.g. village or site name)	Borehole ID	Classification (Settlement or Host Community)	Category (Community, School, Health Centre)	GPS Coordinates		Drilled depth (m)	Borehole construction depth (m)	Diameter (inches)	Yield (litre/s)	Static water level (m)	Casing (m)	Screen (m)	No. of stainless steel riser pipes	Handpump installation depth (m)
							E	S									
L1-1	Nchelenge	Mulwe	Kampampi	MTV53	Host	Community	28.74257	-9.45811	72	72	5	1.52	15.72	54	18	9	27
L1-2	Nchelenge	Mofwe	Kashita sec secondary	MTV60	Host	School	28.74571	-9.64436	71	71	5	1.142	25,51	53	18	10	30
L1-3	Nchelenge	Shabo	Chabilikila RHC	MTV41	Host	Health	28.73698	-9.54844	50	50	5	1.35	10.72	26	24	7	21
L1-4	Nchelenge	Mulwe	Mulwe RHC	MTV54	Host	Health	28.74812	-9.45703	71	71	5	1.046	24.65	53	18	11	33
L1-5	Nchelenge	Kashikishi	Kashikishi pr sch	KEV43	Host	School	28.74937	-9.318515	75	75	5	0.68	11.87	51	24	8	24
L1-6	Nchelenge	Kashikishi	Kenani pr school	KEV42	Host	School	28.76134	-9.28265	50	50	5	2	19.4	32	18	8	24
L1-7	Nchelenge	Kashikishi	Nchelenge sec school	KEV47	Host	School	28.74116	-9.32083	50	50	5	1.6	24.37	32	18	10	30
L1-8	Nchelenge	Kasamba	KambwaliRHC	MTV71	Host	Health	28.7348	-9.41401	65	65	5	1.461	24.65	53	12	12	36
L1-9	Nchelenge	Kashikishi	St.Pauls hosp	KEV55	Host	Health	28.74197	0	67	67	5	1.3	31.73	49	18		
L1-10	Nchelenge	Mwatishi	Kafutuma pr sch	KEV45	Host	School	28.80791	-9.24345	59	59	5	2.24	22.3	45	12	10	30
L1-11	Nchelenge	Mwatishi	Kafutuma RHC	KEV46	Host	Health	28.8725	-9.24183	52	52	5	3.92	25.83	43	9	10	30
L1-12	Nchelenge	Mwatishi	Ntoto school	KEV41	Host	School	28.78636	-9.25848	74	74	5	1.04	15.9	59	15	20	60
L1-13	Nchelenge	Kashikishi	Kashikishinew market	KEV56	Host	Community	28.74119	-9.33086	52	52	5	1.06	30.32	37	15	12	36
L1-14	Nchelenge	Shabo	Chabilikila RHC	MTV41	Host	Health	28.73698	28.73698	50	50	5	1.35	10.72	26	24	7	21
L1-15	Chienge	Chienge	Lupiya Pry School	LEP	Reception	School	28.98903	-8.51636	55	55	5	1	10.2	34	21		
L1-16	Kaputa	Chienge	Lambwe Chomba RHC	LC	Reception	Health	29.59906	-8.41101	40	40	5	0.5	4.4	22	18	7	21
L1-17	Mpulungu	Mpulungu	Mpulungu Reception Centre	NTC	Reception	TC	31.14557	-8.76981	100	100	5	1	50	73	27		
L1-18	Kaputa	Kaputa	Kaputa Reception Centre	KTC	Reception	TC	29.65982	-8.49768	100	100	5	0.5	27.55	79	21		

LOT 2 - Summary Borehole Data (detailed borehole reports contained in Annex II (b))

S.No	District	Ward/Block	Borehole site (e.g. village or site name)	Borehole ID	Classification (Settlement or Host Community)	Category (Community, School, Health Centre)	GPS Coordinates		Drilled depth (m)	Borehole construction depth (m)	Diameter (inches)	Yield (litre /s)	Static water level (m)	Casing (m)	Screen (m)	No. of stainless steel riser pipes	Handpump installation depth (m)
							X	Y									
L2-1	Kaoma	Mushwala	Shibanga Pri Sch	MKT0	Host comm	SCHOOL	E-24.20213	S-14.61578	60	58	5	1.20	24.0	46.54	11.96	10	55
L2-2	Kaoma	Mushwala	Mushwala Clinic									1.0					
L2-3	Kaoma	Kapili	Kakula PHC	MKV0	Host comm	HEALTH	E-24.24373	S-14.56387	88	88.5	5	1.0	0.00	76.5	12	4	
L2-4	Kaoma	Kapili	Mayukwayukwa clinic	MKC	settlement	HEALTH	E-24.20918	S-14.53760	61	62	5			43	18		
L2-5	Kaoma	Kapili	Mayukwayukwa boarding Sch	MKSP	settlement	SCHOOL	E-24.1951	S-1453531	84	85	5	0.74		66	18	10	
L2-6	Kaoma	Kapili	Mayukwayukwa Transit Centre		Settlement	TC	TBA										
L2-7	Kaoma	Kapili	Mayukwayukwa Upper and Lower		Settlement	SCHOOL	TBA										
L2-8	Kaoma	Kapili	Kabuba Community school		Host Comm	SCHOOL	TBA					1.0					
L2-9	Kaoma	Kapili	Shibanga RHC		Host Comm	HEALTH	TBA								Repair of the existing solar		

L2-10	Kaoma	Kapili	Dr Minyoi RHC		Host Comm	HEALTH	TBA								Repair of the existing solar
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LOT 3 - Summary Borehole Data (detailed borehole reports contained in Annex II(c))

S.No	District	Ward/Block	Borehole site (e.g. village or site name)	Borehole ID	Classification (Settlement or Host Community)	Category (Community, School, Health Centre)	GPS Coordinates		Drilled depth (m)	Borehole construction depth (m)	Diameter (inches)	Yield (litre/s)	Static water level (m)	Casing (m)	Screen (m)	No. of stainless steel riser pipes	Handpump installation depth (m)
							X	Y									
L2-1	KALUMBILA	Meheba settlement	BLOCK D CLINIC	MHD003	settlement	clinic	25.52814	12.29877	55	54.65	5	1.4	5.5	39.9	14.75	7	21
L2-2	KALUMBILA	Meheba settlement	BLOCK A BOARDING SEC	MHA003	settlement	SCHOOL	25.93048	12.39806	56	55	5	0.7	7.5	40.25	14.75	10	30
L2-3	KALUMBILA	Meheba settlement	BLOCK B INTERNAT SEC	MHB002	settlement	SCHOOL	25.92624	12.43614	56	56.5	5	1.3	6.9	44.7	11.8	11	33
L2-4	KALUMBILA	Meheba settlement	BLOCK B CLINIC	MHB003	settlement	clinic	25.923323	12.435244	60	60	5	1.2	9.4	45.25	14.75	11	33
L2-5	KALUMBILA	Meheba settlement	BLOCK A CLINIC	MHA001	settlement	clinic	25.92962	12.38534	55	50.5	5	1.15	6.65	35.75	14.75	7	21
L2-6	KALUMBILA	Meheba settlement	BLOCK D ROAD 36 PLOT 1	MHDI001	settlement	community	25.86882	12.49632	59	56.5	4	0.6	3.9	41.75	14.75	10	30
L2-7	KALUMBILA	Meheba settlement	BLOCK G CLINIC	MHSAN15	settlement	clinic	25.88914	12.54636	65	65.5	5	1.5	3.74	53.7	11.8	7	21
L2-8	KALUMBILA	SHILENDA WARD	KAKAINDU RHC	MHV020	Host	clinic	25.83432	12.32949	65	66	5	1.2	4.71	48.3	17.7	11	33
L2-9	KALUMBILA	MWAJIMAMBWE	KANANGA PRIMARY SCH	MHV031	Host	SCHOOL	25.95075	12.361	70	63.1	5	1	6.12	48.35	14.75		
L2-10	KALUMBILA	MWAJIMAMBWE	KAMBAZHI PRIMARY SCH		Host	SCHOOL	26.13762	12.4048	65	64.3	5	1.1	3.12	52.5	11.8		
L2-11	KALUMBILA	SHILENDA WARD	LUMWANA HOSPITAL	MHV019	Host	HOSPITAL	25.83993	12.32067	78	77.45	5	1	9.6	59.75	17.7		
L2-12	KALUMBILA	SHILENDA WARD	MANYAMA PRIMARY SCH		Host	SCHOOL	25.85092	12.31479	70	69.3	5	1		51.6	17.7		
L2-13	KALUMBILA	SHILENDA WARD	SHILENDA PRIMARY SCH	MHV034	Host	SCHOOL	25.76257	12.40158									
L2-14	KALUMBILA		Meheba F RHC and school		Host	SCHOOL	TBA								Repair of the existing solar system		
L2-15	KANUMBILA		Kamiba RHC		Host	clinic	TBA					Existing solar system to be repaired and extended to Kamiba					

Annex II: Borehole Drilling Reports

See attached Borehole Drilling Reports for each Lot as indicated below.

- Annex II (a); Lot 1 Nchelenge District and Border Posts Solar Schemes
- Annex II (b); Lot 2 Kaoma District Solar Schemes
- Annex II (c); Lot 3 Kalumbila District Solar Schemes

(Attached as a separate annex)

Annex III: Technical Specifications (for all lots)

(Attached as a separate annex)

Annex IV: Bills of Quantities (BoQs)

See attached BoQs for each Lot as indicated below.

- Annex IV (a); Lot 1 Nchelenge District and Border Posts Solar Schemes
- Annex IV (b); Lot 2 Kaoma District Solar Schemes
- Annex IV (c); Lot 3 Kalumbila District Solar Schemes

(Attached as a separate annex)

PREAMBLE AND NOTES

General

- a) The Bills of Quantities do not generally give a full description of the plant and equipment to be supplied and the services to be performed under each item. Bidders shall be deemed to have read the Technical Specifications (Annex III) and other sections of the tender documents and reviewed the Drawings and carried out site visits to ascertain the full scope of the requirements included in each item prior to filling in the rates and prices.
- b) There is no guarantee to the Contractor that he will be required to carry out the quantities of work indicated under any one particular item or group of items in the Bills of Quantities, though on the Contract as a whole the quantities are intended to represent the overall value of the work to be carried out.
- c) Rates and prices inserted in the Bills of Quantities shall be deemed to cover the work, finished and complete in all respects. The Contractor shall take full account in his rates and prices of all requirements and obligations, expressed or implied in all parts of the Contract, together with all incidental and contingent expenses, and risks of every kind involved in the proper construction of the Works. No claim for additional payment will be allowed for any error or misunderstanding in this respect.
The entered rates and prices shall be deemed to include for the full scope as aforesaid, including overheads and profit.
- d) If Bidders are unclear or uncertain as to the scope of any item, they shall seek clarification in accordance with the Instructions to Bidders in the tender documents prior to submitting their tender.
- e) The prices and rates inserted in the Bills of Quantities will be used for valuing the work executed and the Project Consultant will measure the whole of the works executed in accordance with the Contract.

Pricing

- a) Prices shall be filled in indelible ink, and any alterations necessary due to errors, etc., shall be initialed by the Bidders. The Bidder may use the XL sheet version of the BOQ quantities which will be provided by the Employer.
Prices shall be fixed and firm for the duration of the Contract.
- b) For each item, Bidders shall complete each appropriate column in the respective Bills, giving the price breakdown as indicated in the Bills.
Prices given in the Bills against each item shall be for the scope covered by that item as detailed in the Technical Specifications, Drawings or elsewhere in the tender documents.
- c) Where there are errors between the total of the amounts given under the column for the unit rates and the amount given under the Total, the former shall prevail, and the latter will be corrected accordingly.
Where there are errors between the total amounts of the individual bills and the amount given in Grand Summary, the former shall prevail, and the latter will be corrected accordingly.
Where there are discrepancies between amounts stated in figures and amounts stated in words, the amounts stated in words shall prevail.

- d) Payments will be made to the Contractor in the currency or currencies indicated.
- e) Items left blank will be deemed to have been included in other items. The TOTAL for each Bill and the TOTAL of the Grand Summary shall be deemed to be the total price for executing the works and sections thereof in complete accordance with the Contract, whether or not each individual item has been priced.
- f) When requested by the Employer for the purposes of making payments or part payments, valuing variations or evaluating claims, or for such other purposes as the Employer may reasonably require, the Contractor shall provide the Employer with a breakdown of any composite or lump sum items included in the Schedules.
- g) The Bidder shall be deemed to have taken into account all of the following in his bid prices and his construction programme:
 - i. All recognized holidays, festivals, religious and other customs.
 - ii. Normal weather conditions.
- h) No claim will be considered for further payment in respect of any work or method of execution which may be described in the Contract or is inherent in the construction of the Work as detailed on the drawings on account of:
 - i. items having been omitted from the Bills of Quantities;
 - ii. any omission from the wording of the items or from clauses in the Preamble;
 - iii. no mention of such work or method of execution having been made in the Preamble.
 - iv. No presentation of signed supervision for each activity
- i) The Contractor shall execute all works in good weather conditions, and the whole cost thereof will be deemed to be included in the rates and prices.
- j) Unless expressly stated otherwise, all rates and prices entered in the Bills of Quantities will be deemed to have included the following:
 - i. Labour and all costs in connection with the execution of the Works and the correction of defects until the expiry of the defects liability period.
 - ii. Construction plant, equipment and all costs in connection therewith.
 - iii. Sampling and testing materials and goods, testing workmanship, providing, storing, packing and transporting samples to and from the place of testing in accordance with the Specifications.
 - iv. Fixing, erecting, installing or placing of materials and goods in position.
 - v. Disposing of surplus and unsuitable materials and goods and excavated materials, including stacking, storing, loading, transporting and unloading.
 - vi. All general obligations, liabilities and risks involved in the execution and maintenance of the Works set forth or reasonably implied in the documents on which the Bid is based.
 - vii. Establishment charges, overheads and profit.
 - viii. Complying with all the requirements of the Contract Documents.
 - ix. Compliance with NCC registration requirements
- k) The rates and prices inserted by the Bidder shall apply throughout the Contract to any location within the Contract and to any additional work ordered by the Employer.
- l) The sums inserted in the Bills of Quantities shall include for leveling; removing surplus material; providing and maintaining signaling, fencing and removal on completion, and access and drainage and de-watering where specified; and for reinstating the Works Areas to their original condition upon completion.
- m) The Bidder shall include in his rates the preparation of as-built drawings for the works carried out based on the design drawings.
- n) The Contractor is allowed to execute project works during normal working hours from Monday to Friday between 08:00h and 17:00h and on Saturday from 08:00 to 12:00h. Working during any other periods requires the approval of the Project Consultant and will require the Contractor to reimburse the Project

Consultant for the costs generated by the extended working hours at the rate agreed between the Employer and the Project Consultant.

o) Abbreviations used herein shall have the following meanings:

mm = millimeter;

cm = centimeter

m = metre

km = kilometre

m² = square metre

m³ = cubic metre

kg = kilogram

l = litre

hrs = hour

Nos = Number

DWL = Dynamic Water Level

LS = lump sum

LM = linear metre

Annex V: Drawings

See attached drawings for each Lot as indicated below.

- Annex V (a): Lot 1 Nchelenge District and Border Posts Solar Schemes
- Annex V (b): Lot 2 Kaoma District Solar Schemes
- Annex V (c): Lot 3 Kalumbila District Solar Schemes

Annex VI: Framework for Contractor's Environmental and Social Management Plan (ESMP)

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
General requirements				
1. Responsibilities and Liabilities	Ensure that all workers, suppliers and possible subcontractors are familiar and comply with the requirements and specifications of the ESHS and this ESMP.	Contractor	Induction training performed and recorded. Contracts with Subcontractors and Suppliers	Review of training records Review of Contracts to ensure that project requirements are included
	Adjust this ESMP to the specific project, define the frequency of the monitoring procedure and share it with Supervision Consultant Identify if further Management Plans have to be prepared.	Contractor	Final project specific construction ESMP, approval by Supervision Consultant	Review prior to finalization of project specific construction ESMP,
2. Resources allocated to ESHS Management	Assign ESHS responsible and define the requirements and responsibilities. Responsible for contact with stakeholders (Relations officer or Community Liaison officer)	Contractor	Final project specific construction ESMP and documented staff responsibilities/qualifications; Communicate with the relevant authorities the ESHS responsible.	Review prior to finalization of project specific construction ESMP
3. Code of Conduct	Establish a Code of Conduct taking into consideration legislation, safety rules, substance abuse, environmental sensitivity, communicable diseases, gender issues (sexual harassment), respect for local beliefs and customs, community interactions etc	Contractor	Code of Conduct in place and rules shared with personnel	Review of Code of Conduct Induction records Review of reported punishable or misconduct behaviours Review of grievance records
4. ESHS Training	Provide H&S Induction and Training and awareness to the workforce regarding H&S risks and mitigation measures (including indirect workers) tailored to project scope.	Contractor	Training performed and recorded	Review of training records
Vegetation disturbance around project area				
5. Vegetation disturbance	Ensure worksite area is properly defined and fenced off with tape to avoid further disturbance of vegetation/crops outside the work area.	Contractor	Minimal vegetation clearance	Random site inspection

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
	Vegetation clearance will be done manually, and no chemical/pesticides will be used in the process. Bringing of vegetation is strictly forbidden and clearing should not occur more than 2 months before the construction works at a particular site are scheduled to commence.			
6. Flora Protection	The contractor will take reasonable precaution to prevent his/her workmen and employees from removing and damaging any flora (plant/vegetation) from the project area, which will not be in the way of the project construction site. The Contractor will also avoid clearing mature trees and endangered species and avoid disturbance of natural habitats.	Contractor	Flora outside construction site maintained	Random site inspection
7.	Ensure revegetation and restoration of cleared areas where possible after construction using native species.	Contractor	Where feasible, cleared areas re-vegetated after construction works	Inspection of affected areas
Solid and liquid waste generation and indiscriminate disposal of the same				
8. Increased solid and liquid waste generation	Any remaining waste (paper or polythene containers, cement bags, bentonite, construction debris, etc. will be disposed in designated waste disposal areas before the project is commissioned;	Contractor	Good house keeping	Random site inspection
	All excavated material from the draining channel will be used to refill it;	Contractor	Good house keeping	Random site inspection
	Construction crew to be obliged to dump their personal wastes in designated covered dustbins.	Contractor	Zero indiscriminate disposal of solid waste	
	Where no toilets exist, portable toilets and necessary sanitary arrangements must be availed in sufficient quantity (1 facility/15 person);	Contractor	Toilets or portable toilets in place for both male and female (separate facilities)	
	Ensure appropriate containment and disposal of construction wastewater, including sanitary water/sludge in the case of mobile toilets.	Contractor	Wastewater and sanitary water/sludge disposal compliant with the legal requirements	Random site inspection

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
Damage and pollution to refugee settlement road infrastructure				
9. Traffic & Transport	All vehicles delivering construction materials to the site will be covered to avoid spillage of materials thus preventing pollution of environment.	Contractor	Delivery vehicles covered	Random inspection of vehicles carrying material
	The unloading of materials at construction sites close to settlements will be restricted to daytime only	Contractor	Unloading done during day time	Spot checks
	Target signage and outreach activities to improve public awareness of traffic changes and potential hazards for high-risk sections of public roads/paths and other relevant spaces used by the public, including near the site and laydown areas.	Contractor	Target signage installed and outreach activities conducted	Site inspection to verify installation of signage and inspection of contractor records on the execution of public awareness
	All the Contractor's drivers shall hold valid driver licenses and should be trained in road safety.	Contractor	Driver's license and safety training recordings	Inspection of Contractor's safety records and random spot checks
Noise pollution during construction period				
10.Noise and Vibration	Construction equipment must be fitted with appropriate noise suppression apparatus such as mufflers;	Contractor	Technical Specification Sheet	Random site inspection
	Proper maintenance of the construction equipment	Contractor	Maintenance records	Spot checks
	The workers will be supplied with on ear mask where applicable to control excessive noise. The noise levels should not exceed 85dB as per WHO standards;	Contractor	Ear mask provided	Spot check at work site
	No works during the night / darkness to prevent disruption of the neighboring community	Contractor	No work during night time	Review of filed grievances, review of timesheets of workers
	Sensitize vehicle drivers and machine operators to switch off engines of vehicles or generators when not in use and to avoid hooting.	Contractor	Machinery switched off when not in use and no hooting	Spot check at work site

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
Dust and air pollution				
11.Dust and Air Pollution	Ensure that the workers have proper PPEs like dust masks;	Contractor	PPE provided	Random inspection of site
	Ensure strict enforcement of applicable speed limits for both on-site and off-site vehicles;	Contractor	Speed limit signage installed	Random inspection of traffic route
	Ensure dust suppression at the construction site during construction of facilities	Contractor	Technical Specification Sheet	Random site inspection
Oil spills				
12.Oil Spills	Safety procedures will be enforced to minimise cases of oil spillage. Such procedures may include maintaining the machinery in specific designated areas designed for such purposes;	Contractor	Workers trained. Designated areas for safe keeping of machinery in place	Random site inspection
	Ensure that oil/grease spills and other oils and associated materials (filters, rags and cans) are immediately removed along with all contaminated material and disposed of by ZEMA licensed Hazardous waste handlers or the District Council;	Contractor	Workers trained. Spills removed	Random site inspection
	Ensure that contaminated materials including used/spilled oils/grease as well as other contaminated materials are stored in a bunded area before they are disposed.	Contractor	Storage site appropriately bunded	Random site inspection
Ground water pollution				
Ground water pollution	Ensure that the location of sanitation facilities to be constructed is more than 30 meters distance from water source	Contractor	Ensure proper siting keeping in view that radius exceeding 30m away from any drinking water source	Site inspection of construction sites
Risk of disease vectors due to ponding of water				
13.Increased risk of disease vectors	The waste water drainage channel be constructed to lead water away from the pump pad. The Contractor shall prevent the formation	Contractor	Pump pad clear of waste water	Random site inspection

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
	of stagnant water pools on site.			
Soil erosion				
14. Soil erosion	Apply soil erosion control measures such as leveling the project site to reduce run-off Restrict excavation activities during periods of intense rainfall. Use temporary bunding to reduce the risk of sediment, oil or chemical spills to the receiving waters.	Contractor	Project site leveled Contractor's work procedure in place to implement during rainy season and workers sensitized for compliance	Random site inspection Inspection of contractor records and review of work procedure
Preservation of Archaeological Property				
15. Chance found archaeological Property	In the event that the contractor finds articles of value of antiquity, structures and other remains or things of geological or archaeological interest during the study of the proposed construction sites and during actual construction, that property shall be the property of the Government, and shall be dealt with as per provisions of the National Heritage Conservation Commission Act) Work has to be stopped until relevant authority provides instructions on how to proceed.	Contractor	Training records, records about chance finds	Random site inspection
	The contractor will take reasonable precaution to prevent his workmen or any other persons from removing and damaging any such article or thing. It shall be the contractor's responsibility to report to National Heritage Commission for further guidance on how to manage the same.	Contractor	Training records, records about chance finds	Random site inspection
Comply with all labour requirements				
16. Labor Rights	Contractor to ensure that workers have access to and are aware about the Grievance Mechanism	Contractor	Grievance mechanism known by all workers	Inspect contractor records and interview some workers

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
	Ensure minimum legal labour standards as per ILO regulations (child/forced labour, sexual assault, no discrimination, equal opportunities, working hours, minimum wages) are met.	Contractor	Contractor HR policy in place defining the minimum legal labour standards	Inspection of Contractor's HR records for their workers
	Ensure all workers are provided with appropriate work insurance and that all workers understand their contracts and are provided with their own contract documents.	Contractor	<ul style="list-style-type: none"> - Work insurance for each employee - Each worker in possession of copy of signed contract 	Inspection of Contractor's HR records for their workers
	Contractor to provide hygienic, adequate facilities for workers, ensuring toilets and changing rooms are separated to male and female employees.	Contractor	Adequate facilities in place	Inspection of facilities
	Contractor to ensure the workforce has access to first aid kit.	Contractor	First Aid kit available	Inspect contractor records and interview some workers
	Ensure workers are properly accommodated, observing all hygienic conditions.	Contractor	accommodation conditions meeting minimum requirements	Inspect contractor accommodation
Ensure engagement of stakeholders before and during construction works				
17. Stakeholder engagement and grievance mechanism	Contractor to engage/ communicate with local communities on the planned works. Ensure regular consultations with the local authorities and communities regarding the management of construction.	Contractor	Minutes of Meetings with the communities	Review of minutes
	Put in place a Grievance Mechanism to allow potentially affected individuals to voice their concerns on the project	UNICEF	Grievance Mechanism in place	Review of grievance register
Socio Economic Development				
18. Increase in local development and employment	To the extent possible, Contractor to ensure local communities are preferred for the supply of goods and services to the Project and Project personnel, where applicable.	Contractor	Local persons considered	Review of contractor employment register
Minimize health and safety risks				

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
19. Risk of accidents and health safety concerns	Provide health and safety training to workers through bi-weekly morning toolbox talks, IEC, etc.	Contractor	Health and safety training for the workers held Morning toolbox talks held at least on bi-weekly basis	Spot check inspection
	Ensure workers are provided with personal protective equipment and first aid kit;	Contractor	All workers in appropriate PPE First Aid kit is available	Random site inspection
	Ensure all equipment are inspected before use for appropriate safeguards and that the machine operators are trained on machine safety;	Contractor	Technical specifications	Random inspection of equipment before use
	Ensure appropriate road safety signage are near work sites to alert the community and road users about the ongoing works.	Contractor	Road safety signs installed in appropriate locations	Inspection of contractors traffic route
	Provide adequate manual labor to meet the requirements of the tasks;	Contractor	Requirements met	Inspection contractors record and program of works
	Provide appropriate barriers along the excavated trenches, to notify/alert the community to keep away from construction sites Ensure trenches are stabilized as required (if more than 1.25 m deep). An unloaded protective strip (safety distance) of more than 0.60 m must be kept free on both sides of the trench.	Contractor	Temporary fencing done for all active construction sites Trenches deeper than 1.25m stabilized using appropriate methods	Random site inspections
	Maintain high standard in housekeeping on site.	Contractor	Good house keeping	Spot checks
	Make available first aid box at every work site, including trained first aid helpers in appropriate numbers.	Contractor	First Aid in place at all active work sites	Spot checks
	Ensure the workforce has access to primary healthcare on site, providing prescriptions and vaccinations.	Contractor	Arrangements made by the contractor to ensure its workers access primary health care on site	Inspection of Contractor records
	In case more than 35 workers are present on site, ensure that a hospital, medical clinic or a	Contractor	Health centre in place which is reachable within a period of 45	Inspection of the health centre in place for this purpose

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
	health centre can be reached within a period of 45 minutes.		minutes	
20. Work Injuries	Develop an emergency preparedness plan, communicate it to workers, the community and all involved and conduct drills. Identify clinics and hospitals which would be available in case of emergency and document same in contractor's emergency preparedness plan,	Contractor	Emergency preparedness plan in place with details of available clinics and hospitals, including emergency contact numbers	verify availability of emergency preparedness plan with contractor and review its content
Fire Prevention measures				
21. Fire Prevention	The contractor to provide necessary fire prevention equipment on site in line with applicable regulations. These will especially be required at camp sites, formal meeting place and work sites	Contractor	Fire extinguishers in accessible locations and staff trained on use of same	Inspect contractor records and presence of fire extinguishers
Reduce incidences of HIV/AIDS and STIs				
22. HIV/AIDS	Ensure all contractors implement codes of conduct concerning employment and workforce behavior (including but not limited to safety rules, zero tolerance for substance abuse, environmental sensitivity of the area, dangers of sexually transmissible diseases and HIV/AIDS, gender equality and sexual harassment, respect for the beliefs and customs of the populations and community relations in general).	Contractor	Workers Code of Conduct Grievance Mechanism records	Worker interviews, Review of grievance register
23.	Report any occurrence of any communicable diseases amongst the workforce (STD, HIV/AIDS, TB, malaria and Hepatitis B and C). Sensitise workers.	Contractor	Records in place showing status of communicable diseases and whether reported or not	Inspection of Contractor records
Disturbance and resettlement				
24. Loss of land and/or	The Contractor to liaise with the Supervising Consultant and inform the affected communities	Contractor	Records in place showing engagement of affected persons	Inspection of Contractor records

Type of Impact	Mitigation Measures	Responsibility	Means of Verification	Monitoring Procedure
involuntary displacement	early of the construction program. Avoid interfering with private land and the need for resettlement by considering other siting options. Where loss of land and/or resettlement is unavoidable, the Contractor will follow the Compensation Procedure developed for the Project.		(meetings/minutes), agreements and payments made (where applicable)	
25. Loss of crops/trees	As much as possible, avoid damage to crops/trees when creating access to construction sites by considering alternative access routes. Where this is not feasible, the Contractor will follow the Compensation Procedure developed for the Project.	Contractor	Records in place showing engagement of affected persons (meetings/minutes), agreements and payments made (where applicable)	Inspection of Contractor records
26. Temporary occupation	Interference with the access to and use and occupation of roads, footpaths should be minimized. In the event that there is temporary occupation of a private portion of land during construction, ensure that the necessary engagement process is concluded with the affected person before entering such a premise and that compensation is paid as agreed with the respective owner.	Contractor	Records in place showing engagement of affected persons (meetings/minutes), agreements and payments made (where applicable)	Inspection of Contractor records
Record Keeping				
27. Record keeping of relevant ESHS	Ensure record keeping of environmental, social, health and safety activities as determined in this environmental and social management plan. Ensure immediate reporting of any serious occupational health and safety, environmental and social accidents and incidents to the Supervision Consultant (within 1 working day).	Contractor	Records available	Inspection of Contractor records

Annex VII: Code of Conduct: Sexual Exploitation and Abuse

“Name of Contractor” is implementing the project entitled “Name of Project” which is supported by UNICEF that is an integral part of the United Nations. The United Nations have put measures in place to prevent and address sexual exploitation and abuse committed by staff, consultants, workers and volunteers of organizations that they contract to implement aid-related projects. These measures are outlined in the ST/SGB/2003/13 Secretary-General’s Bulletin on Special measures for protection from sexual exploitation and sexual abuse.

All staff and workers of contractors must uphold the highest standard of professional and personal conduct and this includes the prohibition of all forms of Sexual Exploitation and Abuse. Sexual exploitation and abuse causes harm to persons in situations of vulnerability and impacts negatively on their dignity and level of self-respect.

As an employee, consultant, casual labourers, _____(Name), I should commit to the following code of conduct:

- a) Treat all persons fairly and with respect, courtesy and dignity and be sensitive to local customs.
- b) Never commit any act or form of sexual harassment that could result in physical, sexual or psychological harm or suffering to individuals, especially women and children.
- c) Never exploit the vulnerability of beneficiaries, especially women and children, or allow them to be put into compromising situations.
- d) Never engage in any sexual activity with children. It shall not be a defence that I was mistaken as to the age of the child concerned.
- e) Never engage in sexual exploitation or abuse of beneficiaries under any circumstances.
- f) Never abuse my authority, position or influence by withholding protection, humanitarian assistance or services, nor give preferential treatment in order to solicit sexual favours, gifts, payments of any kind, or any other advantage.
- g) Never exchange money, employment, goods, or services with anyone- including exchange of assistance that is due to beneficiaries for sex or sexual favours.
- h) Report cases of sexual exploitation and abuse to management, through established reporting mechanism (through the focal point)

I confirm that I have attended and completed the “Online PSEA Training (ref. <https://agora.unicef.org/course/info.php?id=7380>) and for proof, I have handed my Certificate of Completion to the Focal Point for PSEA of my company.

I confirm that I have attended the orientation on Preventing Sexual Exploitation and Abuse held on _____ at _____ and organized by _____.

I certify that I have read and understood the contents above and commit to abide by this Code of Conduct on PSEA at all times.

Full name

Title

Signature

Date

INTERPRETATION FOR THE PURPOSE OF THIS CODE OF CONDUCT

Child refers to a person under the age of 18 years.

Power refers to authority or the decisive ability to materially affect various forms of rights, entitlements or relationships. Power arises most crucially from, among others, position, rank, influence, status or control of resources.

Unequal power relationships provide among the most critical settings for sexual exploitation. Once again, it is reiterated that due to their unequal status, women and girls are particularly at risk of sexual exploitation and abuse, although boys and even adult males can likewise be vulnerable.

Sexual Abuse is actual or threatened physical intrusion of a sexual nature, by force or under unequal or coercive conditions, and includes inappropriate touching.

Sexual Exploitation means any **actual or attempted** abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. It includes all situations where a person in a position of power, authority or in control of resources **seeks or accepts** to provide protection, assistance or service in exchange for sexual acts or favours.

Sexual Exploitation and Abuse: Irrespective of authority, position, influence or trust, SEA can also occur through pressure, force or manipulation. Survivors who may appear to have consented to these acts have still been exploited if they were led to believe that they had no other choice than to comply.

Sexual Harassment Sexual harassment involves any unwelcome sexual advance, request for sexual favour, verbal or physical conduct or gesture of a sexual nature, or any other behaviour of a sexual nature that might reasonably be expected or perceived to cause offence or humiliation to another. Sexual harassment may occur when it interferes with work, is made a condition of employment, or creates an intimidating, hostile or offensive environment. It can include a one-off incident or a series of incidents. Sexual harassment may be deliberate, unsolicited and coercive. Both male and female colleagues can be either the victim or offender. Sexual harassment may occur outside the workplace and/or outside working hours.

Beneficiary means a person to whom UNICEF and contractors provide one or another form of protection, assistance, service or other intervention as well as vulnerable members of affected/host community.

Sexual relations with beneficiaries: Development and humanitarian workers or contractors employed by humanitarian organizations occupy positions of authority, power and control of resources and services. There should be concern over sexual relationships between them and beneficiaries, including even those which may be said to be proper and consensual. There should be no room at all for even the perception that abusive and exploitative relations could be taking place.

Annex VIII: Technical Proposal Submission Forms

APPROACH, METHODOLOGY AND WORK PLAN

The Bidder is required to fill in all the forms under this section with relevant information regarding the allocation of resources and planned execution of the works in order to demonstrate the Bidder's compliance with the requirements of the TOR.

- A. Project implementation approach, methodology, work plan**
- B. Staffing Structure and Qualifications**
- C. Approach / Methodology for complying with the ESMP requirements, labour laws and Prevention of Sexual Exploitation and Abuse (PSEA)**

A. Project Implementation approach, methodology, work plan

Under this section, the Bidder shall provide relevant information regarding the proposed project implementation approach, methodology and work plan. The Bidder's proposal shall be in line with the following structure:

- A1. Site organisation with organisation chart
- A2. Method statement
- A3. Mobilisation schedule
- A4. Work Plan/ Construction schedule (bar chart)
- A5. Contractor's equipment schedule

A1. Site organisation with organisation chart

Under this section, the Bidder shall provide relevant information regarding the proposed site organisation along with an organisation chart.

A2. Method statement

Under this section, the Bidder shall provide relevant information regarding the method statement to be used in the execution of the works.

A3. Mobilisation Schedule

Under this section, the Bidder shall provide relevant information regarding the mobilisation schedule for the project.

A4. Work Plan / Construction Schedule

Under this section, the Bidder shall provide relevant information regarding the work plan (in form of a bar chart) for executing the various project activities.

A5. Contractor's Equipment Schedule

Under this section, the Bidder shall use the form below and provide detailed information over the equipment it holds and intends to use for carrying out the project works.

[illegible]

B. Staffing Structure and Qualifications

Under this section, the Bidder shall provide relevant information regarding the proposed team structure to carry out the assignment. The Bidder's proposal shall be in line with the following structure:

- B1. Complete list of proposed key staff
- B2. Complete list of proposed non-key staff
- B3. CVs of proposed key staff

B1. Complete list of proposed Key staff

Under this section, the Bidder shall use the form below and provide names of suitably qualified personnel for each of the key positions in line with the requirements of the TOR.

Key Positions:

- K-1: Project Manager
- K-2: Electromechanical Engineer
- K-3: Construction Foreman
- K-4: Environmental, Social & Health and Safety Officer

K-1	Title of position: <i>Project Manager</i>
	Name
K-2	Title of position: <i>Electromechanical Engineer</i>
	Name
K-3	Title of position: <i>Construction Foreman</i>
	Name
K-4	Title of position: <i>Environmental, Social & Health and Safety Officer</i>
	Name

B2. Complete list of proposed Non-Key staff

Under this section, the Bidder shall use the form below and provide names of suitably qualified personnel for each of the non-key positions in line with the requirements of the TOR.

Non-Key Positions:

- NK-1: Plumber;
- NK-2: Steel fixer
- NK-3: Electrician; and
- NK-4: Person in charge of logistics and dedicated record keeper.

NK-1	Title of position: <i>Plumber</i>
	Name
NK-2	Title of position: <i>Steel fixer</i>
	Name
NK-3	Title of position: Electrician
	Name
NK-4	Title of position: Person in charge of logistics and dedicated record keeper
	Name

B3. CVs of proposed Key staff

Under this section, the Bidder shall use the form below and fill in the relevant information for each of the proposed key personnel.

Position*		
Personnel information	Name *	Date of birth
	Professional qualifications	
Present employment	Name of Employer	
	Address of Employer	
	Telephone	Contact (manager / personnel officer)
	Fax	E-mail
	Job title	Years with present Employer

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

[illegible]

- **Bidders must attach copies of educational certificates for all proposed key staff**

C. Approach / Methodology for ESHS requirements

Under this section, the Bidder shall provide an outline on how he intends to address the Labour, Health and Safety and Environmental and Social requirements of the project in accordance with the **ESMP Framework requirements (see Annex VI)**. The Bidder's proposal shall be in line with the following structure:

- C1. Approach/ Methodology on Environmental requirements (as per ESMP Framework)
- C2. Approach/ Methodology on Health and Safety requirements (as per ESMP Framework)
- C3. Approach/ Methodology on labour law requirements
- C4. Approach/ Methodology on PSEA requirements

C1. Approach / Methodology on Environmental requirements

Under this section, the Bidder shall provide relevant information regarding the proposed approach to address the Environmental requirements of the project in accordance with the provisions of the ESMP Framework.

C2. Approach / Methodology on Health and Safety requirements

Under this section, the Bidder shall provide relevant information regarding the proposed approach to comply with the Health and Safety requirements of the project in accordance with the provisions of the ESMP Framework.

C3. Approach / Methodology on Labour law requirements

Under this section, the Bidder shall provide relevant information regarding the proposed approach to comply with the national Labour Laws in accordance with the provisions of the TOR.

C4. Approach / Methodology on PSEA requirements

Under this section, the Bidder shall provide relevant information regarding the proposed approach to comply with the CODE OF CONDUCT for Preventing Sexual Exploitation and Abuse (PSEA) in accordance with the provisions of the TOR.

D. Availability to start works immediately

Under this section, the Bidder shall confirm his availability to mobilize and commence the works immediately without any delays in case of contract award.

ORGANISATIONAL CAPACITY

To establish the capacity and qualifications to perform the contract, the Bidder shall provide the information requested in the corresponding forms included hereunder.

- E. Performance and financial situation**
- F. General Experience (over the past 5 years)**
- G. Specific Experience (over the past 5 years)**
- H. Litigation/ arbitration and non-performing history**

E. Performance and financial situation

Under this section, the Bidder shall provide relevant information over the performance and financial situation of his firm. The Bidder's proposal shall be in line with the following structure:

- E1. Bidder Information Sheet
- E2. Historical Contract Non-Performance
- E3. Current Contract Commitments / Works in Progress
- E4. Financial Situation
- E5. Average Annual Turnover
- E6. Financial Resources

E1. Bidder Information Sheet

Under this section, the Bidder shall fill in the form below and attach the requested documents.

Date: _____

Bidding No.: _____

Invitation for Bid No.: _____

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1. Bidder's Legal Name
2. Bidder's actual or intended Country of Registration:
3. Bidder's Year of Registration:
4. Bidder's Legal Address in Country of Registration:
5. Names and details of Board of Directors: Name: Address: Telephone/Fax numbers: Email Address:
6. Bidder's Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: <input type="checkbox"/> Articles of Incorporation or Registration of firm named in 1, above <input type="checkbox"/> Registration of firm with WARMA <input type="checkbox"/> VAT registration certificate from ZRA <input type="checkbox"/> Insurance policy <input type="checkbox"/> In case of government owned entity from the Employer's country, documents establishing legal and financial autonomy and compliance with the principles of commercial law

E2. Historical Contract Non-Performance

Under this section, the Bidder shall fill in the form below.

Bidder's Legal Name: _____

Date: _____

Bidding No.: _____

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Non-Performing Contracts			
<input type="checkbox"/> Contract non-performance did not occur within the last 10 years <input type="checkbox"/> Contract non-performance occurred within the last 10 years as indicated below			
Year	Outcome as Percentage of Total Assets	Contract Identification	Total Contract Amount (current value, US\$ equivalent)
_____	_____	Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	_____
Pending Litigation			
<input type="checkbox"/> No pending litigation within the last 10 years <input type="checkbox"/> Pending litigation within the last 10 years as indicated below			
Year	Outcome as Percentage of Total Assets	Contract Identification	Total Contract Amount (current value, US\$ equivalent)
_____	_____	Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	_____
_____	_____	Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	_____

E3. Current Contract Commitments / Works in Progress

Under this section, the Bidder shall fill in the form below and provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Name of contract	Employer, contact address/tel/fax	Value of outstanding work (current US\$ equivalent)	Estimated completion date	Average monthly invoicing over last six months (US\$/month)
1.				
2.				
3.				
4.				
5.				
etc.				

E4. Financial Situation

Under this section, the Bidder shall fill in the form below and attach the requested documents.

Bidder's Legal Name: _____

Date: _____

Bidding No.: _____

Page _____ of _____ pages

To be filled in by the Bidder for the last 5 financial years.

Financial information in US\$ equivalent	Historic information for last 5 financial years (US\$ equivalent in 000's)						
	Year 1	Year 2	Year 3	Year ...	Year n	Avg.	Avg. Ratio
Information from Balance Sheet							
Total Assets (TA)							
Total Liabilities (TL)							
Net Worth (NW)							
Current Assets (CA)							
Current Liabilities (CL)							
Information from Income Statement							
Total Revenue (TR)							
Profits Before Taxes (PBT)							

Bidders must attach copies of financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following conditions:

- Must reflect the financial situation of the Bidder and not sister or parent companies;
- Historic financial statements must be audited by a certified accountant;
- Historic financial statements must be complete, including all notes to the financial statements;
- Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

E5. Average Annual Turnover

Under this section, the Bidder shall fill in the form below.

Bidder's Legal Name: _____

Date: _____

Bidding No.: _____

Page _____ of _____ pages

To be filled in by the Bidder for the last 5 financial years.

Annual turnover data (construction only)

Year	Amount and Currency	US\$ equivalent
	_____	_____
	_____	_____
	_____	_____
	_____	_____
*Average Annual Construction Turnover	_____	_____

*Average annual turnover calculated as total certified payments received for work in progress or completed over the last 5 financial years divided by that same number of years.

E6. Financial Resources

Under this section, the Bidder shall fill in the form below and specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the contract.

Source of financing	Amount (US\$ equivalent)
1.	
2.	
3.	
4.	

F. General Experience

Under this section, the Bidder shall fill in the form below and provide relevant information over his general experience as a Works Contractor over the last 5 (five) years.

Bidder's Legal Name: _____

Date: _____

Bidding No.: _____

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Starting Month / Year	Ending Month / Year	Contract Identification	Role Bidder of
_____	_____	Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____
_____	_____	Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____
_____	_____	Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____
_____	_____	Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____
_____	_____	Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____
_____	_____	Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____

G. Specific Experience

Under this section, the Bidder shall fill in the form below and provide details regarding specific experience as a Contractor for works carried out over the last 5 years. Each reference sheets must be accompanied by the certified copy of the Completion Certificate of the respective project.

Bidder's Legal Name: _____

Date: _____

Bidding No.: _____

Page _____ of _____ pages

Similar Contract Number: ____ [insert specific number] of ____ [insert total number of contracts required.]	Information		
Contract Identification	_____		
Award date	_____		
Completion date	_____		
Brief Description of similar activities (as described in the TOR) performed by the Bidder	<i>Insert details related to Physical size, Complexity, Methods used and Physical Production rate of the works</i>		
Role in Contract	<input type="checkbox"/> Contractor	<input type="checkbox"/> Management Contractor	<input type="checkbox"/> Subcontractor
Total contract amount	_____		US\$ _____
If partner in a JVCA or subcontractor, specify participation of total contract amount	_____ %	_____	US\$ _____
Employer's Name:	_____		
Address:	_____ _____ _____		
Telephone/fax number:	_____ _____		
E-mail:	_____ _____		

Annex IX: Financial Proposal Submission Forms

For the purpose of the financial offer, the Bidder is required to price the BOQs contained in Annex III: Bills of Quantities (BoQs).

Annex X: Other Bidding Forms

Form of Bid-Securing Declaration

Under this section, the Bidder shall fill in the form below.

Date: [insert date (as day, month and year)]

Bid No.: [insert number of bidding process]

Alternative No.: [insert identification No if this is a Bid for an alternative]

To: [insert complete name of Employer]

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Borrower for the period of time of **10 years** starting the date when this invitation to tender is issued if we are in breach of our obligation(s) under the bid conditions, because we:

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or
- (b) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Signed: [insert signature of person whose name and capacity are shown] In the capacity of [insert legal capacity of person signing the Bid-Securing Declaration]

Name: [insert complete name of person signing the Bid-Securing Declaration]

Duly authorised to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____, _____ [insert date of signing]

Corporate Seal (where appropriate)